# 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: ASTC 3.0 ZAT-6000

**Certified by**

This product uses Dolby Audio technologies to play movies and TV shows in surround sound

# 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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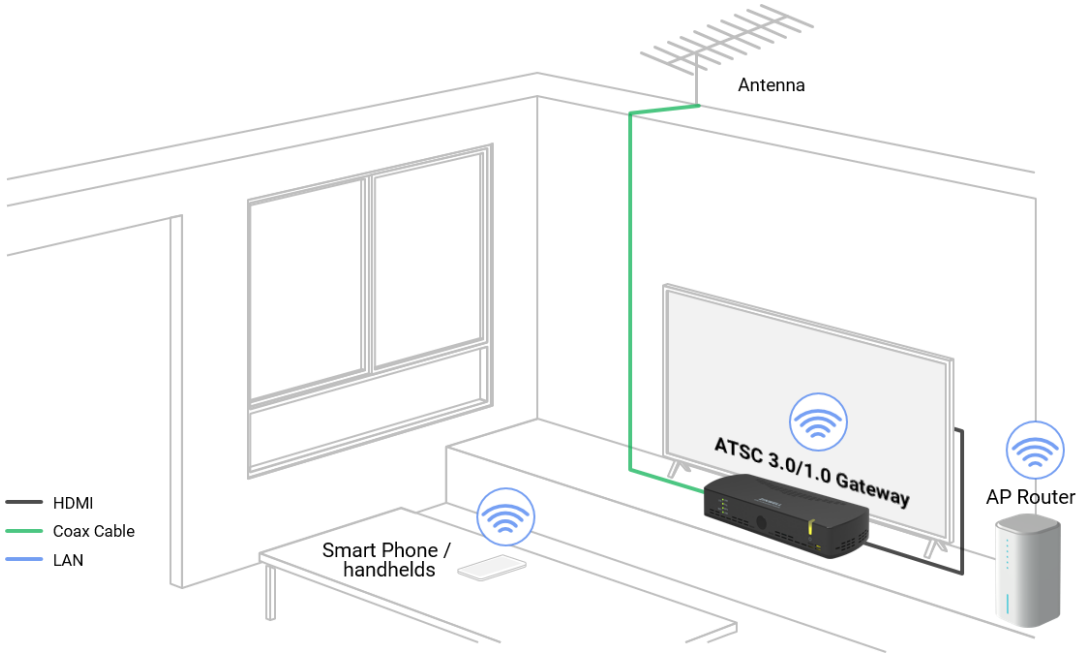
# 1 Important Safety Instruction and Precaution

- 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)<br>HEVC 4Kp60 (ATSC 3) |
| | Output | HDMI 2.1 |
| **Audio (optional)** | Decode | AC-3 (ATSC 1)<br>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,<br>HDCP 2.3 |
| **Widevine** | | Level 1 |
| **HDR (Optional)** | | HDR-10, HLG, SL-HDR |

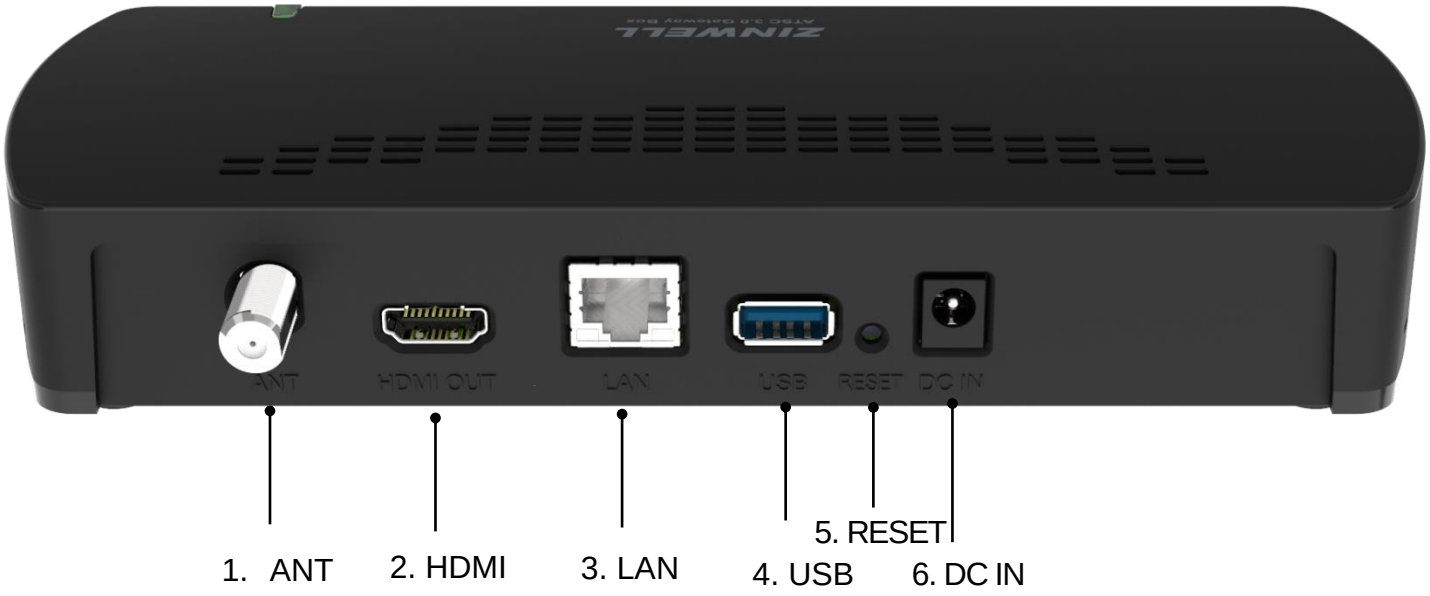
## 2.3 Features

- 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 |

POWER
AUDIO
CLOSE CAPTION
ALERT
E-LEARNING
CC
1
2
3
4
5
6
7
8
9
0
EPG
VOL
SETTING
CH
HOME
MUTE
MENU
OK
BACK
INFO
ZINWELL

# 4 Installing Your Set-Top Box

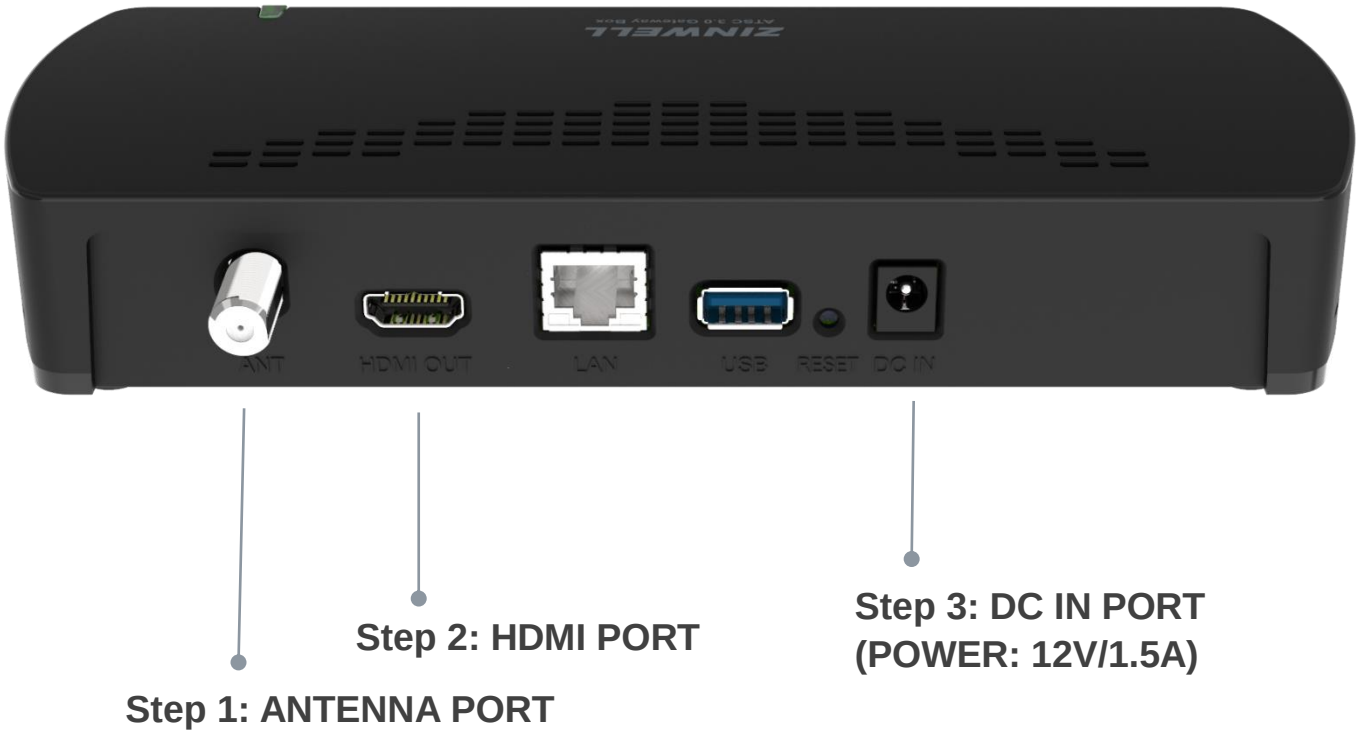
## 4.1 Installing Instruction in 3 Steps

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

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

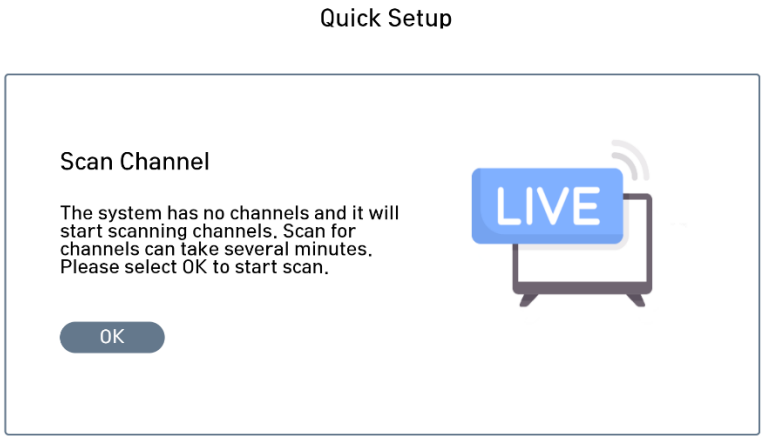
Step 3. Plug the **power adaptor** into **DC IN Port** while the other end into power socket

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.)

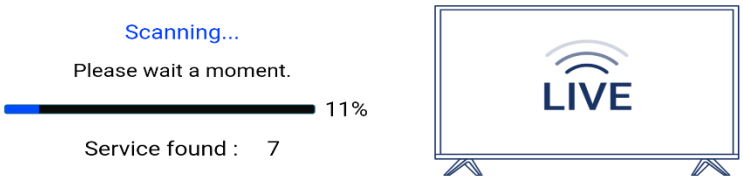


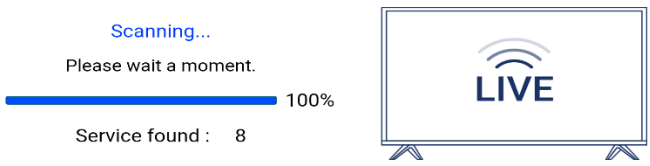

Step 1.

**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%**.



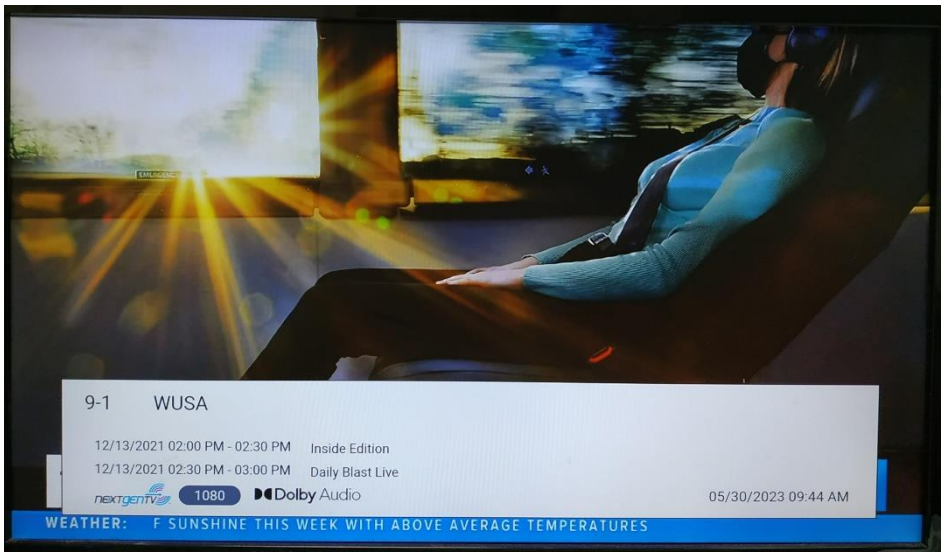




Step 3.

**“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,

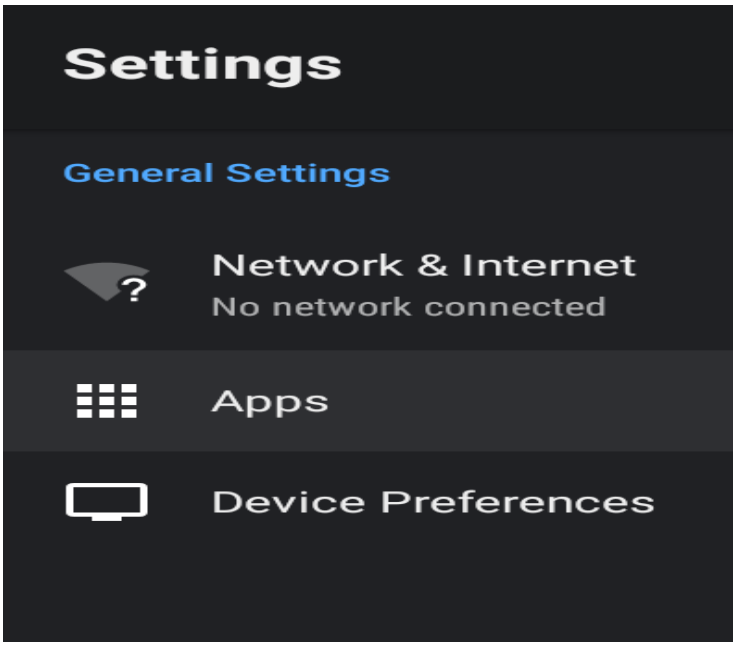


# 6 (Wi-Fi ON) Connecting to Internet via Your Wi-Fi/AP Router

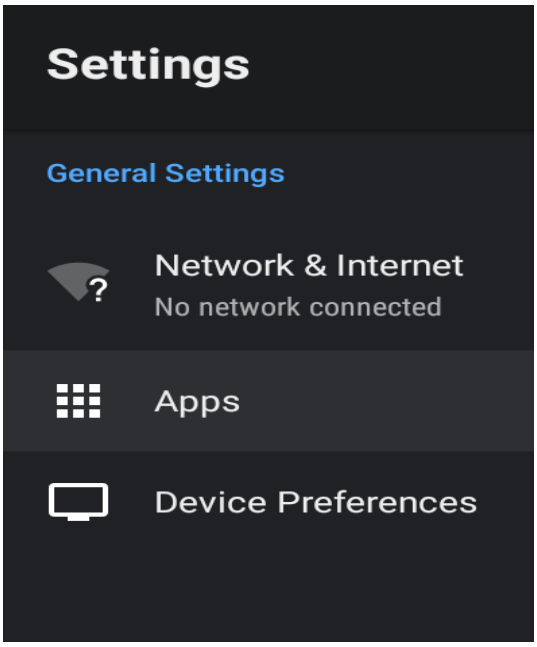
*Before Reading the Instructions

- 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.

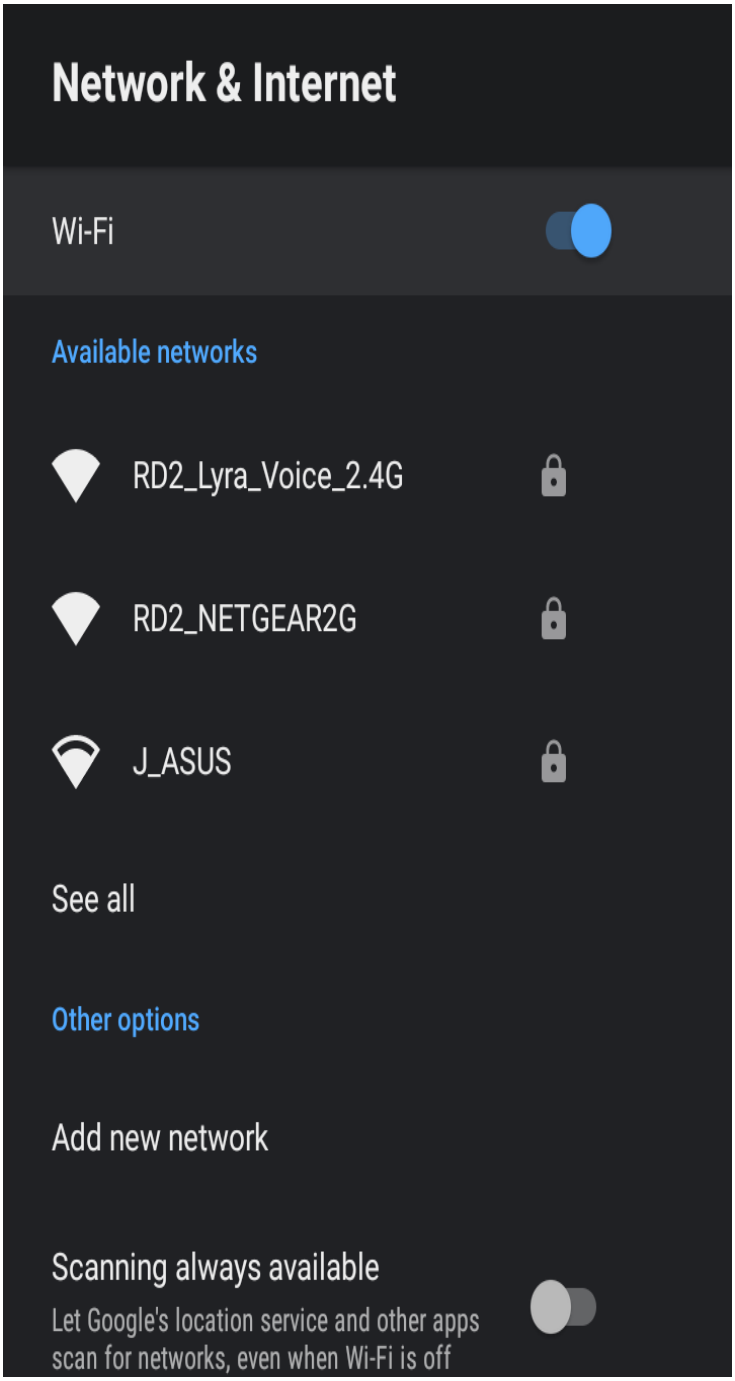


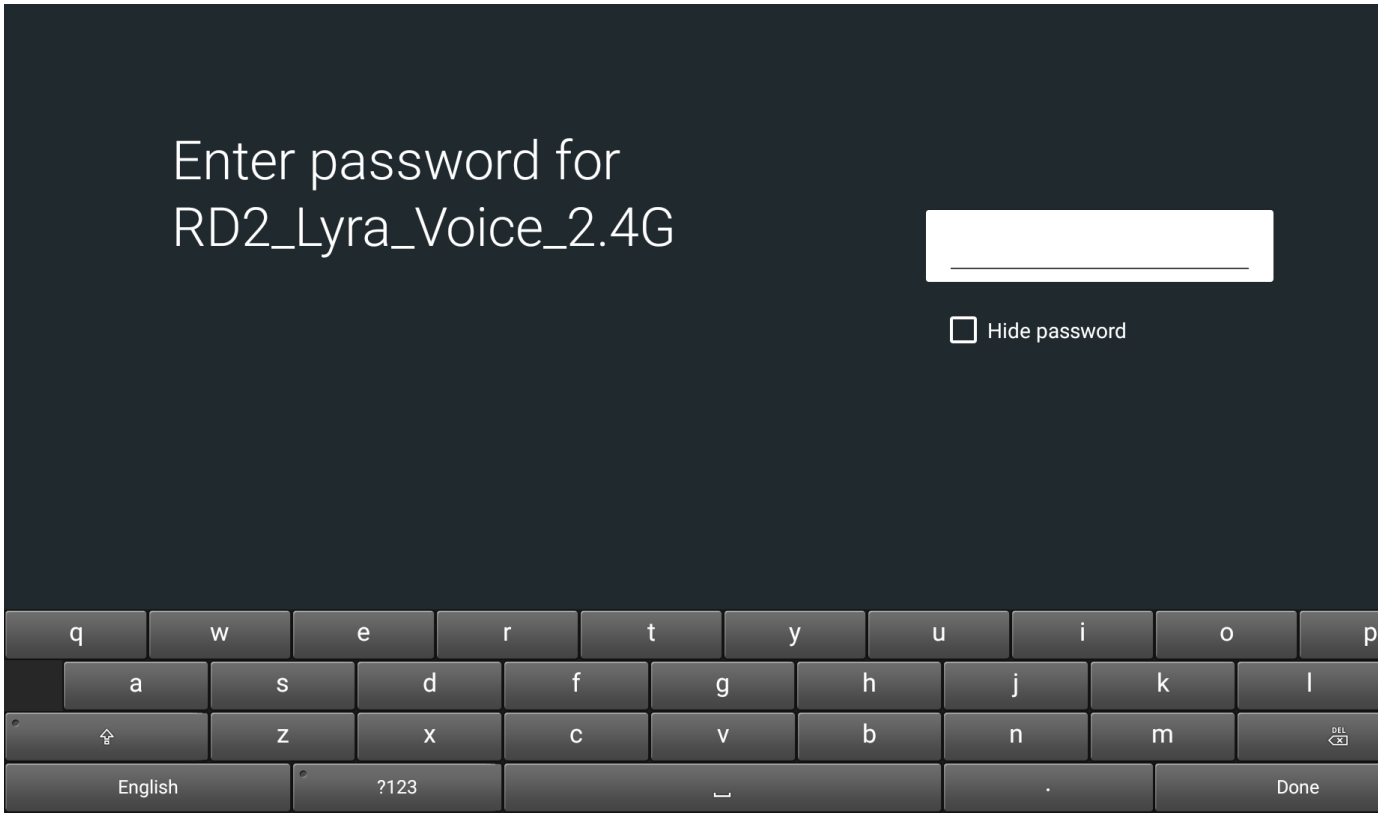

Select **Network & Internet** -> Press **OK** on the remote control to confirm

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.

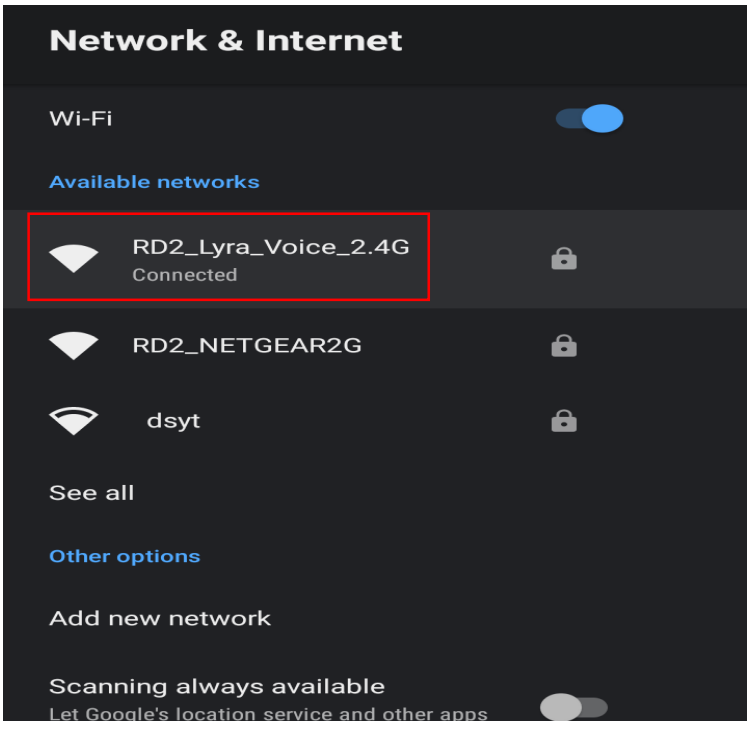
Use **Cursor Keys** (▲▼◄ ►) on the remote control to **MOVE** to **your preferred Wi-Fi/AP Router** -> Press **OK** to confirm. (Refer to the image on the right side)



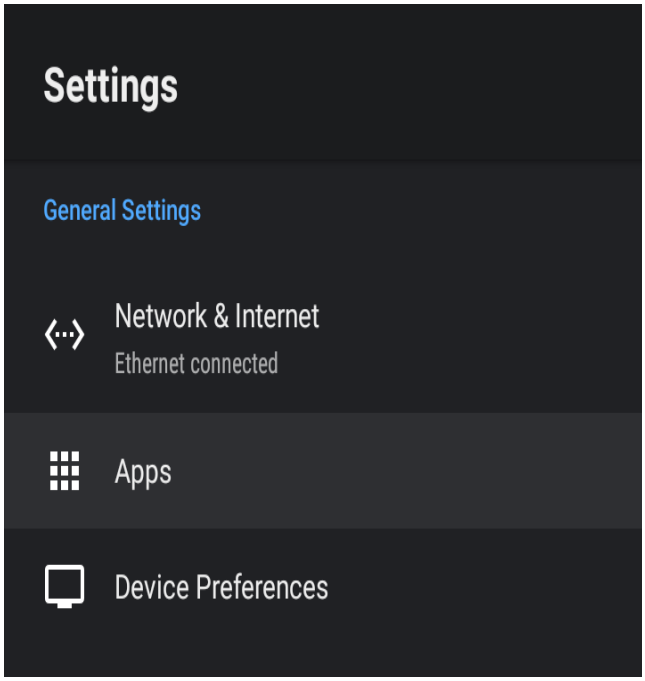



(IF Any) Use **Cursor Keys** (▲▼◄ ►) on the remote control to enter the **PASSWORD** of your Wi-Fi/AP router (RD2_Lyra_Voice_2.4G here is as an example) -> Use **Cursor Keys** (▲▼◄ ►) on the remote control and move to **Done** for confirmation (Refer to the image above)

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

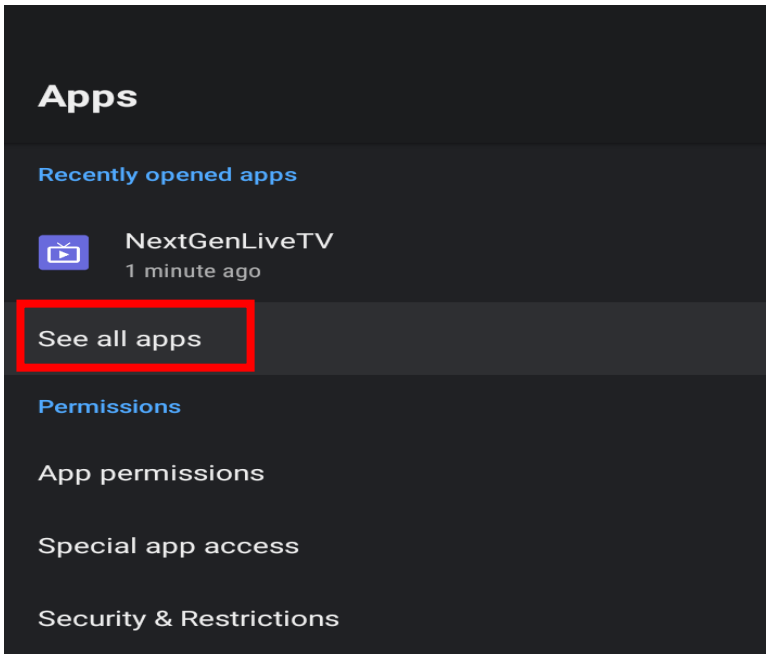


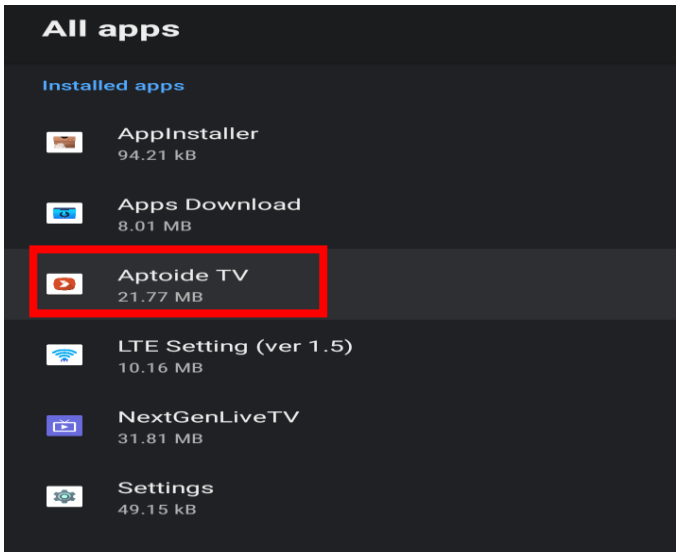
## 6.1 Checking on Internet Connection Status




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

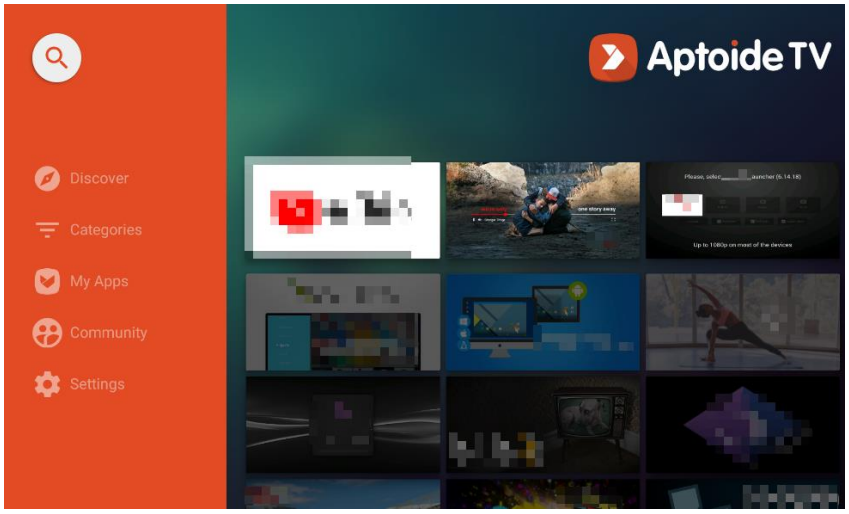
Use **Cursor Keys** (▲▼◄ ►) on the remote control and MOVE to **See all apps** -> Press **OK** on the remote control to confirm

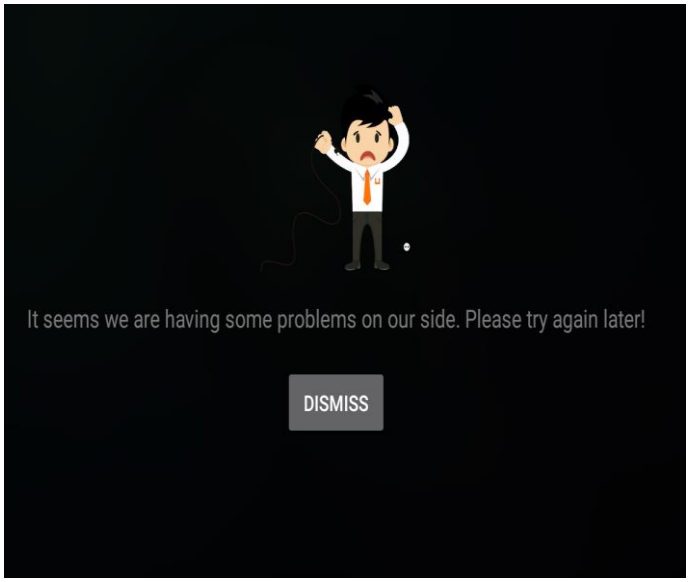




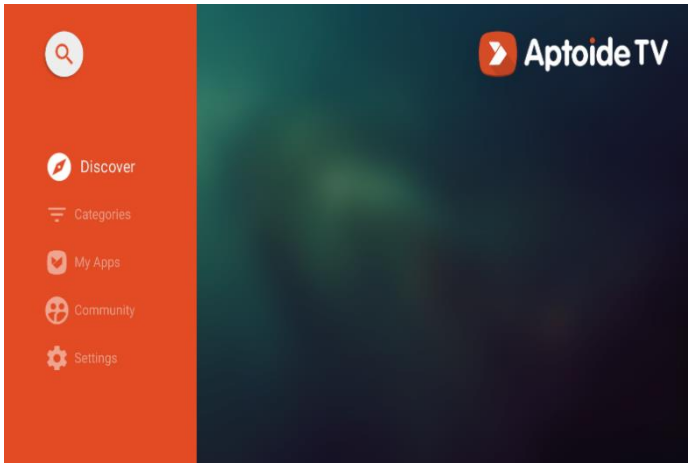

Select **Aptoide TV** -> Press **OK** on the remote control to confirm

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




**Unsuccefully Connected** to I**nternet Access**. "**NIL APK**" will be shown as the images on the left side.

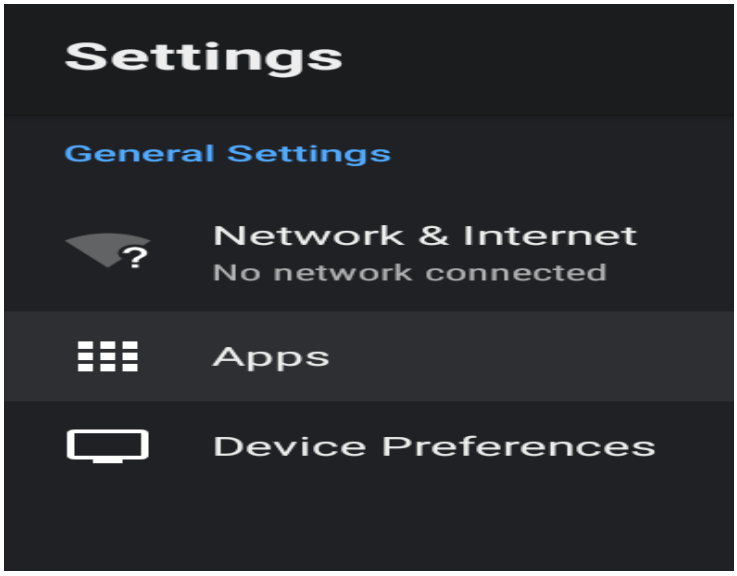



IF Internet Conection is still **unsuccesful, re-start your Gateway** will be required. Please **RE-EXECUTE** the **steps from Page 13**.

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

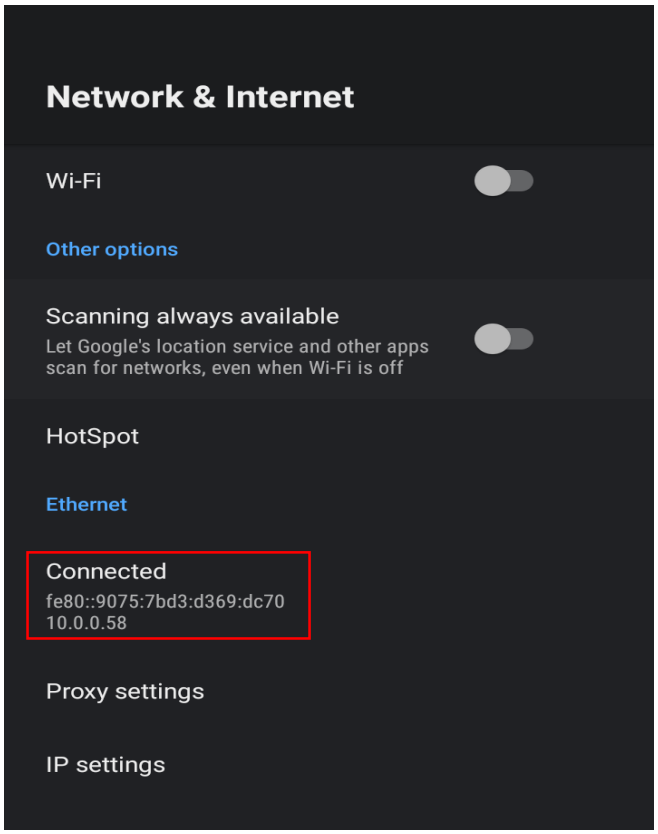
*Before Reading the Instructions

- 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 |

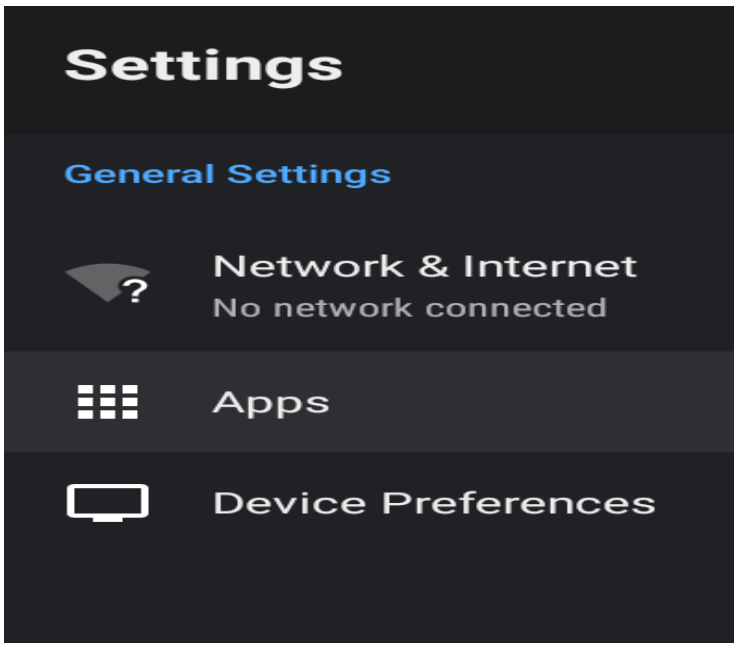
*Connecting Your PED to the Internet Access from Set-Top Box

- **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

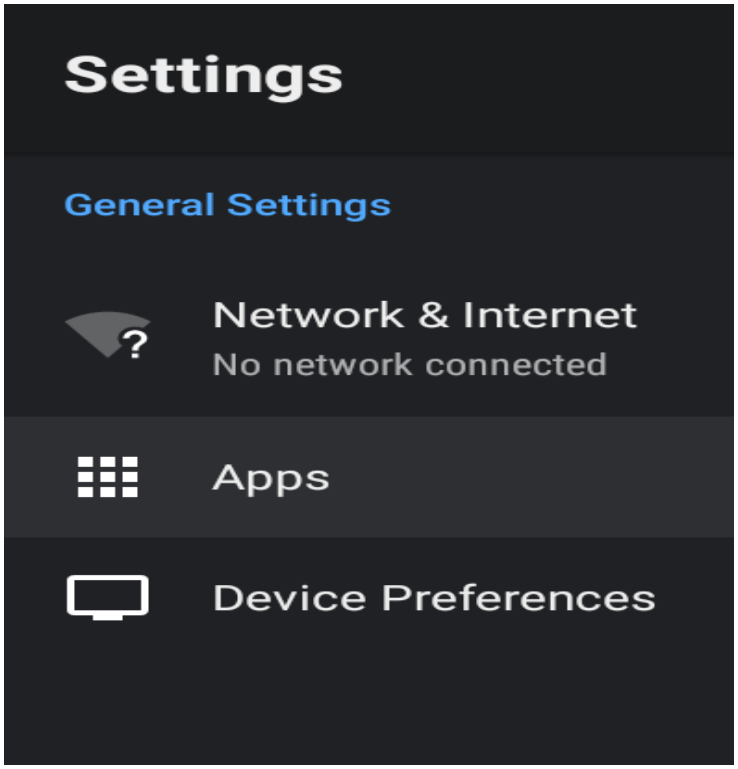
*Before Reading the Instructions

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

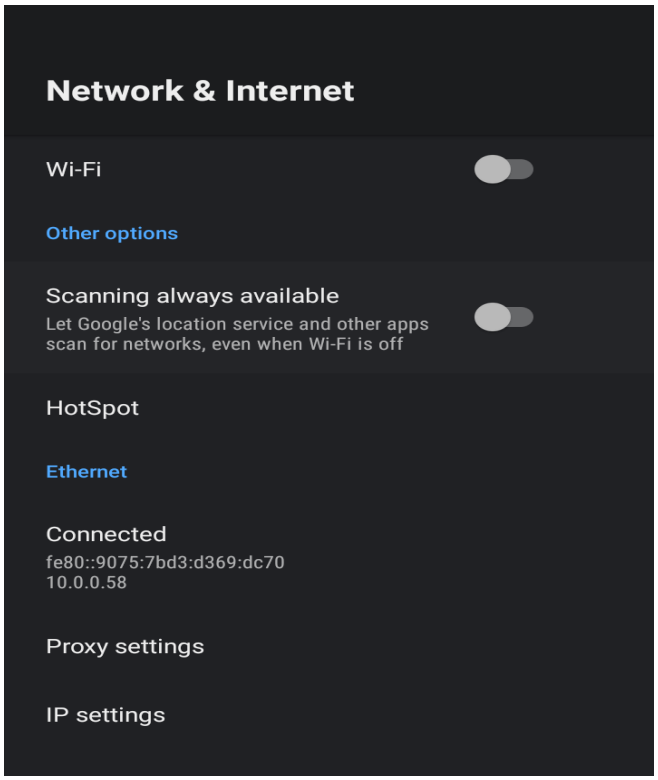



Press the "**SETTING**" button on the remote controller (Refer to the Image on the left side).

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) ->

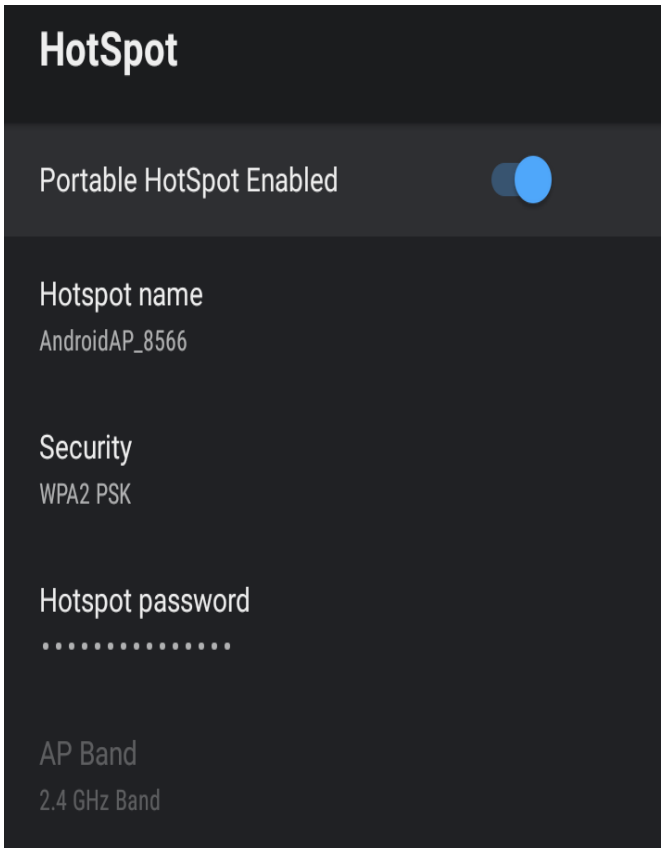
Press **OK** on the remote control to confirm

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)

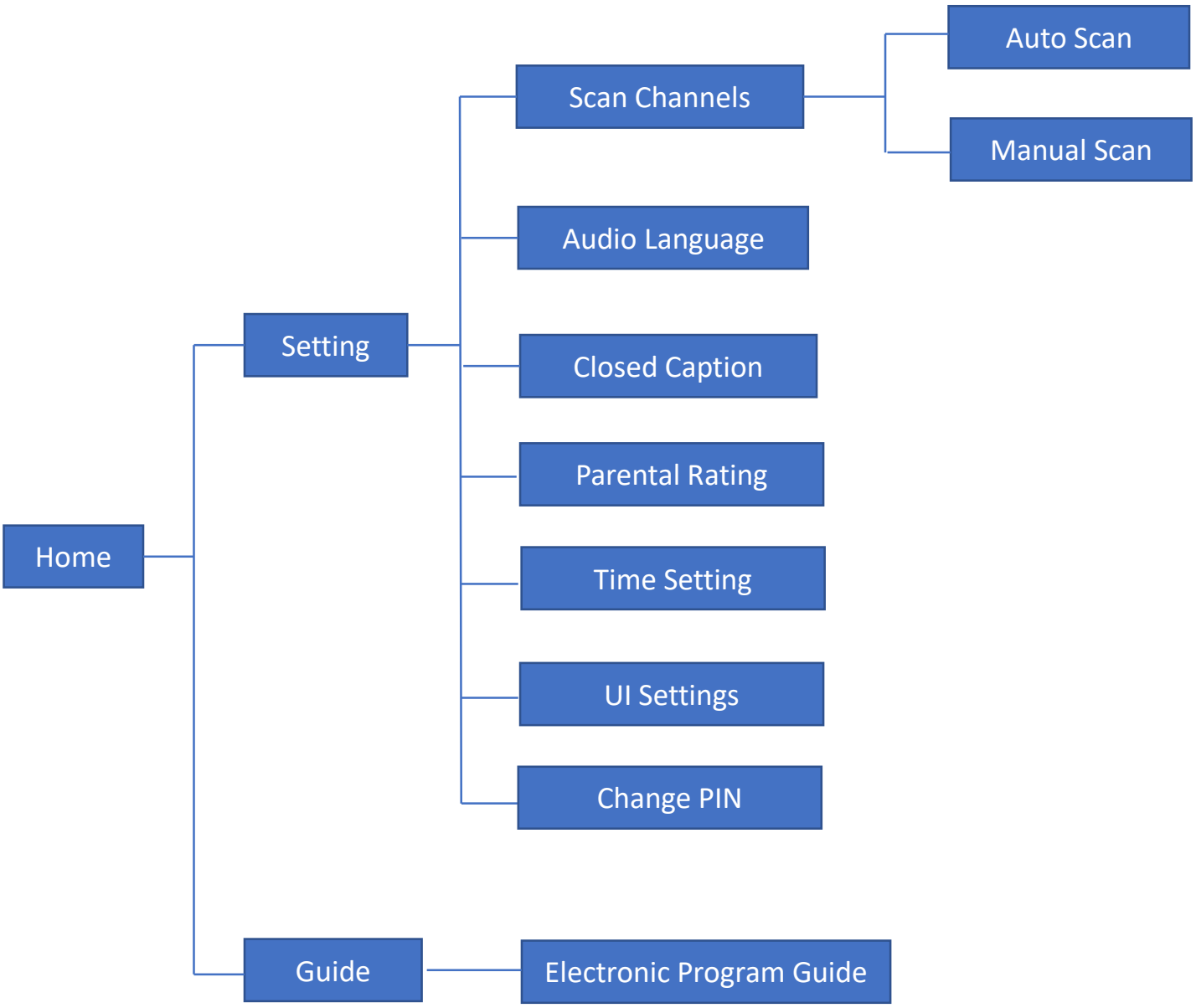
(In order to enhance the Security of your Internet Access, it is recommendable to SET-UP your own Password)

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

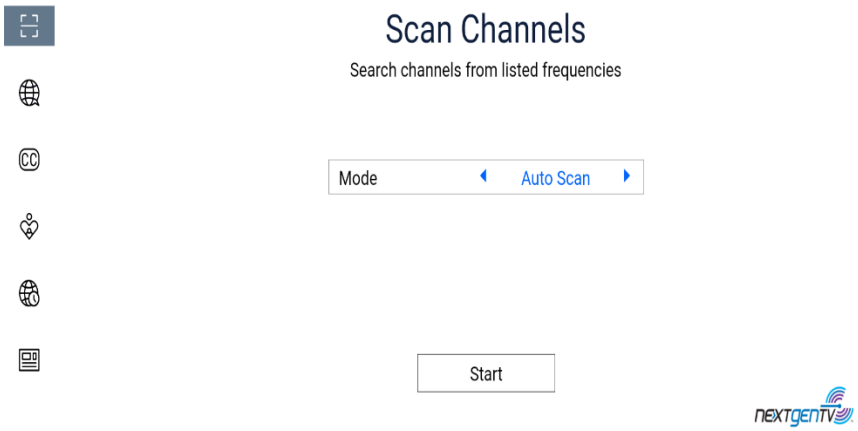
If you wish to change your **Hotspot Name**, use **Cursor Keys** (▲▼◄ ►) on the remote control to **MOVE** to **HotSpot Name** and enter your preferred name.



# 9 Function Overview



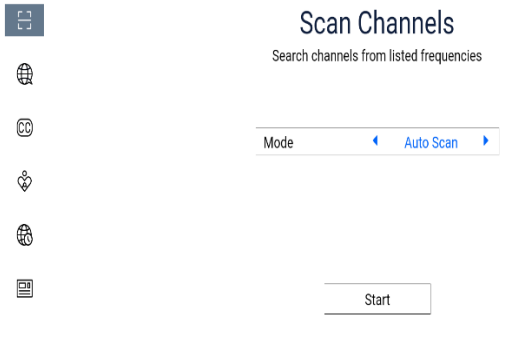
## 9.1 Guide to the Setting System




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**

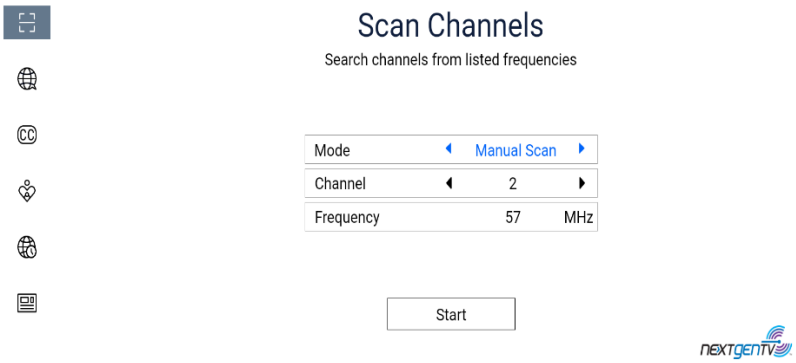
### 9.2.2 Searching for the Available Channels (Manual Scan)

MENU -> Scan Channels ->

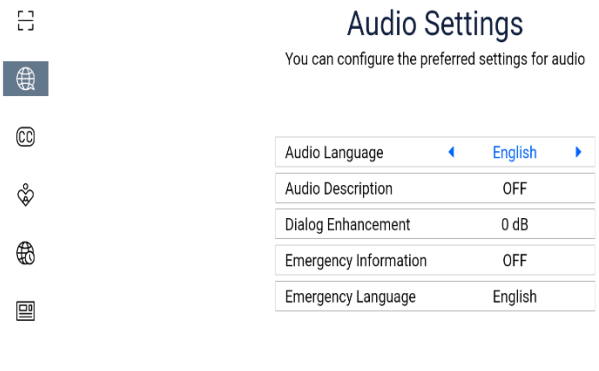
Mode: **Manual Scan** ->

Select Channel Number ->

Press **Start Scanning**



## 9.2.3 Selecting Your Preferred Language for Audio




MENU ->**Audio Language** ->

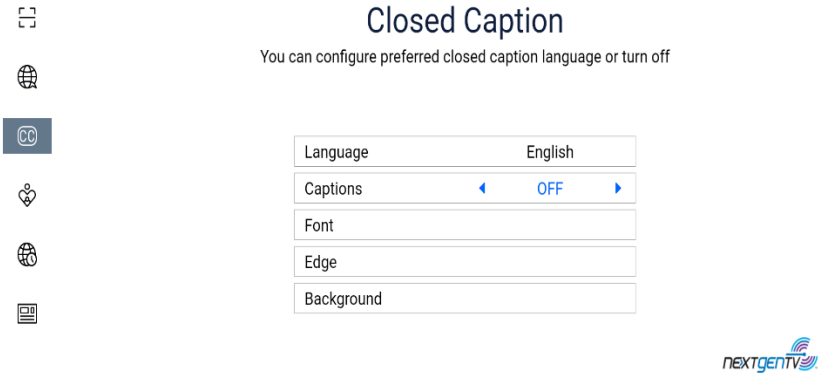
Select your prefer language->

Press **BACK** to confirm

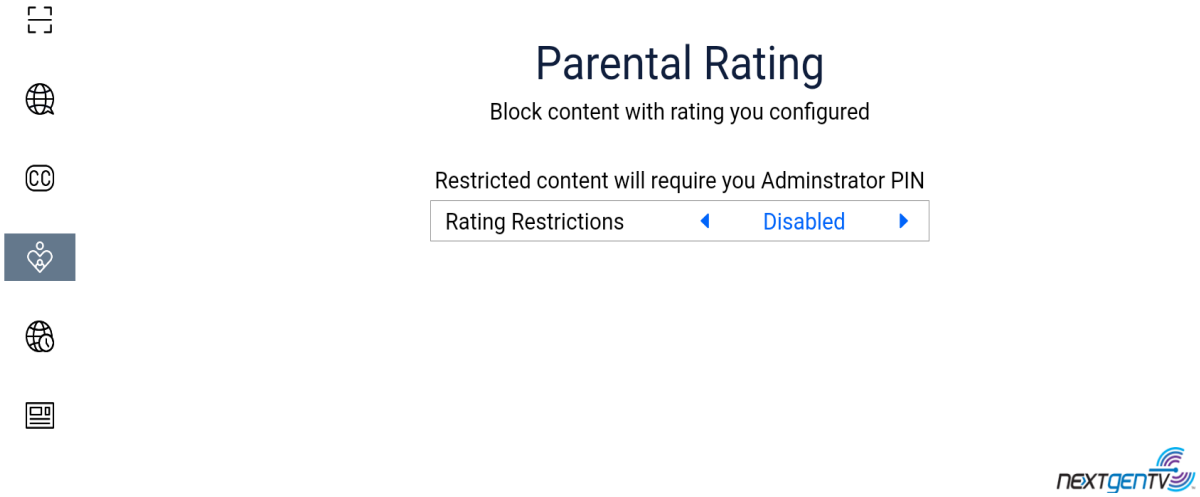
## 9.2.4 Turning Off the Caption

MENU -> Closed Captions->

Press **OK** to confirm



## 9.2.5 Selecting the Parental Rating



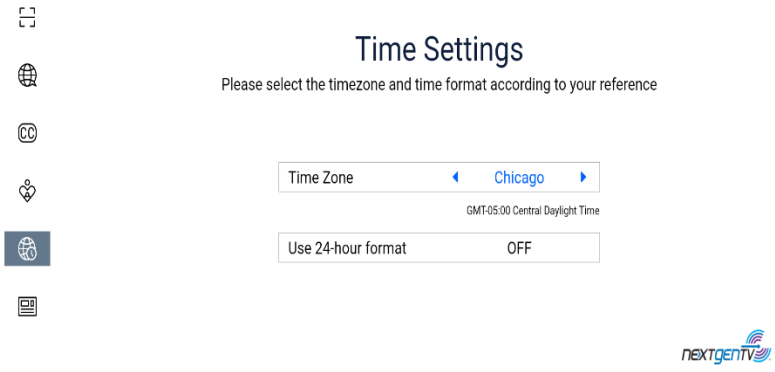

MENU -> Parental Rating (The **Admin PIN** MUST be **ENTERED** before entering the Parental Rating screen (The default password is: 0000) -> Select the Rating Restriction -> Press **BACK** to confirm

## 9.2.6 Time Setting

MENU ->**Time Setting**

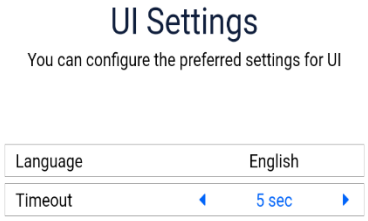
-> Select time zone->

Press **BACK** to confirm

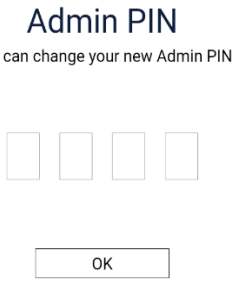


## 9.2.7 Setting the Display Duration

MENU -> Closed Captions -> Select the display duration -> Press **OK** to confirm



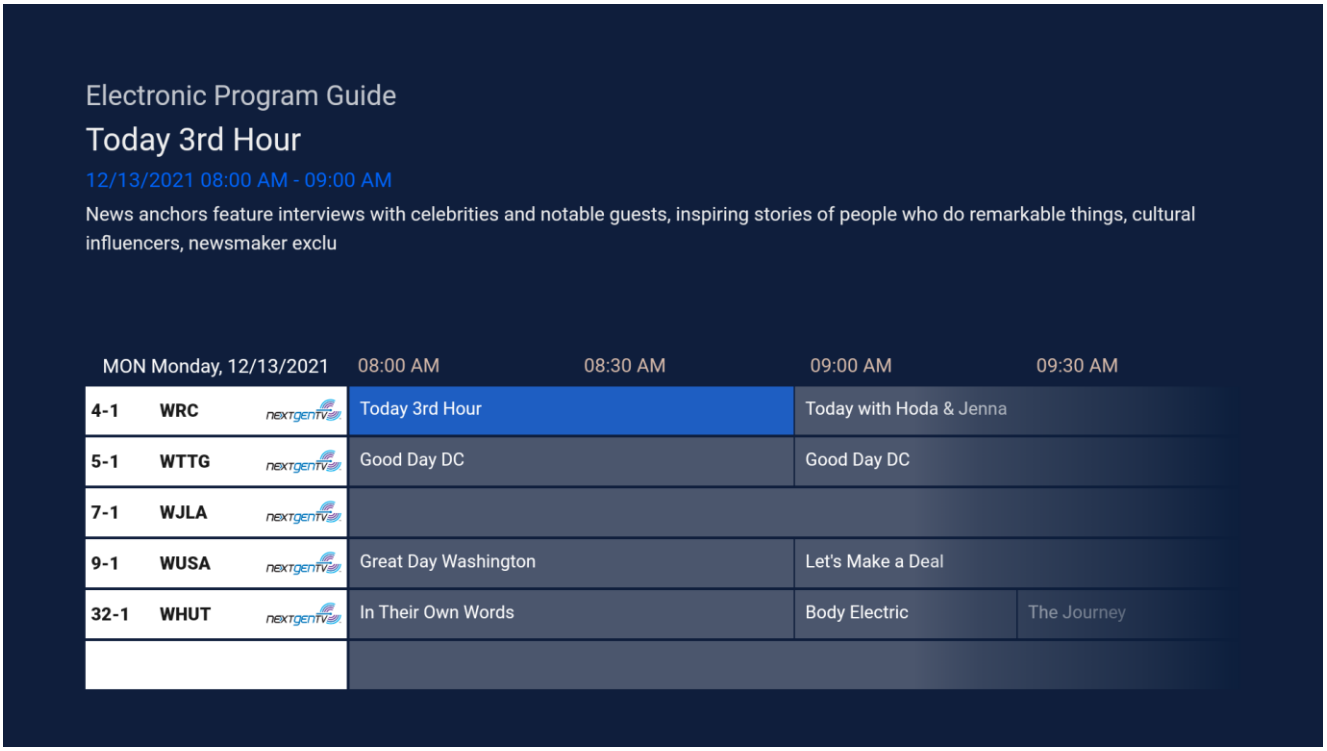

## 9.2.8 Changing the Administrator PIN




(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

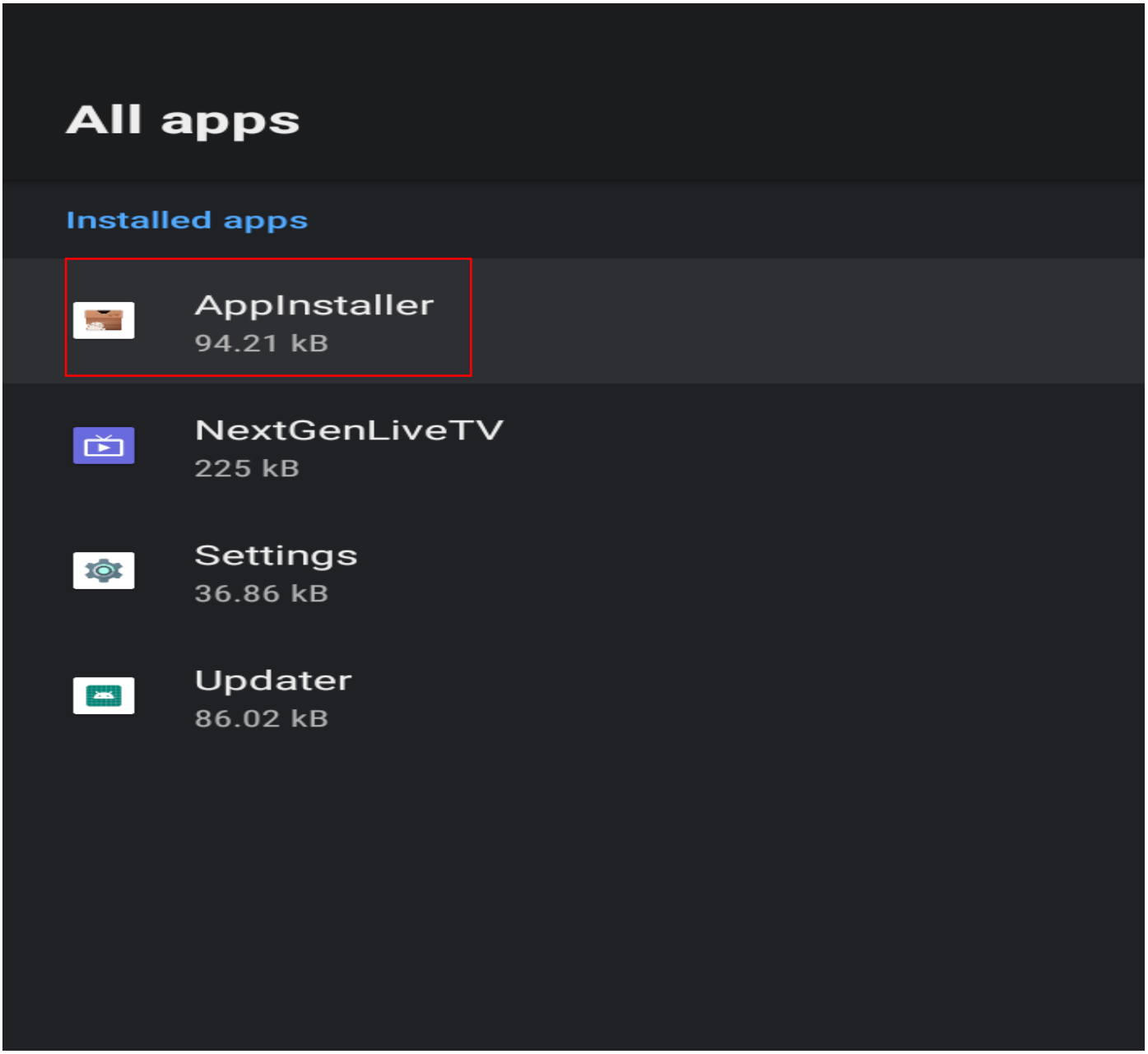



Press Guide on the remote control -> Electronic Program Guide -> Use **Cursor Keys** (▲▼◄ ►) to select the different program blocks for getting the program content introduction.

# 10 APK Installation and Software Upgrading via USB Storage Device

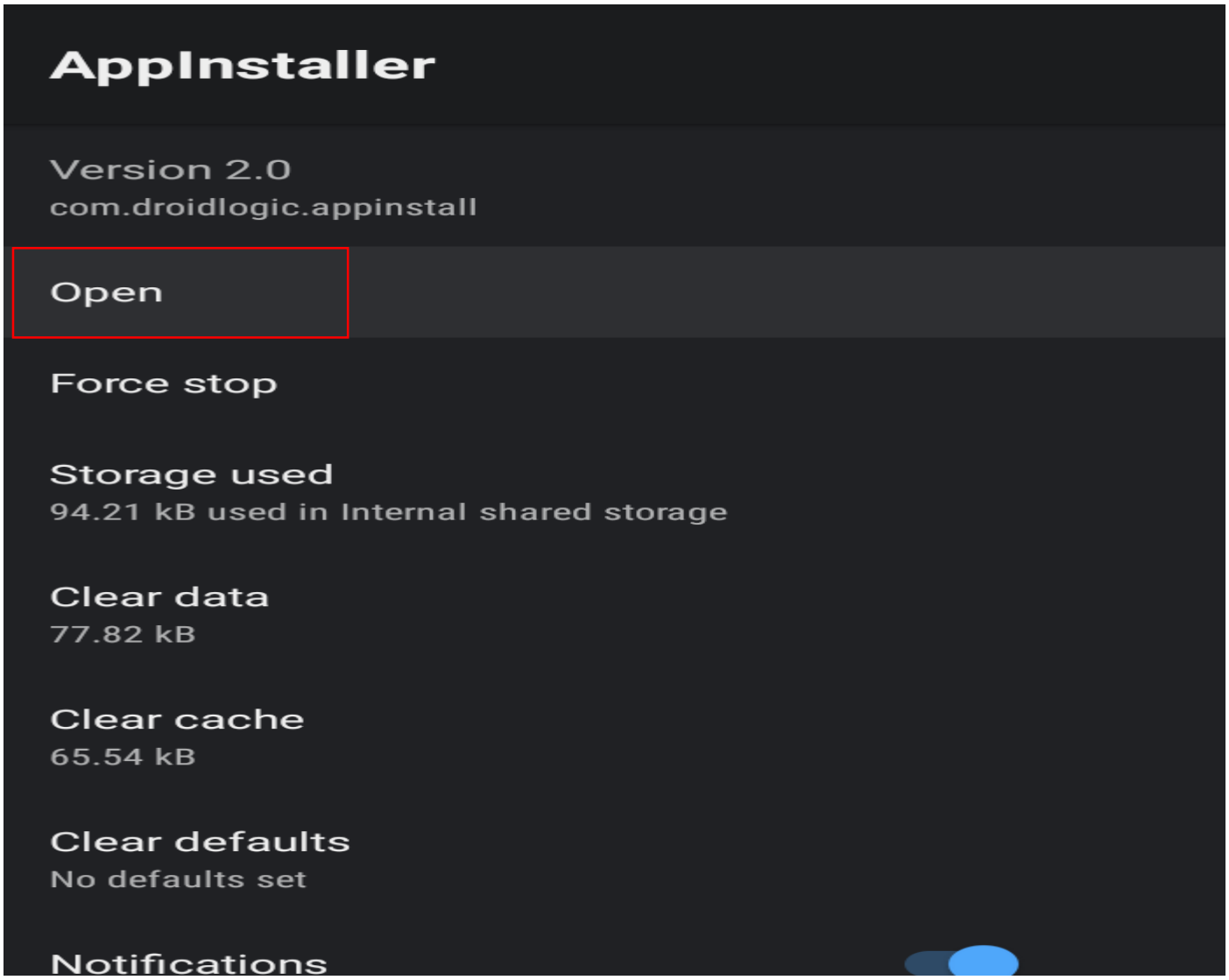
Step 1.

- 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



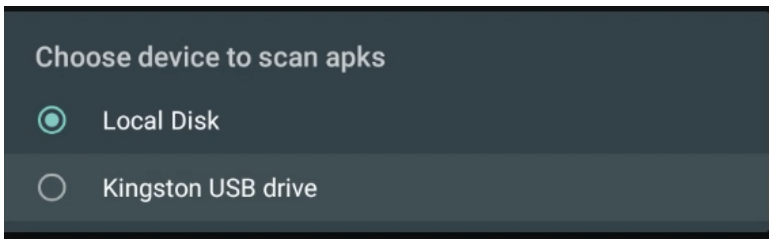
Step 2.

- 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

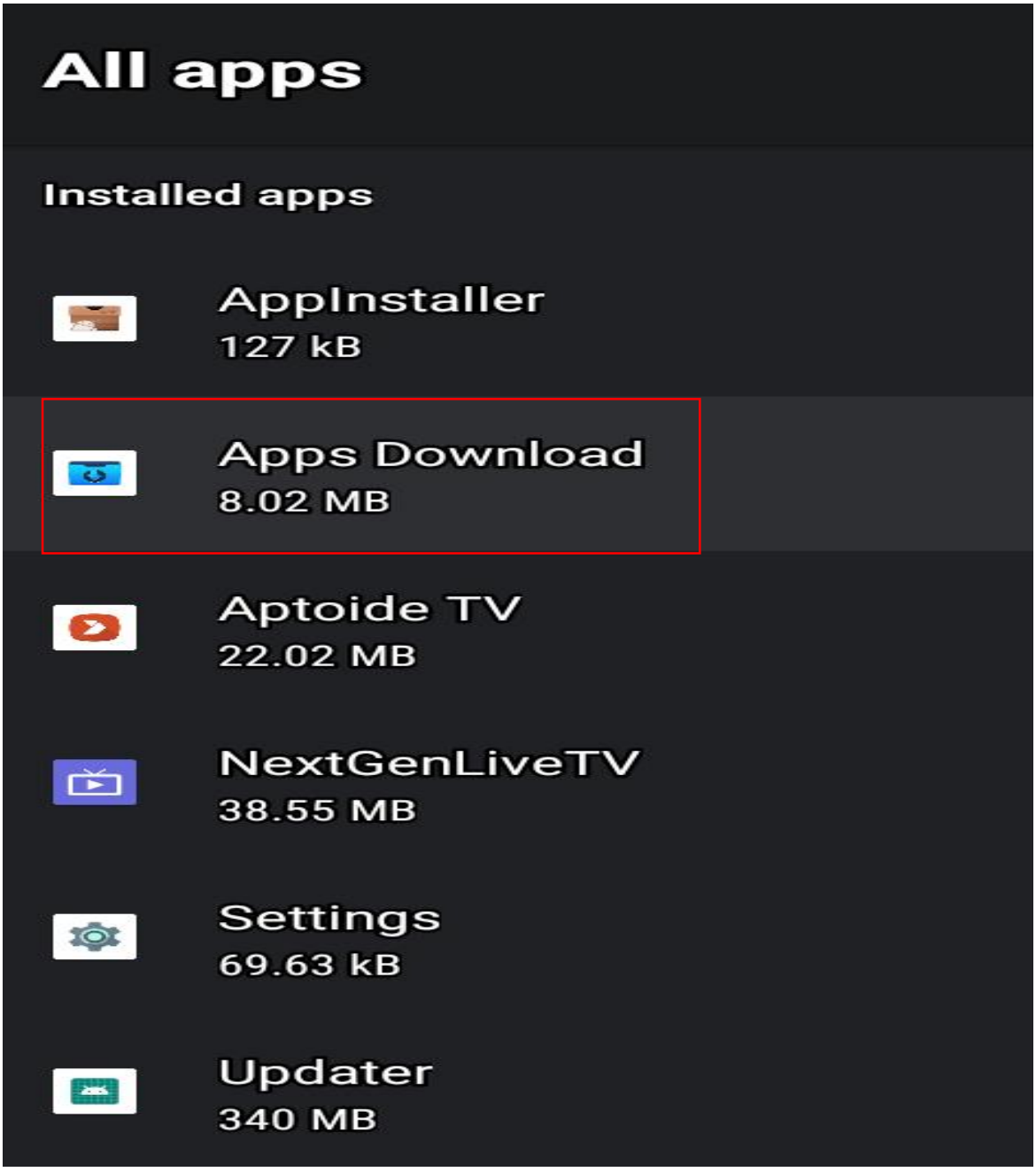
*Before Reading the Instructions

➔ 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

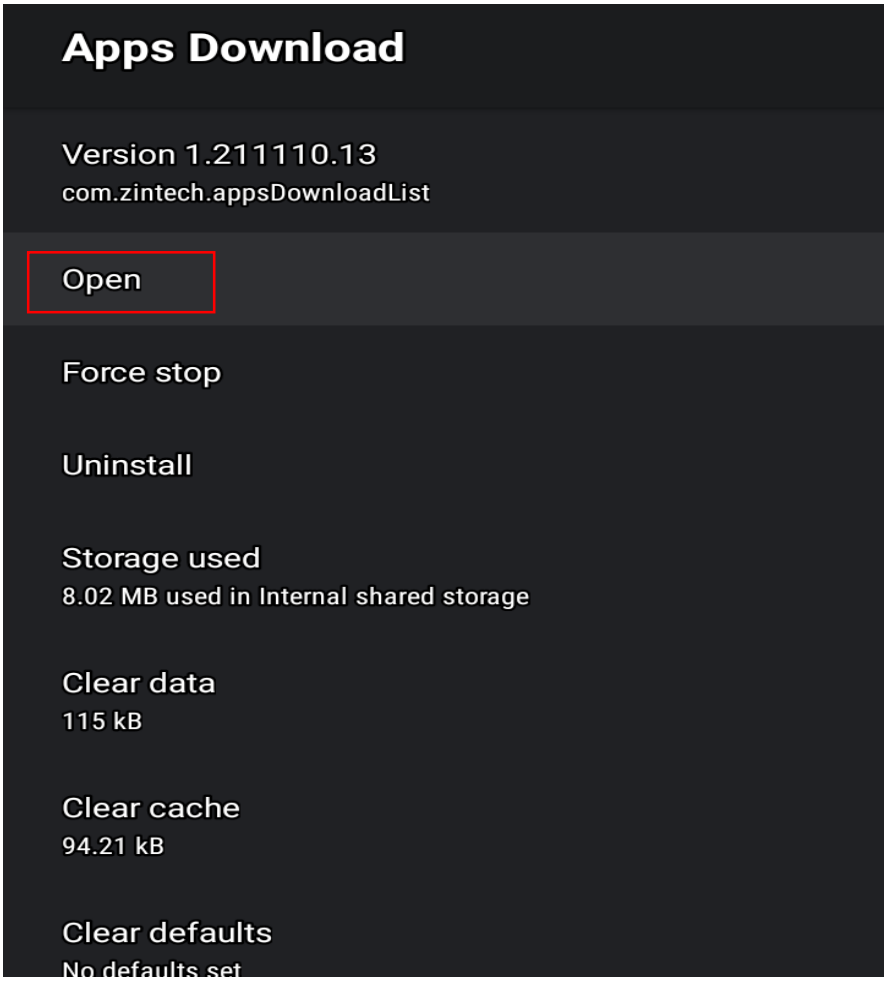
Step 1.

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



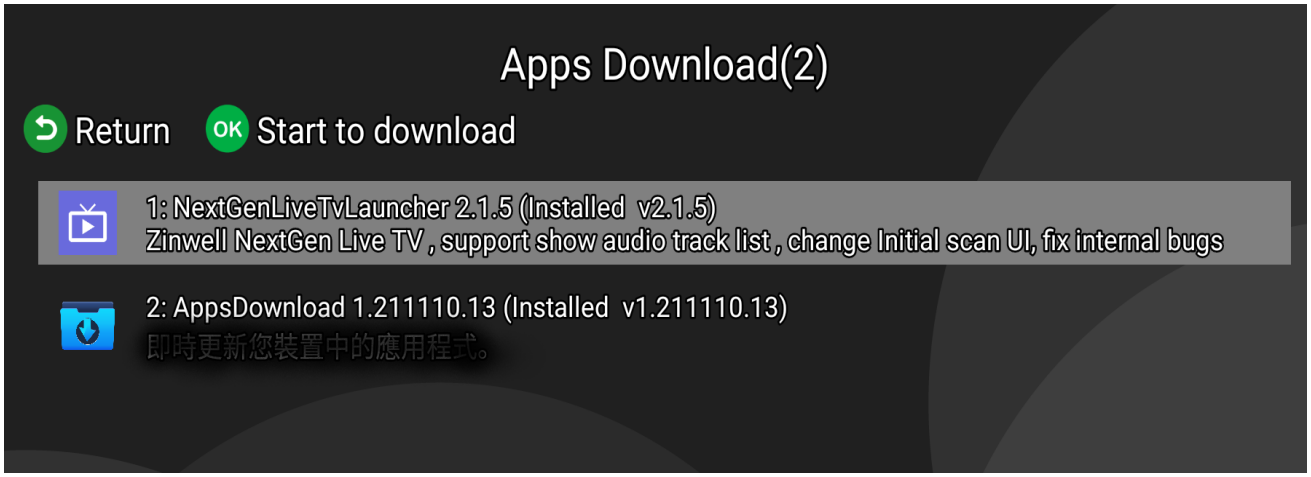
Step 2.

- 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/