

QUICK SETUP GUIDE

Power
**TV ON
AIR**

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Glossary

SBB	OnAir Set Back Box
RCU	Remote Control Unit
IR	Infrared: the signal used to drive most television
RF4CE	Radio Frequency for Consumer Electronics. The radio signal used to drive the OnAir SBB
HSIA	High Speed Internet Access. The hardware and software solution used to allow guests to access the internet.
VLAN	Virtual Lan. The method used to separate broadcast domains within the same network.
SSID	Service Set Identifier. An SSID is a unique ID that consists of up to 32 characters and is used for naming wireless networks.

Preface

Purpose of this document

This document is intended for use by customers and/or network administrators as a guide for installing and configuring the OnAir SBB.

The guide is targeted for use by medium/high skilled installers and/or technicians with medium networking knowledge.

If you do not have sufficient knowledge to complete the tasks in this guide please contact your local vendor for support.

Please read this manual carefully before operating your set and retain it for future reference. Note that specifications are subject to change without notice.

Safety

CAUTION: DO NOT REMOVE COVER NO USER-SERVICEABLE PARTS INSIDE REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

WARNING: TO PREVENT FIRE OR ELECTRIC SHOCK HAZARD, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

WARNING: Do not install this equipment in a confined space such as a book case or similar.

CAUTION: Do not block any ventilation openings. Install in accordance with the manufacturer's instructions. Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from over heating. The openings shall be never be blocked. This product shall not be placed in a built- in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instruction has been adhered to.

CAUTION concerning the Power Cord:

Most appliances recommend they be placed upon a dedicated circuit; That is, a single outlet circuit which powers only that appliance and has no additional outlets or branch circuits. Check the specification page of this owner's manual to be certain. Do not overload wall outlets. Overloaded wall outlets, loose or damaged wall outlets, extension cords, frayed power cords, or damaged or cracked wire insulation are dangerous. Any of these conditions could result in electric shock or fire. Periodically examine the cord of your appliance, and if its appearance indicates damage or deterioration, unplug it, discontinue use of the appliance, and have the cord replaced with an exact replacement part by an authorized service center. Protect the power cord from physical or mechanical abuse, such as being twisted, kinked, pinched, closed in a door, or walked upon. Pay particular attention to plugs, wall outlets, and the point where the cord exits the appliance. To disconnect power from the mains, pull out the mains cord plug. When installing the product, ensure that the plug is easily accessible.

CAUTION: The apparatus shall not be exposed to water (dripping or splashing) and no objects filled with liquids, such as vases, shall be placed on the apparatus.

Important Notes About Battery Usage : Alkaline batteries are strongly recommended; do not use rechargeable batteries. Check local your local regulations for proper disposal.

FCC Compliance Statement: This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

FCC Interference Statement: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

FCC Radiation Exposure Statement: This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. The antennas used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

Important Safety Instructions

1. Read and keep these instructions.
2. Heed all warnings.
3. Follow all instructions.
4. Do not use this apparatus near water.
5. Clean only with dry cloth.
6. Do not block any ventilation openings.
7. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
10. Only use attachments/accessories specified by the manufacturer.
11. Refer all servicing to qualified service personnel.
12. Servicing is required when the apparatus has been damaged in any way, such as power- supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

Step 1 : Overview of the equipment

Before you start

You will need available and ready to use:-

- Television with an available HDMI input
- Television original remote control
- OnAir boxed kit containing the following
- OnAir SBB (set back box)
- OnAir remote control
- OnAir Power Pack
- CAT 5 patch lead (for used with wired connectivity only)
- HDMI cable

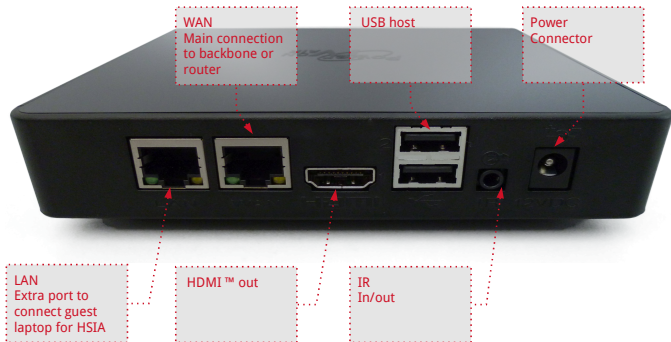
If you plan to connect to the network/internet using a hard wired connection you will need:-

- Your network connection details - IP Address, Mask, Gateway Address and DNS etc.

If you plan to connect to the network/internet using WiFi you will need:-

- Your Wi-Fi network connection details – SSID, appropriate security key etc.

OnAir Set Back Box



OnAir Remote Control Unit

Status LED
red and green led blinks during code transmission or special codes during setup.

Info key
Show OSD text about current channel

Numeric keys
Used for direct channel access or entering value

Back
Will return to previous condition or go back one step while browsing the GUI

Colored keys have different functions based on context
Each app will display an appropriate help

channel up/down

Battery Installation

Remove the battery cover on the rear of the RCU, and insert two R03 (size AAA) battery with + and - matched correctly.
Battery life is approximately three years, depending on usage.



On/Off button
Used to switch the television and OnAir box together, from standby to on and vice versa.

Source button
Based on the configuration setup and television, can select alternate a/v sources

Home :
Will jump the home page of the GUI.

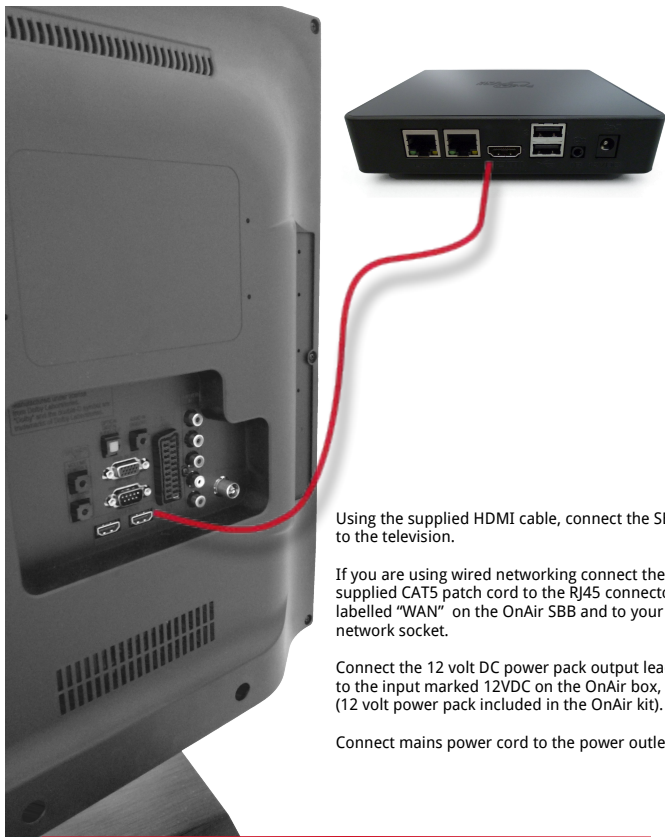
Navigation pad
Used to navigate within GUI and also for channel language selection when available.

App button
Will display the application bar when available.

Volume control

Transport button
Used in combination video and audio player when available.

Step 2 : Connecting the OnAir Set Back Box.



Using the supplied HDMI cable, connect the SBB to the television.

If you are using wired networking connect the supplied CAT5 patch cord to the RJ45 connector labelled "WAN" on the OnAir SBB and to your network socket.

Connect the 12 volt DC power pack output lead to the input marked 12VDC on the OnAir box, (12 volt power pack included in the OnAir kit).

Connect mains power cord to the power outlet.

Step 3 : Preparation

Preparing the television

The OnAir SBB works best when it can control the television using HDMI CEC protocol, CEC protocol is implemented in most in modern televisions.

Enter the televisions configuration menu using the televisions original remote control unit and confirm that the CEC is enabled. Refer to the televisions user manual if you are not familiar with the televisions configuration setup menu.

Please note that different TV manufacturers refer to the CEC protocol using their own 'Trade Names', some examples of 'Trade Names' used for the CEC protocol are:

Anynet+ (Samsung); Aquos Link (Sharp); BRAVIA Link and BRAVIA Sync (Sony); HDMI-CEC (Hitachi); E-link (AOC); Kuro Link (Pioneer); CE-Link and Regza Link (Toshiba); RIHD (Remote Interactive over HDMI) (Onkyo); RuncoLink (Runco International); Simplink (LG); HDAVI Control, EZ-Sync, VIERA Link (Panasonic); EasyLink (Philips); and NetCommand for HDMI (Mitsubishi)

The initial guided procedure¹

Now that the SBB is connected and powered-up, switch on the television and select the source connection of the OnAir SBB (normally HDMI1) .

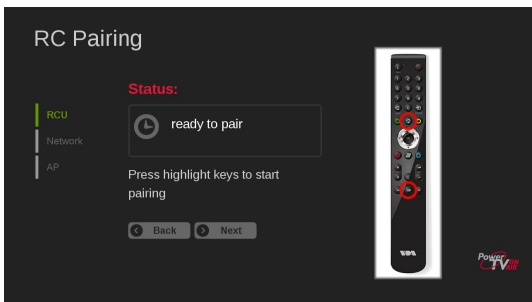
All OnAir SBBs are shipped unconfigured (factory default) and in this initial state will display a guided setup procedure that must be completed before the SBB can be used.



The following chapters will guide you through the setup procedure, the procedure starts with the pairing request page, shown immediately after the splash screen graphic displayed during the boot process.

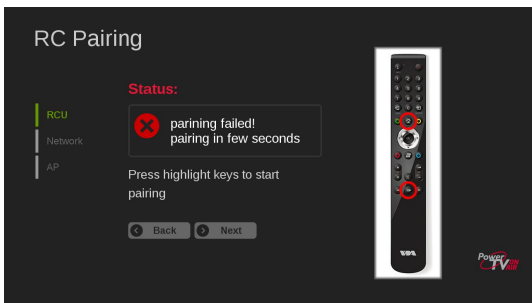
¹ Once the initial setup procedure has been successfully completed it will not be shown again. However the SBB can be reset to factory defaults to restart the initial setup procedure if required. See the troubleshooting chapter for detailed instructions

Step 4 : Pairing the Remote Control Unit

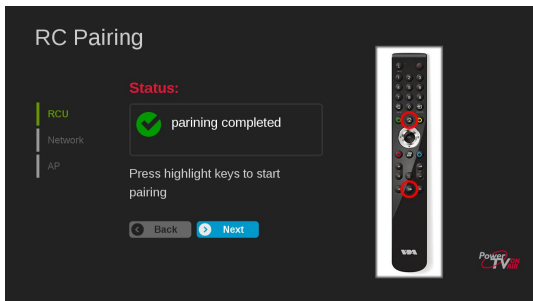
The remote, included in the OnAir kit, must be 'one to one' linked with the OnAir SBB. This step is called 'pairing', once a remote is paired with a SBB it will only send commands to that SBB, it cannot send commands to other SBBs.



To 'pair' the OnAir remote with the OnAir box press and hold 2 buttons ( and ) for about 8 seconds until the red LED starts pulsing, the remote is now trying to pair with the SBB.



A successful pairing will show the image below, if it fails simply retry the procedure.
A remote control must be successfully paired with the OnAir SBB before you can proceed to the next step.



When pair has been achieved, select next and click

ok

Additional information about the RCU (Remote Control Unit) is described on chapter 'Define the System Environment' on page 28, please refer also to Troubleshooting guide on page 31.


Step 5 : Network - which connection?

You will now be prompted to select the way you intend to connect the OnAir SBB to the network - Wired or Wireless.

You will also be prompted to enter the Room and TV Number² which must be unique identifiers within the whole of the hotel/property; this 'Common Data' is independent of network configuration.

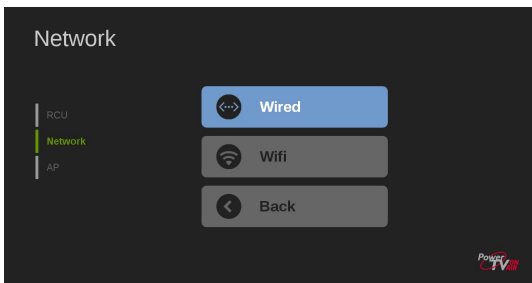
Certain configurations require the unique 'Hotel Code' to be manually entered, this code was provided when OnAir was purchased.

Please have all 'Common Data' details, 'Hotel Code' and appropriate network information to hand before proceeding³.

-
- 2 TV number is the way to assign multiple TVs within the same room, for example when installing a suite.
 - 3 Data for numeric only fields can be entered using the RCU, for fields requiring alpha-numeric data a virtual keyboard is available by pressing the blue RCU button  when the field is highlighted.
-

Wired

Direct cable connection between the OnAir SBB and the network/internet. IP address assignment to the SBB will be based on your networking preference or IT requirements; you can choose either Manual or Automatic, which in turn defines the number of mandatory fields that will have to be entered.




Select 'Wired' and click  to proceed with next step.

Manual:

Requires all IP details, 'Common Data' and 'Hotel Code' to be entered manually; the combination of 'Hotel Code' and 'Common Data', uniquely identifies the SBB with in the hotel/property. Please take care when entering the 14 digit 'Hotel Code' as entering an incorrect code will result in the failure of the following connectivity test.


The screenshot shows the 'OnAir Setup' interface. On the left, there is a vertical menu with 'RCU', 'Network' (highlighted in green), and 'AP'. The main area is divided into two sections: 'Network configuration' and 'Board Information'. Under 'Network configuration', 'IP Config' has two options: 'Automatic' and 'Manual' (which is selected and highlighted in blue). Under 'Board Information', there are three input fields: 'Room number' with the value '904', 'TV number' with the value '1', and 'Hotel Code' with the value 'Hprckdwe00001'. At the bottom, there are 'Prev' and 'Next' buttons. The 'Power TV HD' logo is in the bottom right corner.

When all the fields are completed, select next and click  to proceed to next step.

The screenshot shows the 'Network addresses' interface. On the left, there is a vertical menu with 'RCU', 'Network' (highlighted in green), and 'AP'. The main area shows five rows of network configuration data, each with a label and a grid of input fields. The data is as follows:

IP Address	10	30	9	104
Subnet Mask	255	255	0	0
Gateway	10	30	0	254
DNS 1	212	216	112	112
DNS 2				

At the bottom, there are 'Back' and 'Next' buttons. The 'Power TV HD' logo is in the bottom right corner.

When all the fields are completed, select next and click  to proceed to next step.

The above screen shot displays the input mask for the IP details, where all the fields are

mandatory apart for DNS 2, which is optional.

The above screen shot displays the input template for the IP details, all the fields are mandatory except for DNS 2, which is optional.

Manual IP configuration is now complete, skip the next section and continue with Connectivity check on page 17.


Automatic:

If a VDA Appliance Server is available on the network only 'Common Data' must be entered manually other parameters are provided automatically by the Appliance Server. If a generic DHCP server (i.e. home router) is used then 'Common Data' and the 'Hotel Code' must be entered manually⁴.

Standard DHCP discovery protocol is used to implement this feature and it will detect (based on the incoming reply) if there is missing data that must be entered manually.

The screen shot below, shows the input template when Automatic is selected.

The screenshot shows the 'OnAir Setup' interface. On the left, there is a vertical navigation menu with three items: 'RCU', 'Network' (highlighted with a green bar), and 'AP'. The main content area is divided into two sections: 'Network configuration' and 'Board Information'. Under 'Network configuration', there are two options for 'IP Config': 'Automatic' (which is selected and highlighted in blue) and 'Manual'. Under 'Board Information', there are two input fields: 'Room number' with the value '904' and 'TV number' with the value '1'. At the bottom of the screen, there are two buttons: 'Prev' (with a left arrow) and 'Next' (with a right arrow). A circular 'ok' button is overlaid on the 'Next' button. The 'PowerTV' logo is visible in the bottom right corner.

When all the fields are completed, select next and click  to proceed to next step.

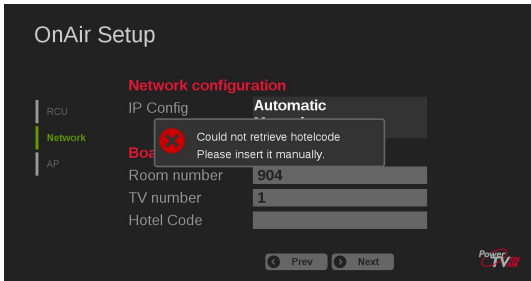
-
- 4 OnAir Appliance Server has to be installed, configured and made available on the same network as the OnAir SBB before starting the installation of OnAir SBBs with Automatic configuration, or the Automatic procedure will fail. The 'Hotel Code' information is only available from the OnAir Appliance Server, when using generic DHCP servers the Hotel Code has to be entered manually.
-

The SBB will send a network enquiry to retrieve setup information from the Appliance Server. In case of failure an appropriate message will be displayed on the screen.

The following screen shot shows the warning message generated when using a generic DHCP server, the 'Hotel Code' must be entered manually.

The combination of 'Hotel Code' and 'Common Data', uniquely identifies the SBB with in the hotel/property. Please take care when entering the 14 digit 'Hotel Code' as entering an incorrect code will result in the failure of the following connectivity test.

When completed select next and click to proceed with next step: 'connectivity check'

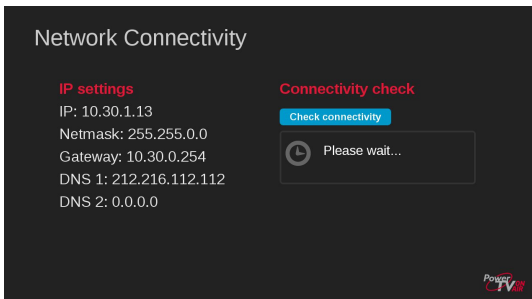


ok

When completed select next and click to proceed with next step: 'connectivity check'.

Connectivity check

Regardless of the configuration selected the procedure will lead to a test. If all the data was entered correctly and the network has access to the internet, the connectivity check will validate the configuration. Make sure the network is connected to the internet and that the IP data used to configure the SBB is appropriate for the network internet connection.

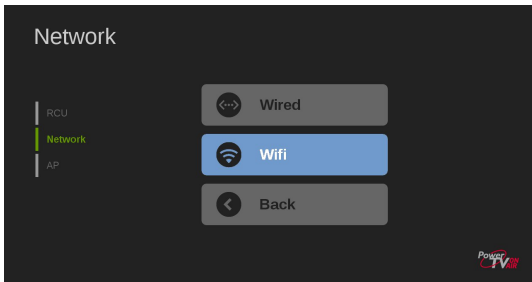


The information window will either display "network successfully configured" with the next button selected, or a 'connectivity fail' message if the OnAir SBB was unable to reach the internet, in which case all network and Common Data entered must be checked and the procedure retried. The RCU back button can be used to re-enter forms to check data. When the 'network successfully configured' message is display, skip next section and proceed directly to 'Step 6 : The Wi-Fi bubble' on page 20.

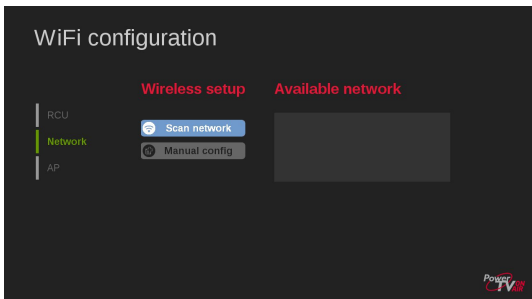
Wireless


Please have all 'Common Data' details, 'Hotel Code' and Your Wi-Fi network connection details to hand before proceeding⁵.

Using the SBB internal Wi-Fi in client mode, disables the SBBS local AP (Access-Point) feature, these 2 options are mutual exclusive. See 'Step 6 : The Wi-Fi bubble' page 20.



Select 'Wi-Fi' and press  to proceed to next step.



Select 'Scan network' and press  to display the SSIDs of available networks.

⁵ OnAir SBB cannot connect to Wi-Fi networks that require user-name and password to be entered to be granted access.

When the scan of available networks has completed, use the up and down arrow keys to select the network to be used with OnAir and click **ok** to confirm.

Negotiating to connect to the network will auto-complete certain fields based on the encryption method detected. In the case of WPA, for example, just the pass phrase has to be entered, enter appropriate credentials for other types of encryption.

WiFi configuration	
RCU	Wireless setup
Network	SSID: VDA-TEST-WPA
AP	Authentication: WPA-PSK, WPA2-PSK
	Encryption: TKIP
	Password: vdawcdawdtest

◀ Prev Next ▶

Power TV

When all required data is entered select 'next' and press **ok** to fully connect to the network.

When fully connected to the Wi-Fi network the guided procedure will present the same setup pages as described for 'Wired' connection on page 13.

Step 6 : The Wi-Fi bubble

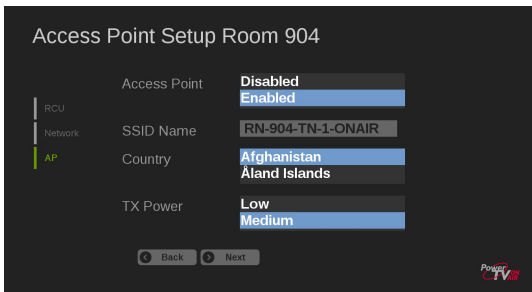
Access point Setup

OnAir SBB has an internal Wi-Fi b/g/n/ card that can be used to provide a local Wi-Fi AP (Access Point) in the room. Tablets, phones, notebooks, or any other Wi-Fi enabled device, can get connectivity via the OnAir SBB. The corresponding SSID and WPA2 key are only available from a menu page on the television connected to the SBB.

Please note this option is only available when the SBB is configured 'Wired' internet connection.

This feature can be enabled or disabled as required. If enabled for use select the country where you are installing the SBB⁶, and the Wi-Fi area coverage you require, low, medium or high. These are estimated coverage and are influenced by many factors, such as walls, objects and distance. This parameter has to be 'tuned' and tested on a case by case basis.

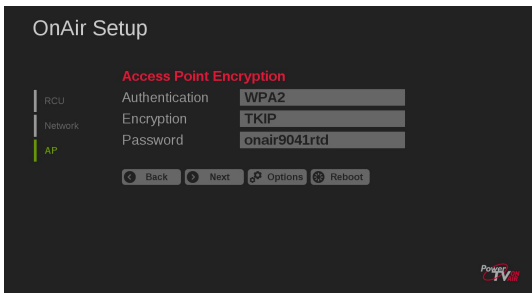
The SSID cannot be manually configured, it is generated automatically by an algorithm in SBB to avoid confusion with adjacent SBBs. Authentication is fixed to WPA2 and is also generated automatically by an algorithm in SBB, both the SSID and WPA2 are displayed for information only.



Select next and press  to display a summary of the configured local access point.

⁶ Set as needed to indicate country in which device is operating to set regulatory domain. This can limit available channels and transmit power.

Details displayed are made available to the dedicated 'app' that guides a user to establish the connection to this Wi-Fi Bubble⁷.



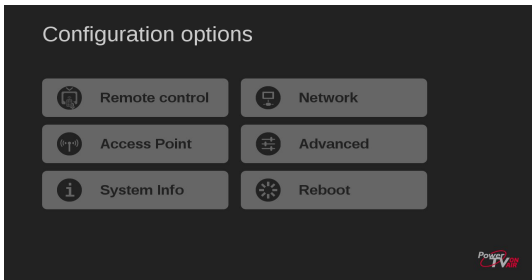
Select the 'Save' button and click **ok** to complete the guided procedure.

Select the 'Reboot' and click **ok** to apply the entire configuration and reboot the SBB. After the reboot, the SBB is ready for use and configured in the previous steps.

7 Wi-Fi bubble is an option and subject to limitation.

Advanced Features

Several additional features are available once the initial setup procedure has been completed. To access to these features a specific code must be sent to the SBB using the paired RCU. Entry of the correct code forces the television to display the 'Configuration Options' menu below⁸.



"Network" and "Access Point" are already described on pages 12-18 being part of the initial setup procedure. The following gives a brief description of the additional features and additional setup procedures available for complex installation scenario or for maintenance purposes.

Detailed information of these additional features and procedures is available in the OnAir-Setup Guide document available from: - http://www.powertvonair.com/manuals/OnAir-Setup_Guide.pdf

Configuration options: Remote Control

Allow additional RF4CE input devices (like remote controls or keyboards) to be paired with the SBB.

Configuration options: Reboot

Forces a soft reboot of the SBB, the only way to exit the setup menu.

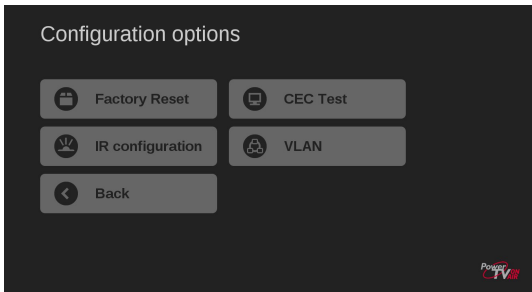
Configuration options: System Info

Displays details of the SBBs current setup and configuration, including firmware version and network settings.

⁸ See the Troubleshooting chapter below for the key sequence to access the setup menu.

Configuration options: Advanced

Displays more configuration options; grouped here as a sub menu to avoid accidental access.



Advanced: Factory Reset

Selecting this options forces the SBB to erase all data and return the SBB to the 'Factory Default' condition. After a 'Factory Reset' the SBB will reboot and enter the initial configuration procedure.

Advanced: VLAN

If enabled, allows the installer to define 3 additional VLAN ID's.

1. Mobile ID, used to host mobile devices, like in-room tablets, within a specific vlan, enhancing security, performance and control⁹.
2. HSIA Wired ID used to host guest laptops for wired internet navigation. This Vlan is mapped to the RJ45 port labelled 'LAN' on the SBB.
3. HSIA Wi-Fi ID is used to host guest laptops for Wi-Fi internet navigation, using the SBBs the Wi-Fi access-point.

VLANs for HSIA are usually an integral part of the VDA HSIA solution, however they are available for use with 3rd party HSIA controllers, they are not used in a 'standalone' mode.

⁹ Mobile ID vlan works only when applied together with specific configurations at networking level.

Advanced: IR Configuration

The RCU (Remote Control Unit) is a dual technology device, using both RF4CE and IR transmission, RCU buttons are grouped by function and each group can be assigned to use one of the two transmission methods.

The RF4CE and IR settings of the first RCU / SBB of a new installation must be discovered and configured manually, however if a VDA Appliance Server is part of the installation then the remaining RCUs can be configured automatically by repeating the 'paring' procedure. Please note without an Appliance Server all RCUs must be configured manually.

Once the optimal RCU settings are established for the installation, it is strongly recommended the Appliance Server is configured to automatically manage the RCU settings.

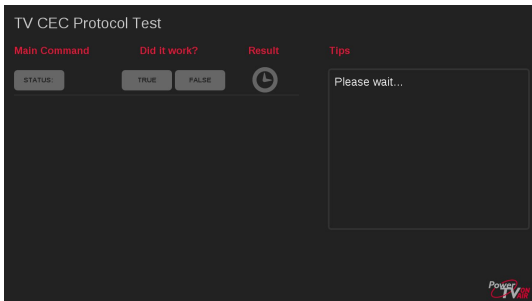
(Refer to 'Manual Setup - Remote Control Unit' on page 28 and 'Appliance Server Setup Guide' document available from :-


http://www.powertvonair.com/manuals/OnAir-Appliance_Server_Setup_Guide.pdf

Advanced: CEC Test

It is important to establish how well the CEC protocol has been implemented in the television in order to define the best control configuration possible.

A guided test will rank the TV's performance and will be used to define the final OnAir remote control configuration.



Each test is launched by selecting an item in the 'Main Command' column and pressing , the result of the test is registered by selecting the appropriate button under the "Did it Work" column.

TV CEC Protocol Test

Main Command	Did it work?	Result	Tips
STATUS	TRUE FALSE	✓	TV score is: OPTIMAL All main commands are supported, television is fully controllable by SBB
TV ON	TRUE FALSE	✓	
TV OFF	TRUE FALSE	✓	
SELECT AV	TRUE FALSE	✓	
LAST INPUT	TRUE FALSE	✗	
VOL UP	TRUE FALSE	✗	
PROG UP	TRUE FALSE	✗	
Next			

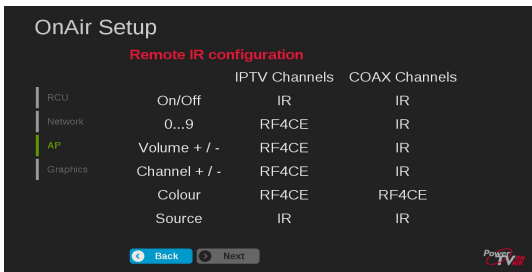
After completing all tests the ranking result will be displayed.

A ranking colour of green (OPTIMAL), if all crucial commands are supported, or orange (AVERAGE) if just basic commands are supported, or red (BAD), if no reply is received from the television.

TV CEC Protocol Test

Main Command	Did it work?	Result	Tips
STATUS	TRUE FALSE	✗	TV score is: BAD TV cannot be used because HDMI input cannot be selected. Only manual operation are available
Next			

The summary screen below provides guidance about the next step of the setup procedure which can be manual or automatic.



Use the information reported to configure the RCU and achieve the best control of your system.

Refer 'Advanced: IR Configuration' on page 24 and 'Manual Setup - Remote Control Unit' on page 28 for more details.

Define the System Environment

Generic guideline

'Out of the box' - first time use, the RCU has no specific configuration.

Based on the ranking results of the previous chapter, it may be necessary to configure certain RCU buttons to send IR (infrared) codes directly to the TV.

Select which of the 2 following tables (IPTV / SMATV) best describes the installation and then note the comment against the ranking result achieved in the previous step.

IPTV channel distribution

OPTIMAL

No special action is required.

AVERAGE

The on/off button should be set to use IR.

BAD

The on/off button should be set to use IR. Configure TV to switch on to HDMI1, alternatively the source button should be set to use IR – manual selection of HDMI port required¹⁰.

SMATV channel distribution

OPTIMAL

Channel up/down should be set to use IR.

AVERAGE

Channel up/down, numeric buttons and on/off button should be set to use IR.

BAD

Channel up/down, numeric buttons and on/off button should be set to use IR. Configure TV to switch on to HDMI1, alternatively the source button should be set to use IR – manual selection of HDMI port required¹¹.

10 A television ranking as 'BAD', is an indication that TV cannot, automatically or by command, select the correct HDMI input supporting the OnAir box.

11 This can be overcome by either configuring the TV to always switch-on to the correct HDMI input, or set the "source" button on the RCU to be IR, the user can then manually select the correct HDMI input.



Manual Setup - Remote Control Unit

All RCU configurations are set using the programming mode feature.

Choosing the correct code (s) is crucial, once identified, the button assignment code(s) must be set into the RCU. This chapter will guide the user for the manual setup of the remote control.

There are several advanced features to simplify cloning / loading of the RCU configuration for multiple rooms, please refer to 'Advanced: IR Configuration' on page 24.

RCU programming Mode

To enter programming mode hold down both  +  buttons (2.5 Seconds), until the green LED blinks twice, please note programming mode will terminate after 10 seconds of inactivity.

After entering programming mode, enter the 4-digit code for your TV set all 4 digits must be entered consecutively including leading zeros. The green LED blinks twice for a correct code or stays lit two seconds for a bad code.

The code for your TV can be found in the "TV code list" document available for download from: - http://www.powertvonair.com/manuals/tv_code_list.pdf

Test the TV functions

After the TV type code has been entered into the RCU, all numeric, on/off, colour button, volume up/down, channel up/down, mute and source button, will emit IR commands only. To verify correct operation, while aiming the RCU at the TV, press all relevant keys in turn and confirm they operate as expected. If the TV does not respond correctly start again and / or try an alternative code. Do not proceed until correct operation is verified.

Re-assigning 'Key Groups' to IR/RF

After code programming, all keys are set to directly control the TV database (see key description). Some 'Key Groups' must now be assigned to control the OnAir SBB and the television according to the IPTV channel distribution or SMATV channel distribution result.







The following procedure details how to assign appropriate 'Key Group' code(s) to the RCU. Study the following table and select code(s) that will assign appropriate RCU key(s) and/or 'Key Groups' for RF or IR control.

Use the programming sequence (see above chapter RCU programming Mode on page 28) to enter 4-digits code listed on the table RF-IR-Key group according to your selection. Repeat the above sequence until all required codes for the suggested configuration have been entered.







RF	IR	Key group
0020	0030	All data base keys
0021	0031	Numeric keys
0022	0032	On/off (Standby) key
0023	0033	Channel keys
0024	0034	Volume keys
0025	0035	Color keys
0026	0036	Source keys

For example, the programming sequence for a LG™ TV where only the on/off button is required will be:







Set all buttons to use IR

 +  <wait 2.5s> <two green blinks>     <two blinks>

Set all buttons to use RF4CE

 +  <wait 2.5s> <two green blinks>     <two blinks>

Set only on/off button to use IR

 +  <wait 2.5s> <two green blinks>     <two blinks>

Useful commands for problem solving

To query the stored 4-digit code:

Enter programming mode and enter code '0002' the green LED blinks twice:-

Press '1' and count the number of green LED flashes for the value of the first digit of the code, repeat pressing '2' '3' and '4' for the second, third and fourth digits of the code, note there are no flashes for digit "0"

Reset the RCU:

Enter programming mode and enter code '0000' the green LED blinks twice:-

The RCU is set to default (no TV set programmed)

Troubleshooting

Q:How can I enter setup again?

A: Using the paired / working RCU, enter



in sequence, the SBB will be forced to display to the setup menu. Please note that the SBB must be rebooted to exit the setup menu.

Q:How can I pair a new remote?

A: Power off/on the OnAir SBB, after 10secs, the front blue light will slowly cycle on/off at 1 sec intervals, this indicates the SBB is listening for additional pairing requests. Refer to "pairing your remote" chapter for guidance.

Q:What is the remote operating range?

A: For both RF4CE and IR, the range is around 8-10mt (line-of-sight for IR). RF4CE may still control the OnAir SBB even if you are in a different room but within the operating range, however this not a guaranteed ability and is dependant on construction materials used in the property.

Q:Do I need test each TV for CEC protocol?

A: You need only test different models - keep track of code brand and setup. Different room, same television will requires the same configuration.

Q:Will the Appliance Server help me with CEC?

A: Yes, once you have detected the best setup for each television type, enter the setup data, brand-code and RCU configuration for each room of the property into the Appliance Server, it will be retrieved automatically. Refer to the "OnAir-Appliance Server quick setup guide" document.

Q:How do I recognize the RCU is paired?

A:If unpaired the RCUs red led emits a fast series of blinks.

Q:How do I recognize if a button is IR or RF4CE?

A:The RCUs red led will blink during RF4CE transmission, while the green led blinks for IR.

Q:What is the 'Hotel-Code'?

A:It is a unique identifier for the installation equipment including ONAIR SBBs and Servers. It is assigned / generated after the purchasing order is received. There are several hotel-codes used for demos or testing that can be requested for temporary use.

Q:How can I enter text into web form / template?

A: Virtual keyboard can be recalled anytime by pressing the RCUs blue button.



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