

ATSC 3.0 ZAT-6000 Broadband Set-Top-Box



Installation and Description Guide

Version 2.1.8

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August 2023 Version 2.1.8

Broadband Set-Top-Box Model: ATSC 3.0 ZAT-6000

Certified by





Federal Communication Commission 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 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: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

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 Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

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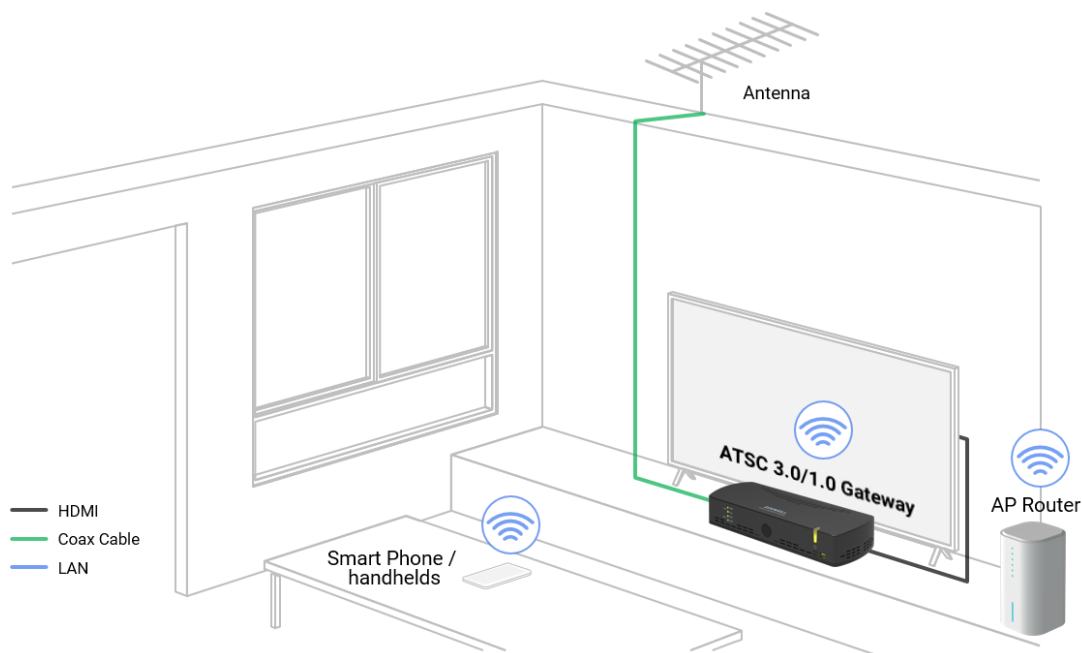
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1 Important Safety Instruction and Precaution

- Read through all the instructions carefully before use.
- Operate this product only in the manner described.
- Only a Water-dampened soft-cloth is recommended to clean the surface of this product.
- Do not expose this product excess vibration.
- Keep this product in well ventilated areas.
- The following substance or condition will cause the damage to this product:
 - any liquid such as water or moisture
 - extreme heat, cold, humidity
 - dusty or sandy environments
- During lightning storms, disconnect this product from electrical mains and antenna.
- Only place this device on stable surfaces and ensure that any attached cables are secure and will not cause the device to fall.
- There are no user serviceable parts in this product.
- Any un-authorized attempt to disassemble or repair this product will void product warranty and may cause dangerous electric shock.
- Retain the manuals for future reference.
- ONLY remove any power or data cords by pulling them from the plug.
- Using this product near other electronic devices may cause interference.
- Images shown in this document are for references only and there may be differences between images and actual products.
- Do not mix old and new batteries in the IR remote control.

2 Knowing Your Set-Top Box

2.1 Theory of Operation



2.2 Model Specification

Tuner Input	ATSC1.0/3.0 Dual Mode Tuner	2 Tuners
	Frequency Range	42MHz ~ 866MHz
Video (optional)	Decode	MPEG2 (ATSC 1) HEVC 4Kp60 (ATSC 3)
	Output	HDMI 2.1
Audio (optional)	Decode	AC-3 (ATSC 1) AC-4 (ATSC 3)
	Output	HDMI 2.1
Ethernet	10/100M	RJ-45
Wi-Fi	2.4G/5G	802.11a/b/g/n/ac
	Antenna	1T1R
DC Power Adaptor	DC Jack	12V / 1.5A
Peripheral	USB 3.0	USB Type A
LED indicator		ON: Green, Standby: Red
Remote Control	IR	32 Keys
Dimension		211 x 80 x 36.2 (mm)
HDCP (Optional)		HDCP 1.4, HDCP 2.2, HDCP 2.3
Widevine		Level 1
HDR (Optional)		HDR-10, HLG, SL-HDR

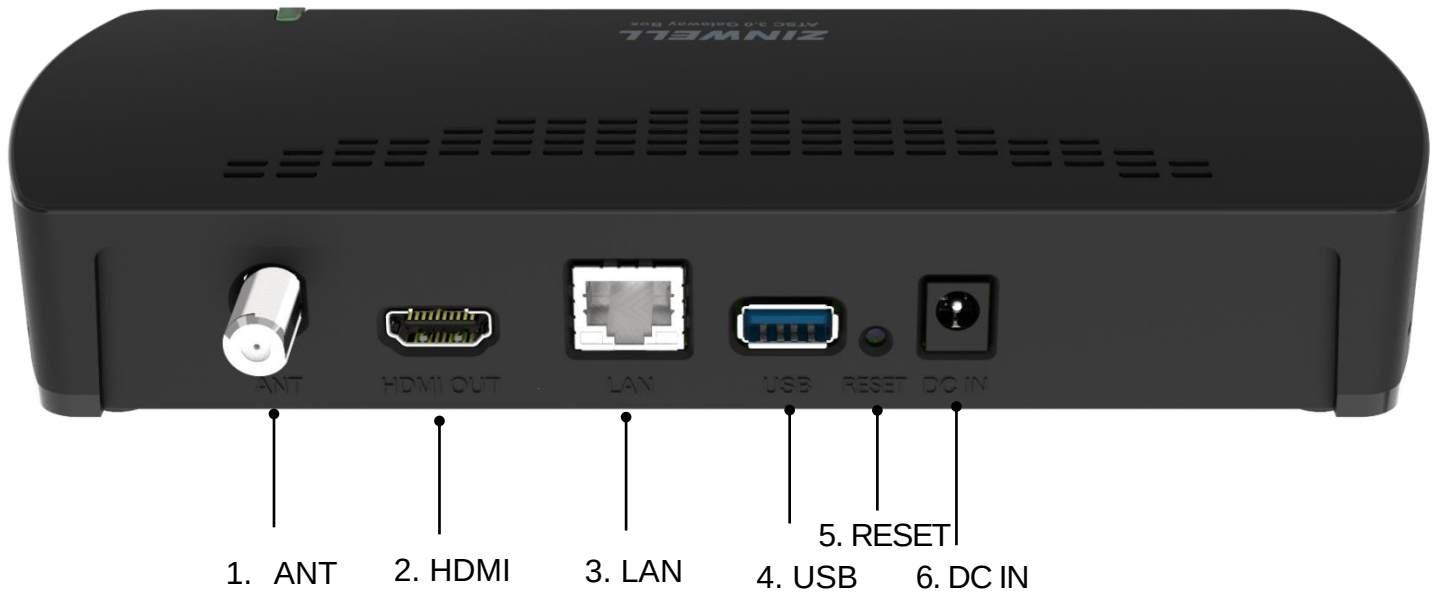
2.3 Features

- Emergency alerting system
- ATSC 3.0 broadcast application compliant
- ATSC 3.0 / 1.0 receiving capability
- 4k UHD Video
- Remote learning Application

2.4 Package Contents

- 1 x STB-ASTC 3.0 Set-Top Box
- 1 x IR Remote Control
- 1 x Power Adaptor (12V/1.5A)
- 1 x Installation and Description Guide (This Document)
- 1 x Window Antenna (Optional for the project)
- 1 x HDMI Cable (Optional for the project)
- 1 x RF Cable (Optional for the project)

2.5 Panel Specification



- **1. Antenna port** is to connect the cable from your aerial
- **2. HDMI out port** is to connect the cable from your display
- **3. LAN port** is for Ethernet (RJ45) network or internet access
- **4. USB port** is for peripherals such as thumb drive, storage devices and so on
- **5. RESET button** is to reboot the device manually
- **6. DC IN** is to connect the power adapter (12V/1.5A) to provide power to the Set-Top Box

3 Finding Out the IR Remote Control

IR Key	Function
POWER	Power Key
AUDIO	Audio Track Key
CLOSE CAPTION	Close Caption
ALERT	Alert Key
E-LEARNING	E-Learning
1	Number keys 1
2	Number keys 2
3	Number keys 3
4	Number keys 4
5	Number keys 5
6	Number keys 6
7	Number keys 7
8	Number keys 8
9	Number keys 9
0	Number keys 0
Heart (Icon)	Favorite
EPG	EPG (Guide) Key
VOL+	Volume Up Key
VOL-	Volume Down Key
CH+	Channel Up Key
CH-	Channel Down Key
Setting	Setting Key
HOME	Home Key
Mute	Volume mute
Menu	Menu Key
Up (Icon)	Up Key
Down (Icon)	Down Key
OK	Select Key
Right (Icon)	Right Key
Left (Icon)	Left Key
BACK	Back Key
INFO	Info. Key



4 Installing Your Set-Top Box

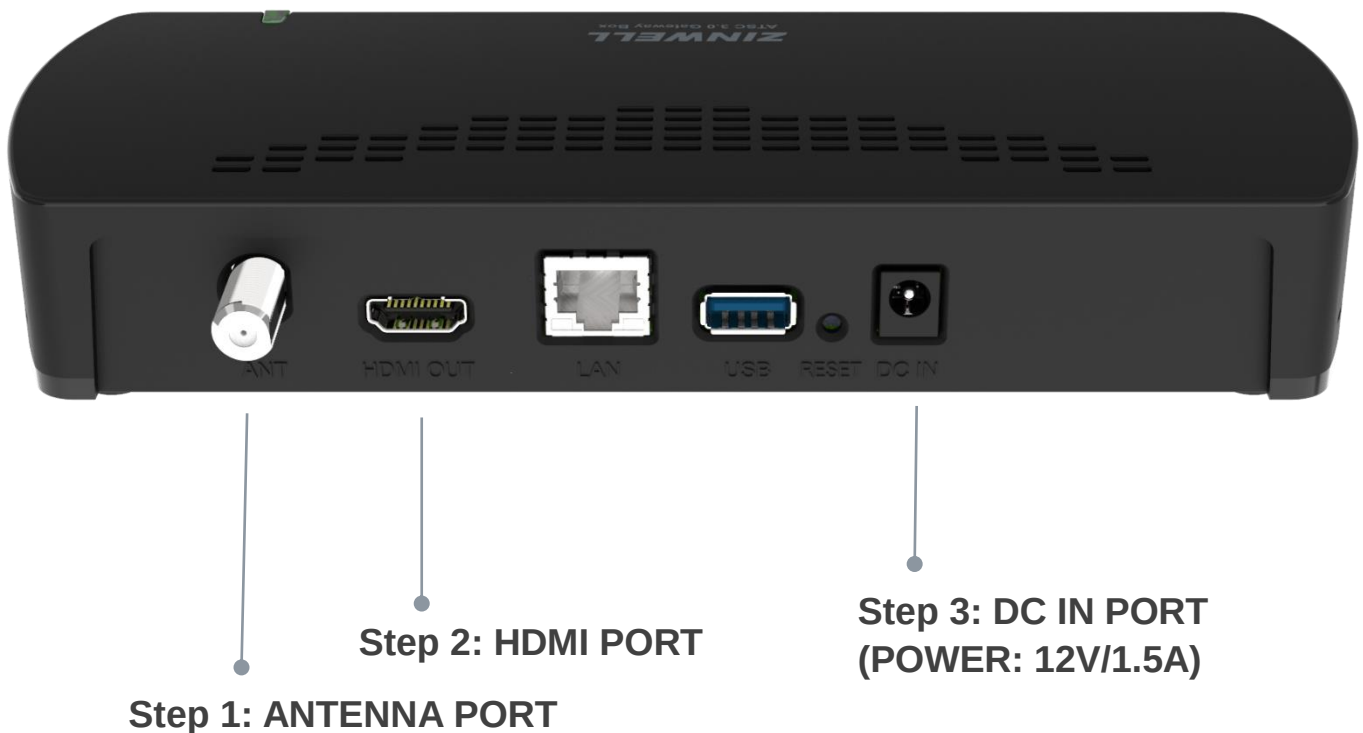
4.1 Installing Instruction in 3 Steps

Step 1. Connect your **Coaxial Cable** to the **Antenna Port**

Step 2. Insert your **HDMI cable** from **HD TV** into **HDMI OUT Port**

Step 3. Plug the **power adaptor** into **DC IN Port** while the other end into power socket

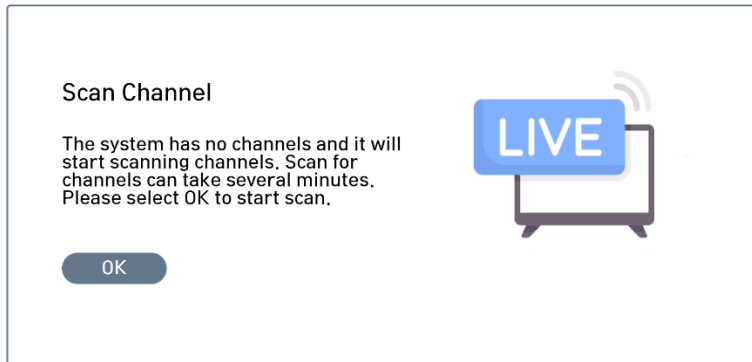
Refer to the image below for **the designated port** in **each step**:



5 Setting up the Program System – First Time Installation

(Note: For watching encrypted channels it is necessary to connect to the internet either via Wi-Fi or Ethernet. Please refer to Section 6 and 7 for connecting to the internet.)

Quick Setup



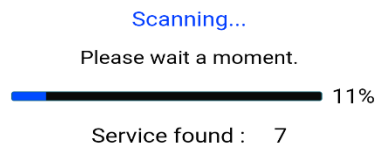
Step 1.

Turn ON the Power of Gateway. **Quick Setup** page will be shown as the image on the left side. Press **OK** to confirm.

Step 2.

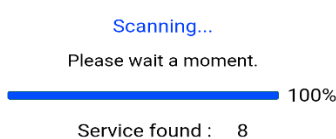
Process of Channel

Scanning will be completed once the **percentage bar** has reached **100%**.



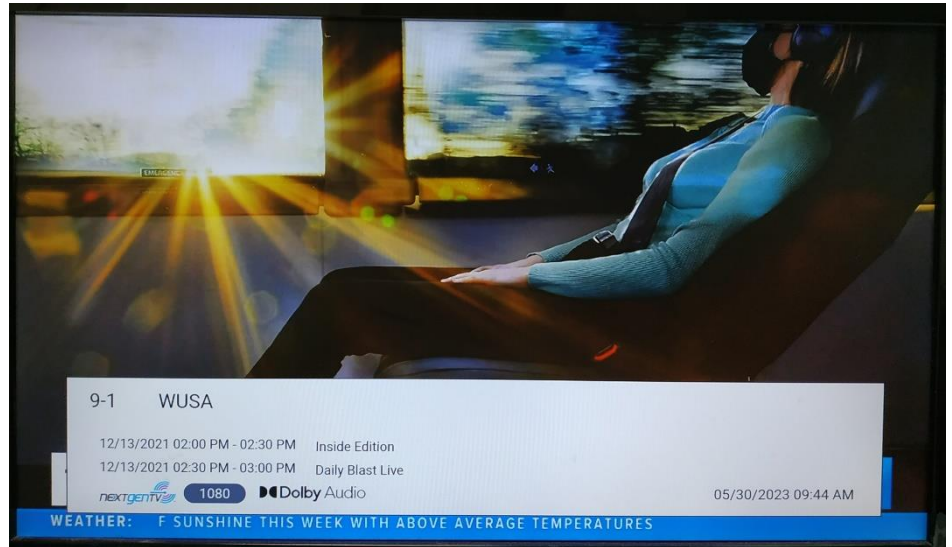
Step 3.

“Service found” stands for **available TV channels** during scanning.



Step 4.

After completion of Channel Scanning, **the program will start displaying.** Refer to the image on the right side,



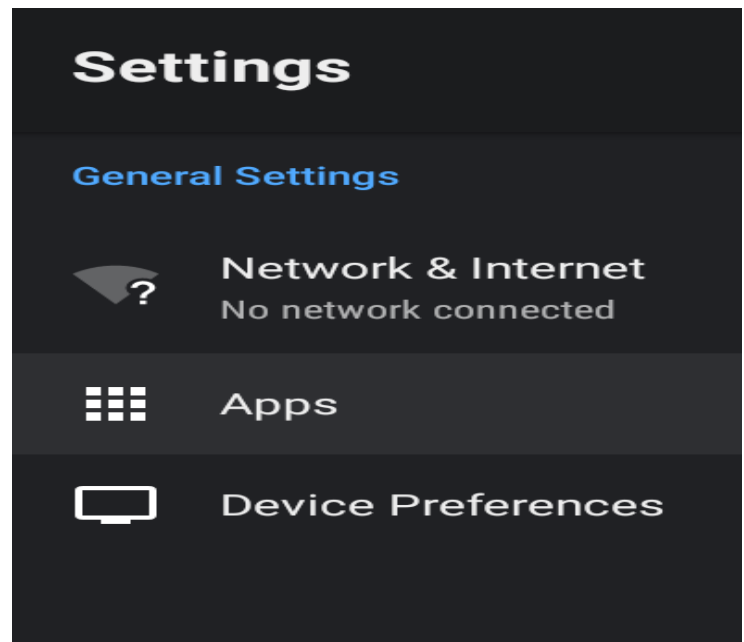
6 (Wi-Fi ON) Connecting to Internet via Your Wi-Fi/AP Router

*Before Reading the Instructions

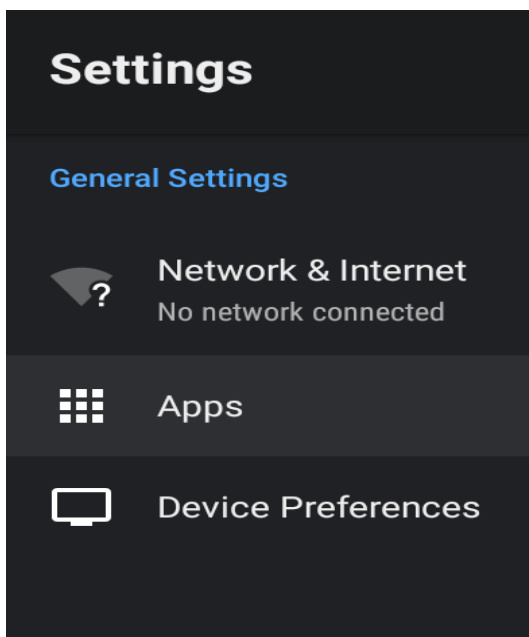
- The **Wi-Fi** and **Ethernet** functions **CANNOT** be executed **at the same time**. Ensure the Set-Top Box is **NOT CONNECTED** to any **Ethernet Cable** before **ENABLING** Wi-Fi function in the Set-Top Box.

Turn **ON** the Power of Set-Top Box
(IF it's the First Time Installation) ->
Press the "**SETTING**" button on the
remote controller (Refer to the Image
on the right side)

(IF Any) Ensure the **Ethernet Cable** is
DISCONNECTED to the Set-Top
Box.



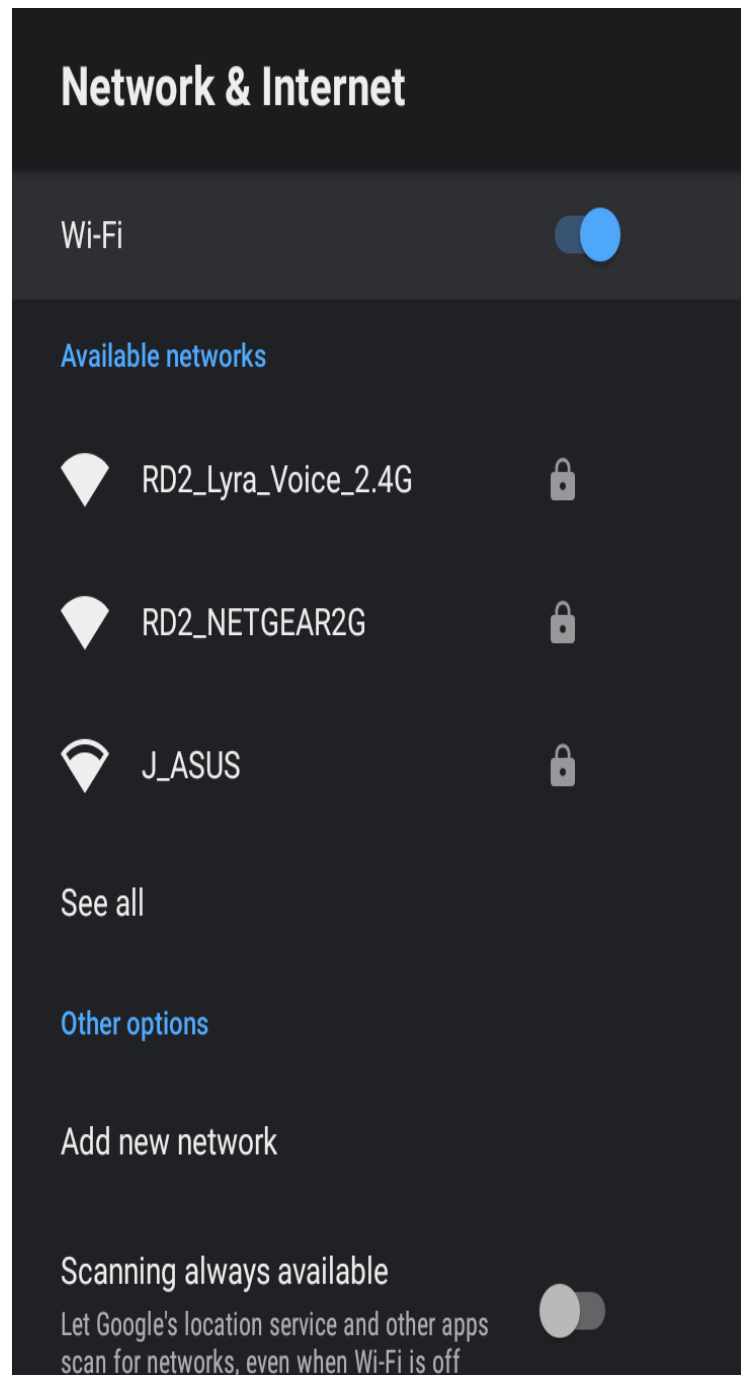
Select **Network & Internet** -> Press **OK** on the
remote control to confirm

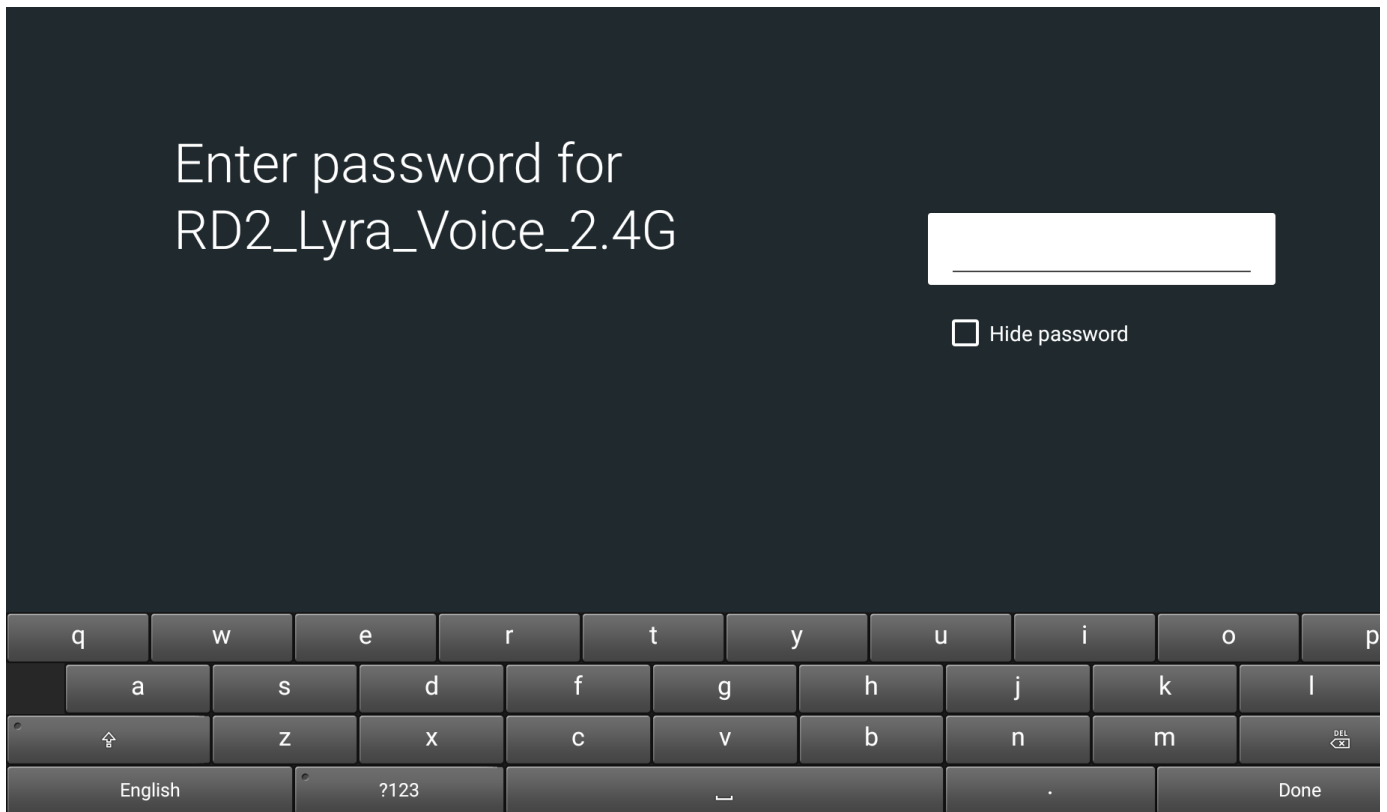


Use **Cursor Keys** (▲▼◀▶) on the remote control to **MOVE** to **Wi-Fi** -> Press **OK** on the remote control to **ENABLE Wi-Fi**

A list of **Available 2.4G & 5G Network** will be shown.

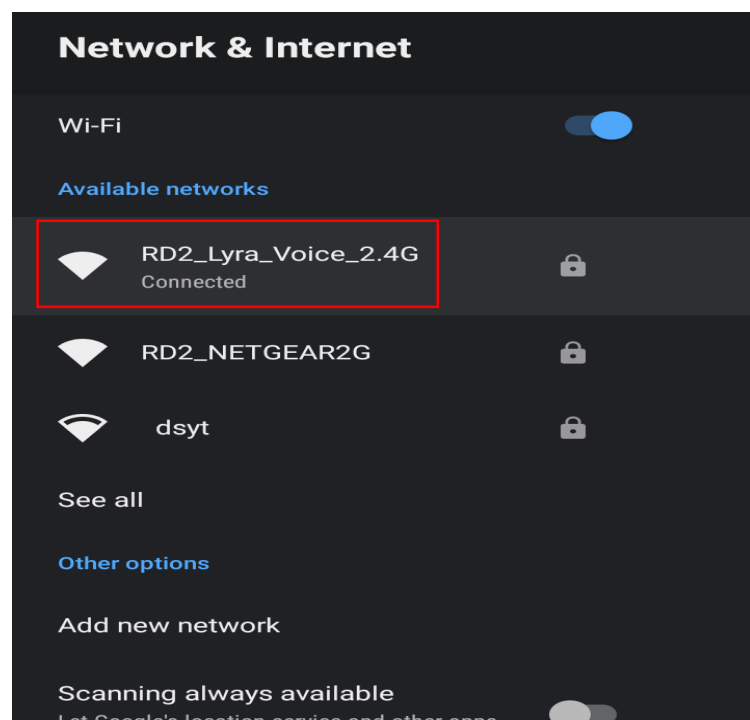
Use **Cursor Keys** (▲▼◀▶) on the remote control to **MOVE** to **your preferred Wi-Fi/AP Router** -> Press **OK** to confirm. (Refer to the image on the right side)



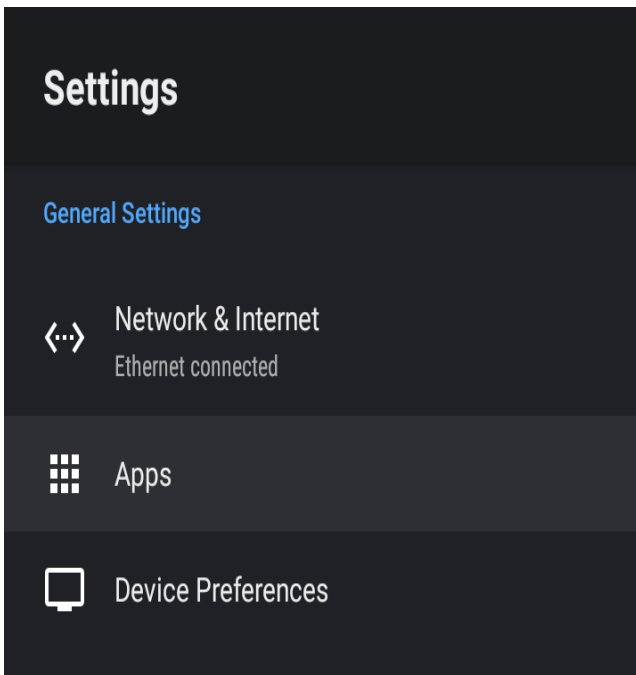


(IF Any) Use **Cursor Keys** (▲▼◀▶) on the remote control to enter the **PASSWORD** of your Wi-Fi/AP router (RD2_Lyra_Voice_2.4G here is as an example) -> Use **Cursor Keys** (▲▼◀▶) on the remote control and move to **Done** for confirmation (Refer to the image above)

When the connection is successful, the status “**CONNECTED**” will appear. (Refer to the image on the right side)

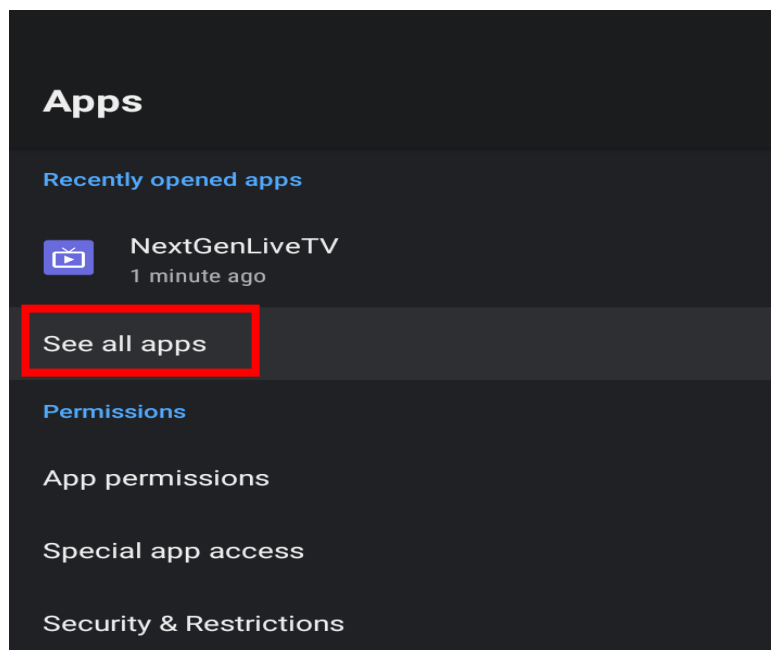


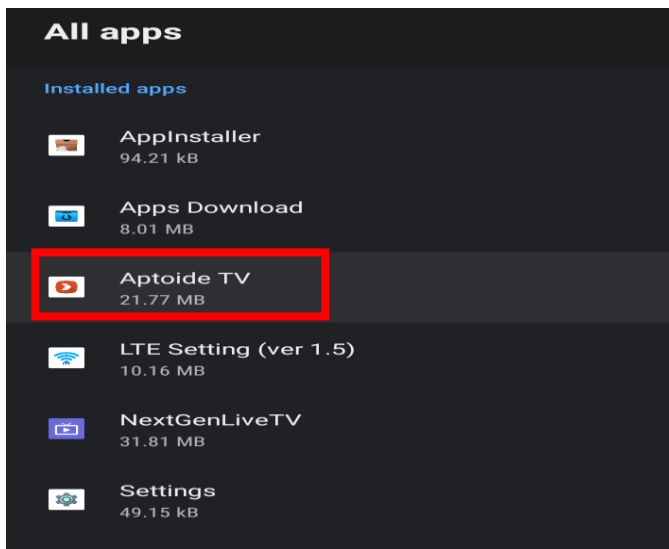
6.1 Checking on Internet Connection Status



Press **Settings** -> Select **Apps** -> Press **OK** to confirm (Refer to the Image on the left side).

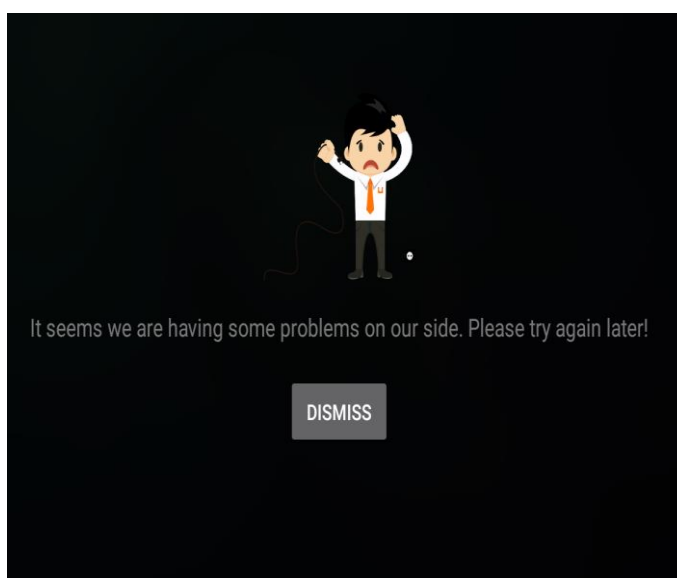
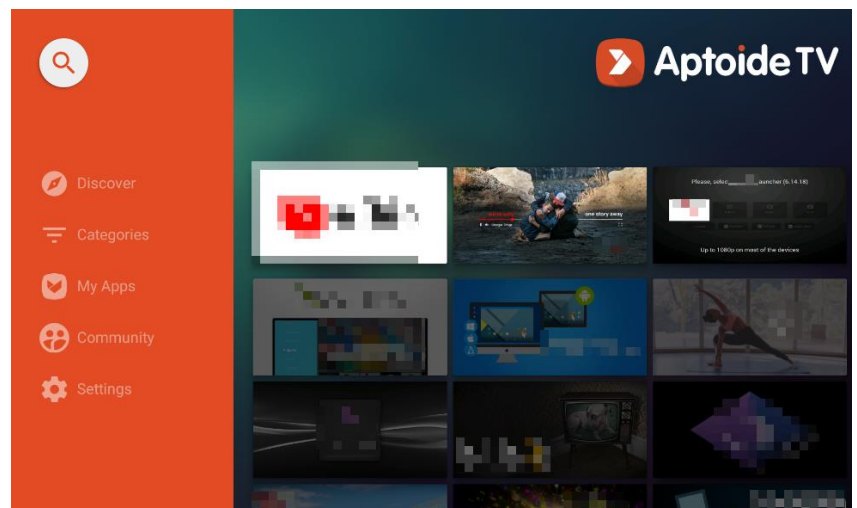
Use **Cursor Keys** (▲▼◀▶) on the remote control and **MOVE** to **See all apps** -> Press **OK** on the remote control to confirm



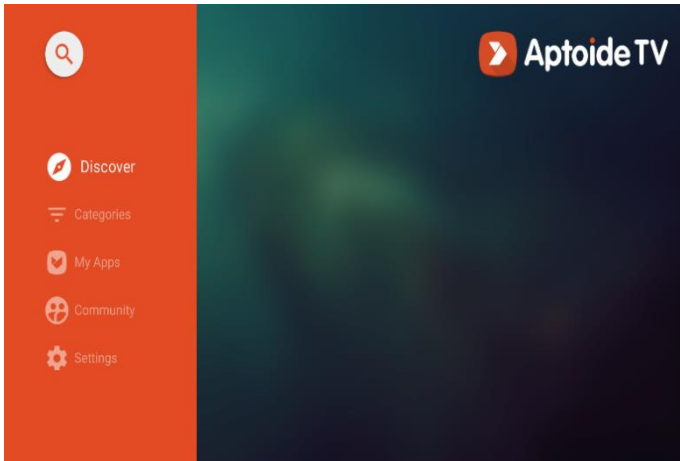


Select **Aptoide TV** -> Press **OK** on the remote control to confirm

Succesfully Connected to Internet Access. The **list of APKs** will **BE SHOWN**. Refer to the image on the right side.



Unsuccesfully Connected to Internet Access. “**NIL APK**” will be shown as the images on the left side.

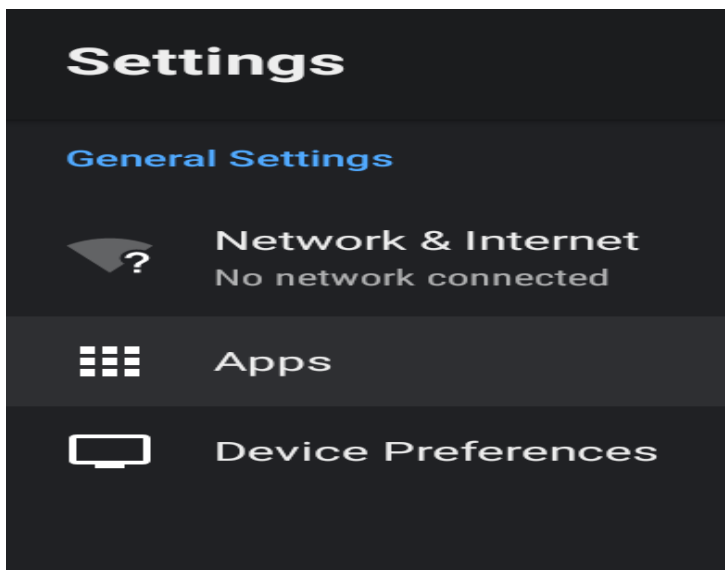


IF Internet Conection is still **unsuccesful**,
re-start your Gateway will be required.
Please **RE-EXECUTE** the **steps from**
Page 13.

7 (Wi-Fi OFF) Connecting to Internet via Ethernet Network

*Before Reading the Instructions

- The **Wi-Fi** and **Ethernet** functions **CANNOT** be executed **at the same time**. Ensure the Set-Top Box is **NOT CONNECTED** to any **Wi-Fi** before connecting to the **Ethernet Cable**.
- Refer to the **Section 2.5 Panel Specification** for the **location** of each **port** or **button** mentioned below.

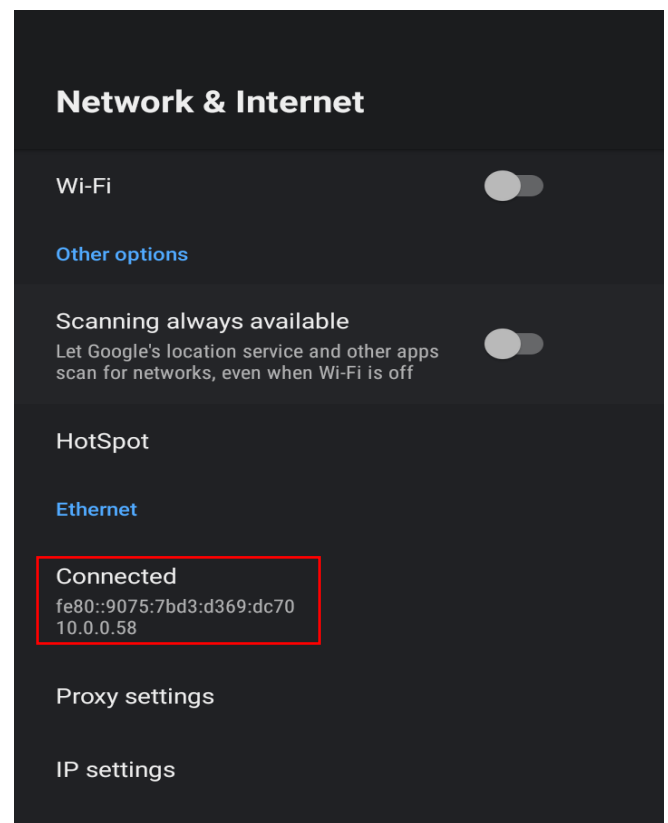


Press the **SETTING** button on the remote control ->

Select **Network & Internet** ->

Press **OK** on the remote control to confirm.

Connect your **Ethernet (RJ45)** cable to the **LAN port** on your Set-Top Box -> The system will **automatically update the network connection status**. Refer to the image on the right side.



8 (Wi-Fi OFF) Knowing Hot Spot Function

8.1 Sharing Internet Access to your PED (Personal Electronic Devices)

- **Hot Spot** will **ONLY be functioning** when **Network Access** is **connected via Ethernet** and **Wi-Fi Mode** is **OFF**
- After connecting to Internet via Ethernet, your Set-Top Box now is in **AP (Access Point) / Router Mode**

Internet Connectivity	Internet Access via Ethernet
6000 Set-Top Box	Internet Sharing is available to Your PED
Hot Spot in Network & Internet	Sharing Internet to Your PED
	Nil Setting Action is required

*Connecting Your PED to the Internet Access from Set-Top Box

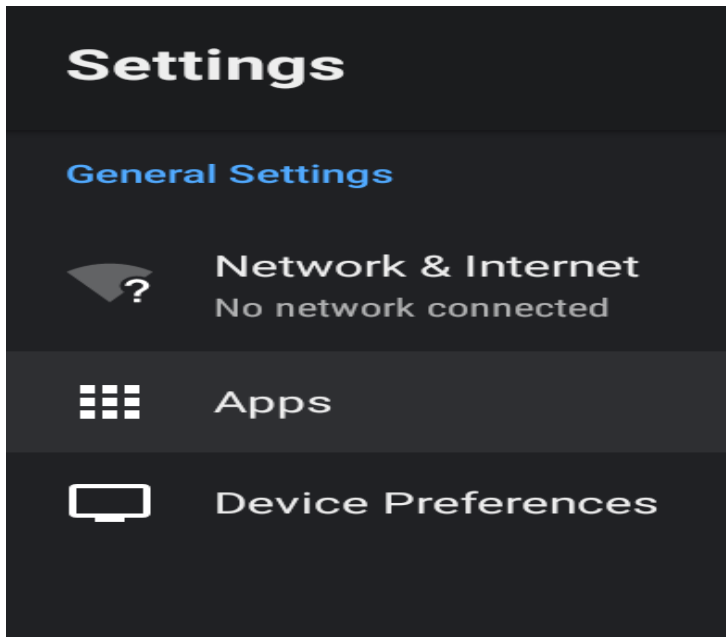
- **Enable Wi-Fi function of Your PED** -> Search for Wi-Fi Network:

ZINWELL_XXXX (last 4 digits is the default serial numbers of your Set-Top Box). **Default Password “12345678”** (refer to **Section 8.2 Hot Spot Sharing – Password and Name Setting** for more details) -> Connect it for the Internet Access

8.2 Hot Spot Sharing – Password and Name Setting

*Before Reading the Instructions

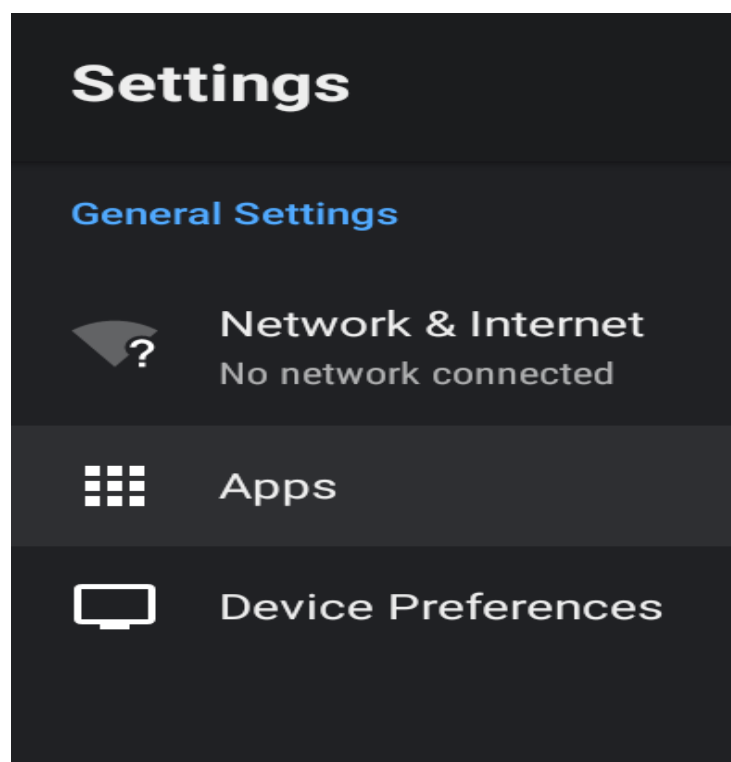
- **Hot Spot** will **ONLY** be **functioning** when **Network Access** is **connected** via **Ethernet** and **Wi-Fi Mode** is **OFF**.



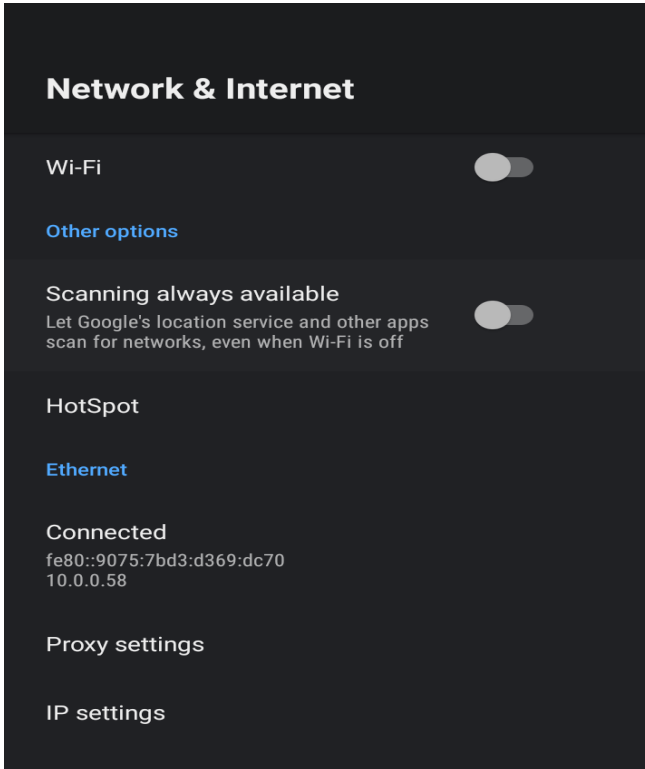
Press the "**SETTING**" button on the remote controller (Refer to the Image on the left side).

Select **Network & Internet**

-> Press **OK** on the remote control to confirm



*Ensure **Wi-Fi Mode** is **OFF** before entering the **Hot Spot Section**.



Use **Cursor Keys** (▲ ▼ ◀ ▶) on the remote control to **MOVE** to **HotSpot**

(Refer to the picture on the Right side) ->

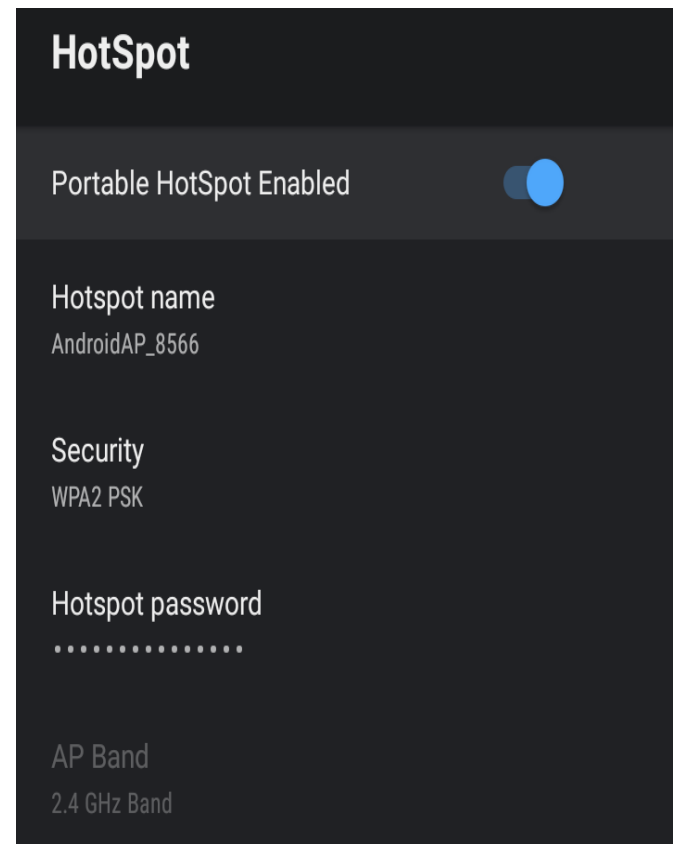
Press **OK** on the remote control to confirm

Default Hot Spot Name: **AndroidAP_XXXX**
 Default Hot Spot Passwords: **A set of numeric combination.** (Use **Cursor Keys** (▲ ▼ ◀ ▶) on the remote control to **MOVE** to the **HotSpot Password** section for viewing)

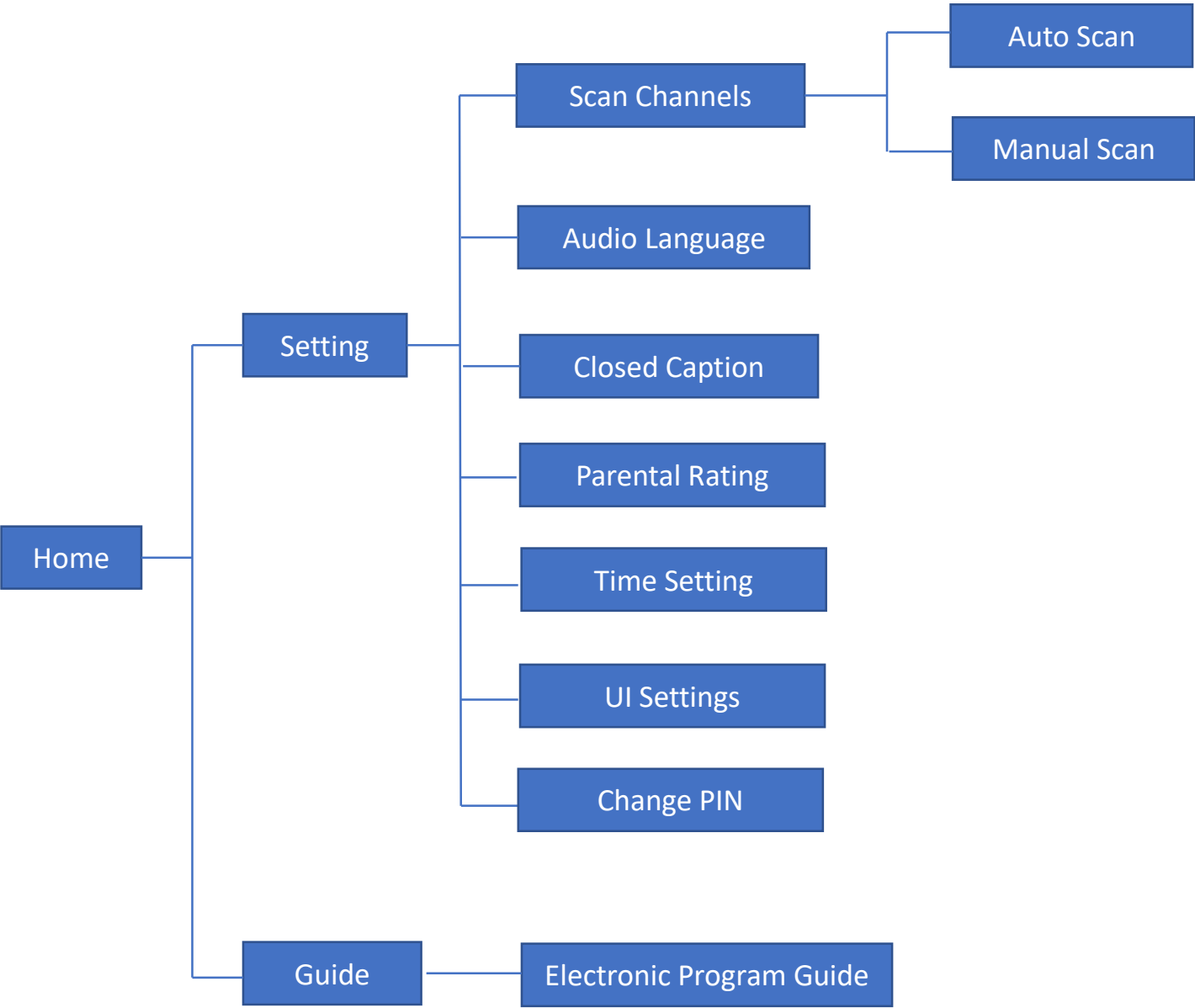
(In order to enhance the Security of your Internet Access, it is recommendable to SET-UP your own Password)

If you wish to change your **Hotspot Password**, use **Cursor Keys** (▲ ▼ ◀ ▶) on the remote control to **MOVE** to **HotSpot password** and enter your password).

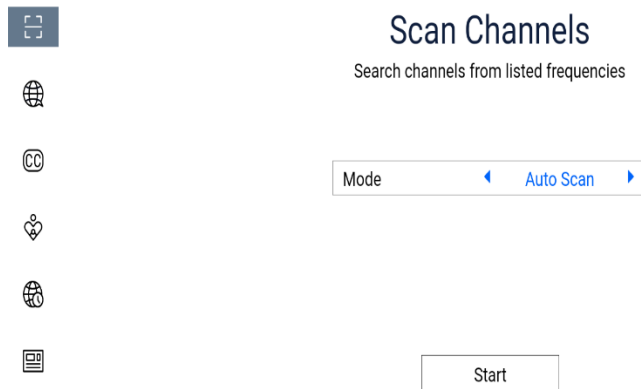
If you wish to change your **Hotspot Name**, use **Cursor Keys** (▲ ▼ ◀ ▶) on the remote control to **MOVE** to **HotSpot Name** and enter your preferred name.



9 Function Overview



9.1 Guide to the Setting System



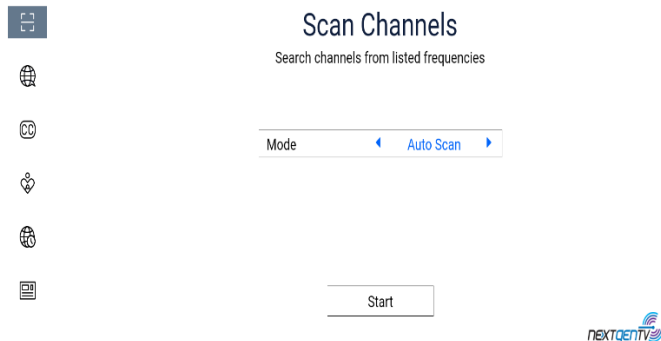
Press **MENU** to enter the Setting System.

Refer to the image on the left side.



9.2 Other Functions

9.2.1 Searching for the Available Channels (Auto Scan)



MENU -> Scan Channels -> Mode:
Auto Scan -> Press Start Scanning

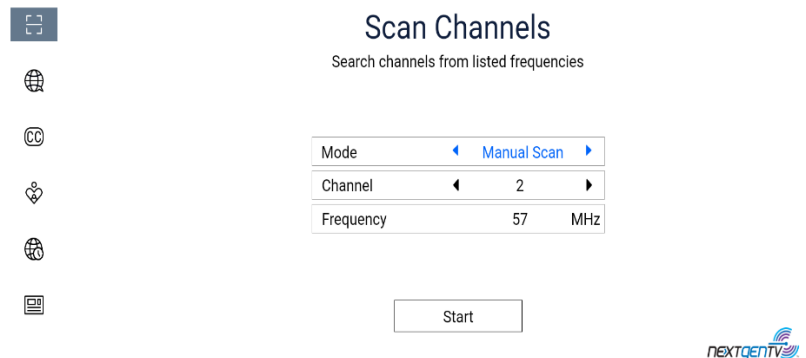
9.2.2 Searching for the Available Channels (Manual Scan)

MENU -> Scan Channels ->

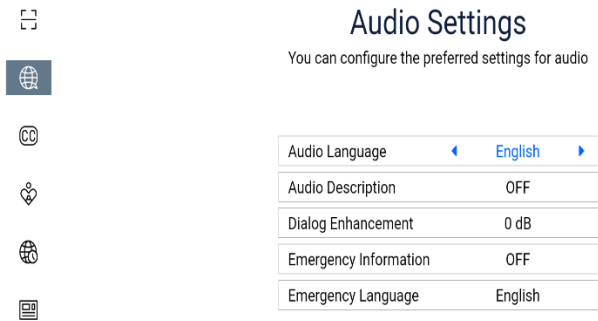
Mode: **Manual Scan** ->

Select Channel Number ->

Press **Start Scanning**



9.2.3 Selecting Your Preferred Language for Audio



MENU -> **Audio Language** ->

Select your prefer language->

Press **BACK** to confirm



9.2.4 Turning Off the Caption

MENU -> Closed Captions->

Press **OK** to confirm

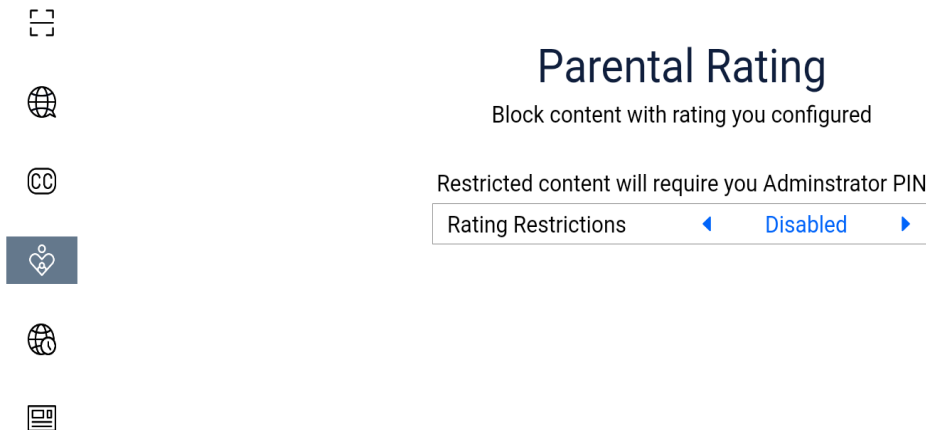


Closed Caption
You can configure preferred closed caption language or turn off

Language	English
Captions	◀ OFF ▶
Font	
Edge	
Background	



9.2.5 Selecting the Parental Rating



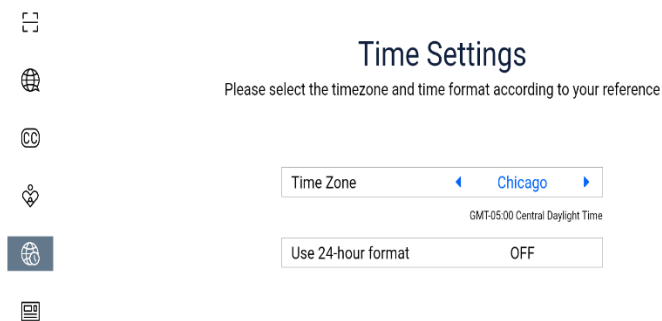
MENU -> Parental Rating (The **Admin PIN** MUST be **ENTERED** before entering the Parental Rating screen (The default password is: 0000) -> Select the Rating Restriction -> Press **BACK** to confirm

9.2.6 Time Setting

MENU -> **Time Setting**

-> Select time zone->

Press **BACK** to confirm

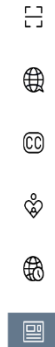


9.2.7 Setting the Display Duration

MENU -> Closed

Captions -> Select the
display duration -> Press

OK to confirm



UI Settings
You can configure the preferred settings for UI

Language	English
Timeout	◀ 5 sec ▶



9.2.8 Changing the Administrator PIN

Admin PIN
You can change your new Admin PIN



(Before entering the Change PIN screen, the **Admin PIN** MUST be **ENTERED** (the default password is: 0000)).

MENU -> Change PIN -> Press **OK** and enter the NEW Administrator PIN -> Press **OK** to confirm.

9.2.9 Obtaining the Program Content Introduction

Electronic Program Guide

Today 3rd Hour

12/13/2021 08:00 AM - 09:00 AM

News anchors feature interviews with celebrities and notable guests, inspiring stories of people who do remarkable things, cultural influencers, newsmaker exclu

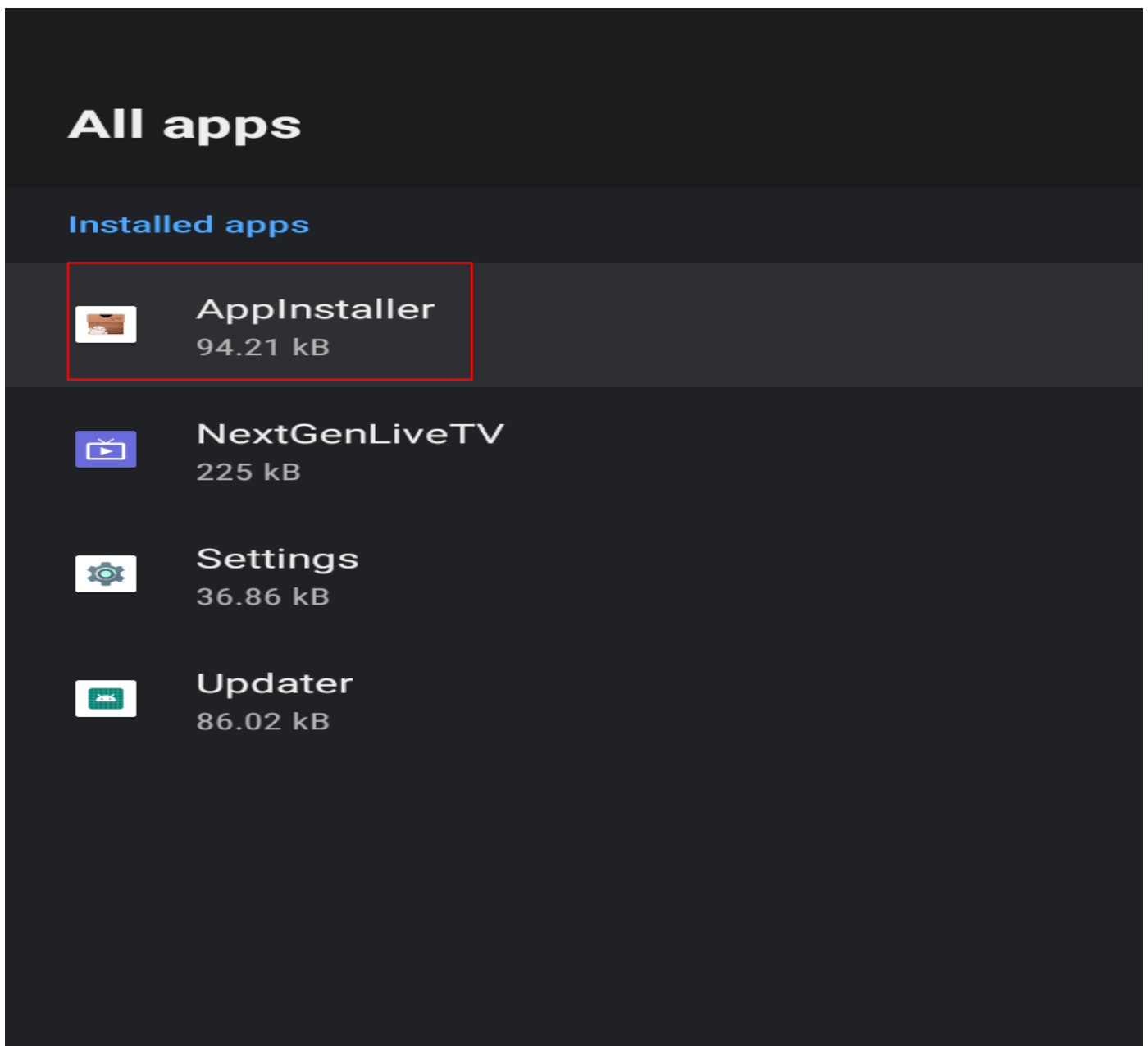
MON Monday, 12/13/2021		08:00 AM	08:30 AM	09:00 AM	09:30 AM
4-1	WRC 	Today 3rd Hour		Today with Hoda & Jenna	
5-1	WTTG 	Good Day DC		Good Day DC	
7-1	WJLA 				
9-1	WUSA 	Great Day Washington		Let's Make a Deal	
32-1	WHUT 	In Their Own Words		Body Electric	The Journey

Press Guide on the remote control -> Electronic Program Guide -> Use **Cursor Keys** (▲▼◀▶) to select the different program blocks for getting the program content introduction.

10 APK Installation and Software Upgrading via USB Storage Device

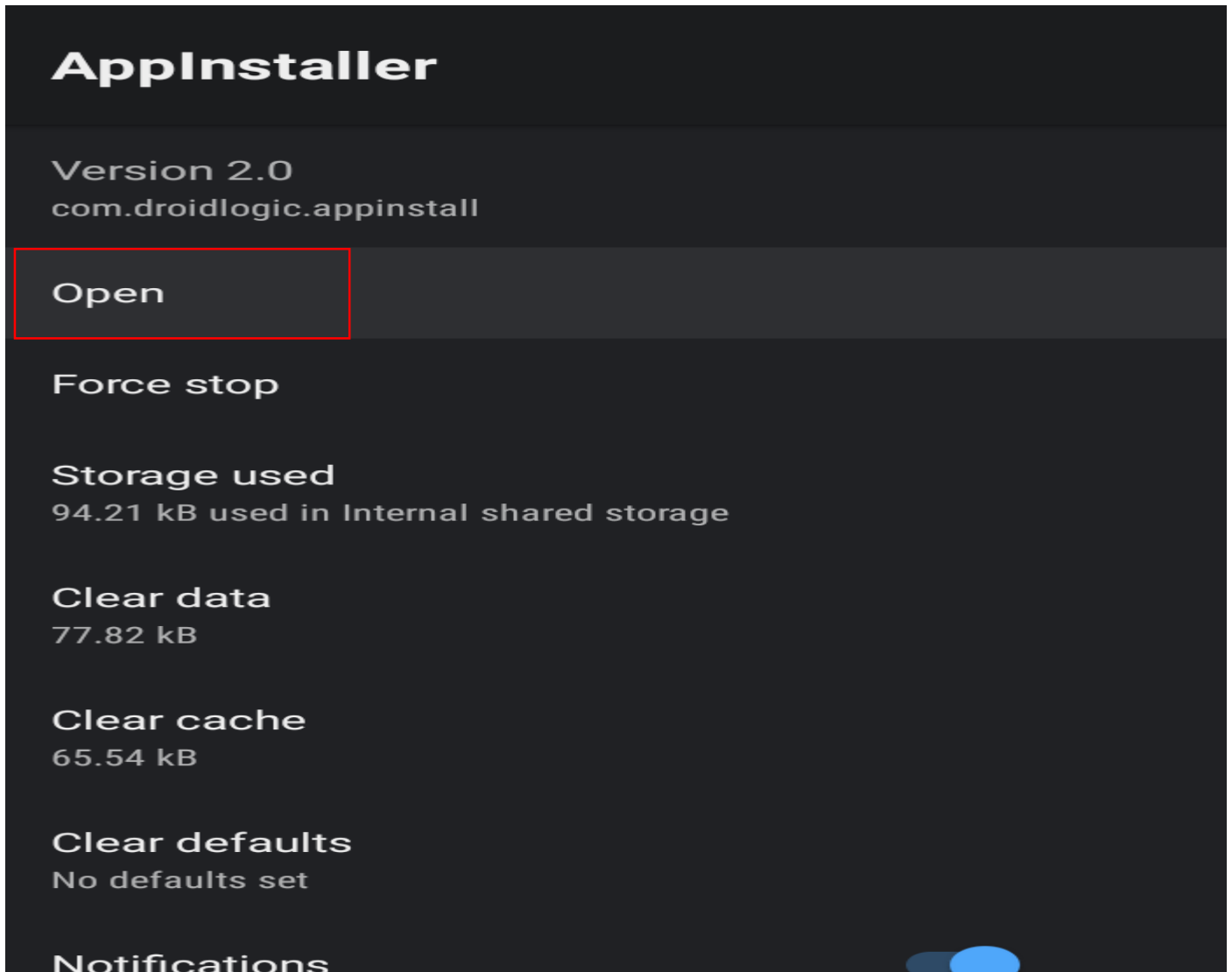
Step 1.

- Put the APK in an USB storage device
- Insert the USB storage device into the USB port of the Broadband Set-Top-Box
- Press **SETTING** button on the remote control -> Select **Apps** -> Select **See All apps**
- The following screen will appear -> Select “**AppInstaller**” to confirm



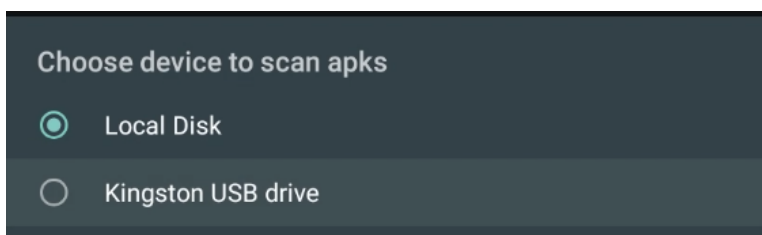
Step 2.

- Use the remote control to select "**Open**" -> Press **OK** to confirm.



. Step 3.

- Select **the USB storage device** (such as Kingston USB drive) -> press **OK** to confirm.



- App Installer will list all APKs from the USB storage device

Step 4.

The installation screen is as below. Find the "**INSTALL**" button at the bottom right corner of the screen -> Press **OK** to install.



Step 5.

Select “DONE” to complete the APK installation process.

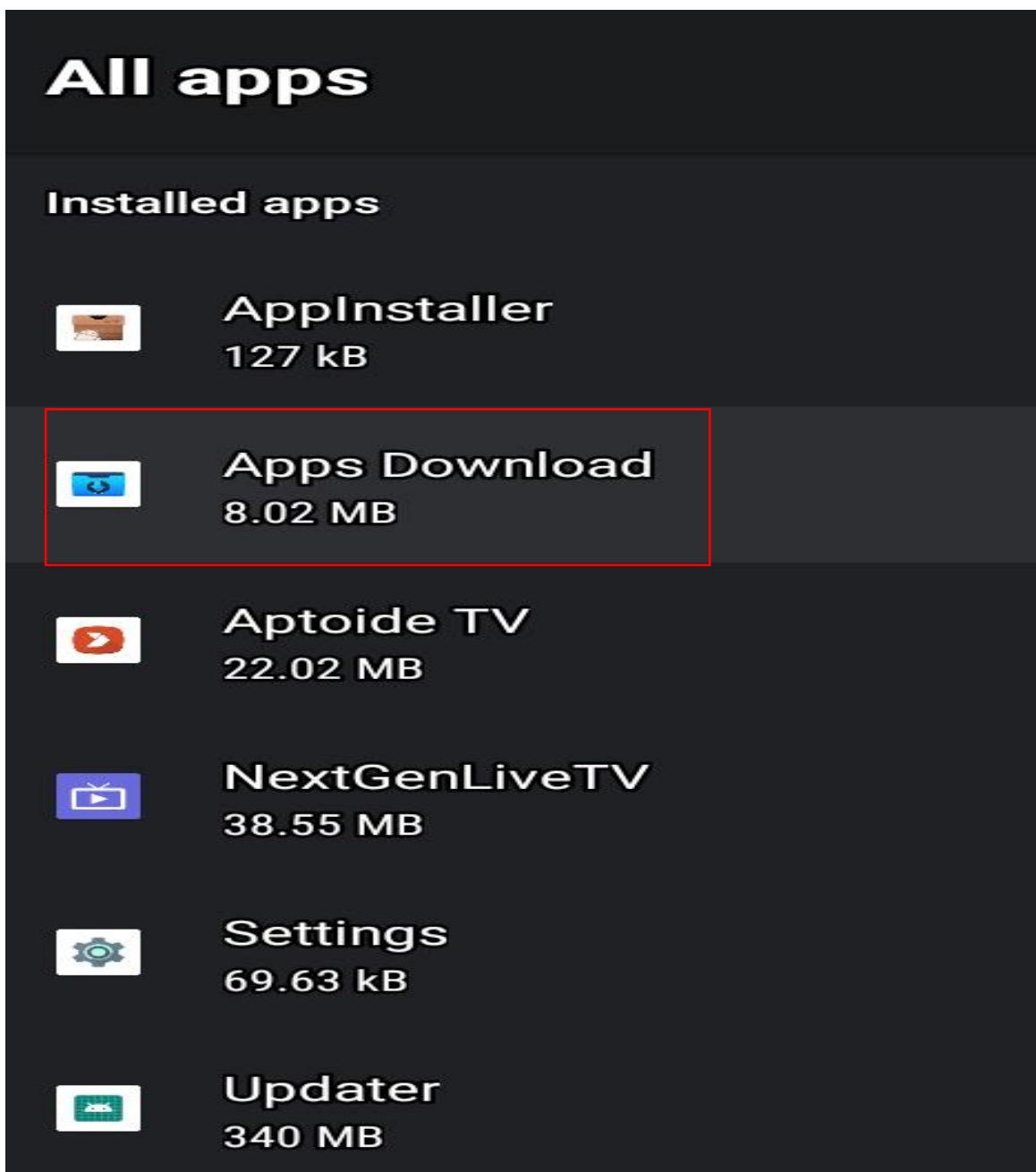
11 Software Upgrading via OTA Service

*Before Reading the Instructions

- ➔ Ensure **your Set-Top Box** is **CONNECTED to internet successfully**.
- ➔ Refer to **Section 5.1.2** (Checking on Internet Connection Status P.18) for more details

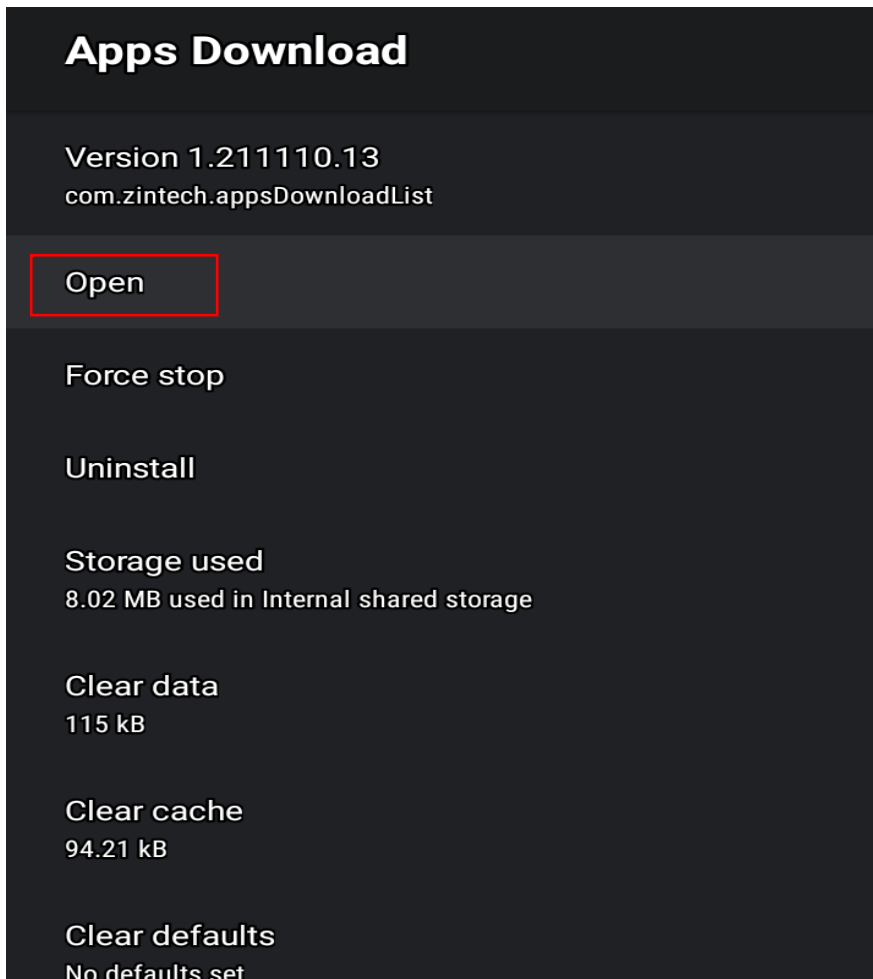
Step 1.

- Press **SETTING** button on the remote control -> Select **Apps** -> Select **See All apps**
- The following screen will appear -> Select “**Apps Download**” to confirm



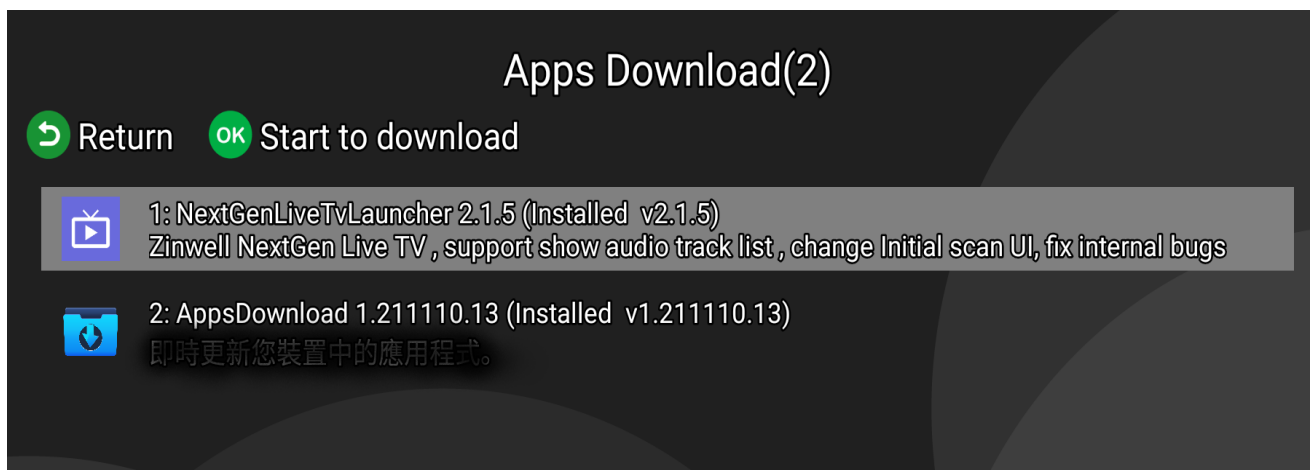
Step 2.

- Use the remote control to select "**Open**" -> Press **OK** to confirm.



Step 3.

- Select available NextGenLiveTvLauncher version -> press OK to confirm.



Step 4.

- The installation screen is as below. Find the "INSTALL" button at the bottom right corner of the screen -> Press OK to install.



Step 5.

- Select "DONE" to complete the APK installation process.

12 Trouble Shooting

Device Failure	Possible Cause	Solution
No Picture	Power is not connected	Connect the power and ensure the device has been turned on.
No Picture but Sound OK	Nil or incorrect video cable connections	Ensure cables are connected correctly.
“No Signal” Appear on the Screen	Antenna cable is not connected	Connect the antenna cable and check the connection to the rear of Broadcast Gateway
Picture is breaking up	Signal is weak and unstable	Check the antenna connection
Remote Control is not responding	Batteries are flat	Replace the batteries. * Do not mix old and new batteries in the IR remote control
USB device is not detected	Not powered correctly	Check the power source (if fitted) or reconnect

13 Contacting Us

Please kindly reach out us via the **Contact Us** function in our website: <https://www.zinwell.com.tw/us/>