HP3564H DVB-T/T2 HD IRD User Manual

Catcast Technology Co., Ltd. (Chengdu)

About This Manual

Intended Audience

This user manual has been written to help people who have to use, to integrate and to install the product. Some chapters require some prerequisite knowledge in electronics and especially in broadcast technologies and standards.

Disclaimer

The contents of this document are subject to revision without notice due to continued progress in methodology, design and manufacturing. Catcast shall have no liability for any error or damage of any kind resulting from the use of this document.

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DIRECTORY

Chapter 1 Product Outline

1.1 Outline

HP3564H HD IRD is Catcast's all-in-one device which integrates demodulation, de-scrambler, re-mux and decoding in one case to convert RF signals into audio/video (CVBS/YpbPr/HDMI/SDI) output.

It is a 1-U case which supports 2 tuner inputs to receive signal from terrestrial. The two CAMs/CIs accompanied and BISS modules can descramble the programs input from encrypted RF, ASI and IP.

Its pluggable structure design greatly facilitates the change of modules (demodulator or decoder) as needed.

To meet customers' various requirements, HP3564H is also equipped with ASI and IP input for re-mux, and output with 2 ASI ports and IP port.

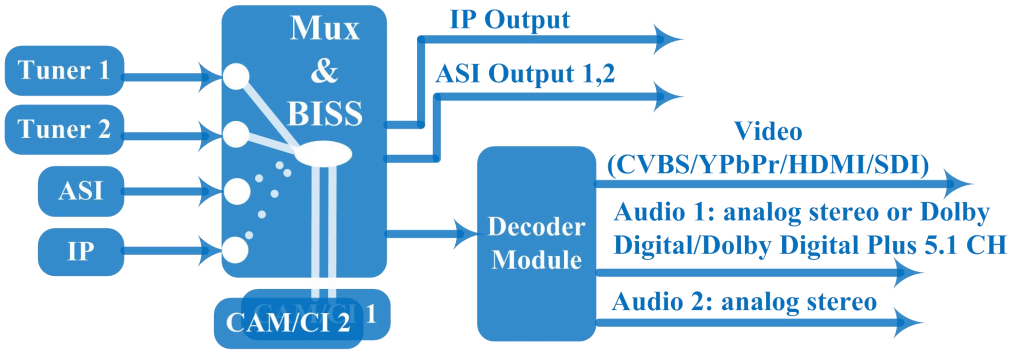
1.2 Features

- **Demodulation + descrambler +re-mux+decoder modules in one box**
- **2 DVB-T/T2 Tuner inputs**
- **1 ASI & 1 IP (UDP) input for re-mux**
- **One CAM can decrypt multiple programs from Tuners/ASI/IP**
- **Support BISS descrambling (Up to 120Mbps)**
- **Support MPEG2 and MPEG4 AVC/H.264 decoding**
- **Dual channel stereo audio output, or one channel Dolby Digital/Dolby Digital Plus (5.1) channel output (for HDMI/SDI out)**
- **Support Dolby Digital/Dolby Digital Plus Decoding and passthrough**
- **IP (1 MPTS & 8 SPTS) over UDP and RTP/RTSP output; ASI out**
- **Support CC and Subtitle**
- **Support maximum 128 PID mapping per input**
- **Pluggable and changeable demodulator and decoder modules**
- **LCD display, Remote control and Firmware, web NMS management**
- **Updates via web**

1.3 Specifications

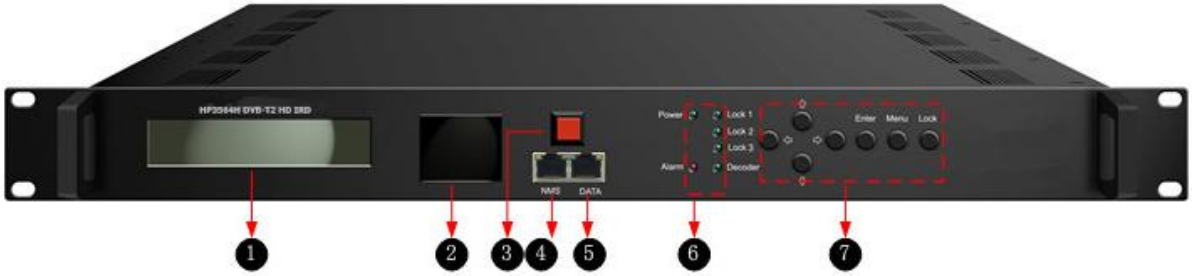
Input	
2 x Tuner, F type	
1×ASI input for re-mux, BNC interface	
1xIP input for re-mux (UDP)	
DemodulatingSection	
DVB-T/T2	
Input Frequency	30MHz ~999.999 MHz
Bandwidth	6/7/8 M bandwidth
Descrambling	
CAM/CI Quantity	2
BISS Mode	Mode 1, Mode E; up to 120Mbps
Output	
IP Output	1*MPTS& 8*SPTS over UDP, RTP/RTSP. 100Base-T Ethernet interface(unicast / multicast)
2×ASI	BNC interface, mirrored out
Decode Output	Video Interface: 1xCVBS/YPbPr/HDMI/SDI Video Decode: MPEG-2; MPEG4 AVC/H.264 Resolution: 480i, 480p, 576i, 576p, 720p@50/59.94/60, 1080i@50/59.94/60 Chroma: 4:2:0 Audio Interface: 2 x Stereo/4xmono, HDMI, SDI Audio Decode: MPEG 1 Layer II, LC-AAC, HE-AAC, Dolby Digital/ Dolby Digital Plus Audio Output Mode: Left, Right, Stereo, 5.1 CH (for HDMI/SDI out only)
System	
Local interface	LCD + control buttons
Remote management	Web-server Management
Language	English
Upgrade	USB, web management
General	
Power supply	AC 100V~240V
Dimensions	482*300*44.5mm
Weight	3.5kgs
Operation temperature	0~45℃

1.4 Principle Chart



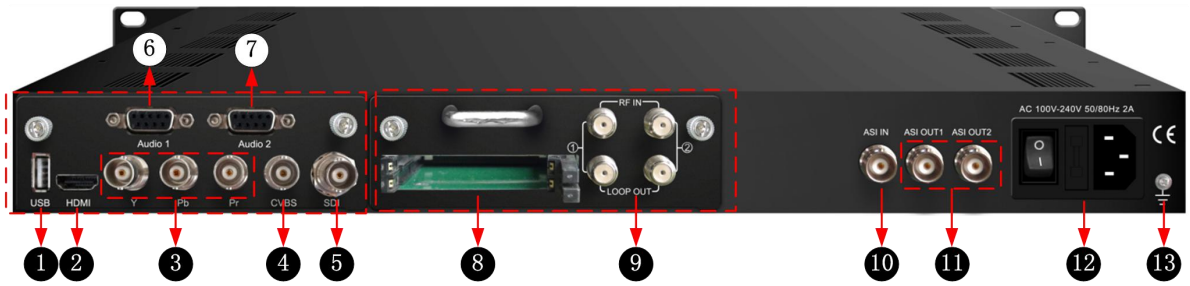
1.5 Appearance and Description

Front Panel Illustration:



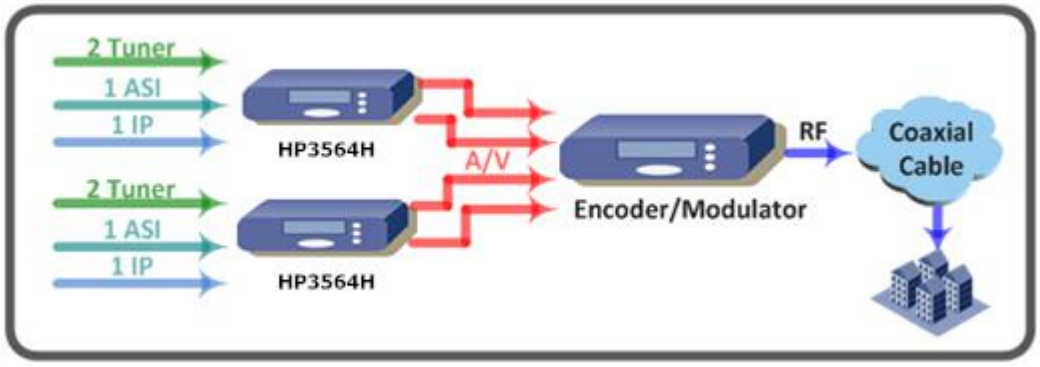
1	Monitor LCD display for device control and configuration
2	Mini LCD TV for decoding
3	Mini LCD TV power switch
4	NMS Port (for PC connection)
5	DATA Port (for IP stream input &output)
6	Indicators Area (Lock 1&2: to indicate RF input signal lock status; Lock 3:to indicate the IP or ASI signal Lock status; Decoder: to indicate the decoding status)
7	Up/Down/Left/Right Buttons
	Enter Key
	Menu Key
	Lock Key

Rear Panel Illustration



Decoder Board	1	USB upgrade port
	2	HDMI video/audio output
	3	Component video output (YPbPr)
	4	Composite video output (CVBS)
	5	SDI video/audio output
	6	Analog stereo audio out 1 (R/L)
	7	Analog stereo audio out 2 (R/L)
Tuner Receiving Board	8	CAMs /Smart card slots A & B
	9	RF signal input and loop-through 1 & 2
	10	ASI input Port for re-mux
	11	ASI mirrored output ports
	12	Power switch/Fuse/Socket
	13	Grounding Wire

1.6 System Connection Sample



Chapter 2 Installation Guide

2.1 Acquisition Check

When user opens the package of the device, it is necessary to check items according to packing list. Normally it should include the following items:

- HP3564H DVB-T2 HD IRD
- User's Manual
- HDMI Cable
- YPbPr Cable
- CVBS Cable
- SDI Cable
- Audio adapt cables
- Power Cord

If any item is missing or mismatching with the list above, please contact our company.

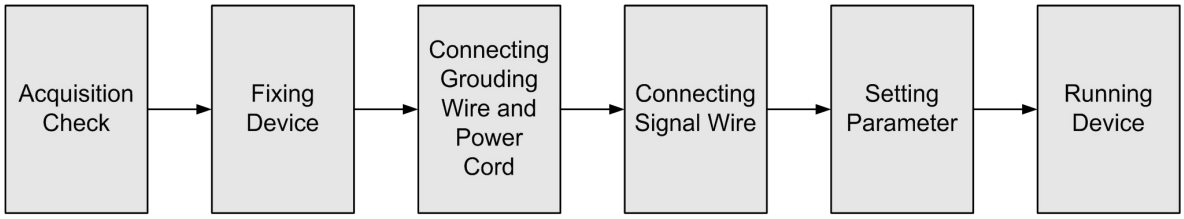
2.2 Installation Preparation

When users install device, please follow the below steps. The details of installation will be described at the rest part of this chapter. Users can also refer rear panel chart during the installation.

The main content of this chapter including:

- Checking the possible device missing or damage during the transportation
- Preparing relevant environment for installation
- Connecting signal cables
- Connecting communication port with PC

2.2.1 Device's Installation Flow Chart Illustrated as following：



2.2.2 Environment Requirement

Item	Requirement
Machine Hall Space	When user installs machine frame array in one machine hall, the distance between 2 rows of machine frames should be 1.2~1.5m and the distance against wall should be no less than 0.8m.
Machine Hall Floor	Electric Isolation, Dust Free Volume resistivity of ground anti-static material:$1X10^{7}$~$1X10^{10}$ Ω , Grounding current limiting resistance: 1M (Floor bearing should be greater than 450Kg/㎡)
Environment Temperature	5~40℃(sustainable), 0~45℃(short time), installing air-conditioning is recommended
Relative Humidity	20%~80% sustainable 10%~90% short time
Pressure	86~105KPa
Door & Window	Installing rubber strip for sealing door-gaps and dual level glasses for window
Wall	It can be covered with wallpaper, or brightness less paint.
Fire Protection	Fire alarm system and extinguisher
Power	Requiring device power, air-conditioning power and lighting power are independent to each other. Device power requires AC power 100-240V 50-60Hz. Please carefully check before running.

2.2.3 Grounding Requirement

- All function modules' good grounding is the basis of reliability and stability of devices. Also, they are the most important guarantee of lightning arresting and interference rejection. Therefore, the system must follow this rule.
- Coaxial cables outer conductor and isolation layer should keep proper electric conducting with the metal housing of device.
- Grounding conductor must adopt copper conductor in order to reduce high frequency

impedance, and the grounding wire must be as thick and short as possible.

- Users should make sure the 2 ends of grounding wire well electric conducted and be antirust.
- It is prohibited to use any other device as part of grounding electric circuit
- The area of the conduction between grounding wire and device's frame should be no less than 25mm^2.

2.2.4 Frame Grounding

All the machine frames should be connected with protective copper strip. The grounding wire should be as short as possible and avoid circling. The area of the conduction between grounding wire and grounding strip should be no less than 25mm^2.

2.2.5 Device Grounding

Connecting the device's grounding rod to frame's grounding pole with copper wire.

2.3 Wire's Connection

- Connecting Power Cord

  User can insert one end into power supply socket, while insert the other end to AC power.
- Connecting Grounding Wire

  When the device solely connects to protective ground, it should adopt independent way, say, share the same ground with other devices. When the device adopts united way, the grounding resistance should be smaller than 1Ω.

☞**Caution:**

Before connecting power cord to HP3564H, user should set the power switch to "OFF".

2.4 Signal Cable Connection

The signal connections include the connection of input signal cable and the connection of output signal cable. The details are as follows:

2.4.1 HP3564H DVB-T2 HD IRD Cables Illustration:

- **IP Input/output Cable Illustration:**

- **Tuner Cable Illustration:**

- **ASIInput/output Cable Illustration:**

- **Video& Audio output Cable Illustration: (for connection between the IRD and TV set or home theater)**

CVBS Cable

YPbPr Cable

HDMI Cable

SDI Cable

- **Audio adapt cables Illustration: (for connection between the IRD and TV set)**

Chapter 3 Operation

The front panel of HP3564H DVB-T2 HD IRD is the user-operating interface and the equipment can be conveniently operated and managed according to the procedures displayed on the LCD:

Keyboard Function Description:

MENU: Cancel current entered value, resume previous setting; Return to previous menu.

ENTER: Activatethe parameters which need modifications, or confirmthe change after modification.

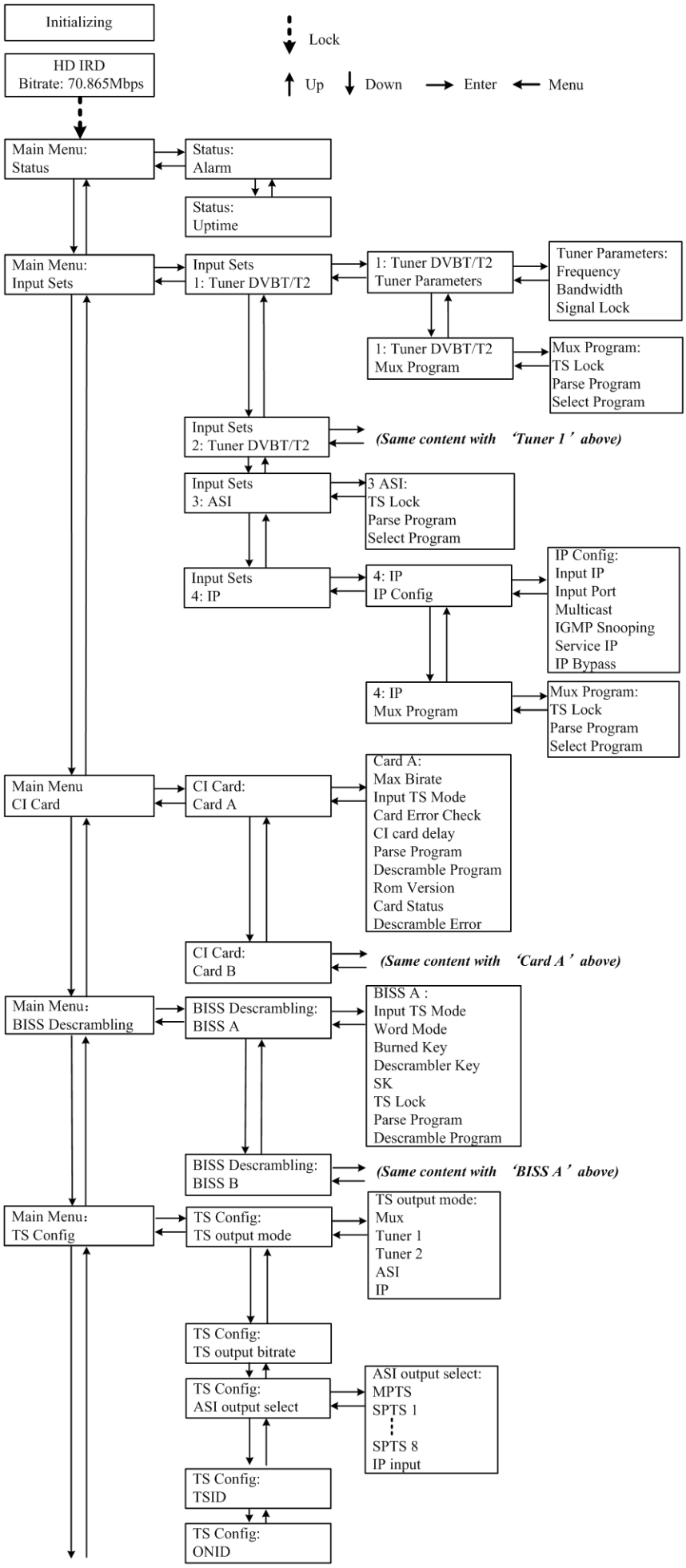
LEFT/RIGHT: Choose and set the parameters.

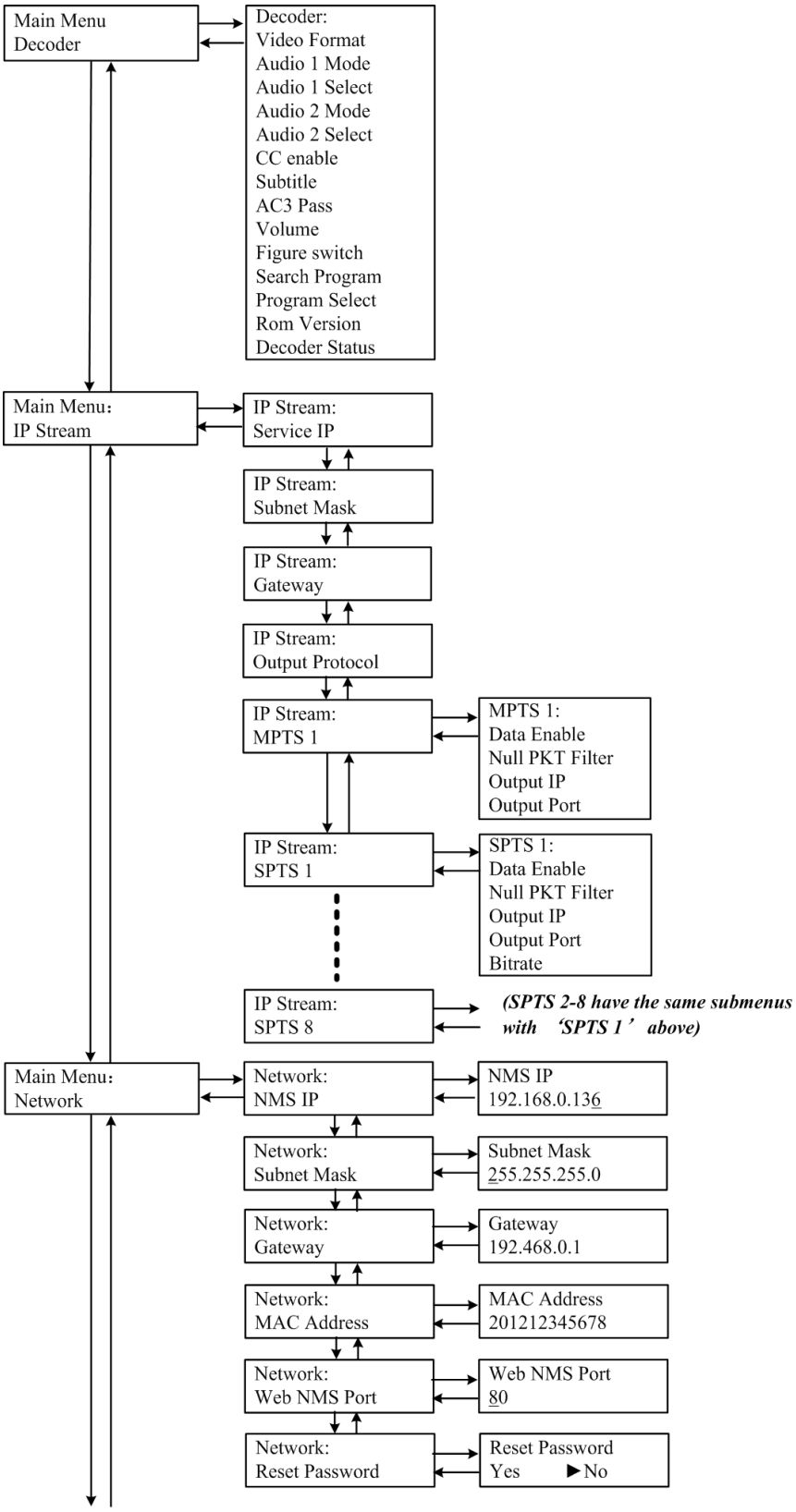
UP/DOWN: Modify activated parameter or paging up/down when parameter is inactivated.

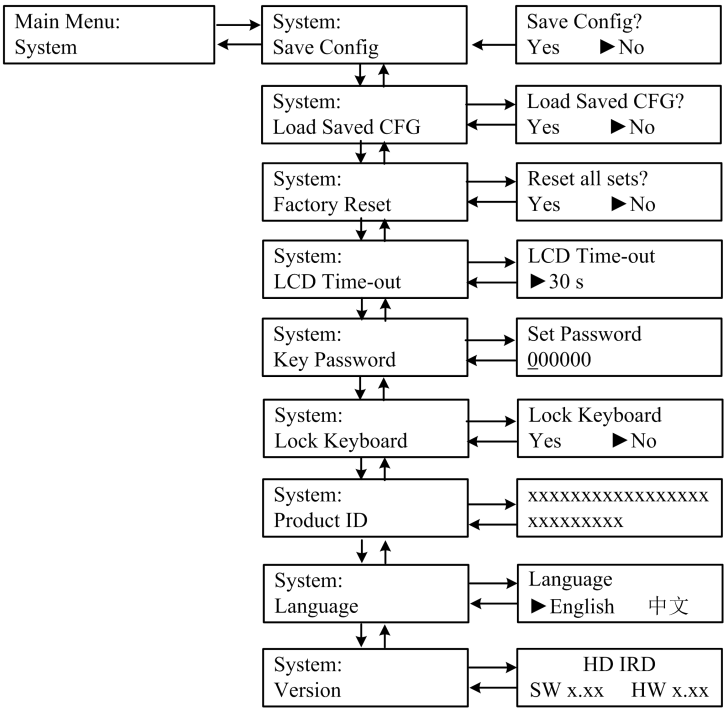
LOCK: Lock the screen/cancel the lock state. After pressing the lock key, the LCD will display the current configuring state.

3.1LCD Menu Class Tree

(See next page :)

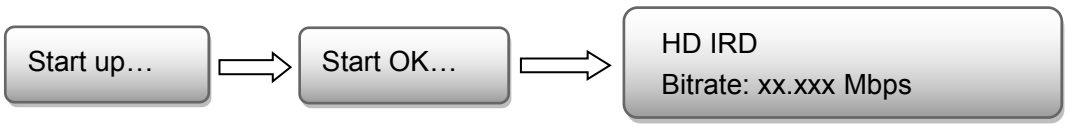

Initializing
HD IRD
Bitrate: 70.865Mbps
Lock
Up
Down
Enter
Menu
Main Menu:
Status
Status:
Alarm
Status:
Uptime
Main Menu:
Input Sets
Input Sets
1: Tuner DVBT/T2
1: Tuner DVBT/T2
Tuner Parameters
Tuner Parameters:
Frequency
Bandwidth
Signal Lock
1: Tuner DVBT/T2
Mux Program
Mux Program:
TS Lock
Parse Program
Select Program
Input Sets
2: Tuner DVBT/T2
(Same content with 'Tuner 1' above)
Input Sets
3: ASI
3 ASI:
TS Lock
Parse Program
Select Program
Input Sets
4: IP
4: IP
IP Config
IP Config:
Input IP
Input Port
Multicast
IGMP Snooping
Service IP
IP Bypass
4: IP
Mux Program
Mux Program:
TS Lock
Parse Program
Select Program
Main Menu
CI Card
CI Card:
Card A
Card A:
Max Birate
Input TS Mode
Card Error Check
CI card delay
Parse Program
Descramble Program
Rom Version
Card Status
Descramble Error
CI Card:
Card B
(Same content with 'Card A' above)
Main Menu:
BISS Descrambling
BISS Descrambling:
BISS A
BISS A :
Input TS Mode
Word Mode
Burned Key
Descrambler Key
SK
TS Lock
Parse Program
Descramble Program
BISS Descrambling:
BISS B
(Same content with 'BISS A' above)
Main Menu:
TS Config
TS Config:
TS output mode
TS output mode:
Mux
Tuner 1
Tuner 2
ASI
IP
TS Config:
TS output bitrate
TS Config:
ASI output select
ASI output select:
MPTS
SPTS 1
SPTS 8
IP input
TS Config:
TSID
TS Config:
ONID


Main Menu
Decoder
Decoder:
Video Format
Audio 1 Mode
Audio 1 Select
Audio 2 Mode
Audio 2 Select
CC enable
Subtitle
AC3 Pass
Volume
Figure switch
Search Program
Program Select
Rom Version
Decoder Status
Main Menu:
IP Stream
IP Stream:
Service IP
IP Stream:
Subnet Mask
IP Stream:
Gateway
IP Stream:
Output Protocol
IP Stream:
MPTS 1
MPTS 1:
Data Enable
Null PKT Filter
Output IP
Output Port
IP Stream:
SPTS 1
SPTS 1:
Data Enable
Null PKT Filter
Output IP
Output Port
Bitrate
IP Stream:
SPTS 8
(SPTS 2-8 have the same submenus
with 'SPTS 1' above)
Main Menu:
Network
Network:
NMS IP
NMS IP
192.168.0.136
Network:
Subnet Mask
Subnet Mask
255.255.255.0
Network:
Gateway
Gateway
192.468.0.1
Network:
MAC Address
MAC Address
201212345678
Network:
Web NMS Port
Web NMS Port
80
Network:
Reset Password
Reset Password
Yes ►No



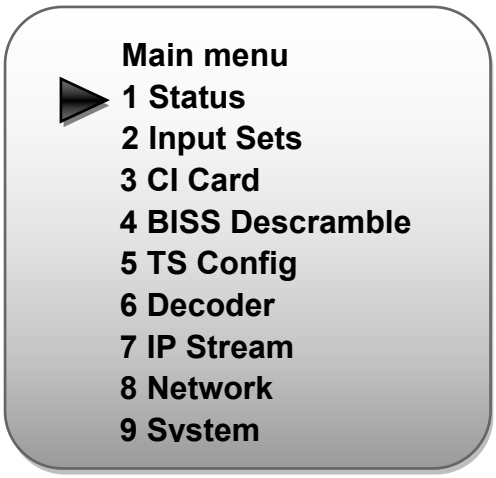
3.2 General Setting

Switch on the device and after a few seconds' initialization, itpresentsstart-up pictures as below:



- **HD IRD**: Device's name
- **Bitrate: xx.xxx MHz** indicates the current effective bitrate multiplexed output.

Press LOCK key on the front panel to enter the main menu. The LCD will display the following pages where user can configure the parameters for the device:



User could do all the settings according to the 8 directions displayed on the LCD. User can press UP/DOWN buttons to specify menu item, and then press ENTER to enter the submenus as below:

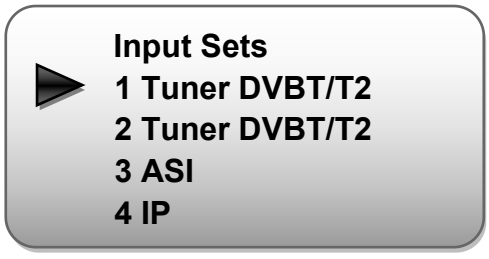
3.2.1Status

Alarm: The alarm indicator will turn on if there is no A/V signals inputting or outputting bit rate overflows. User then can enter this menu to check the error type. Otherwise it shows the 'system is normal'.

Uptime: It displays the working time duration of the device. It times upon power on.

3.2.2Input Sets

HP3564H supports 2 tuners input, 1 ASI input and 1 IP stream input. Users can enter 'Input Sets' to configure the tuner/IP parameters to receive the transport streams and select programs to mux out. It displays as below:

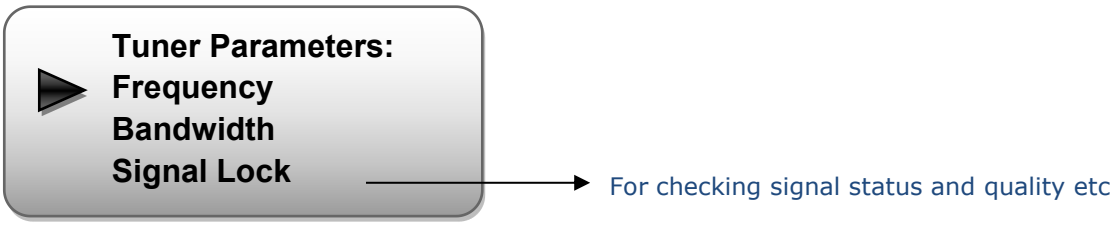


- **Tuner DVBT/T2:**

Press ENTER key to enter '1 Tuner DVBT/T2'(or '2 Tuner DVBT/T2'), it displays as below:

Tuner Parameters:

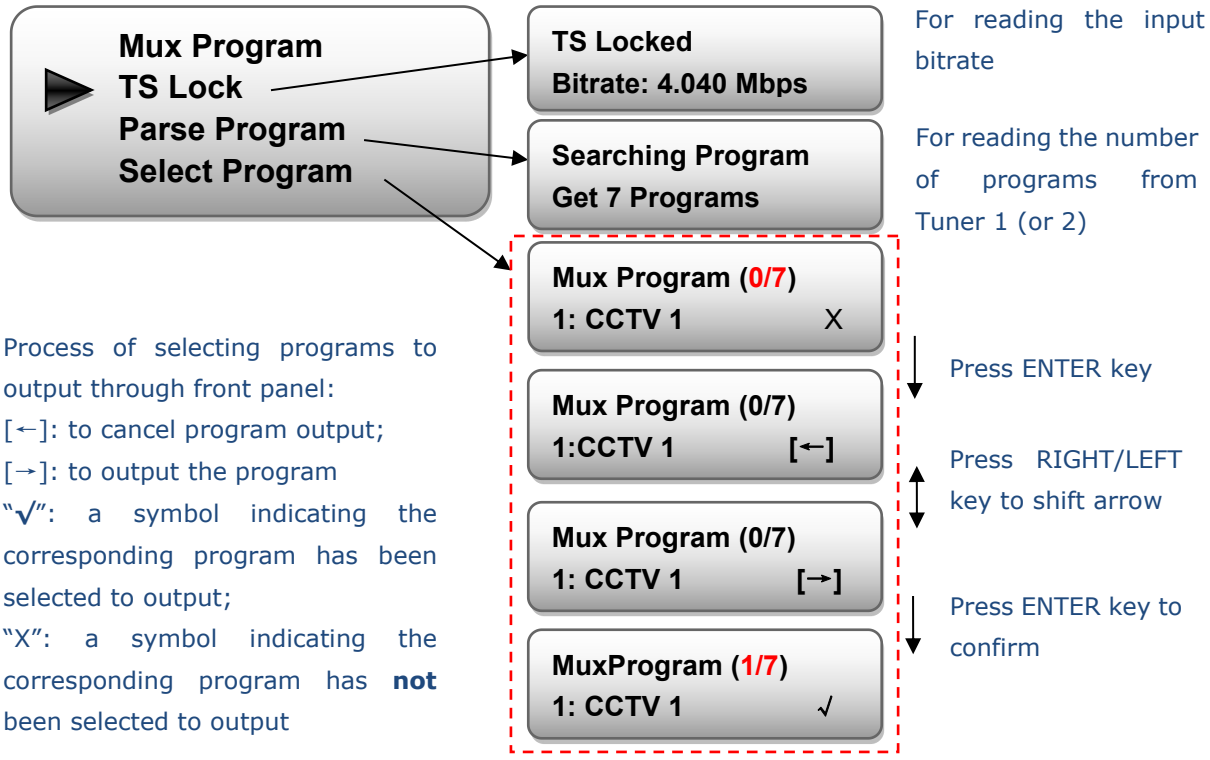
Users can enter this menu to configure the tuner parameters separatelyto receive the tuner programs.



Mux Program:

Users can parse the Tuner input program list and select program(s) to mux out in this menu.

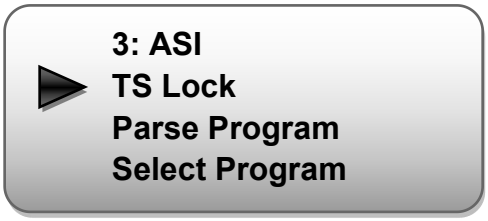
NOTE: Multiplexing operation can only take effect on condition that the "TS output mode"is set to "Mux" under 'TS Config'. (i.e.: *TS Config→TS output mode→Mux*)



'1/7' represents there are all 7 programs in the list and 1 program has been selected to mux out through ASI.

- **ASI:**

Users can parse ASI input programs and select program(s) to mux out under this menu. The operating method is same with what explained above.

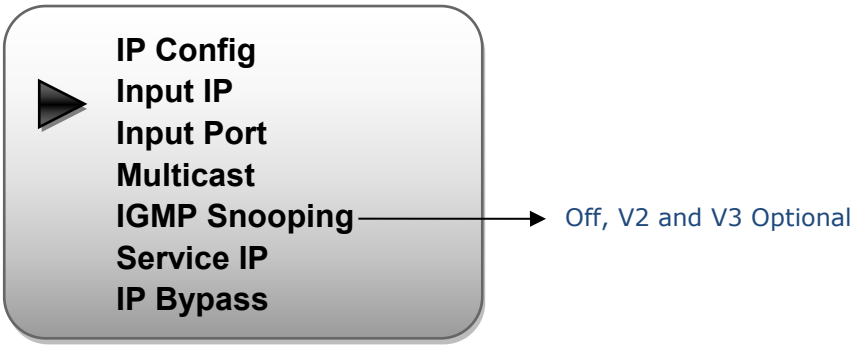


➢ **IP:**

Press ENTER key to enter '4 IP', it displays as below:

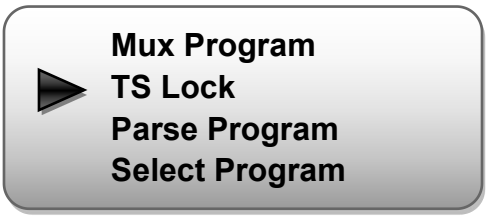
IP Config:

Users can enter this menu to configure IP parameters according to the IP source to receive the IP programs.



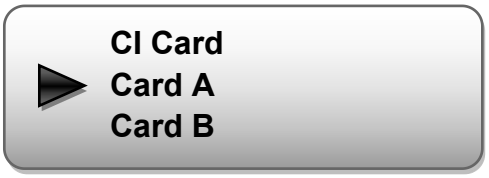
Mux Program:

Users can parse the IP input program list and select programs to mux out in this menu.The operating method is same with what explained above.

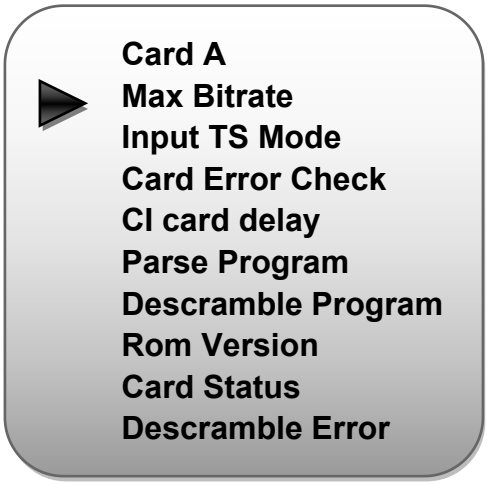


3.2.3CI Card

HP3564H supports 2 CI cards (Card A & Card B) to descramble programs from either encrypted RF, ASI or IP. Users can press ENTER key to enter'CI Card' to configure the 2 cards respectively.



Press ENTER key to enter Card A (or Card B):

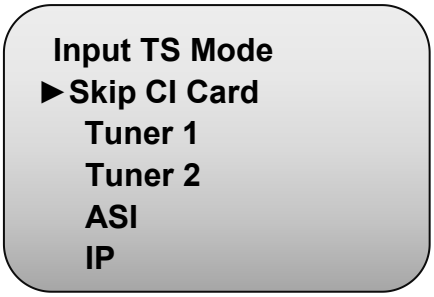


- **Max Bit rate**

CI Max Bitrate options range from 48-108Mbps. Move the triangle to select a value as principle: Actual Input Bitrate≤ Max Bitrate≤CI Max decrypting capacity

- **Input TS Mode**

HP3564H has 4 signal sources: Tuner 1, Tuner 2, ASI, and IP. One CI card can be applied to descramble one channel input signal from the 4 signal sources. 'Skip CI card' means to skip the card which is used for FTA stream.



- **Card Error Check**

Users can decide whether to enable or disable the card error check function in this menu.

- **CI card delay**

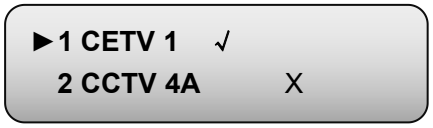
Users can set CI card delay under this submenu.

- **Parse Program**

Users can read the quantity of programs parsed from the de-scrambled channel.

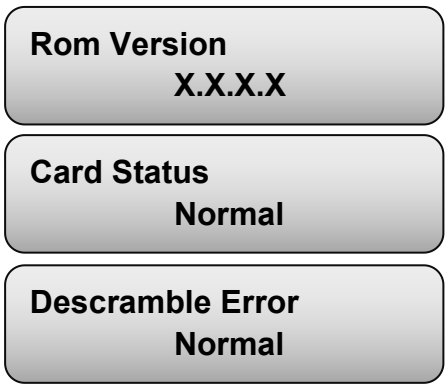
- **Descramble Program**

Users can select program(s) from the searched out programs to descramble. The quantity to be descrambled will depend on the CAM/CI performance you apply to.



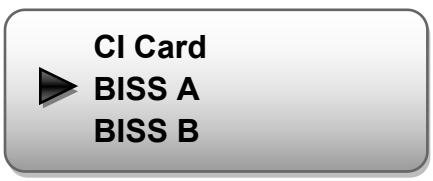
- **Rom Version/Card Status/Descramble Error**

Users can read the other info about the CI card in the following menus.

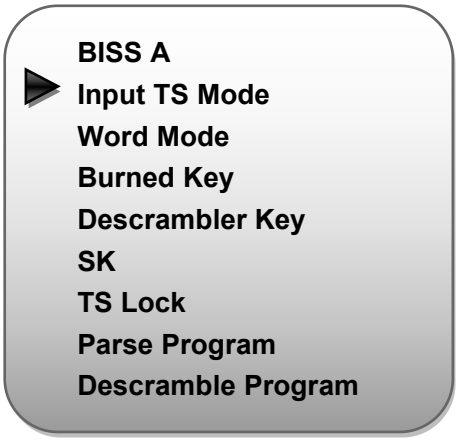


3.2.4 BISS Descrambling

HP3564H IRD also supports BISS to descramble encrypted programs from RF, ASI or IP. Users can enter 2 BISS descrambling to configure the 2BISS respectively.

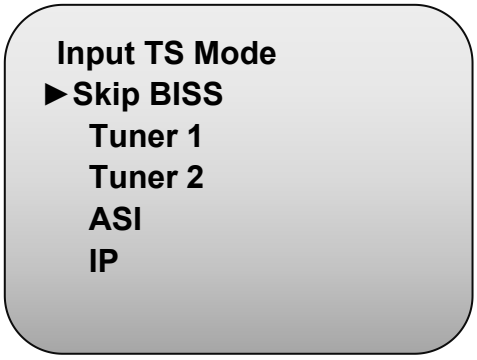


Press ENTER key to enter BISS A (or BISS B):



- **Input TS Mode**

HP3564H has 4 signal sources: Tuner 1-2, ASI, and IP. One BISS can be applied to descramble one channel input signal from the 4 signal sources. 'Skip BISS' means to skip the card which is used for FTA stream.



- **Word Mode/Burned Key /Descrambler Key/SK**

Users need to input keys to descramble programs as per the BISS scrambling side which usually is DVB-T/T2 modulator.

The descrambling principle is as following chart:

Modulating Side (BISS SCR)	Receiving Side (BISS DESCR)	Digit (0x----)
Mode 1+SW Data	Mode 1+Descrambler Key	12
Mode E+ESW Data + Device	Mode E + Descrambler Key + Burned Key	16
Mode E+ESW Data + Input ID	Mode E + Descrambler Key + SK	14

- **TS Lock**

Users can read the real-time bitrate of the corresponding channel.

- **Parse Program**

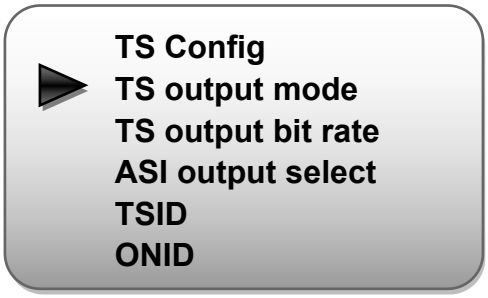
Users can read the quantity of programs parsed from the de-scrambled channel.

- **Descramble Program**

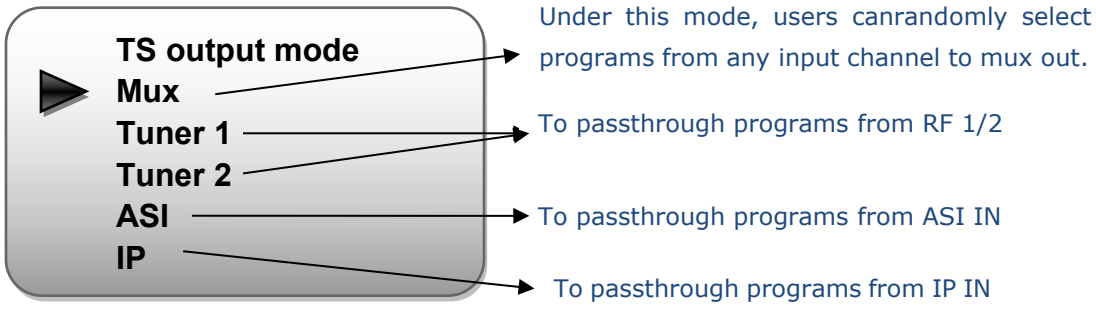
Users can select program(s) from the searched out programs to descramble.

3.2.5TS Config

Users can press ENTER key to enter‘TS Config’ to configure theparameters of TS output through ASI.



TS output mode: Enter this menu to select a TS output mode.



TS Out Bit rate: Users can set TS output bit rate in this menu.

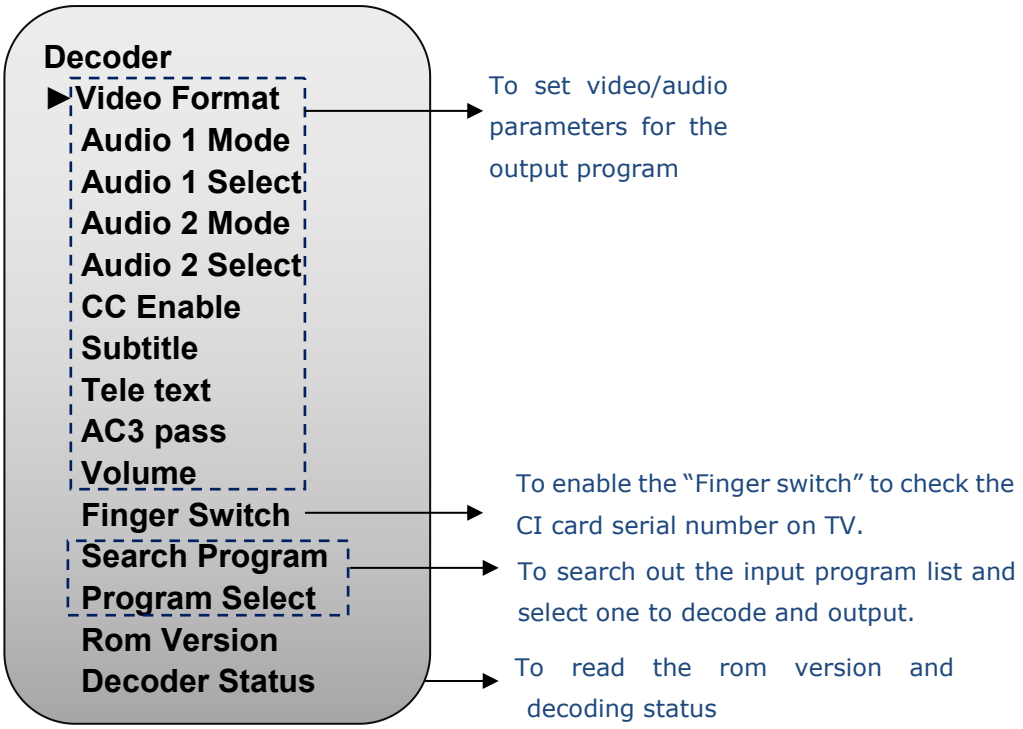
ASI Output Select: The ASI output is copied from the one of the IP streams (MPTS, SPTS 1-8 or all IP input).

TS ID: Users can set TS ID in this menu.

ON ID: Users can set ON ID (original network ID) in this menu.

3.2.6 Decoder

Users can press ENTER key to enter'Decoder' to set the video to be decoded. HP3564H IRD supports one channel program to output at various interfaces at the same time (HDMI/SDI/CVBS/YPbPr).



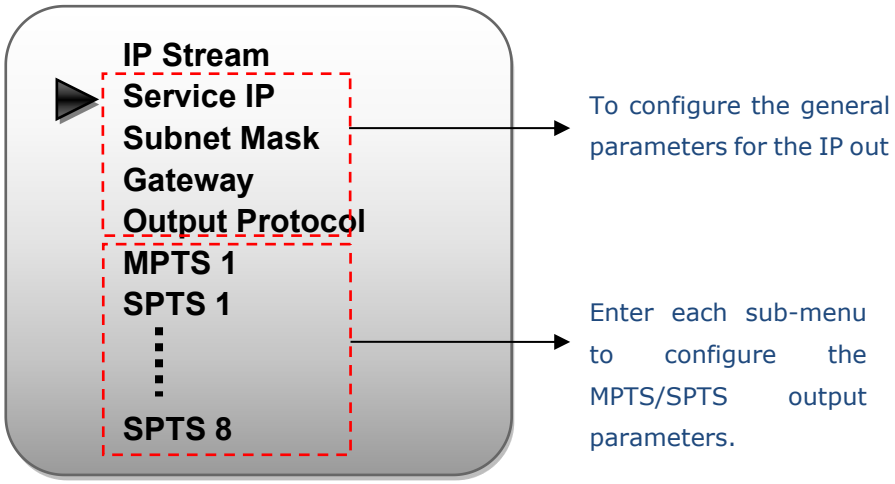
NOTE:

Audio 1: Primary Audio Chanel; **Audio 2**: Secondary Audio Channel

- HP3564H supports maximum 2 channels ofanalog stereo audios output simultaneously.
- When the program users choose to decode and output has only one audio channel, users need to configure Primary Audio Chanel ('Audio 1 Mode' and 'Audio 1 Select') only.
- 5.1 channel audio can only be resume via HDMI and SDI interfaces. When users choose HDMI ro SDI as the output interface and output 5.1 channel audio, users need to select '5.1 Channels' under 'Audio 1 Mode' and set 'Audio 2 Select' off.

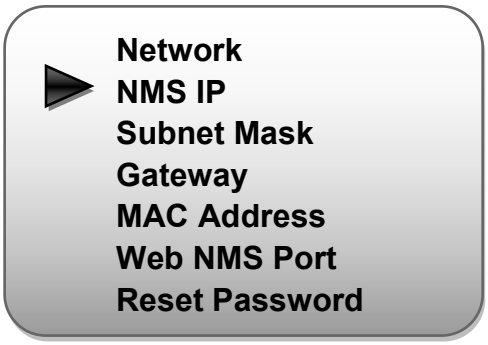
3.2.7 IP Stream

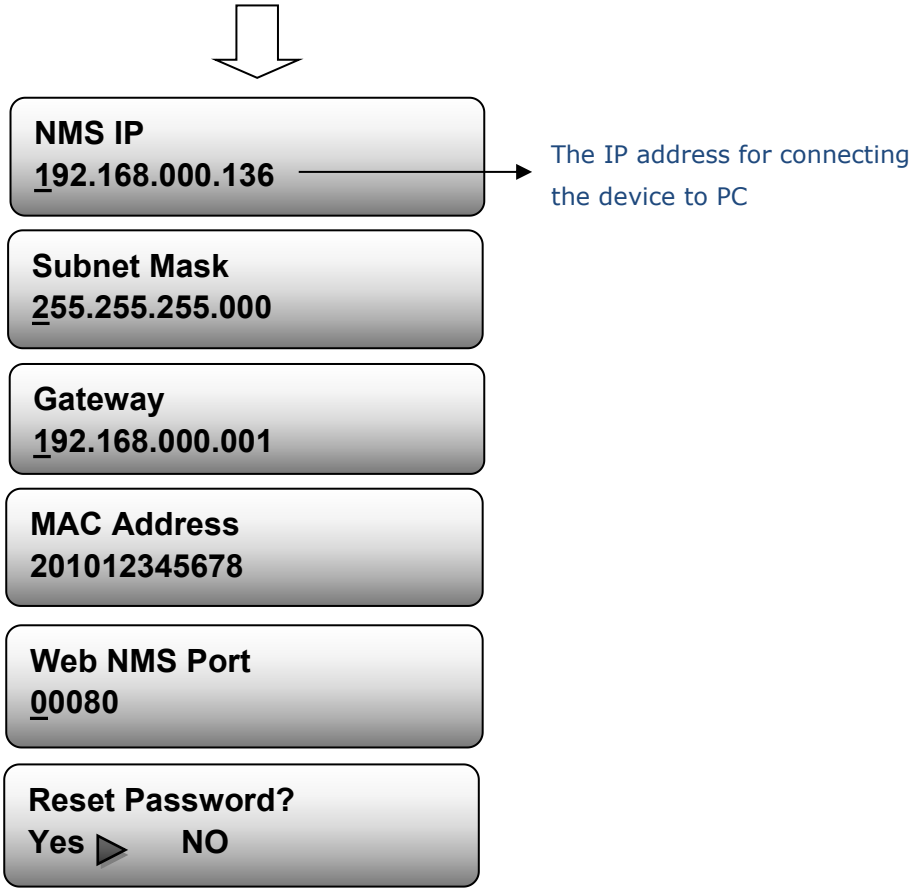
HP3564H supports 1MPTS and 8 SPTS over IP (UDP, RTP/RTSP) output. Users can set the IP out parameters in this menu.



3.2.8 Network

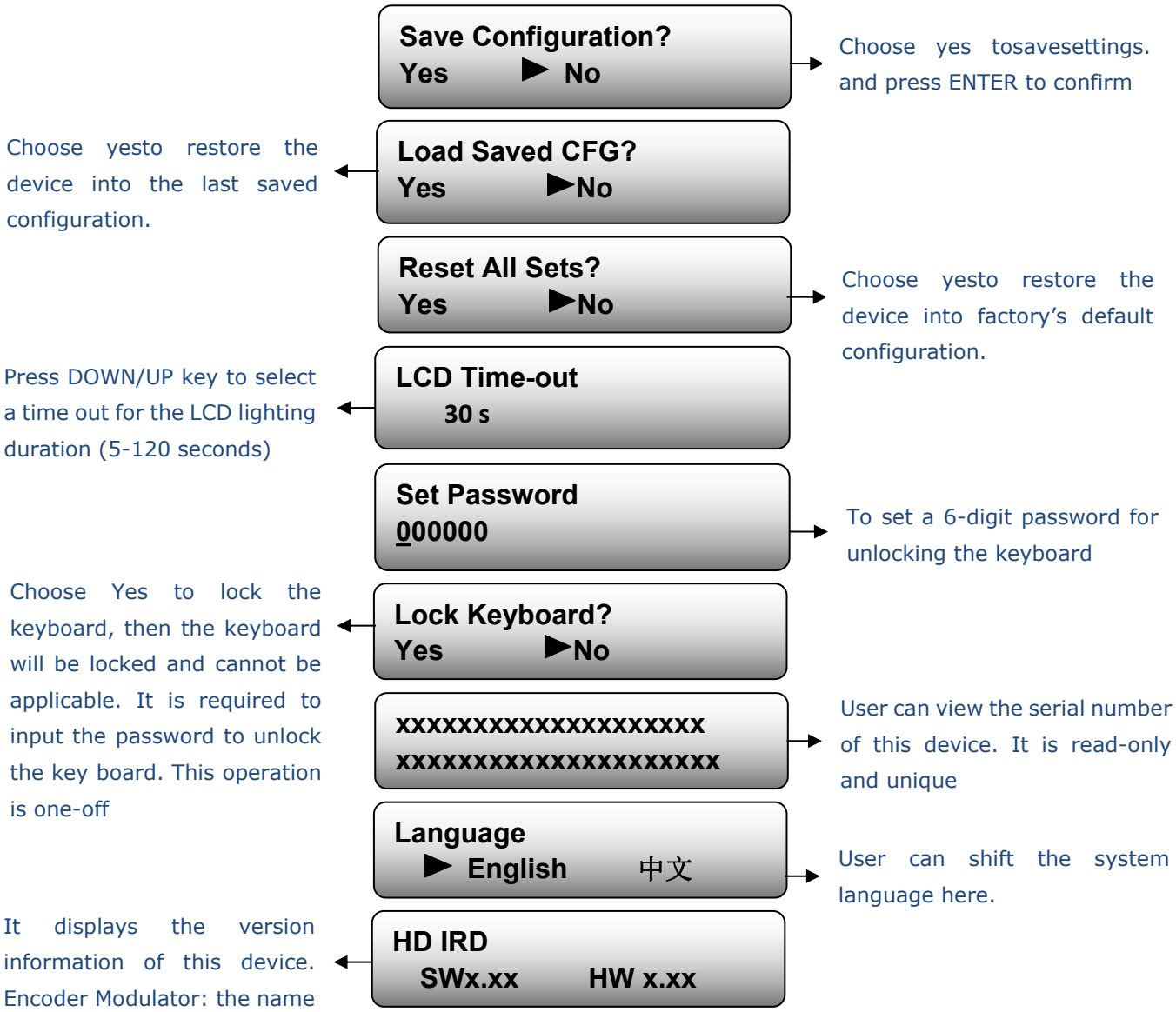
Users can set network parameters in this menu. Enter 'Network' submenus to separately set corresponding parameters.





3.2.9 System

Users can set the system parameters in this menu. Enter 'System' submenus to separately set corresponding parameters.


Save Configuration?
Yes ► No
Choose yes tosavesettings. and press ENTER to confirm
Choose yesto restore the device into the last saved configuration.
Load Saved CFG?
Yes ►No
Reset All Sets?
Yes ►No
Choose yesto restore the device into factory's default configuration.
Press DOWN/UP key to select a time out for the LCD lighting duration (5-120 seconds)
LCD Time-out
30 s
Set Password
000000
To set a 6-digit password for unlocking the keyboard
Choose Yes to lock the keyboard, then the keyboard will be locked and cannot be applicable. It is required to input the password to unlock the key board. This operation is one-off
Lock Keyboard?
Yes ►No
xxxxxxxxxxxxxxxxxxx
xxxxxxxxxxxxxxxxxxxx
User can view the serial number of this device. It is read-only and unique
Language
► English 中文
User can shift the system language here.
It displays the version information of this device. Encoder Modulator: the name of the device; SW: software version number; HW: hardware version number.
HD IRD
SWx.xx HW x.xx

Chapter 4 Web-based NMS Management

User not only can use front buttons for setting configuration, but also can control and set the configuration in computer by connecting the device to web NMS Port. User should ensure that the computer's IP address is different from this device IP address; otherwise, it would cause IP conflict.

4.1 Login

The default IP address of this device is 192.168.0.136. (We can modify the IP through the front panel.)

Connect the PC (Personal Computer) and the device with net cable, and use ping command to confirm they are on the same network segment.

I.G. the PC IP address is 192.168.99.252, we then change the device IP to 192.168.99.xxx (xxx can be 1 to 254 except 252 to avoid IP conflict).

Use web browser to connect the device with PC by inputting the device's IP address in the browser's address bar and press Enter.

It will display the Login interface as Figure-1. Input the Username and Password (Both the default Username and Password are "admin".) andclick "LOGIN" to start the device setting.

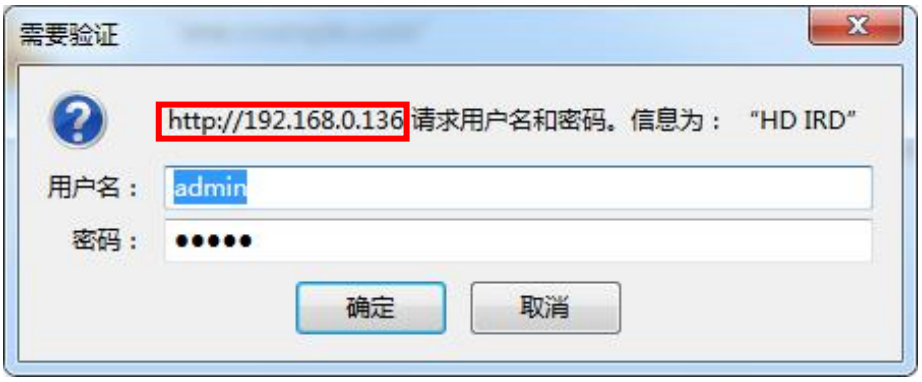


Figure-1

4.2 Operation

Summary:

When we confirm the login, it displays the WELCOME interfaceas Figure-2 where users canhave an overview of the device's system information and working status.

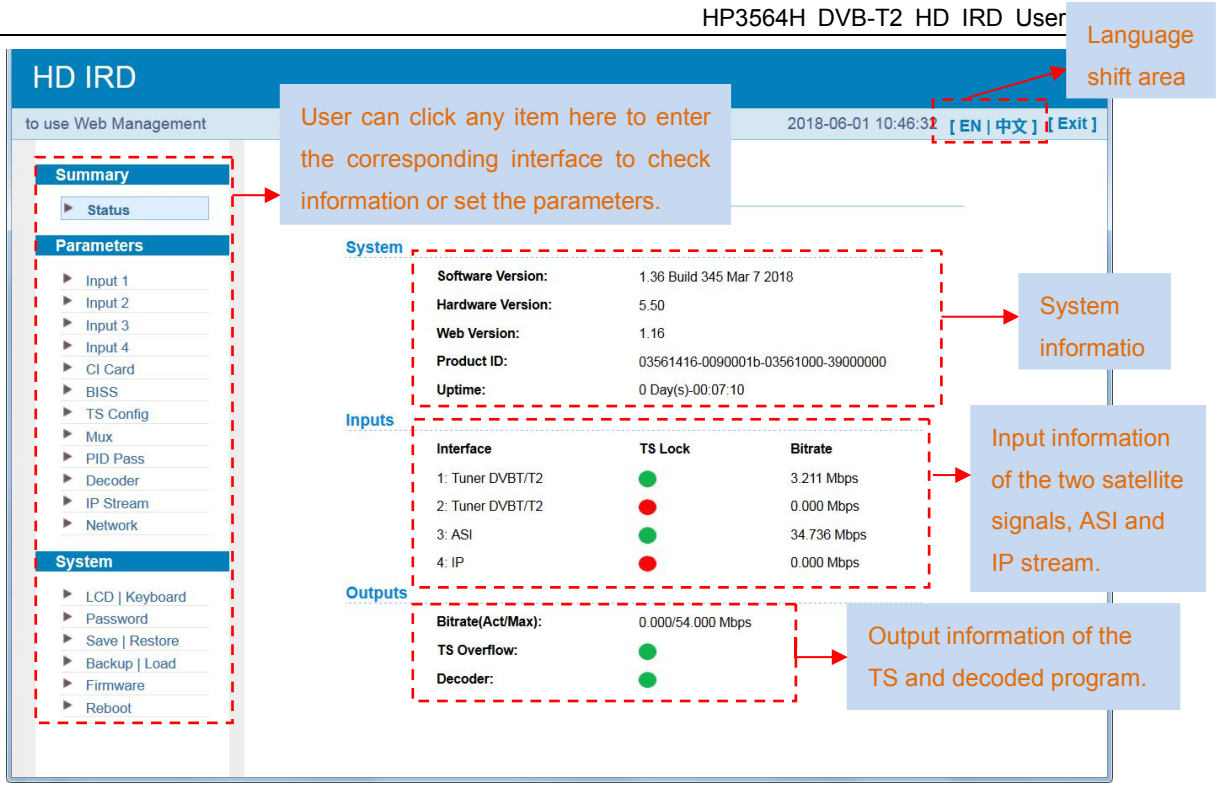


Figure-2

Parameters → Input 1/2 (Tuner 1/Tuner 2 Input):

From the menu on left side of the webpage, clicking "Input 1" or "Input 2", it displays the interface where users can configure the2 RF input parameters separately. (Figure-3)

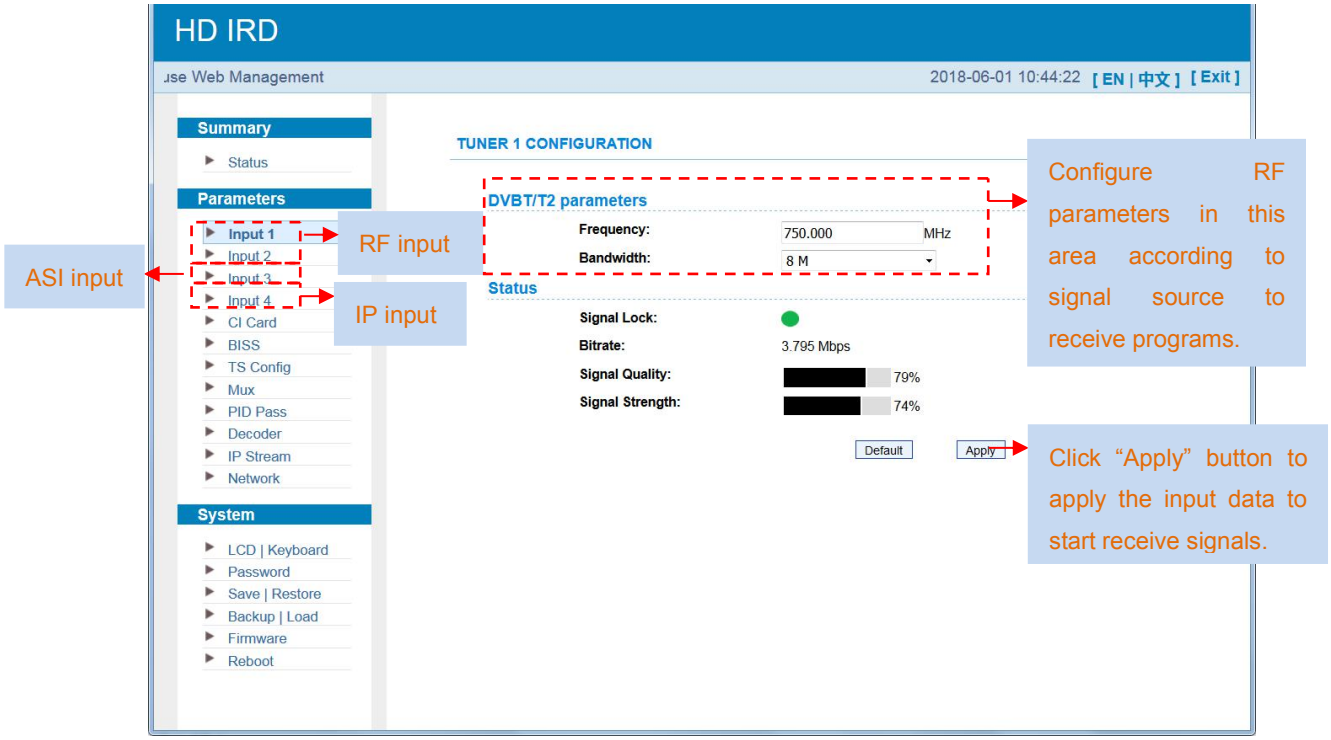


Figure-3

Parameters → Input 3 (ASI Input):

"Input 3" refers to the ASI source which does not need to configure. Users can only read the signal lock status and input bitrate. (Figure-4)

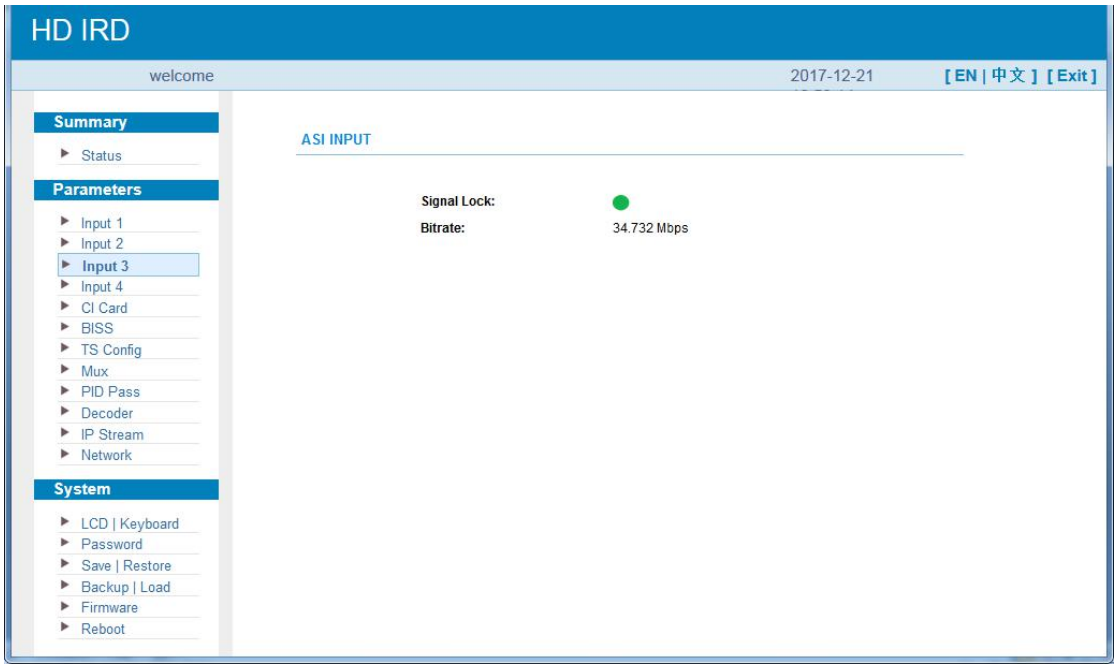


Figure-4

Parameters → Input 4 (IP Input):

From the menuon left side of the webpage, clicking"Input 4", it displays the interface where users can configure the IP input parameters. (Figure-5)

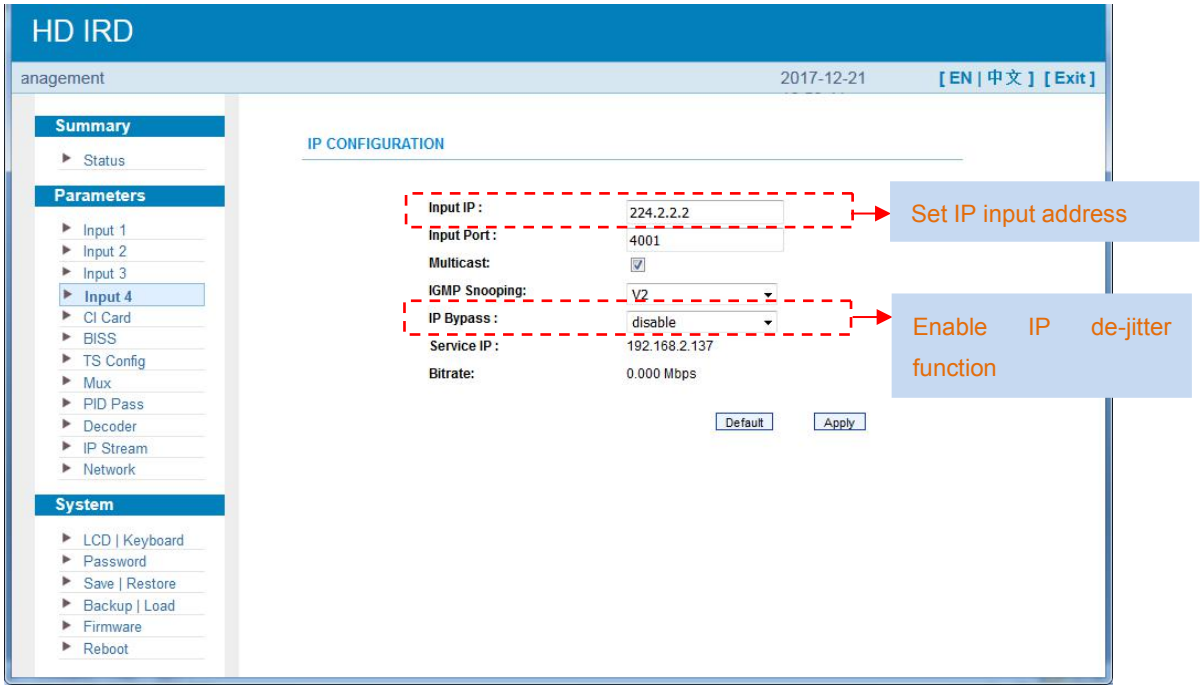


Figure-5

Parameters → CI Card:

HP3564H supports 2 CI cards (Card A & Card B) to descramble programs from either encrypted RF, ASI or IP. Users can click and enter 'CI Card' to configure the 2 cards respectively. (Figure-6)

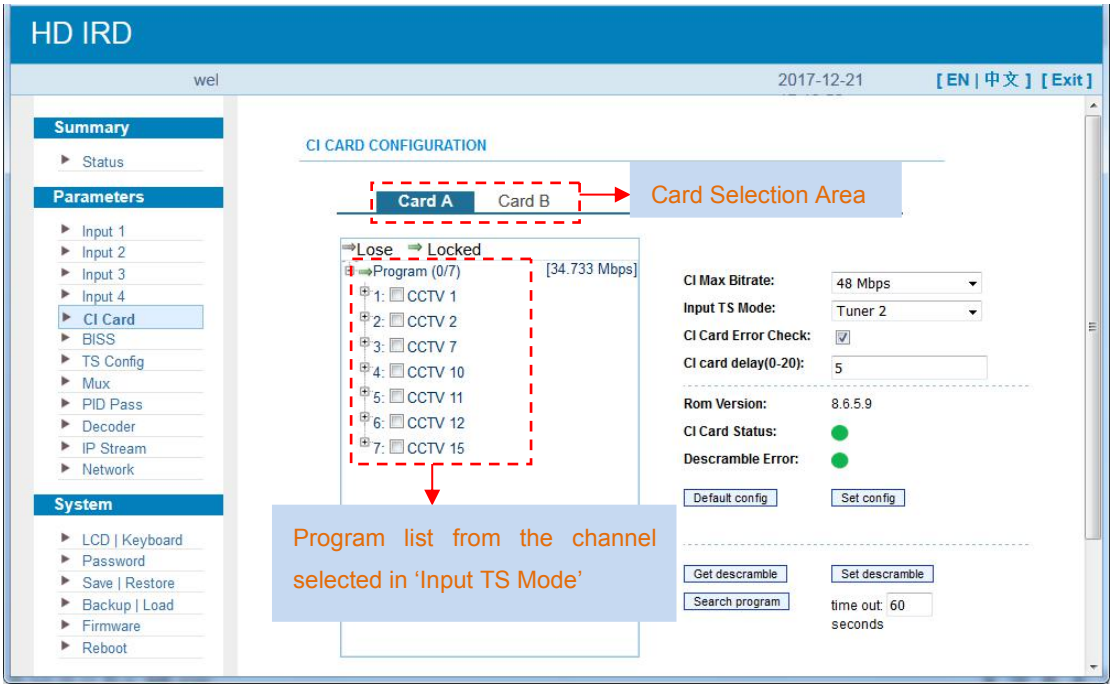
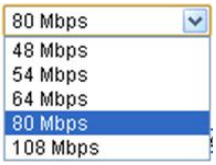


Figure-6

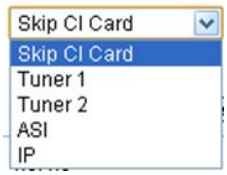
- **CI Max Bit rate**

CI Max Bitrate options range from 48-108Mbps. Select a value in the pull-down list as principle: Actual Input Bitrate≤ Max Bitrate≤CI Max decrypting capacity.



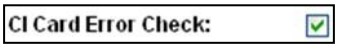
- **Input TS Mode**

HP3564H has 4 signal sources: Tuner 1, Tuner 2, ASI, and IP. One CI card can be applied to descramble one channel input signal from the 4 signal sources. 'Skip CI card' means to skip the card which is used for FTA stream.



- **Card Error Check**

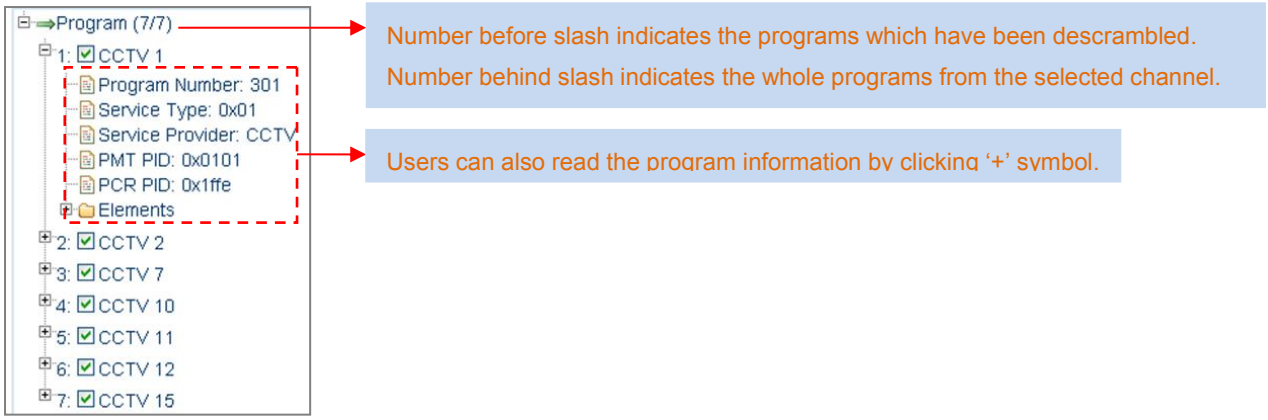
Users can decide whether to enablethe card error check function by checking the box.



After configuring CI card parameters, click Apply button to apply the input data and then click Search program button to parse programs from the channel selected in 'Input TS Mode'.

Check the program(s) to be descrambled and click Set descramble button to start

descrambling the checked program(s). The program quantity to be descrambled will depend on the CAM/CI performance you apply to.



Parameters → BISS:

From the menu on left side of the webpage, clicking "BISS", it displays the interface where users can configure 2 BISS and descramble the input channels. (Figure-8)

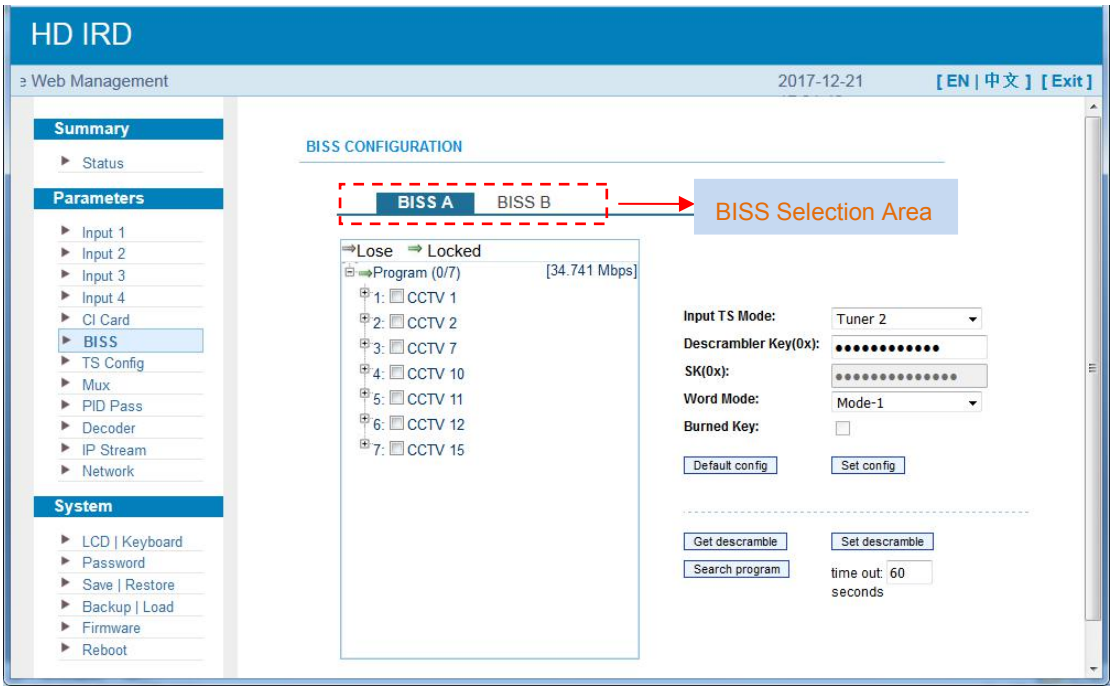
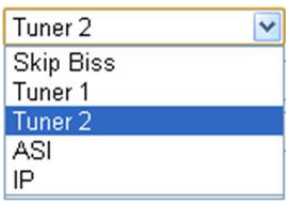


Figure-8

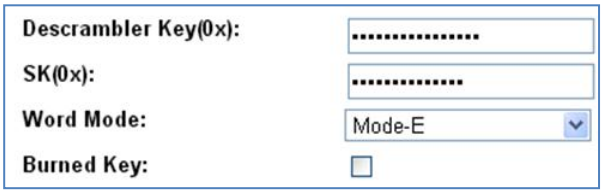
Input TS Mode：



HP3564H has 4 signal sources: Tuner 1-2, ASI, and IP. One BISS tag can be applied to

descramble one channel input signal from the 4 signal sources. 'Skip BISS' means not to involve BISS function and it is used for FTA stream.

Items showing below are working as per the keys or codes set in the BISS scrambling side (DVB-T/T2 modulators).



Input corresponding items and data to active the BISS descrambling as principles be

Modulating Side (BISS SCR)	Receiving Side (BISS DESCR)	Digit (0x----)
Mode 1+SW Data	Mode 1+Descrambler Key	12
Mode E+ESW Data + Device	Mode E + Descrambler Key + Burned Key	16
Mode E+ESW Data + Input ID	Mode E + Descrambler Key + SK	14

After configuring the above BISS parameters, click Set config button to apply the input data and then click Search program button to parse programs from the channel selected in 'Input TS Mode'.

The searched out programs will be listed in the 'Descramble' box below: (Figure 9)

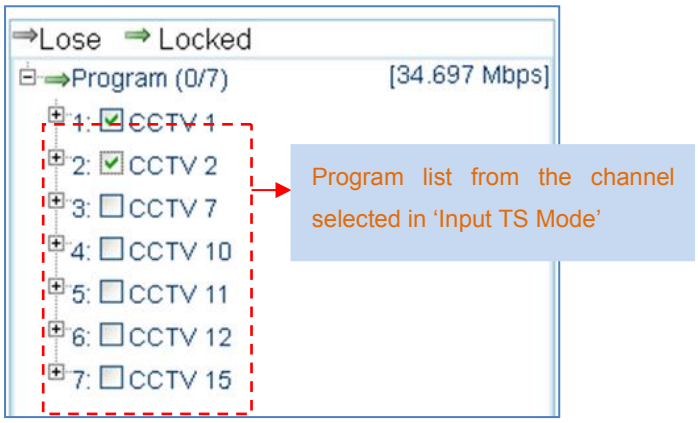
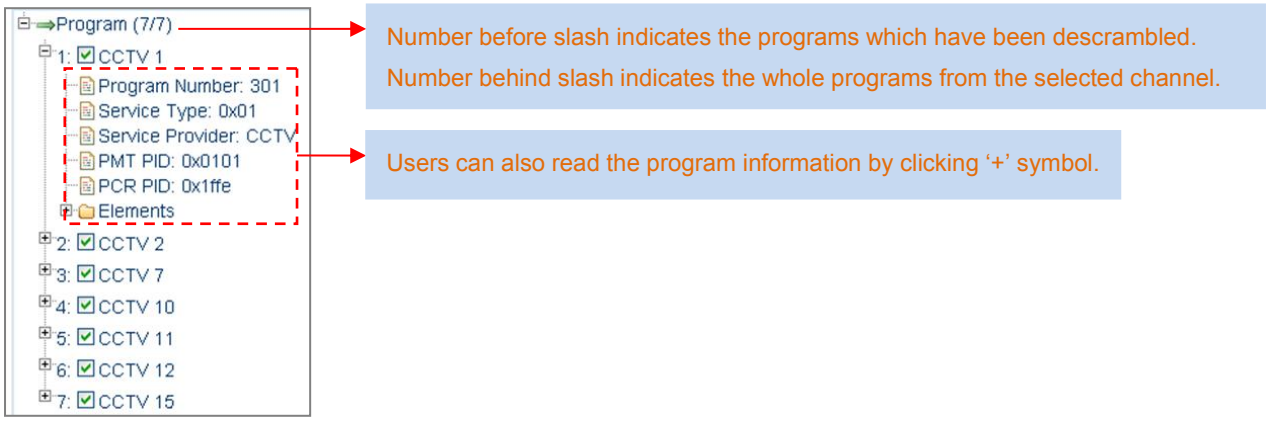


Figure-9

Check the program(s) to be descrambled with " √ " and click Set descramble button to start descrambling the checked program(s). The program quantity to be descrambled will depend on the CAM/CI performance you apply to.



Parameters → TS Config:

From the menu on left side of the webpage, clicking "TS Config", it displays the interface where users can select output mode as multiplex out or Tuner/ASI/IP out bypass.. (Figure-10)

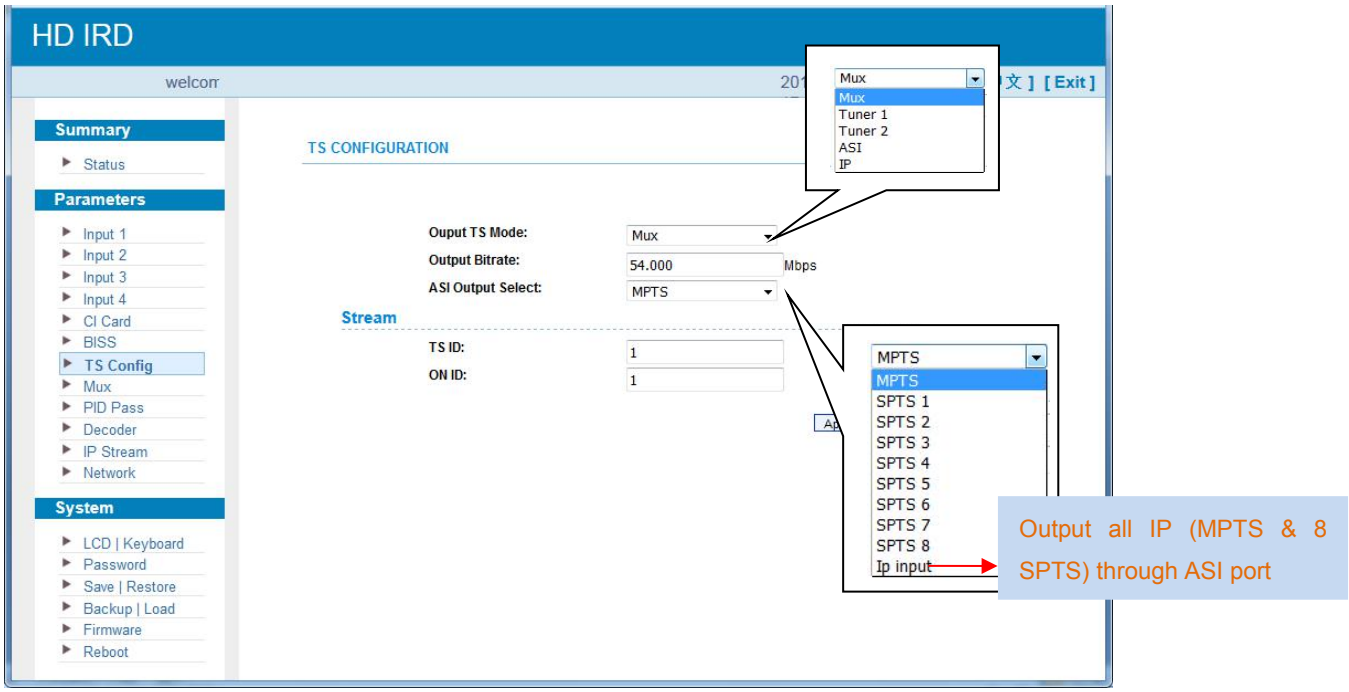
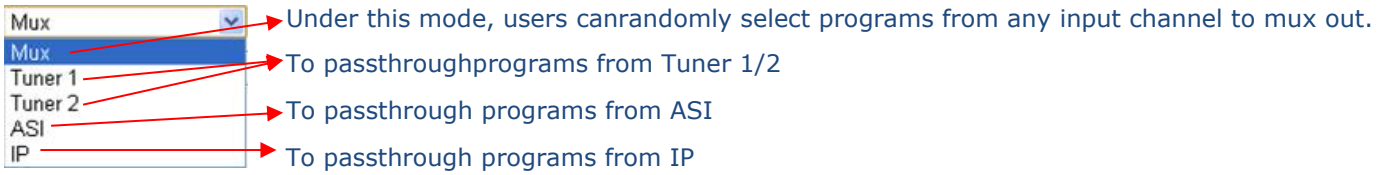


Figure-10

Output TS Mode:



ASI Output Select: TheTS content output through ASI is copied from the one of the IP streams (MPTS and SPTS 1-8). Users can select one stream from the pull-down list.

After finishing the configuration, click Apply to confirm.

Parameters → Mux:

Click “Mux” and it displays the interface where users can multiplex programs and modify program info. The selected programs will output in TS form through IP and ASI ports. (Figure-11)

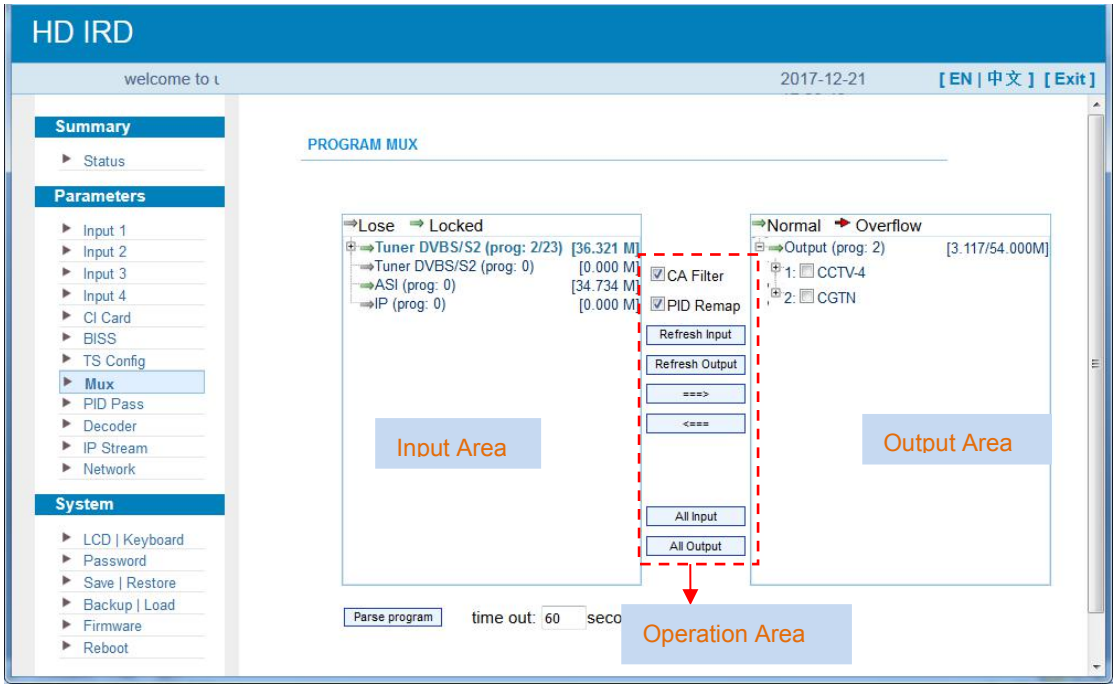


Figure-11

Configure ‘Input Area’ and ‘Output Area’ with buttons in ‘Operation Area’. Instructions are as below:

CA Filter : To enable/disable the CA filter

PID Remap : To enable/disable the PID remapping

Refresh Input To refresh the input program information

Refresh Output To refresh the output program information

===> Select one input program first and click this button to transfer the selected program to the right box to output.

<=== Similarly, user can cancel the multiplexed programs from the right box.

All Input To select all the input programs

All Output To select all the output programs

Parse program To parse programs time out: 60 seconds time limitation of parsing input programs

◆ Program Modification:

The multiplexed program information can be modified by clicking the program in the 'output' area. For example, when clicking 1: CCTV-4 , it triggers a dialog box (Figure 12) where users can input new information.

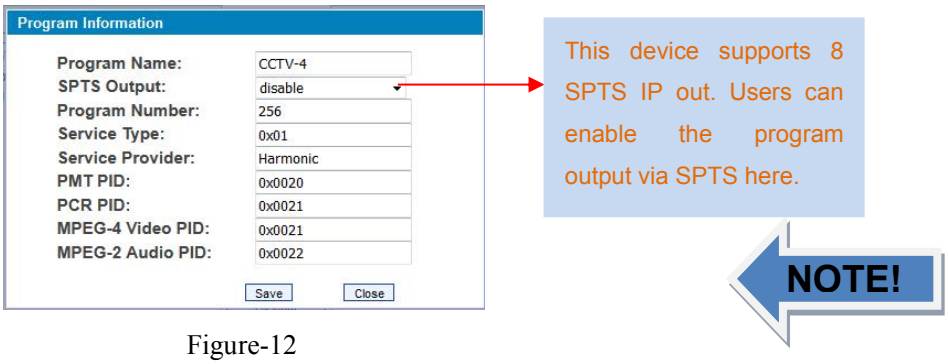


Figure-12

Input new data and click 'Save' button at last to confirm the modification.

Parameters →PID Pass:

Click "PID Pass", it displays the interface where to add the PIDs which need to pass through. (Figure-13)

In some occasions, there are some PIDs which won't belong to any program, such as EPG, NIT tables and so on which user just wants to pass them through the multiplexing module without changing anything. This is the main purpose of this function.

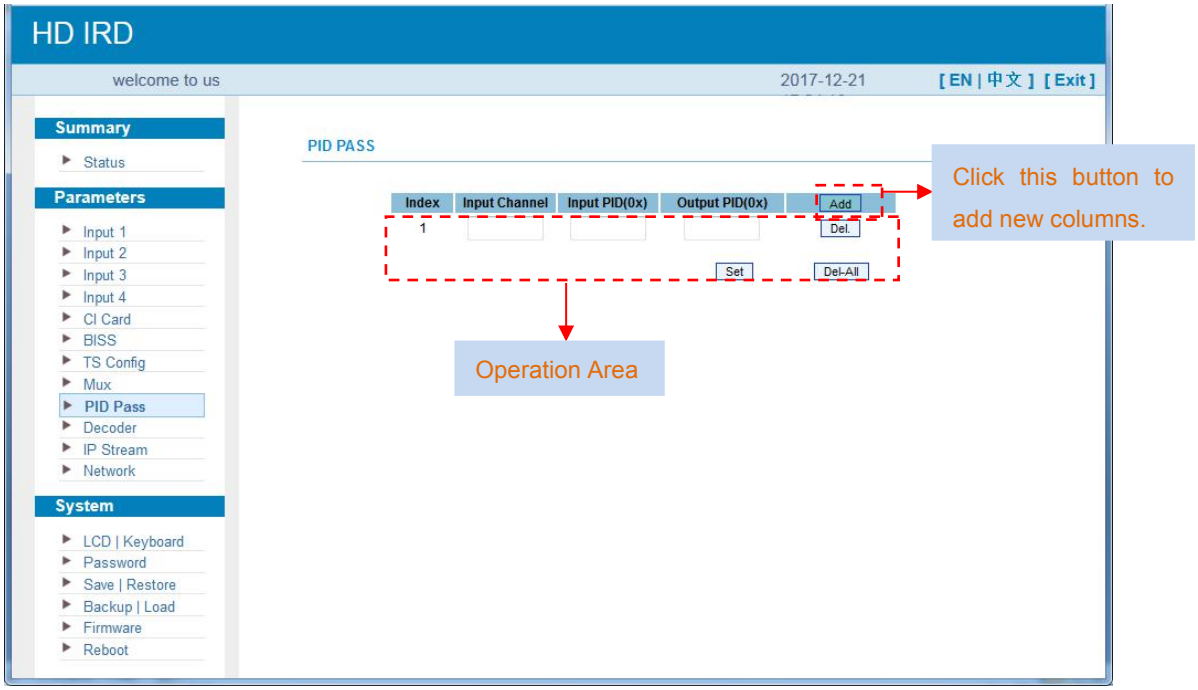


Figure-13

After finishing the configuration, click Set to confirm.

Parameters → Decoder:

HP3564H supports decode program to output at HDMI/SDI/CVBS/YPbPr. Users can configure the Video/Audio output parameters in this tag. (Figure-14)

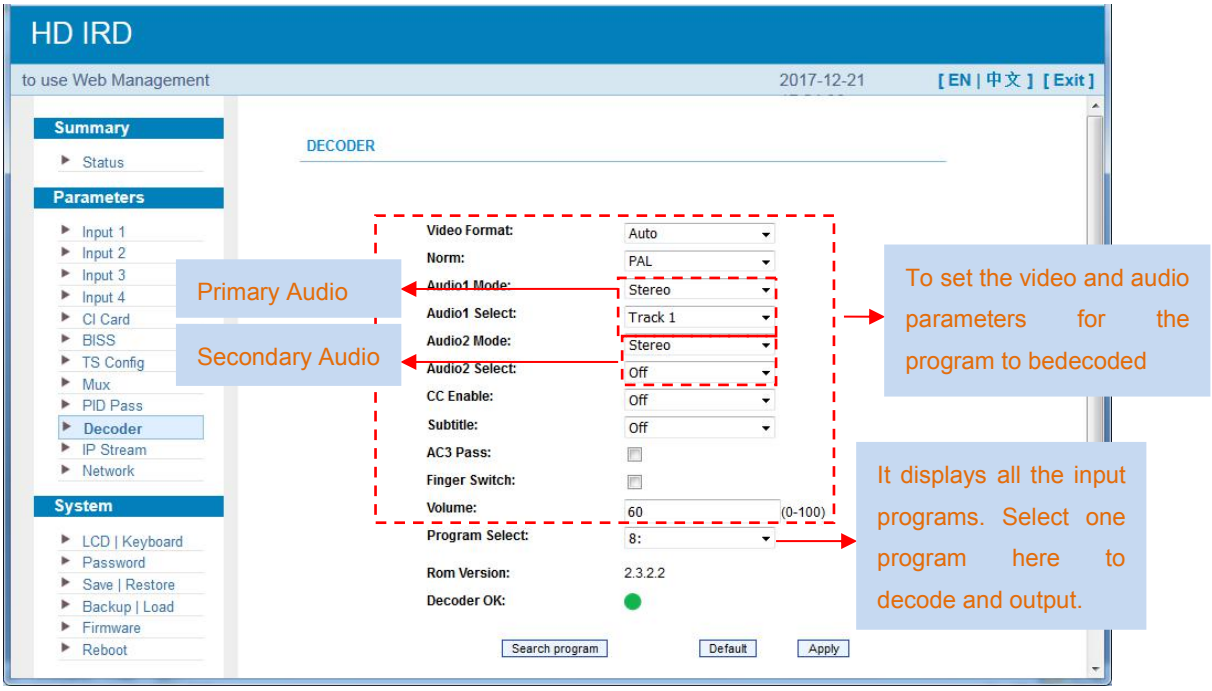


Figure-14

NOTE:

- HP3564H supports maximum 2 channels of analog stereo audios output simultaneously.
- When the program users choose to decode and output has only one audio channel, users need to configure Primary Audio Chanel (‘Audio 1 Mode’ and ‘Audio 1 Select’) only.
- 5.1 channel audio can only be resume via HDMI and SDI interfaces. When users choose HDMI ro SDI as the output interface and output 5.1 channel audio, users need to select ‘5.1 Channels’ under ‘Audio 1 Mode’ and set ‘Audio 2 Select’ off.

After finishing the configuration, click Apply to confirm.

Parameters → IP Stream:

This unit supports TS output in IP (1 MPTS & 8 SPTS). Click “IP Stream” and it displays the interface where users can configure the MPTS & SPTS out parameters. (Figure-15)

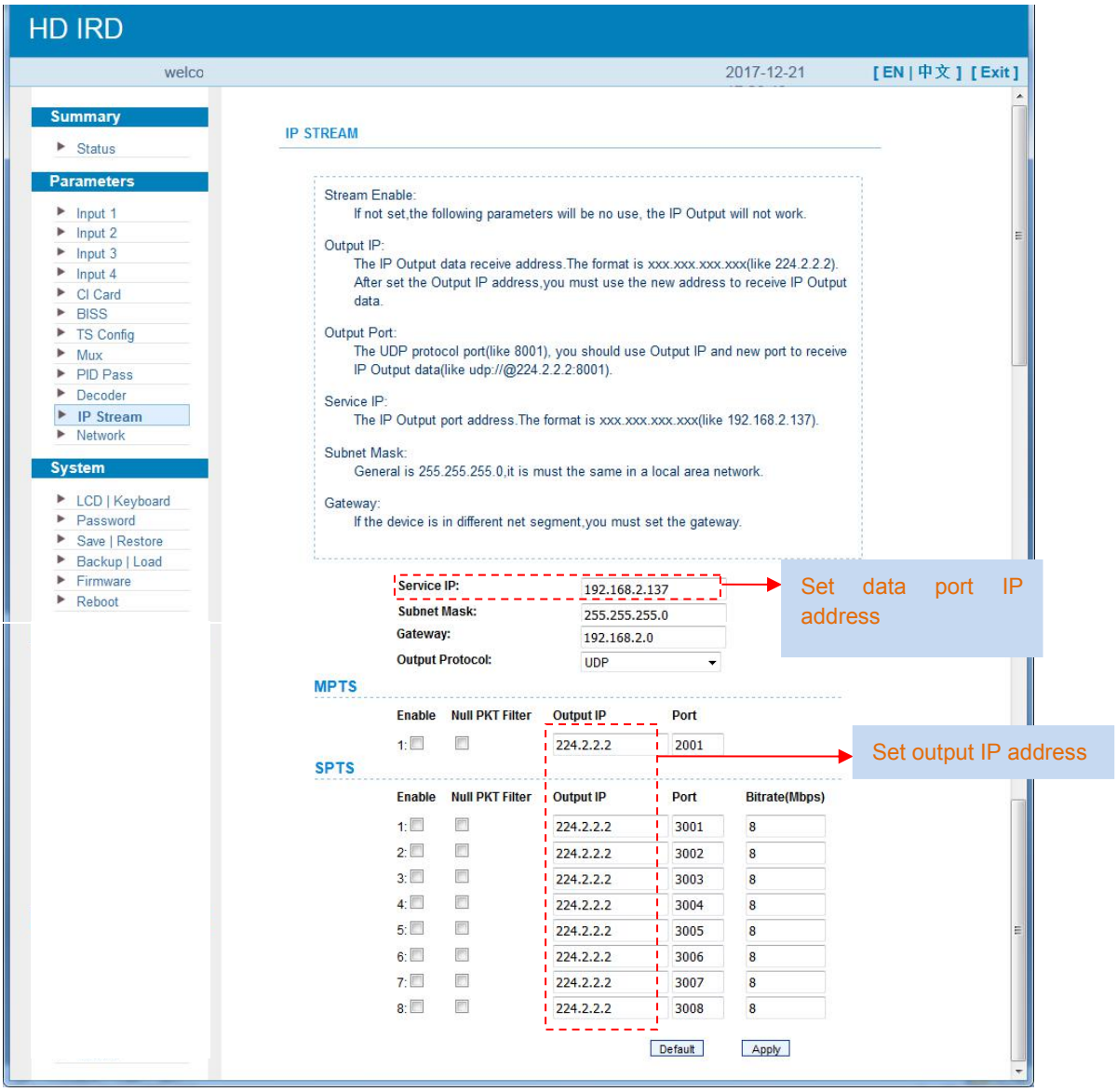


Figure-15

Parameters → Network:

From the menu on left side of the webpage, clicking “Network”, it will display the screen as Figure-16where to configure the network parameters for the device.

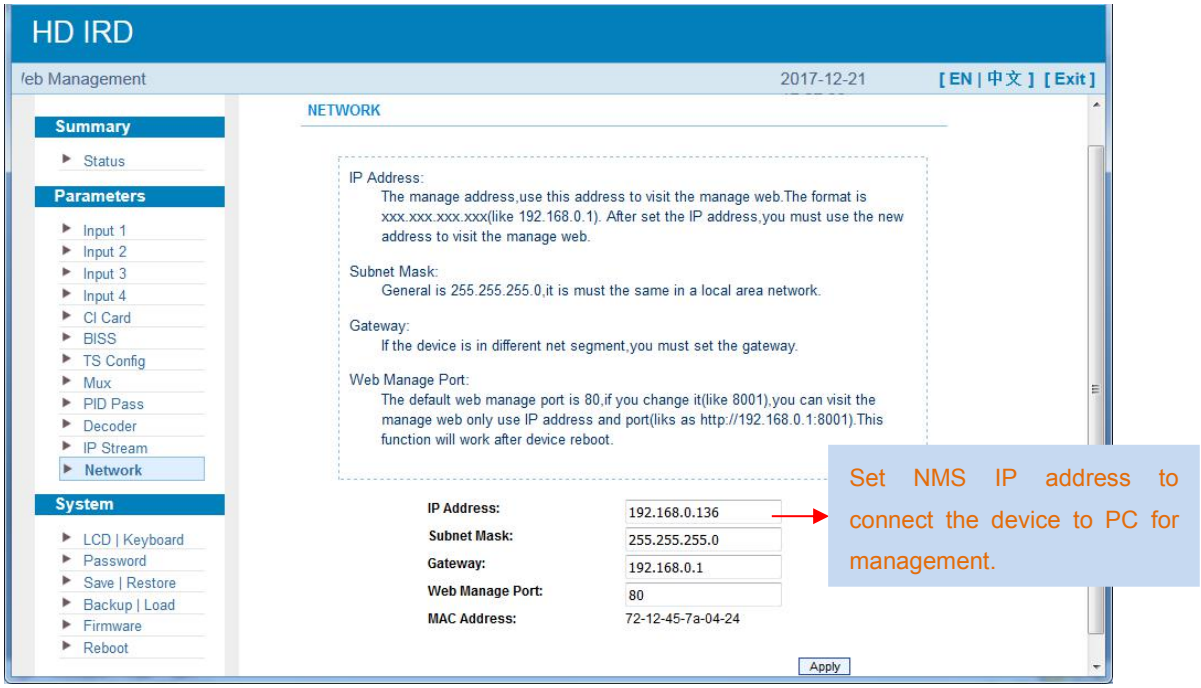


Figure-16

System → LCD/Keyboard:

From the menu on left side of the webpage, clicking "LCD/Keyboard", it will display the screen as Figure-17 where to control the device's front panel.

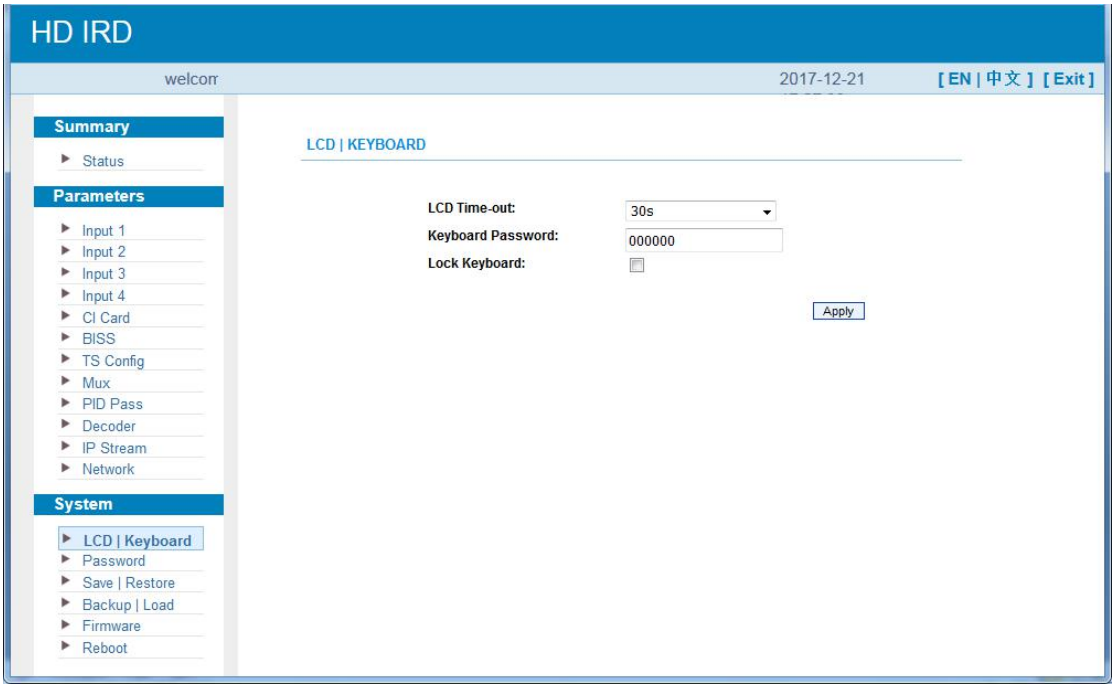


Figure-17

System → Password:

From the menu on left side of the webpage, clicking "Password", it will display the screen as Figure-18 where to set the login account and password for the web NMS.

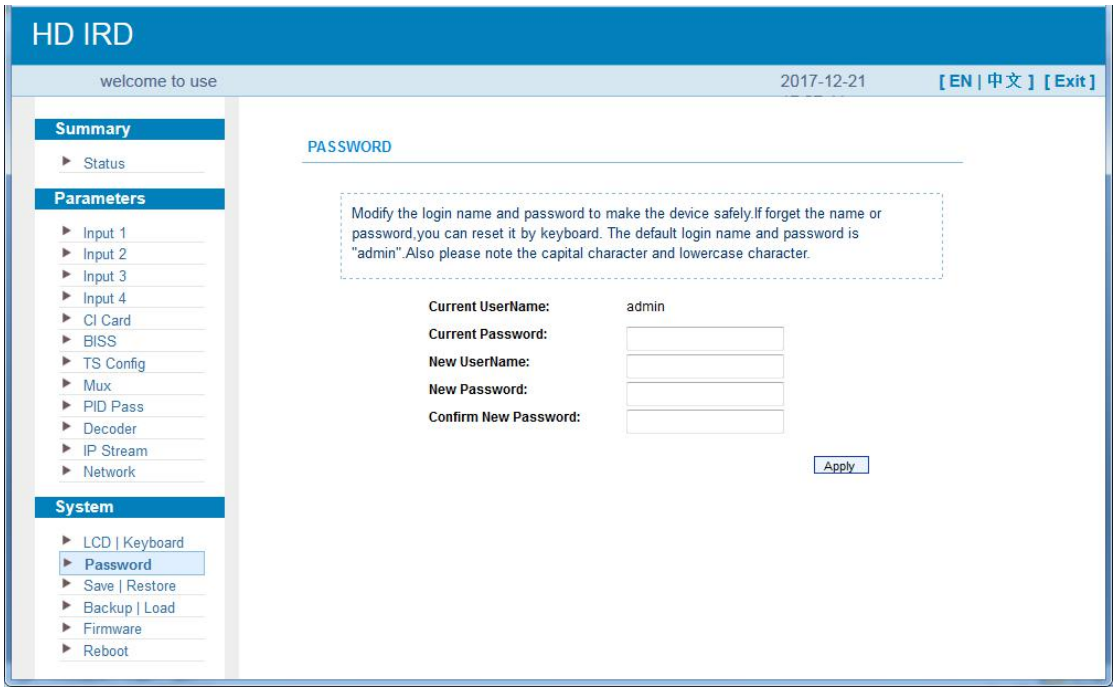


Figure-18

System → Save/Restore:

From the menu on left side of the webpage, clicking "Save/Restore", it will display the screen as Figure-19 where to save or restore your configurations.

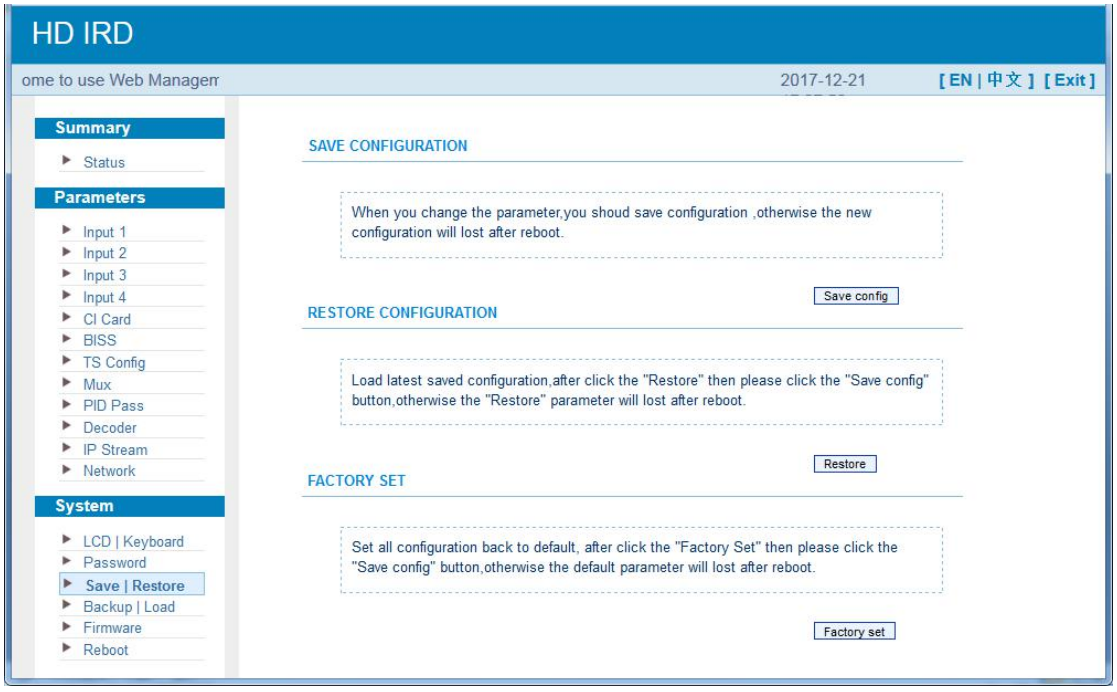


Figure-19

System → Backup/Load:

From the menu on left side of the webpage, clicking "Backup/Load", it will display the screen as Figure-18 where to backup or load your configurations.

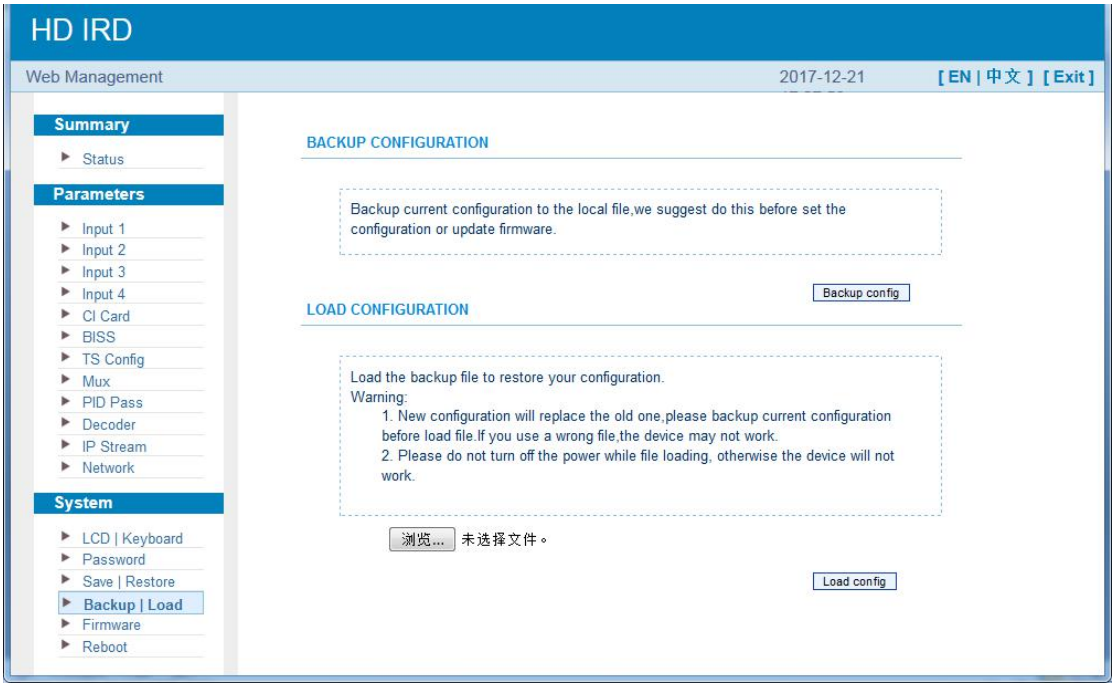


Figure-20

System →Firmware:

From the menu on left side of the webpage, clicking “Firmware”, it will display the screen as Figure-19 where to update firmware for the device.

Figure-21

System → Reboot:

From the menu on left side of the webpage, clicking “Reboot”, it will display the screen as Figure-22 where to restart the device manually.

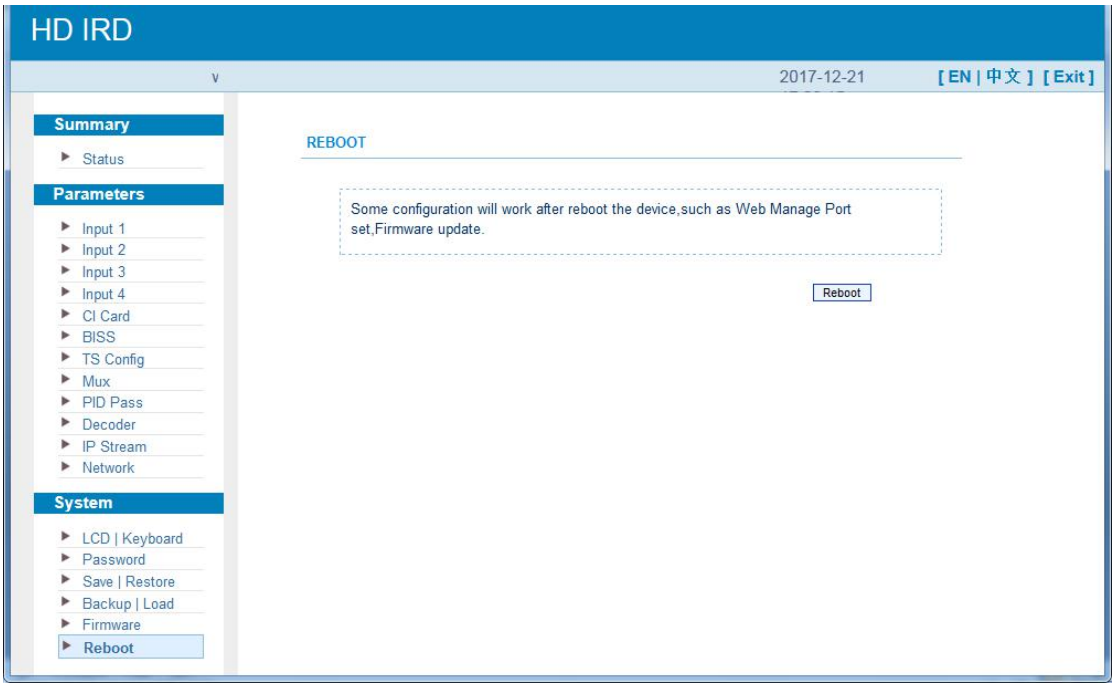

HD IRD
2017-12-21
[EN | 中文] [Exit]
Summary
Status
Parameters
Input 1
Input 2
Input 3
Input 4
CI Card
BISS
TS Config
Mux
PID Pass
Decoder
IP Stream
Network
System
LCD | Keyboard
Password
Save | Restore
Backup | Load
Firmware
Reboot
REBOOT
Some configuration will work after reboot the device,such as Web Manage Port set,Firmware update.
Reboot

Figure-22

Chapter 5 Troubleshooting

Catcast's ISO9001 quality assurance system has been approved by CQC organization. For guarantee the products' quality, reliability and stability. All Catcast products have been passed the testing and inspection before ship out factory. The testing and inspection scheme already covers all the Optical, Electronic and Mechanical criteria which have been published by Catcast. To prevent potential hazard, please strictly follow the operation conditions.

Prevention Measure

- Installing the device at the place in which environment temperature between 0 to 45 °C
- Making sure good ventilation for the heat-sink on the rear panel and other heat-sink bores if necessary
- Checking the input AC voltage within the power supply working range and the connection is correct before switching on device
- Checking the RF output level varies within tolerant range if it is necessary
- Checking all signal cables have been properly connected
- Frequently switching on/off device is prohibited; the interval between every switching on/off must greater than 10 seconds.

Conditions need to unplug power cord

- Power cord or socket damaged.
- Any liquid flowed into device.
- Any stuff causes circuit short
- Device in damp environment
- Device was suffered from physical damage
- Longtime idle.
- After switching on and restoring to factory setting, device still cannot work properly.
- Maintenance needed