User Manual

1. Main Features

* Supports Android **8**
* Supports Google browser, HTML 5 and Flash 10.1-10.3
* Support on-line shopping and Banking portal
* Social media network (Facebook, Twitter, e.t.c.)
* Support application/game installation,import APK files from usb and Google Play
* HDTV / SDTV MPEG-2 / MPEG-4 / H.264 /H.265/ AVS / Divx/2K/4K decoding
* Support 1080P Full HD video decoding
* HDMI2.0 and AV output suitable for any TV and display
* Support USB 3.0 and OTA software upgrade
* Support multimedia MP3, AVI,DAT,MKV,MP4,VOB,(OPTIONAL)RMVB player
* Support side-by-side / top-by-button 3D Video playing

DOWNLOADABLE SOFTWARE

Ferguson has taken every effort to provide for users software with updates in order to ensure that the parameters of the Ferguson Ariva ATV are up to date. Ferguson reserves the right to amend, change or modify the software used in the Ferguson Ariva ATV on any basis and without prior notification. The latest version of the software is available on the website:
http://www.ferguson-digital.eu

Android is a trademark of Google Inc.
Google and the Google logo are registered trademarks of Google Inc.

Please keep in mind that new software may change the functionality of the Ferguson Ariva ATV. Photographs and descriptions included in the instruction manual are for informational purposes only. If you notice an error, please report it – we shall make every effort to have it rectified.

MARKINGS AND SIGNS APPLIED TO THE RECEIVER

Digital videobroadcasting logo.
This logo informs that the receiver conforms to the Digital Video Broadcasting standards.

Risk of electric shock - do not open. This notice warns the user not to open the receiver housing. The housing may be opened solely by authorized service technicians.

When this crossed-out wheeled bin symbol is attached to a product it means that the product is consistent with European Directive 2012/19/EU Please inform yourself about the local separate collection system for electrical and electronic products.

Please act according to your local rules and do not dispose of your old products with your normal household waste. Correct disposal of your old product helps to prevent potential negative consequences for the environment and human health.

Your product contains batteries covered by the European Directive2006/66/EEC which cannot be disposed with normal household waste. Please inform yourself about the local rules on separate collection of batteries because correct disposal helps to prevent negative consequences for the environmental and human health.

Your product is designed and manufactured with high quality materials and components, which can be recycled and reused.

CE logo.
The logo informs that the receiver is consistent with terms and conditions of Directive 2014/30/EU concerning observance by Member States of provisions regulating electromagnetic compatibility, and to the terms and conditions of Directives 2014/35/EU concerning observance by Member States of provisions regulating low voltage electricity and safety with relation to the handling and operation of electrical equipment.

RED Hereby Ferguson Sp. z o.o., declares that the device is conform with the essential requirements and other relevant provisions of Directive 2014/53/EC. You can find the Declaration of Conformity on www.declarations.ferguson.pl This product has been designed, tested and manufactured according the European cE directive 2014/53/EU.

Double insulation logo.
This logo informs that the receiver is an electrically safe device, provided that it is used in accordance with the recommendations set forward in the chapter concerning safety.

Hot surface mark
CAUTION: HOT SURFACE. DO NOT TOUCH. The top surface over the internal heat sink may become hot when operating this product continuously. Do not touch hot areas, especially around the "Hot surface mark" and the top panel.

When this logo is attached to a product, it means a financial contribution has been paid to the associated national recovery and recycling system.

Instructions and video tutorials can be found on:

http://wiki.ferguson.pl/

2. Safety Measures

To avoid electric-shock hazards, do not open the housing, refer servicing to qualified personnel only.

Keep the receiver away from flower vases, tubs, sinks, etc., in order to avoid damaging the equipment.

Do not expose the receiver to direct sunlight. Keep it away from the heat source.
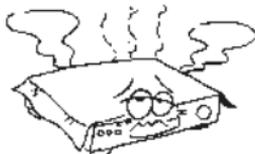
Do not block ventilation holes of the receiver so air can circulate freely.
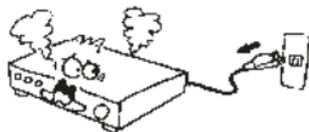
When the abnormal phenomenon occurs you should cut off the power supply immediately.

Do not touch the receiver during thunder, since that might create electric-shock hazards. It is recommended to cut off power supply.

Switch the receiver off whenever it remains out of service for an extended period.

Be sure to turn the receiver off and disconnect the AC power cord before cleaning the receiver surface. If the surface is dirty, wipe clean with a wetted cloth and wrung out thoroughly, then wipe again with a dry cloth.

3. Product Overview

3.1 Rear Panel
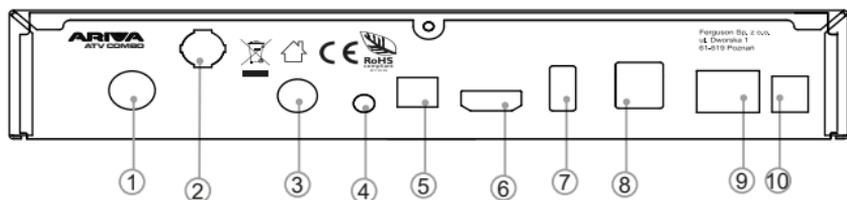
1. Terrestial Input in Combo model or Satelite input in TT model

2. WiFi Antenna

3. Satelite IN

4. AV - for analog devices

5. SPDIF (e.g. for digital amplituner)

6. HD-OUT: for HDMI-IN in TV

7. USB 3.0

8. USB 2.0 (x2)

9. RJ45

10. Power input DC 12V.

3.3 Remote Control Unit (RCU)

You can control this receiver by the remote controller below.

Key	Function
⏻	Standby/On, Standby/Off
🔇	Mute
FAV	Displays the favorite group list
Function	Open to google assistant
SLEEP	Enter into the sleep mode
Resolution	Change custom display format
⏮ ⏭	Moves up/down a page in the list
⏪ ⏩	Press to fast forward or fast backward
GUIDE	Turn on the EPG (electronic program guide)
⏯	Play or Pause
⏹	Stop
⏺	Record
🖱	Switch between the RCU and mouse mode
INFO	Show the media's information
◀ ▶	Menu movement and control
OK	Confirmation of selection
▲ ▼	Menu movement and control
MENU	Press this key one time to run menu on screen
⤺	Return to the previous menu or escape from the menu
⌂	Back Home menu
📺	Open live TV
- VOL +	Volume up and down
- CH +	Change channel
0~9	Enter number of the required menu item or select a channel number to watch
DEL ⌫	Delete the last character before cursor
▪	Input"."

4. Main menu

This document explains how to install the latest software and initial usage after purchasing the prduct.

We have taken screenshots in English in consideration of the global character of this manual, and the captured pictures may be different from the personal environment.

After purchasing the product, connect the TV and Fbox with the HDMI cable, connect the DC power adapter to turn on the power.

When you turn on the Fbox, the following screen appears.
Choose the operating system: Anroid or Enigma2
(the following manual applies to the Android OS)
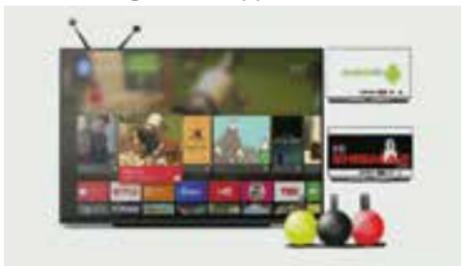
At this time, after change of language you can see "Home Screen".
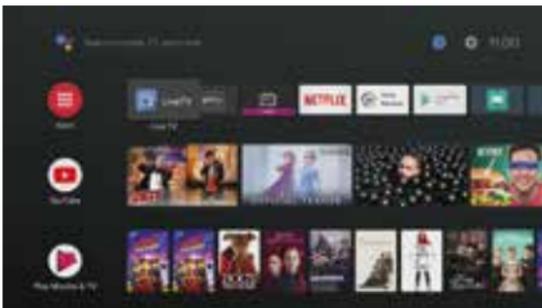
In order to use the product smoothly, start from update of Fbox software.

The wired Internet conection is recommended for smooth use of this product.   The WIFI conection is explained below.

Start screen of Android for TV
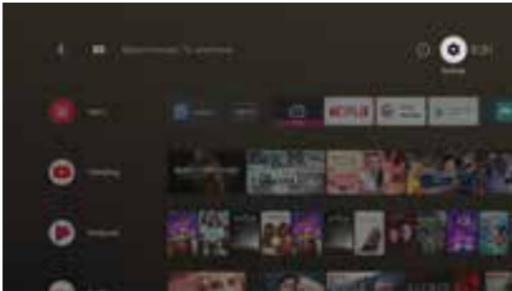
If "ATV Settings" option is selected, the following screen is displayed.
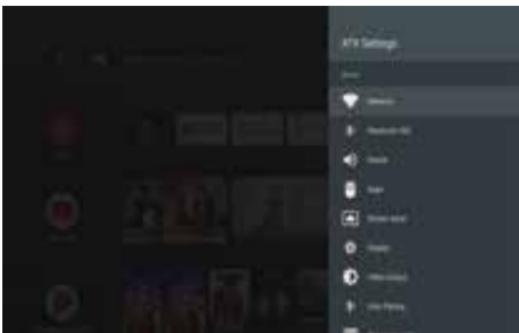
Select "Network" to see network status and its settings.
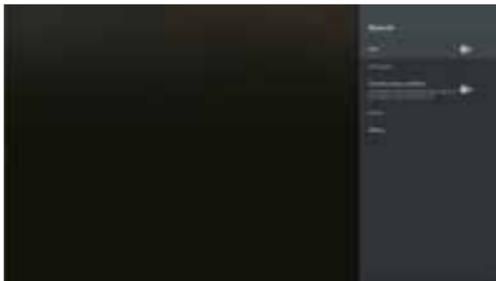
WIFI connection is off by default.
If you want to use WIFI, turn on this function and choose your network.
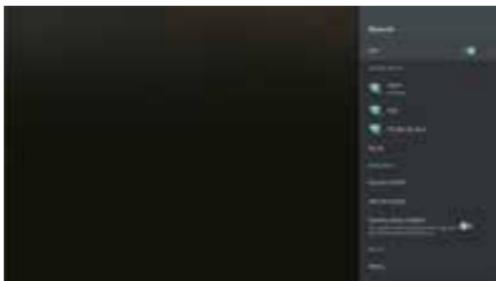
Once the network cable is connected, you can check the IP address as shown in the screen below.
If you do not use WIFI, you do not need to read this section.
When you specify the WIFI Network to use, the Setting page with the password is displayed. Please enter your password.

If you set all the passwords, Press "Connect".

4.1 Upgrading Android to "Full" version firmware by OTA

After setting up the network, proceed with the upgrade to the final firmware. The following menu appears.

Product is pre-configured to factory settings.
After purchasing the product, please upgrade to "Full" version at first.
"Full" version upgrade will erase all personal installation data including "Linux OS"
After installing your aplications, you should install "Normal" version .
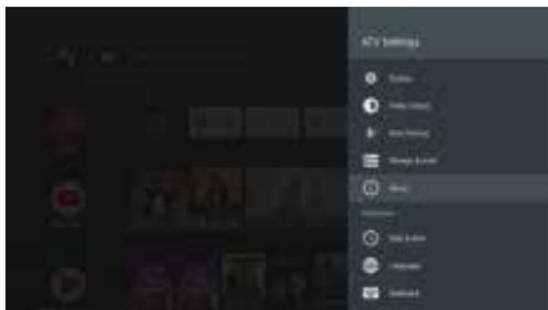
In "ATV Setting" please go to "About" and select "System update" as below.

Please check the "build version" of Android before installation and check with the version information after upgrading.

How to upgrade system.

If you select System update, you will see two items as below:
- "Local Upgrade"
- "Upgrade Online"

Select "Upgrade Online".

There are three upgrade modes on OTA.

After receiving Product, "Linux" item may not appear depending on the status of the product.

In this case, Linux version will be shown when upgrading to "Full" version.

Please select the "Full" version for first use after receiving the product.
This is software that initializes all data and re-installs the system assuming that the user has not installed the app since getting the product.
If you installed your app or you already set up ATV you should use "Normal" Version. "Full" version will erase all your data.

When the download is completed as shown below, the ATV will reboot automatically and the upgrade will start with the downloaded image.

After the download is completed, the Upgrade System UI appears.

Select "OK" and confirm.

The following screen will change to Android Software upgrade mode.

When the process is completed, ATV will proceed with the reboot.

Compare the "Build" version that you remembered in the "About "section before upgrading.

You have now upgraded your system.

Set up your local / personal user environment before using the product.
Once you have completed the basic upgrade, proceed to the following basic configuration.

4.1.1 Change the language settings

Since the ATV is being sold globally, ATV is basically installed in English as the default language firmware.
Please change the language according to the following items.

ATV Setting -> Preferences -> You need to change your language through the Language item.

If you have specified your language, proceed to the next step.

4.1.2 Register your Google account

By default, the Android for TV system requires an account registration through a Google account in order to use Google Play and Google services. If you do not have an account, please register it.
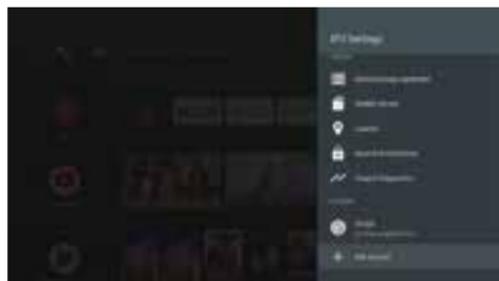
ATV Setting -> Accounts -> Click the "Add account" button and the following menu will appear. Example: if you select Google, you can register a Google Account.

Please register your Google account.

The virtual keyboard currently displayed. Enter the e-mail address and password using the arrow keys on the remote control. If you enter your login and password, your personal e-mail will be required as below.
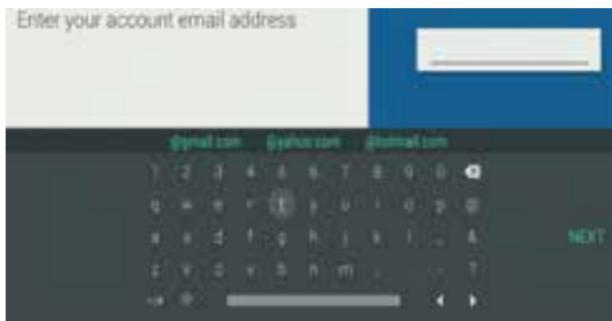
You have successfully registered your Google Account.

3.2 Installing the user environment

3.2.1 Favorite app registration process

When using the Home Launcher, the main application and user application are listed in the middle of the screen.

There are applications to go to the app that you frequently use with the remote control. If you want to change the order of this app, place the cursor on the desired application, press "OK" key for 3 to 5 seconds.
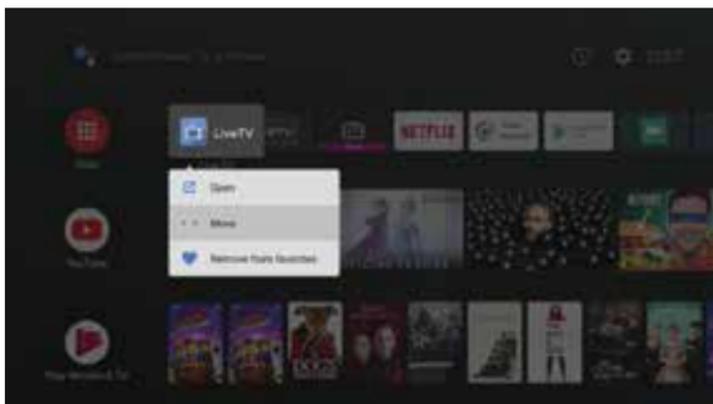
Please select an aplication icon that you want to move, place the icon to desired location. Press the "Done" button.
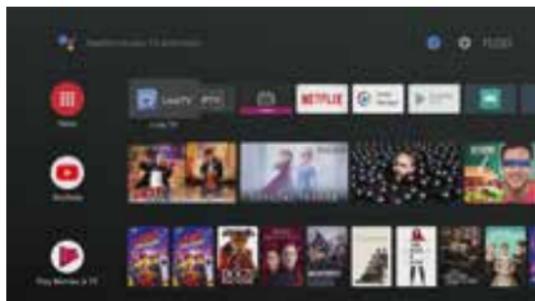
Check the moved icon in the home menu.

Initially, the list of icons will only appear as a single line, but if more apps are added, they will be automatically converted to 2 or 3 lines.

You are now roughly finished with the default settings. It is time to install the default app you need.
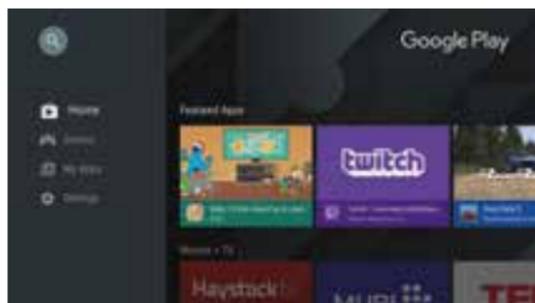
The Android for TV differs from the Google Play in general Android Google Play.

So, the fact that some regular mobile Android app does not work in ATV is normal. To complement that you can not find mobile Apps in ATV Google Play, we provide "Aptoid". This is a backup app to replace the Google Mobile App Store.

Live TV
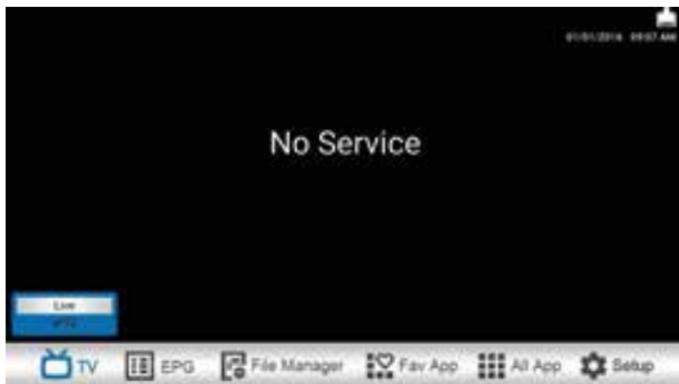
Press "Menu" button to   use LIVE TV menu.

TV

        Live TV: To watch Live TV

        IPTV: m3u/cfg IPTV channel player.

EPG

        Multiple: Multiple EPG Guide

        Single: Single EPG Guide

File Manager: To manage files on USB/SD card, Network

Fav App: Favorite App list.

All App: Android App list and Register Favorite App list

Setup

        Config

        Network

        Misc

        System

Service Scan

Terrestrial (DVB-T)

Home > Setup > Config > Service Scan

    1. Search Mode:

- Auto Scan: Auto-scanning based on broadcasting type & country.

- Preset Scan: Scan by pre-programmed Mux information

- Manual Scan: Scan by manual Mux information

    2. Broadcasting type (your Antenna type)
- Terrestrial/Cable: check a signal where you get
    3. Country: Select a country where you are located
    4. Filtering option: TV/Radio,
    5. Press Red button to scan
    6. After scanning channels, press "Exit" button, then channel will be stored
    7. Go back Live TV menu and enjoy Live TV channels

Satellite

1. Search Mode:

- Blind Scan: Scan by tuner input signal

- Preset Scan: Scan by pre-programmed TP information

- Manual Scan: Scan by manual TP information

2. Select Satellite for scanning

3. LNB Type: Select LNB that you are using

4. Switch: Select proper switch for antenna.

5. Press Red button to scan

6. After scanning channels, press "Exit" button, then channel will be stored and go to Live TV to enjoy Live TV channels

Live TV

1 Channel list

Press "OK" on RCU, You can manage channel list

1) Sort

In channel list, press "Menu" button, you can sort channels

By Numbering
By Alphabet
By FTA (Free to Air)/Scrambled
By Frequency

2) Favorite List

In channel list, press "Fav" button, you can make Favorite channel list.
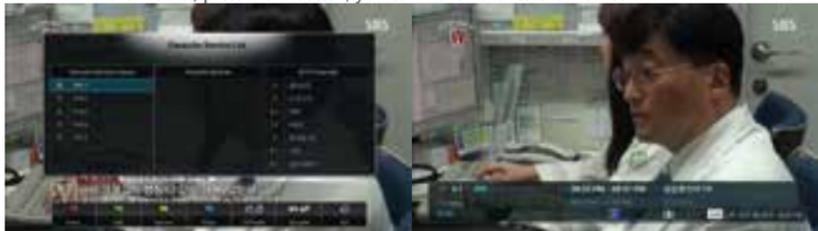
Move to All services and select channel to put Favorite List.

And you can rename FAV1~ FAV5 to other name.

After select FAV1 mode, you can keep on FAV list mode.

When you press "Info" button on RCU, you can see information for LIVE TV channel.

Popup Menu in Live TV

Press Menu button in LIVE TV mode. Then you can see Popup Menu

1. Timer List

2. Recording information

3. Tuner information

4. Color setting

Timer List

- Press Green button to add Timer
- You can select "View" or "Record"
- Set channel/time/duration/storage to record channel or change channel
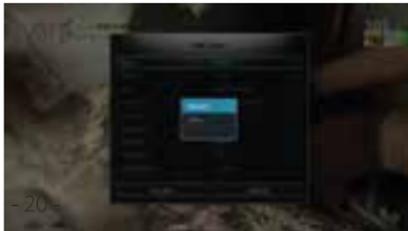
Color Setting : you can adjust color

Sleep Timer : you can set sleep timer

PVR

To record channel, On live mode, press " " button then you can see recording menu

Select option like duration, storage device. Then press "Accept" button then will start recording.

It will record on staorage Device.

To stop recording press "●" button

Time Shift

To use Time shift function, you need to designate storage.
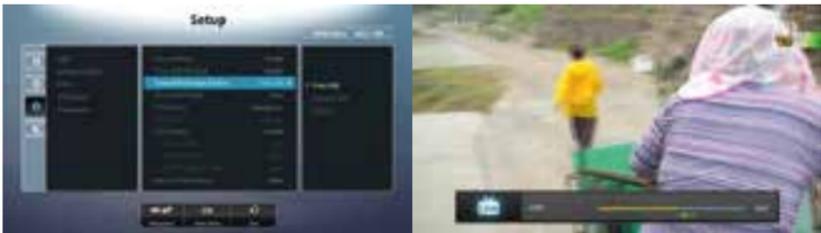
Enable Time Shift

Designate Storage device.

After setting Time shift function,

To use time shift function, in Live TV mode, press "▶❙❙" button then you can enter time shift mode

In time shift mode, you can use ◀❙ ❙❙ ❙▶ ● button to control for Timeshift feature

Closed Caption

To activate Closed caption, press "Blue" button on RCU when you see CC mark in information bar

Or use Popup menu after press "Menu" button on RCU

Audio Sound

When you have multi Audio sound track, then you can see Green Sound mark.

Press Green button on RCU and change sound track.

File Manager

You can manage files.

Setup

Config

Language

Change your language

Time

You need to set up your local time.

Select your time zone.

A/V output

HDMI Resolution: changing/Select HDMI output resolution.

Screen Size Setting: Adjust OSD screen size.

Color Setting: Adjust color for your TV

Aspect Ratio: Adjust Aspect for your TV**.**

Network

WIFI: setting your WIFI network environment

Ethernet: setting your wire internet environment

3G: setting your 3G Dongle internet environment

Misc

OSD

Help Box Display: Help box On/OFF flag

EPG Help Display: EPG Help box On/OFF flag

Local Channel Number: LCN(Local Channel Numbering) On/OFF

Access Control

PVR

Time Shifting: On/Off

Time Shift Warning: warning message On/Off

Time Shift Storage Device: storage device selection

Time Shift Period: To adjust timeshift period

File Player

Resume Play

Automatic play for Next

Filter Default

Skip Left/Right contents

Skip Up/Down contents

System

Firmware

Information: firmware Information

Upgrade: To upgrade firmware

Backup

Backup CH DB: To backup channel Database

Restore CH DB: To Restore channel Database

Reset

Reset CH DB: To reset channel Database

Factory Reset: To reset all data include Android part

System Upgrade

1.1 From Android Setting menu.

Prerequisite

1) Copy Update.zip into your USB memory stick.
2) Insert USB memory stick on USB slot

Android System Upgrade

Select "Setup ➔ System ➔ Upgrade ".

Select D: (Drive).
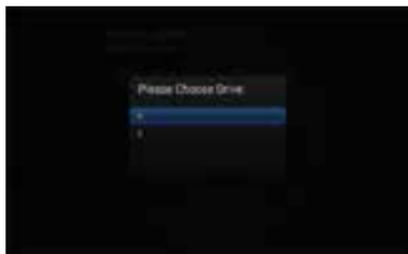
Upgrading procedure will start after Rebooting.

5. Linux Basic User's Guide

If you want to use Linux OS in , you need to get system images of Linux OS. Downloading of the Linux OS images is similar to upgrading an existing Android Firmware.

5.1 How to upgrade Linux Firmware by OTA

ATV Setting -> About -> System Update -> Select "Linux" through the Upgrade Item selection window via the Upgrade Online item.

If you select the "Linux OS" version, the download will proceed through Upgrade Online. You can install the Linux Firmware according to same as Android upgrade method.

5.2 Linux Firmware

Debian Linux image will provide the following applications by default.
1. SSH server.
2. Pure-ftp server
3. Transmission-daemon
4. Plexmediaserver
5. TVH 4.1

1. ssh
Box IP address
Port: 22
ID: root
Password: root / androidoverlinux

There are many ways to connect to an SSH server. Here is how to access Linux via Putty. After starting the Putty, enter the IP address and press the "Open" button to access Linux OS.
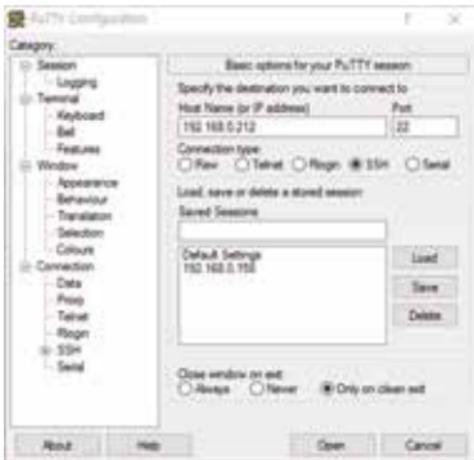
Check Linux with Android Apps(JuiceSSH)

Box IP address: 127.0.0.1
Port: 22
ID: root
Pass: root / androidoverlinux

The JuiceSSH app is installed by default on the Android.

After running the app, you can add your account by clicking on the top right lightning mark. If you put "root@127.0.0.1" in the server information to connect, it connects to the Linux SSH shell.

Enter your ID and password as instructed above.
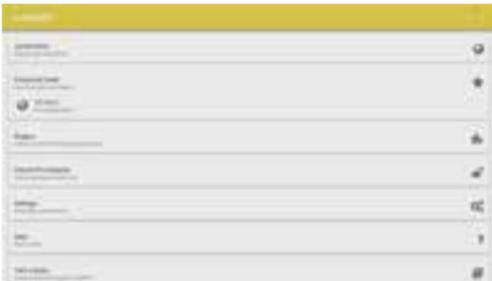
After logging in, You can see the cursor in Debian.

5.3 pure-ftpd
Box IP address
Port: 21
ID: admin
Password: admin / androidoverlinux

You can access shared ATV folder with FTP server by putting IP address
and User ID / Password through common FTP program on your PC.

5.4 transmission-daemon
http:// Box IP address:9091/
ID: admin
Password: admin / androidoverlinux

To configure the Transmission server, run the Chrome browser on your PC.
Type in "http: // Box IP address: 9091" to access the Transmission server.

5.5 Plex Media Server
http:// Box IP address:32400/web
Here is how to proceed a simple installation Plex Media Server.

To set up your Plex Media Server, run Chrome browser on your PC. Please check the IP
address of the ATV and write "IP Address: 32400 /web" in the address bar. If you
are not registered with Plex media server, please register at the site.
Registration for the Plex Media Server account is free, and you can use features with
free version.

Once you have registered your account, enter your username, password and log in.

When you log in, you can see the first screen as below.

You can modify the name of the ATV-Debian Plex media server.

Add a library to the Plex Server. If you click Additional Libraries, you can add Libraries of files by dividing it into: Movie, TV Shows, Music, Photo as shown below.

In case of external USB or HDD - Fbox ATV will mount them like SDA1, SDB1, e.t.c.
In your PC "USBDevice", it is shown as USB1, USB2, e.t.c., so you can add your favorite library.
If your media folder is not ready yet, you can just skip this part.
You can connect an external data storage to be used for the media server at a later time.

This manual assumes that there are folders where media files are gathered.

Once you have added all the libraries, click the "Next" button and you will get the information about various media files as below and configure the media library. Now that you have configured your Plex Media Server, you can use it on your Android for TV.

If there are a lot of media files after the setting, the system will use a lot of resources to receive various data, so   box may slow down.

SPECIFICATION

- Main Chipset: HiSilicon HI3798C V200 up to 1.6GHz, Quad-core
- CPU Architecture: ARM Cortex A53
- GPU: ARM Mali T720 (OpenGL ES 3.1, 3.0, 2.0, 1.1 and OpenCL 1.1)
- SDRAM: 2GB DDR3 SDRAM
- Storage: 16GB eMMC *

TUNER DVB-S2
- Input Connector: F-Type Female • Frequency Range: 950MHz to 2150MHz • Signal Level: -25 to -70dBm
- LNB Power & Polarisation: Vertical: +13.5V ± 0.5V Max 250mA; Horizontal : +18.5V ± 0.5V Max 250mA
- 22KHz Tone: Frequency : 22KHz ± 4KHz, 0.6Vp-p ± 0.2Vp-p • Diseqc Control: Version 1.0, 1.2, USALS Compatible
- Demodulation: QPSK & 8PSK • Input Symbol Rate: DVB-S : 1 ~ 55Mbps / DVB-S2 : 1 ~ 45Mbps

TUNER DVB-T2/T
- Antenna Input/Output Connector: F-Type Female or IEC Female • Frequency Range: 52MHz to 866MHz
- Signal Level: -25 dBm to -80 dBm • IF Frequency: Low IF 3 ~ 60 MHz
- Mode: DVB-T2/T, QPSK, 16QAM ~ 256QAM • Bandwidth: 6 MHz, 7 MHz, 8 MHz, 1.7MHz(Possible to use with Low IF)

MPEG TRANSPORT STREAM A/V DECODING
- Transport Stream: ITU-T H.265/HEVC & H.264, ISO/IEC 13818-2 MPEG-2, AVS&AVS+, VC1, VP6, VP8, VP9
- Profile Level: ITU-T H.265 Main 10 Profile@L5.1 high-tier, MPEG-2 MP@HL
- Input Rate: Max. 160Mbit/s (H.265) • Video Format: 4:3, 16:9, Letter Box, Pan&Scan
- Video Resolution: 10bit, Up to 4096x2160px@60fps, HDR 10 Support
- Audio Decoding: MPEG I&II, MP3, Dolby True HD & Digital Plus, AAC-LC, HE-AAC V1/V2
- Audio Mode: Stereo/Mono/Left/Right/Exchange • Bluetooth: 4.0 + EDR
- HDMI: HDMI 2.0a TX with HDCP 2.2, 4K 10bit UHD @60Hz up 4096x2160px, 1080p/i, 720p/i, 576p/i, 480p/i
- Ethernet: RJ45 10/100/1000M Ethernet interface • Wi-Fi: DualBand 2,4/5GHz 802.11a/b/g/n/ac
- USB: 1x USB 3.0 port, 2x USB 2.0 port
- Ports: AV, HDMI 2.0a HDCP 2.2, HDCP1.4, USB 2.0, USB 3.0, S/PDIF,
  LAN 10/100/1000Mbit, DC 12V/3A, DVB-T/T2/C, DVB-S2, Smart Card Slot,
- Software: Dual OS Android TV 8 and Linux Debian or Enigma 2
- Video Support: HDTV, SDTV MPEG-2, MPEG-4, H.264, HEVC/H.265, AVS, Divx 2K/4K decoding
- Video Formats Support: MKV, MP4, WMV, MPG, MPEG, DAT, AVI, MOV, ISO, others via applications
- Video Containers Support: MKV(h.264, HEVC/h.265), WMV, MP4, RM, RMVB, TS, AVI, VOB, MOV (h.264,HEVC/h.265),
  ASF, 3GP, others via applications
- Audio Support by passtrough: AC3/Dolby Digital 5.1, E-AC/Dolby Digital +5.1, Dolby Digital +7.1, TrueHD 5.1, TrueHD 7.1,`
  Dolby Atmos 7.1, DTS HD Master, DTS High Resolution, DTS X
- Audio Containers Support: MP3, WMA, WMA, AAC, OGG, OGA, FLAC, ALAC, others via applications
- Input Voltage: AC 90~250V, 50/60HZ, DC 12V/3A
- Power Consumption: Depends on the components use (HDD, others)
- Power Consumption in Standby: ≤ 0.5W
- Storage Temperature: -10~70℃
- Operating temperature: 0~45℃
- Humidity: <95%

* The pre-installed system, system recovery and applications occupy a part of the device's internal memory