



**ACT IRD1560  
Decoder User  
Manual  
Revision A**

## IRD1560 Decoder User Manual

ACT Document Number: ACT IRD1560 Decoder User Manual Revision A

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This document is produced to assist professional and properly trained personnel with installation and maintenance issues for the product. The capabilities, system requirements and/or compatibility with third-party products described herein are subject to change without notice.

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### Revision History

Revision	Date	Reason for Change
A	4/27/2016	Initial Release

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## Chapter 1. Product Outline

### 1.1 Outline

IRD1560 DVB-S2 HD IRD is ASCENT's all-in-one device which integrates demodulation, descrambler, remux and decoding in one case to convert RF signals into audio/video (CVBS/YpPr/HDMI/SDI) output.

It is a 1-U case which supports 2 tuner inputs to receive signal from satellite. The two CAMs/CIs accompanied can descramble the programs input from encrypted RF, ASI and IP. The CAM requires NO unsightly external power cords, cables, or additional remote control device.

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

To meet customers' various requirements, IRD1560 is also equipped with ASI and IP input for remux, and output with 2 ASI ports and IP port.

### 1.2 Features

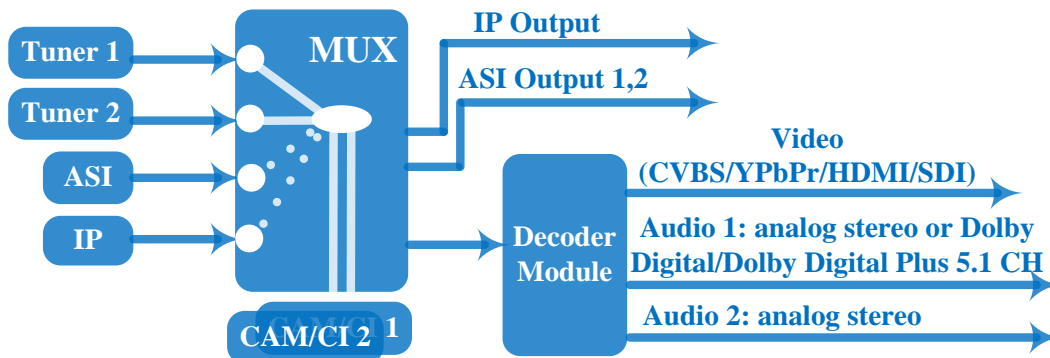
- Demodulation + descrambler + remux + decoder modules in one box
- 2 DVB-S/S2 Tuner inputs
- 1 ASI & 1 IP (UDP) input for remux
- One CAM can decrypt multiple programs from Tuners/ASI/IP
- One channel video output with various interface option (MPEG2/H.264)
- Dual stereo audio output, or one Dolby Digital/Dolby Digital Plus (5.1) channel output
- Support Dolby Digital/Dolby Digital Plus Decoding and passthrough
- IP (1 MPTS & 8 SPTS) over UDP and RTP/RTSP output; ASI out
- Support CC, Subtitle and Teletext
- 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

<b>Input</b>	2 × DVB-S/S2 RF, F type 1 × ASI input for re-mux, BNC interface 1 × IP input for re-mux (UDP)
<b>Demodulating section</b>	
<b>DVB-C</b>	
Standard	J.83A (DVB-C), J.83B, J.83C
Input Frequency	30 MHz ~ 1000 MHz
Constellation	16/32/64/128/256 QAM
<b>DVB-T/T2</b>	
Input Frequency	30 MHz ~ 999.999 MHz
Bandwidth	6/7/8 M bandwidth
<b>DVB-S</b>	
Input Frequency	950 ~ 2150 MHz
Symbol Rate	2 ~ 45 Msps
Signal Strength	-65 ~ -25 dBm
Constellation	1/2, 2/3, 3/4, 5/6, 7/8, QPSK
<b>DVB-S2</b>	
Input Frequency	950 ~ 2150 MHz
Symbol Rate	Qpsk 1 ~ 45 Mbauds 8PSK 2 ~ 30 Mbauds
Code Rate	1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10
Constellation	QPSK, 8PSK
<b>Descrambling</b>	
CAM/CI Quantity	2
BISS Mode	Mode 1, Mode E; Up to 120 Mbps
<b>Output</b>	
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: 1 × CVBS/YPbPr/HDMI/SDI Resolution: 480i, 480p, 576i, 576p, 720p, 1080i, 1080p Video decode: MPEG-2; H.264 Audio interface; 2 × Stereo / 4 × Mono, HDMI, SDI Audio decode: MPEG 1 Layer II, LC-AAC, HE-AAC, Dolby Digital AC3 Audio output mode: Left, Right, Stereo, 5.1 CH
<b>System</b>	
Local Interface	LCD + control buttons
Remote Management	Web-server Management
Upgrade	USB, web management
<b>General</b>	
Power Supply	AC 100V ~ 240V

Dimensions	482 mm × 300 mm × 44.5 mm
Weight	3 kg
Operation Temperature	0 ~ 45°C

## 1.4 Principle Chart



## 1.5 Appearance and Description

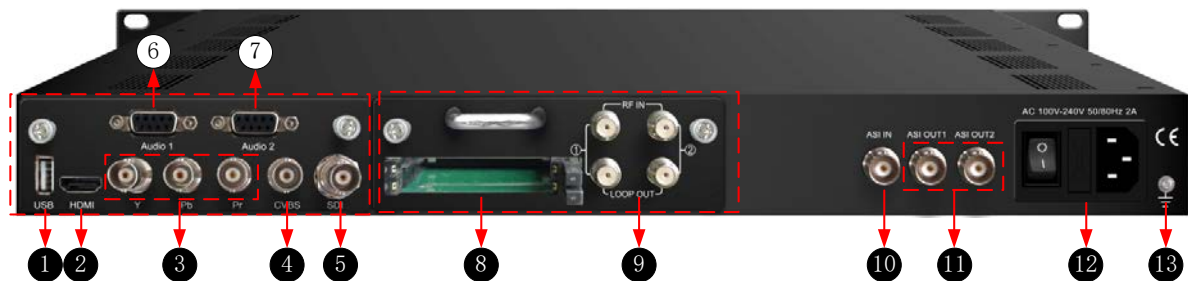
Front Panel Illustration:



- 1 LCD display for device control and configuration
- 2 Mini LCD TV for decoding monitor
- 3 Mini LCD TV power switch
- 4 NMS Port (for PC connection)
- 5 DATA Port (for IP stream input & output)

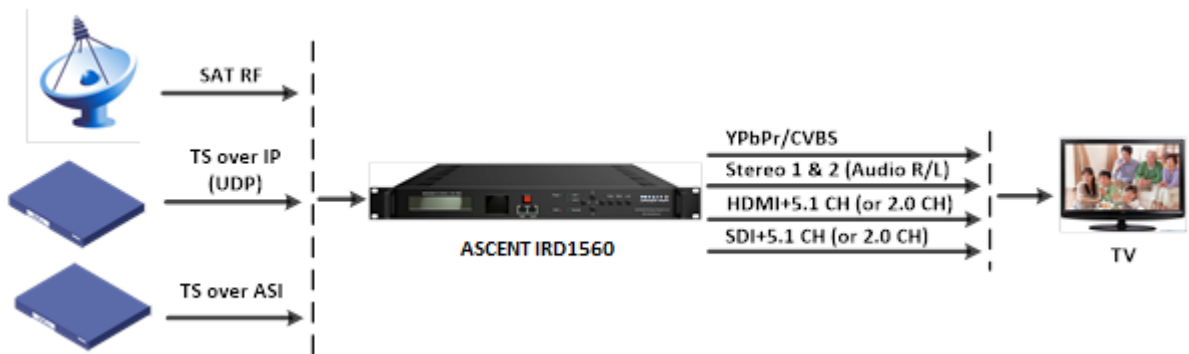
- 6 Indicators Area (Lock 1&2: to indicate RF input signal lock status; Decoder: to indicate the decoding status)
- 7 Up/Down/Left/Right Buttons  
Enter Key  
Menu Key  
Lock Key

Rear Panel Illustration



<b>Decoder Board</b>	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)
	8	CAMs /Smart card slots A & B
	9	RF signal input and loop-through 1 & 2
<b>Tuner Receiving Board</b>	10	ASI input Port for remux
	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:

- IRD1560 DVB-S2 HD IRD 1pcs
- User's Manual 1pcs
- HDMI Cable 1pcs
- YPbPr Cable 1pcs
- CVBS Cable 1pcs
- SDI Cable 1pcs
- Audio adapt cables 2sets
- Power Cord 1pcs

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

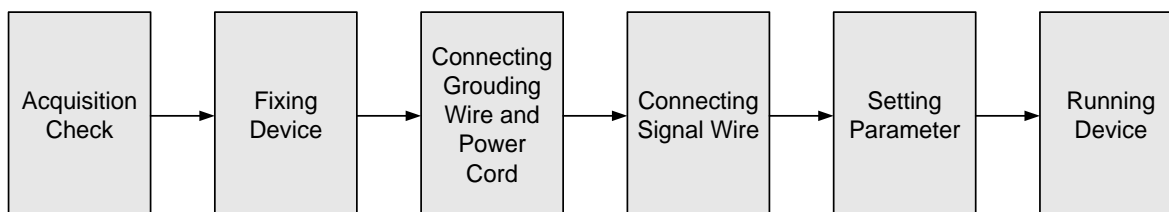
### 2.2 Installation Preparation

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 ~ 1.5 m and the distance against wall should be no less than 0.8 m.
Machine Hall Floor	Electric isolation, dust free Volume resistivity of ground anti-static material: $1 \times 10^7 \sim 1 \times 10^{10} \Omega$ , Grounding current limiting resistance: 1M (Floor bearing should be greater than 450 kg/m <sup>2</sup> )
Environment Temperature	5~40°C (sustainable), 0~45°C (short time), installing air-conditioning is recommended
Relative Humidity	20% ~ 80% sustainable 10% ~ 90% short time
Pressure	86 ~ 105 kPa
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 Requirements

- 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<sup>2</sup>.

## 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<sup>2</sup>.

## 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  $1\Omega$ .



Caution

Before connecting power cord to IRD1560, 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 IRD1560 DVB-S2 HD IRD Cables Illustration:

- IP Input/output Cable Illustration:



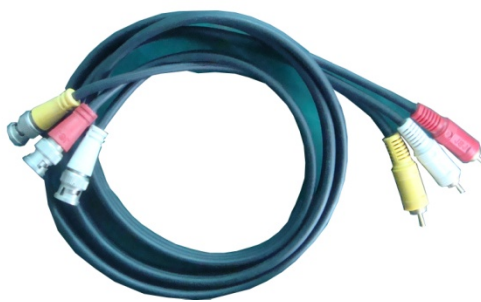
- Tuner Cable Illustration:



- ASI Input/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 IRD1560 DVB-S2 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.

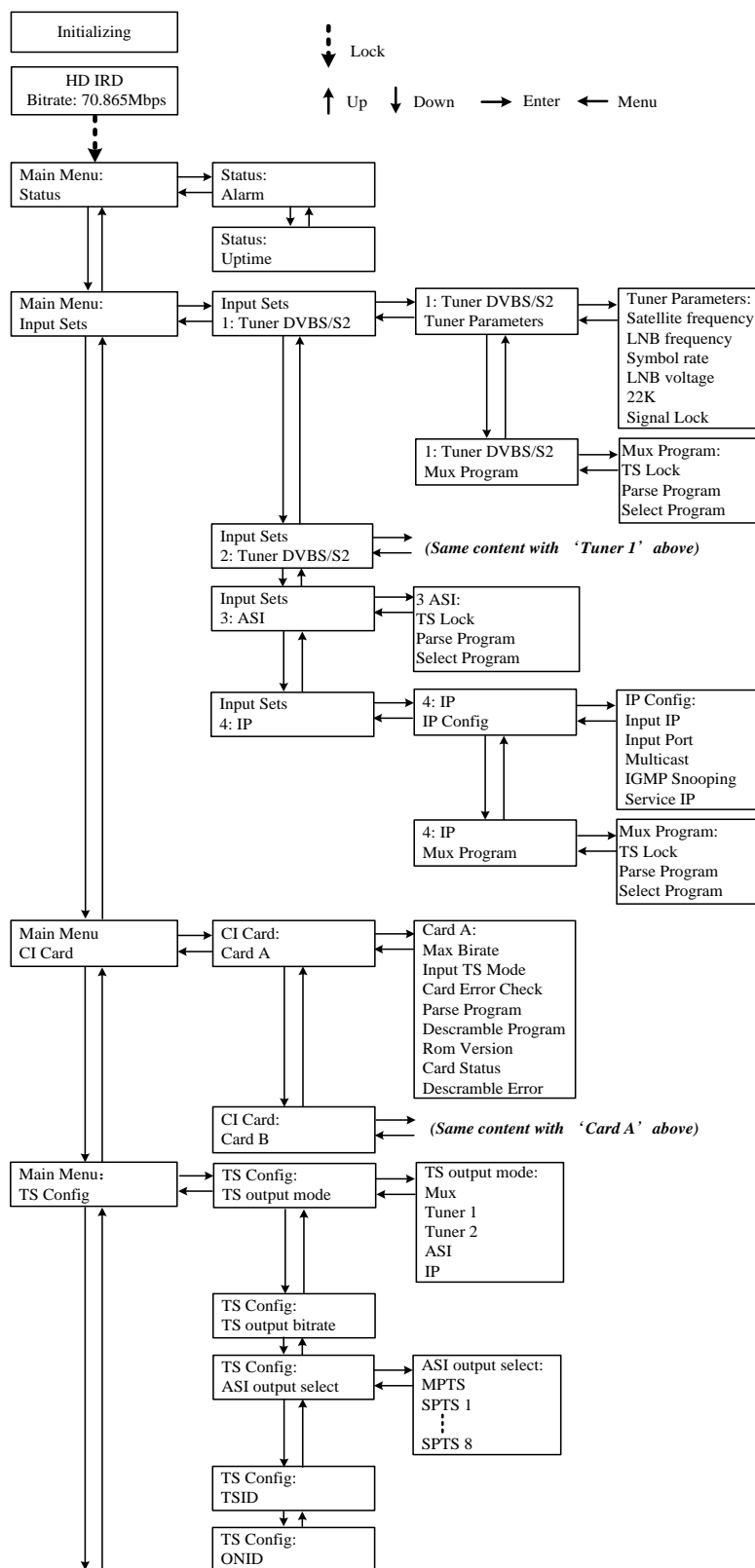
**ENTER:** Activate the parameters which need modifications, or confirm the change after modification.

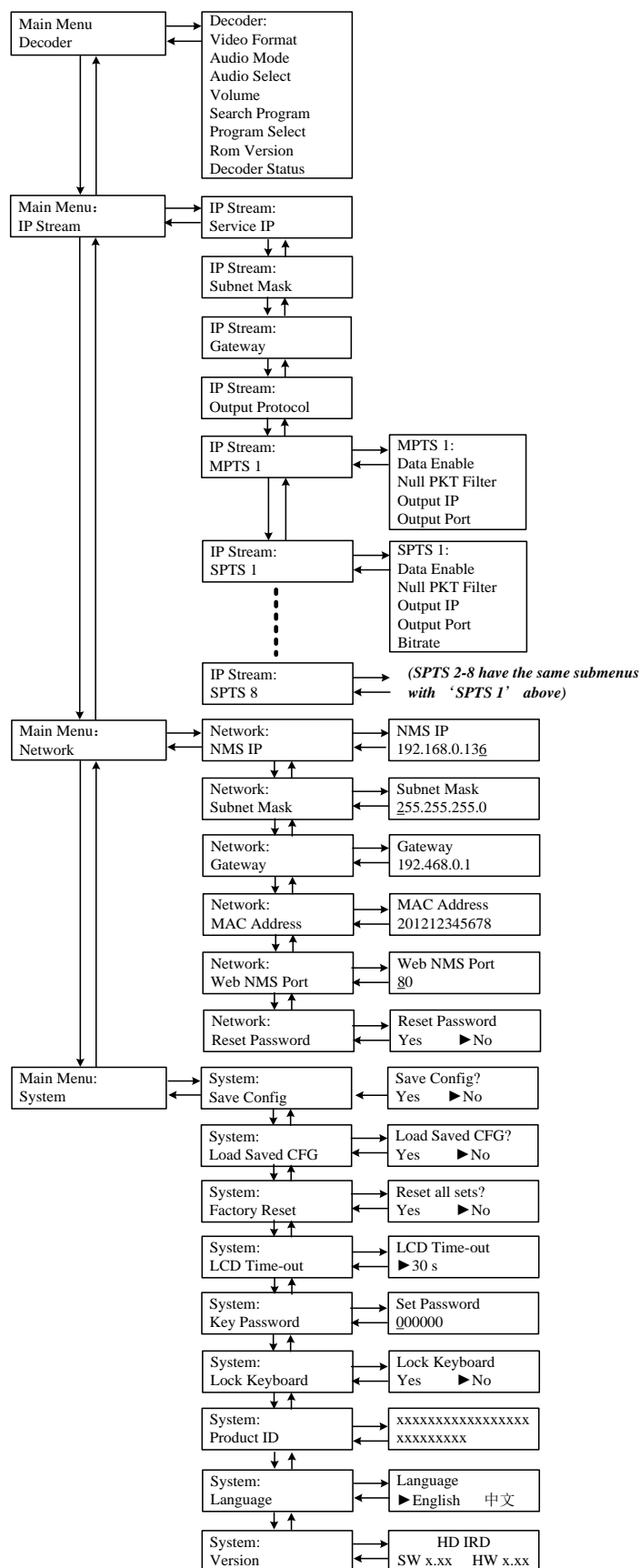
**LEFT/RIGHT:** Choose and set the parameters.

**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.

## 3.1 LCD Menu Class Tree

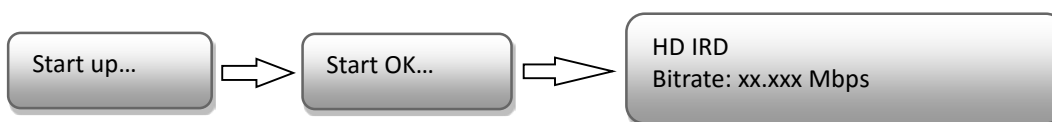






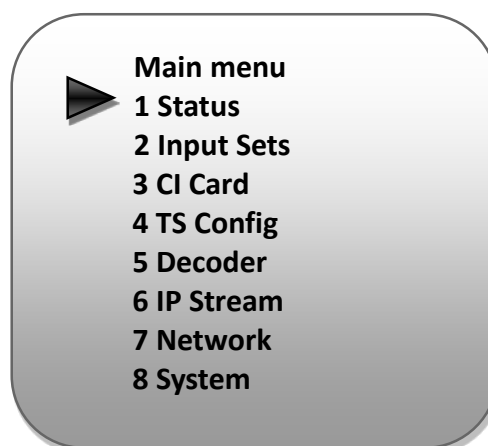
## 3.2 General Settings

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



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

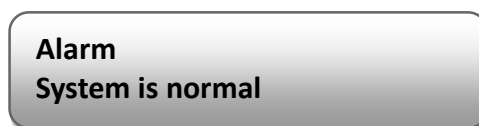
Press LOCK key on the front panel to enter the main menu. The LCD will display the following pages where user can configure the parameters for the device:



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:

### 3.2.1 Status

**Alarm:** The alarm indicator will turn on if there are 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.

**Uptime**  
**1 Day(s) 03:30:02**

### 3.2.2 Input Sets

IRD1560 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:

 **Input Sets**  
**1 Tuner DVBS/S2**  
**2 Tuner DVBS/S2**  
**3 ASI**  
**4 IP**


#### ➤ **Tuner DVBS/S2:**

Press ENTER key to enter '1 Tuner DVBS/S2' (or '2 Tuner DVBS/S2'), it displays as below:

 **1 Tuner DVBS/S2**  
**Tuner Parameters**  
**Mux Program**

Tuner Parameters:

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

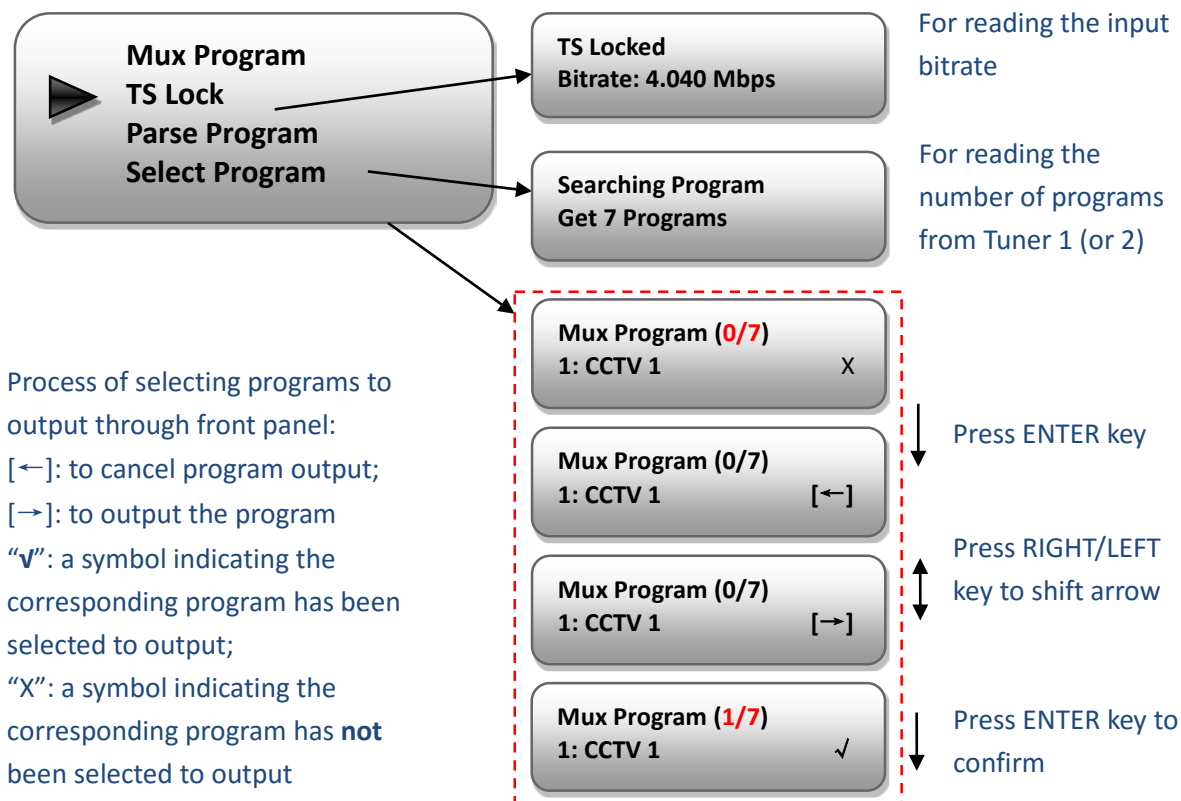
 **Tuner Parameters:**  
**Satellite frequency**  
**LNB frequency**  
**Symbol rate**  
**LNB Voltage**  
**22K**  
**Signal Lock** → For checking signal status and quality etc.

Mux Program:

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



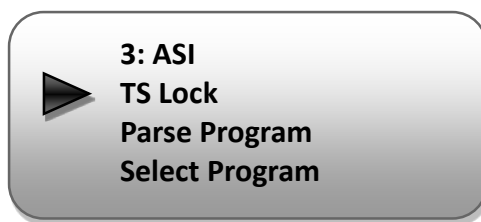
**Multiplexing operation can only take effect on condition that the "TS output mode" is set to "Mux" under 'TS Config'. (i.e.: TS Config→TS output mode→Mux)**



'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.



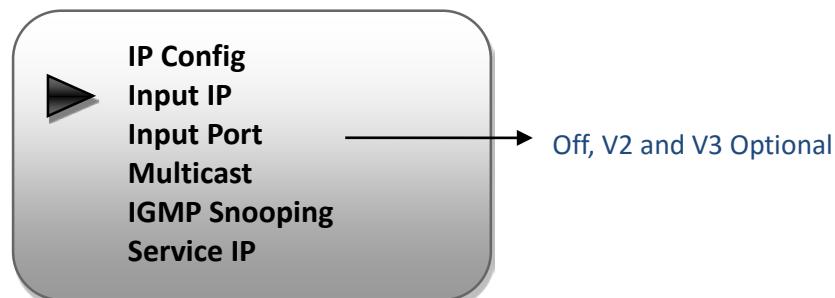
## ➤ IP:

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



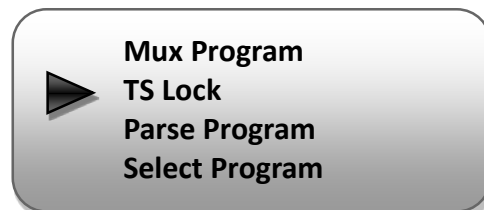
### IP Config:

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



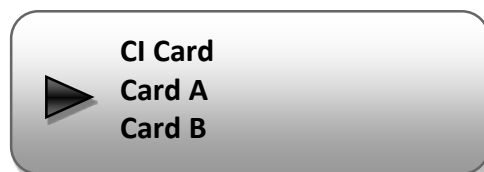
### Mux Program:

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.

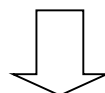


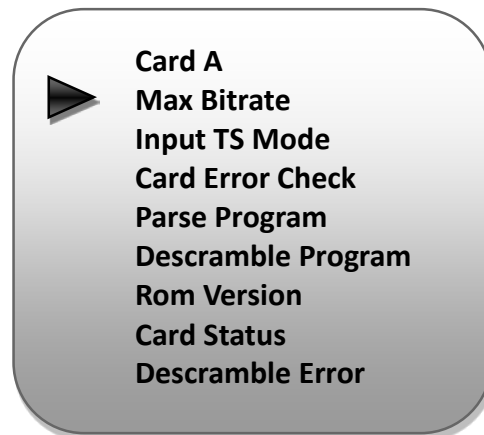
## 3.2.3 CI Card

IRD1560 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):





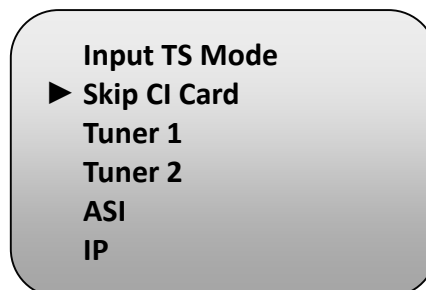
## ➤ Max Bit rate

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



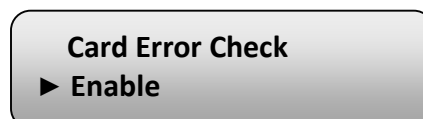
## ➤ Input TS Mode

IRD1560 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.



## ➤ Parse Program

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

**Searching Program**  
**Get 8 Programs**

## ➤ 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.

▶ 1 CETV 1	√
2 CCTV 4A	X

## ➤ Rom Version/Card Status/Descramble Error

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

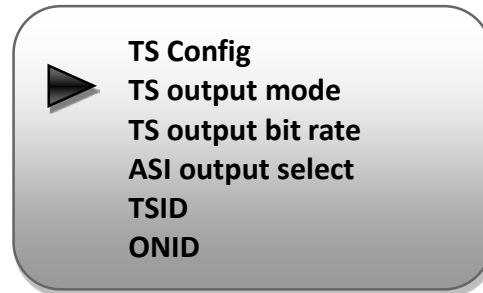
**Rom Version**  
**X.X.X.X**

**Card Status**  
**Normal**

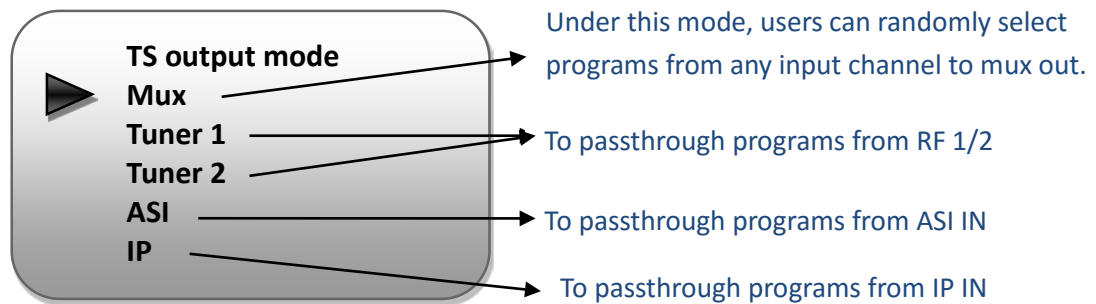
**Descramble Error**  
**Normal**

## 3.2.4 TS Config

Users can press ENTER key to enter 'TS Config' to configure the parameters 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 and SPTS 1-8).



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

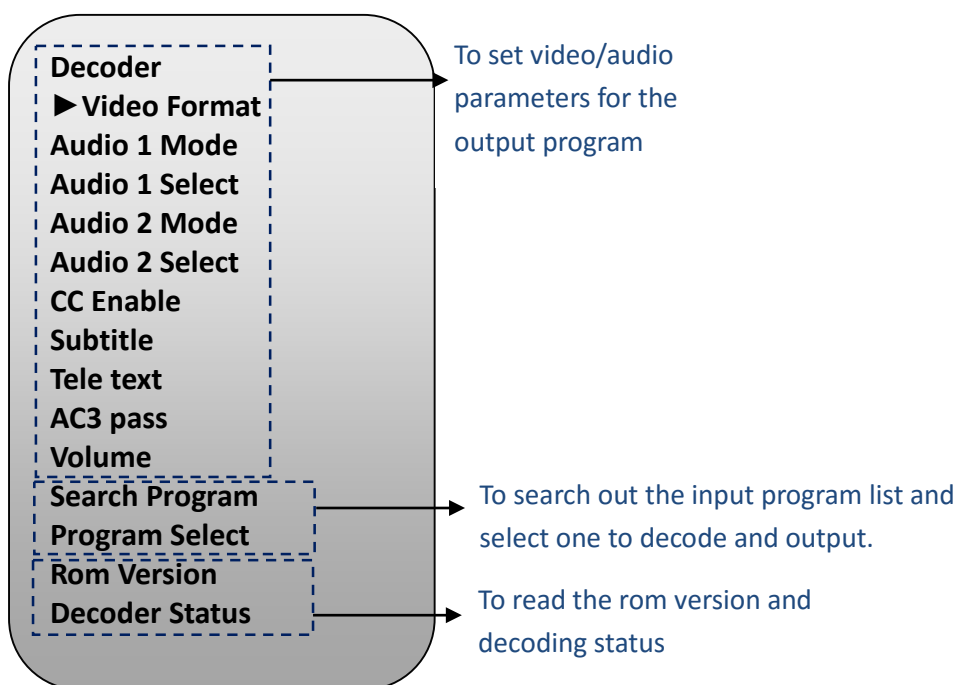


**ON ID:** Users can set ON ID (original network ID) in this menu.

**ON ID**  
00001

### 3.2.5 Decoder

Users can press ENTER key to enter 'Decoder' to set the video to be decoded. IRD1560 IRD supports one channel program to output at various interfaces at the same time (HDMI/SDI/CVBS/YPbPr).



#### Audio 1: Primary Audio Channel; Audio 2: Secondary Audio Channel

- IRD1560 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 Channel ('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 or 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.

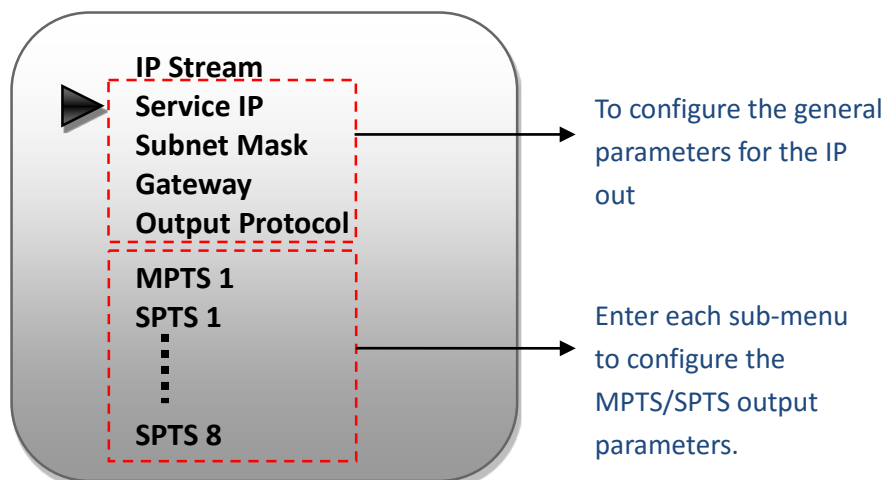


Note



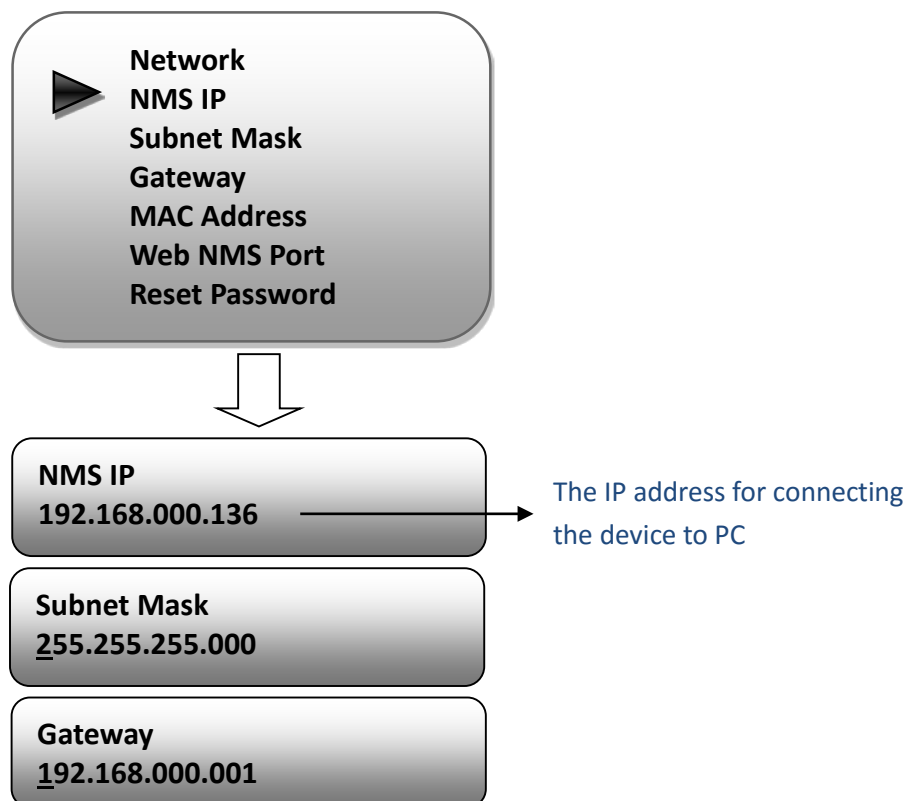
## 3.2.6 IP Stream

IRD1560 supports 1MPTS and 8 SPTS over IP (UDP, RTP/RTSP) output. Users can set the IP out parameters in this menu.



## 3.2.7 Network

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



**MAC Address**  
 201012345678

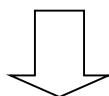
**Web NMS Port**  
00080

**Reset Password?**  
 Yes ► NO

## 3.2.8 System

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

**System**  
 ► Save Config  
 Load Saved CFG  
 Factory Reset  
 LCD Time-out  
 Key Password  
 Lock Keyboard  
 Product ID  
 Language  
 Version



**Save Configuration?**  
 Yes ► No

Choose yes to save settings.  
and press ENTER to confirm

Choose yes to restore the  
device into the last saved  
configuration.

**Load Saved CFG?**  
 Yes ► No

**Reset All Sets?**  
 Yes ► No

Choose yes to restore the  
device into factory's default  
configuration.

Press DOWN/UP key to select  
a time out for the LCD  
lighting duration (5-120)

**LCD Time-out**  
 30 s

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

**Set Password**  
000000

To set a 6-digit password for unlocking the keyboard

**Lock Keyboard?**  
Yes    ► No

XXXXXXXXXXXXXXXXXXXXX  
XXXXXXXXXXXXXXXXXXXXX

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.

**ATSC Modulator**  
SW x.xx    HW x.xx

It displays the version information of this device.  
Encoder Modulator: the name of the device; SW: software version number; HW: hardware version

## Chapter 4. Web-based NMS Management

In addition to using front buttons to control the device, users can also control and set the configuration with the web Browser in the PC.

### 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".) and click "LOGIN" to start the device setting.

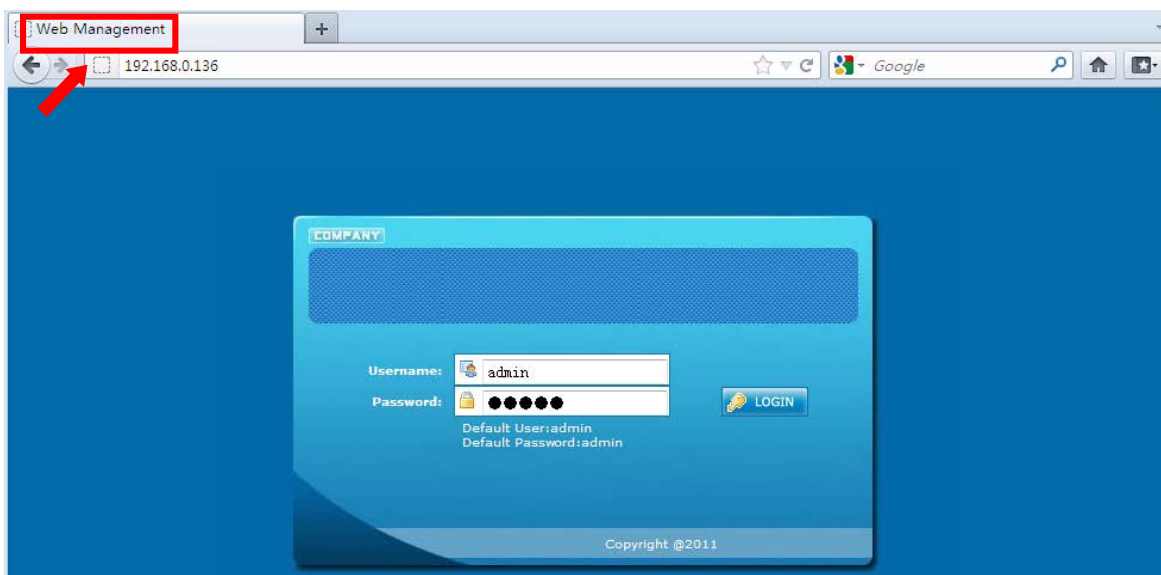


Figure 4-1

### 4.2 Operation

#### Summary:

When we confirm the login, it displays the WELCOME interface as Figure 4-2 where users can have an overview of the device's system information and working status.

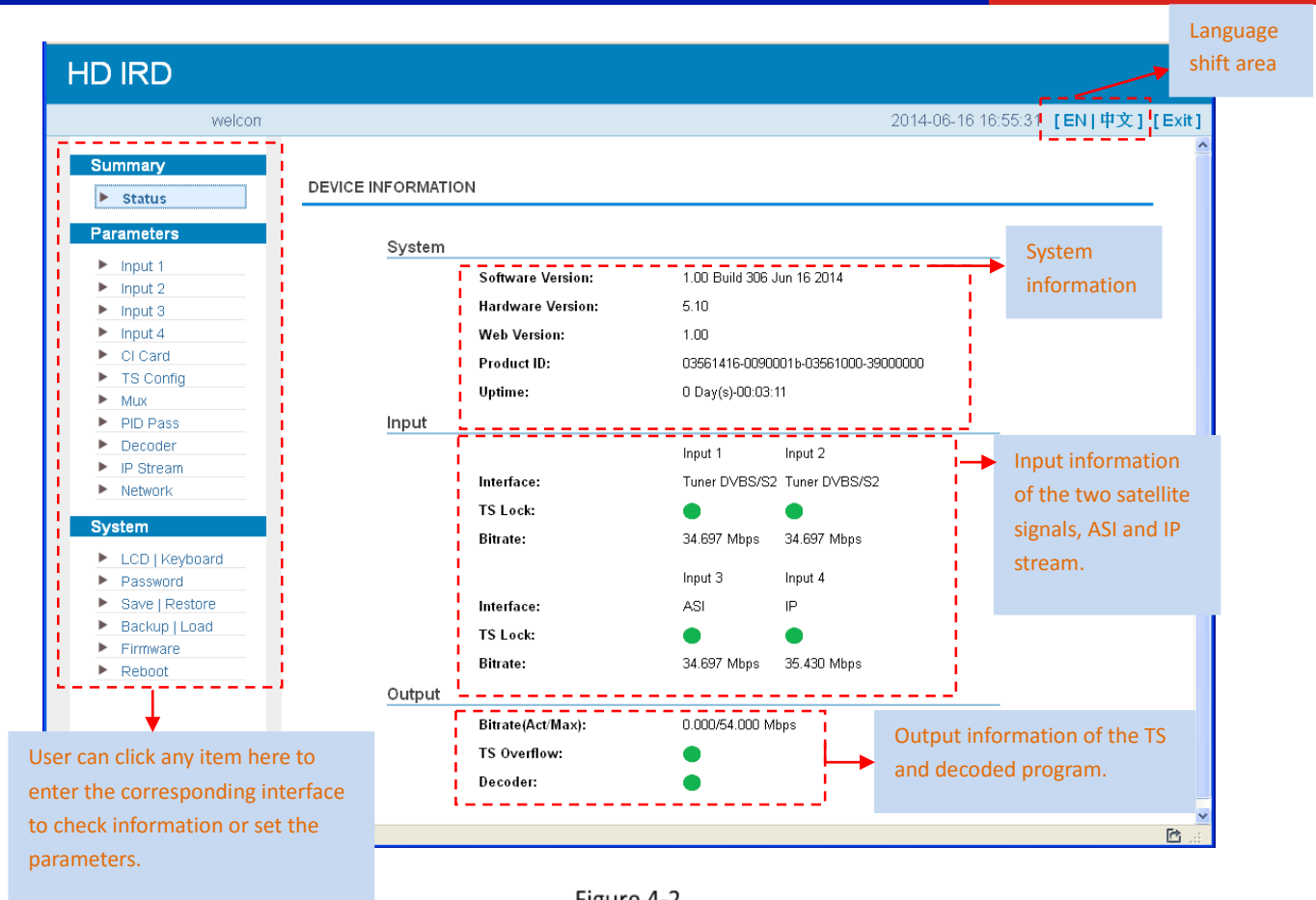


Figure 4-2

## 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 the 2 RF input parameters separately. (Figure 4-3)

**HD IRD**  
Web Management 2014-06-16 16:56:07 [EN | 中文] [Exit]

**Summary**  
▶ Status

**Parameters**  
▶ Input 1  
▶ Input 2  
▶ Input 3  
▶ Input 4  
▶ CI Card  
▶ TS Config  
▶ Mux  
▶ PID Pass  
▶ Decoder  
▶ IP Stream  
▶ Network

**System**  
▶ LCD | Keyboard  
▶ Password  
▶ Save | Restore  
▶ Backup | Load  
▶ Firmware  
▶ Reboot

**TUNER 1 CONFIGURATION**

**DVBS/S2 parameters**

Satellite Frequency: 3840.000 MHz  
LNB Frequency: 5150.000 MHz  
Symbolrate: 27500 Ksps  
LNB Voltage: 0V  
22K: OFF

**Status**

Signal Lock: ●  
Bitrate: 34.691 Mbps  
Signal Quality:  11%  
Signal Strength:  18%

Default Apply

Configure RF parameters in this area according to signal source to receive programs.

Click "Apply" button to apply the input data to start receive signals.

Figure 4-3

## 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 4-4)

**HD IRD**  
welc 2014-06-16 17:25:36 [EN | 中文] [Exit]

**Summary**  
▶ Status

**Parameters**  
▶ Input 1  
▶ Input 2  
▶ Input 3  
▶ Input 4  
▶ CI Card  
▶ TS Config  
▶ Mux  
▶ PID Pass  
▶ Decoder  
▶ IP Stream  
▶ Network

**System**  
▶ LCD | Keyboard  
▶ Password  
▶ Save | Restore  
▶ Backup | Load  
▶ Firmware  
▶ Reboot

**ASI INPUT**

Signal Lock: ●  
Bitrate: 4.258 Mbps

Figure 4-4

## Parameters → Input 4 (IP Input):

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

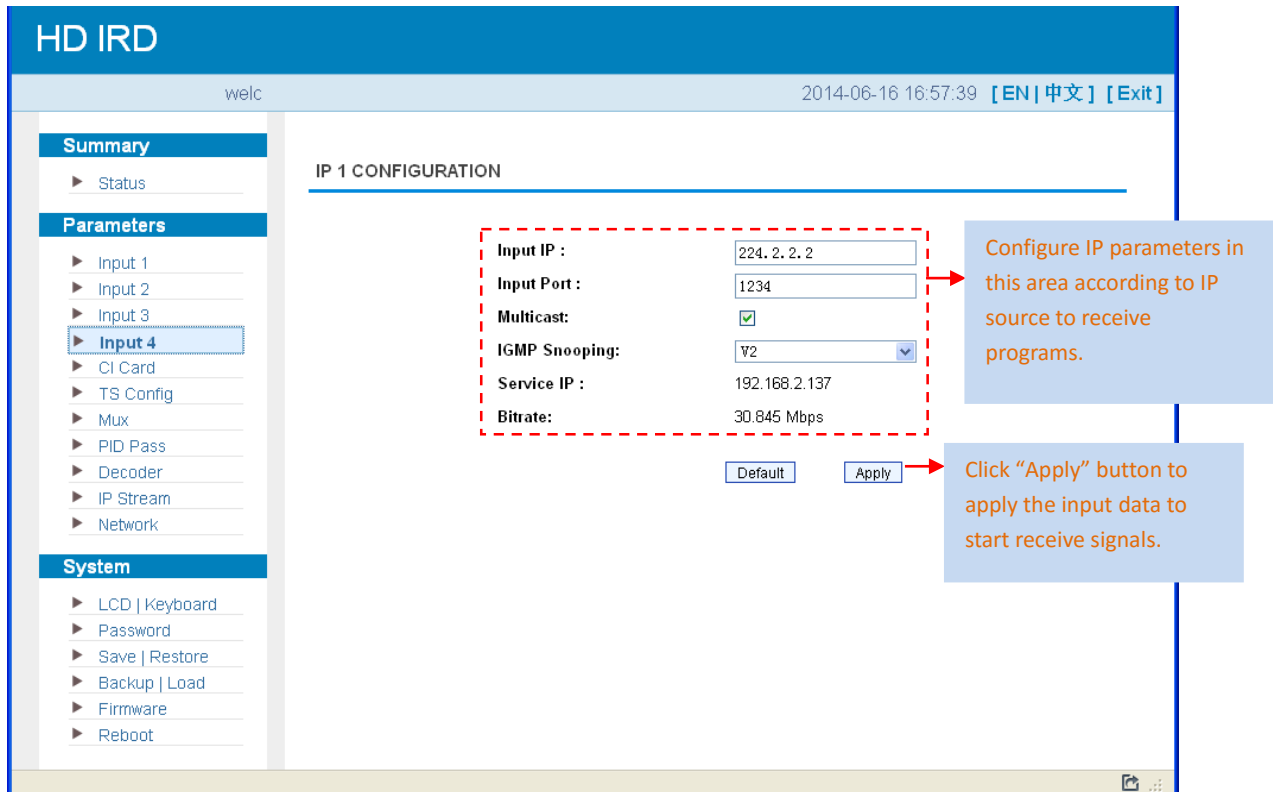


Figure 4-5

## Parameters → CI Card:

IRD1560 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 4-6)

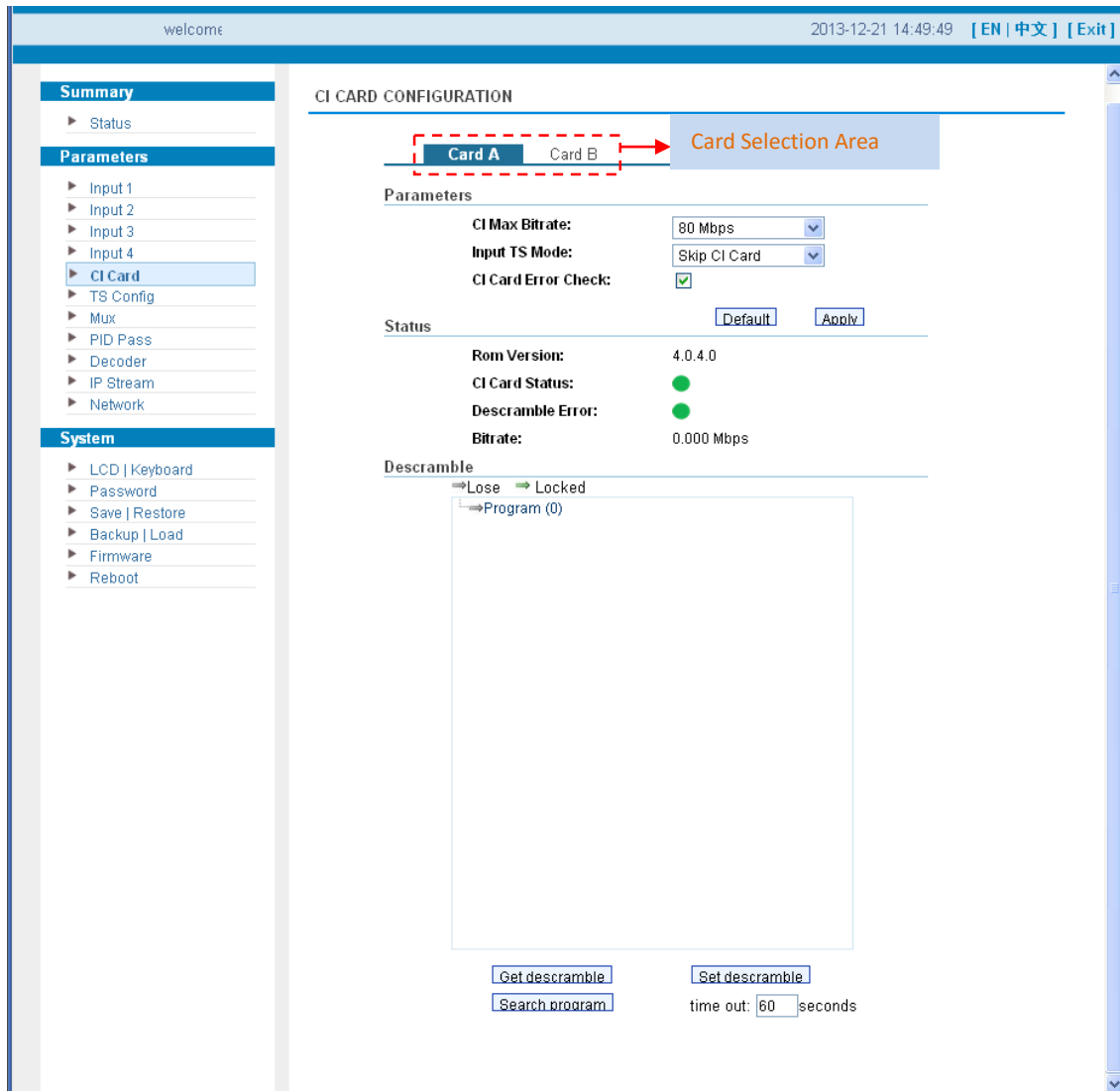
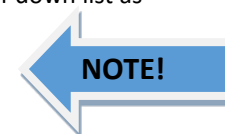
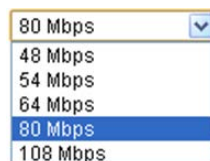


Figure 4-6

## ➤ CI Max Bit rate

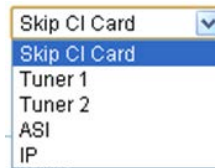
CI Max Bitrate options range from 48-108Mbps. Select a value in the pull-down list as principle: Actual Input Bitrates ≤ Max Bitrate ≤ CI Max decrypting capacity.





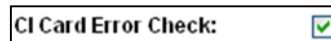
## ➤ Input TS Mode

IRD1560 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 the 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'.

The searched out programs will be listed in the 'Descramble' box below: (Figure 4-7)

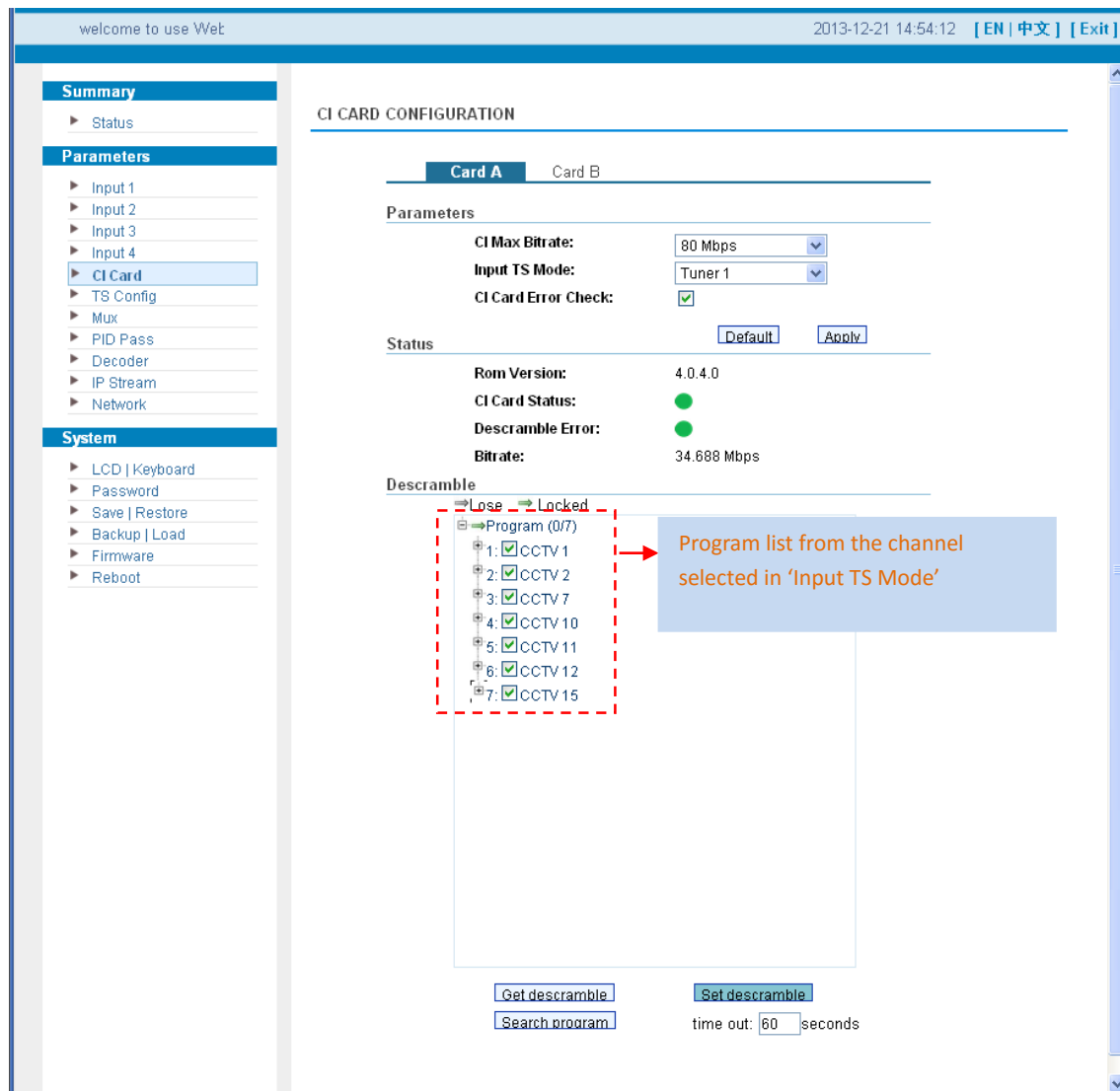
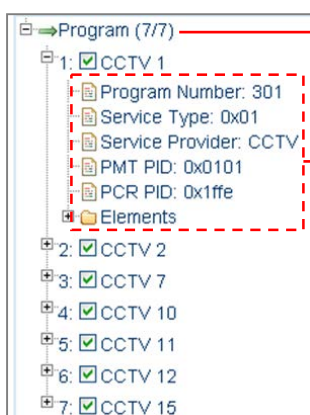


Figure 4-7

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.



Number before slash indicates the programs which have been descrambled.  
Number behind slash indicates the whole programs from the selected channel.

Users can also read the program information by clicking '+' symbol.

## Parameters → TS Config:

From the menu on left side of the webpage, clicking "TS Config", it displays the interface where users can configure the ASI output parameters. (Figure 4-8)

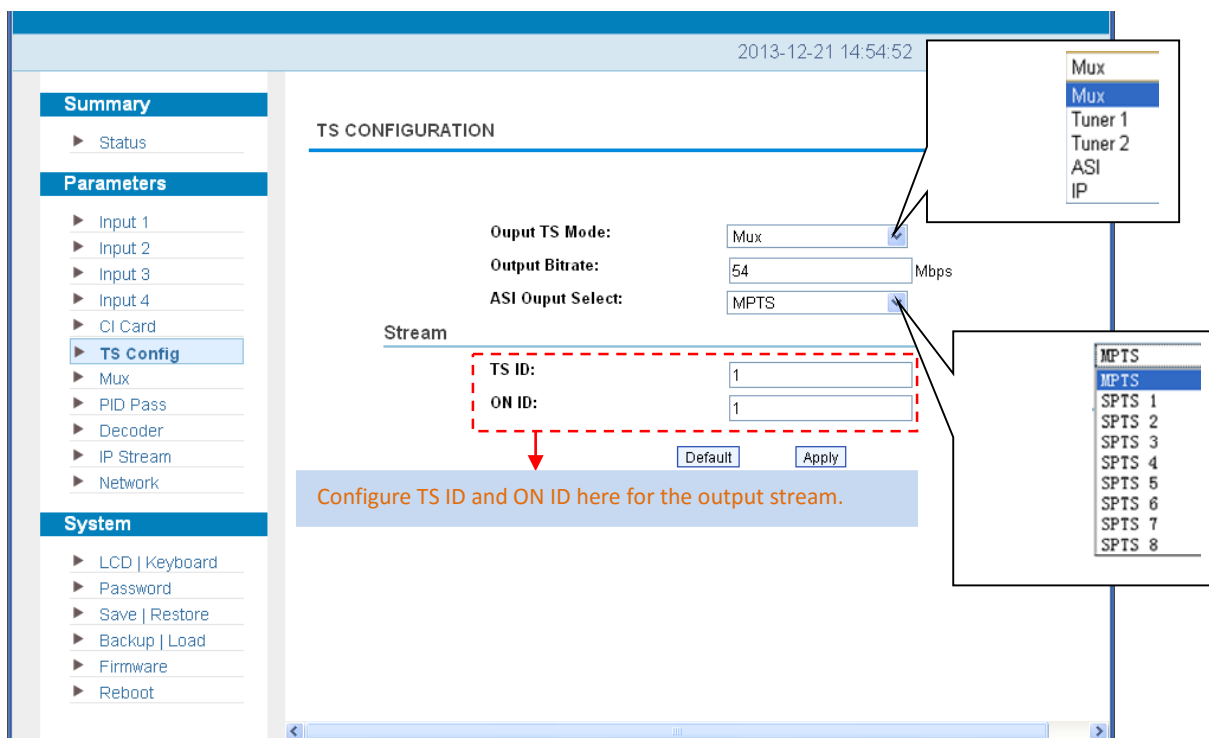
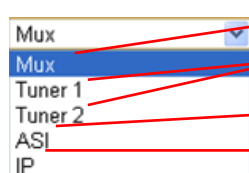


Figure 4-8

## Output TS Mode:



Under this mode, users can randomly select programs from any input channel to mux out.

To passthrough programs from Tuner 1/2

To passthrough programs from ASI

To passthrough programs from IP

**ASI Output Select:** The TS 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 4-9)

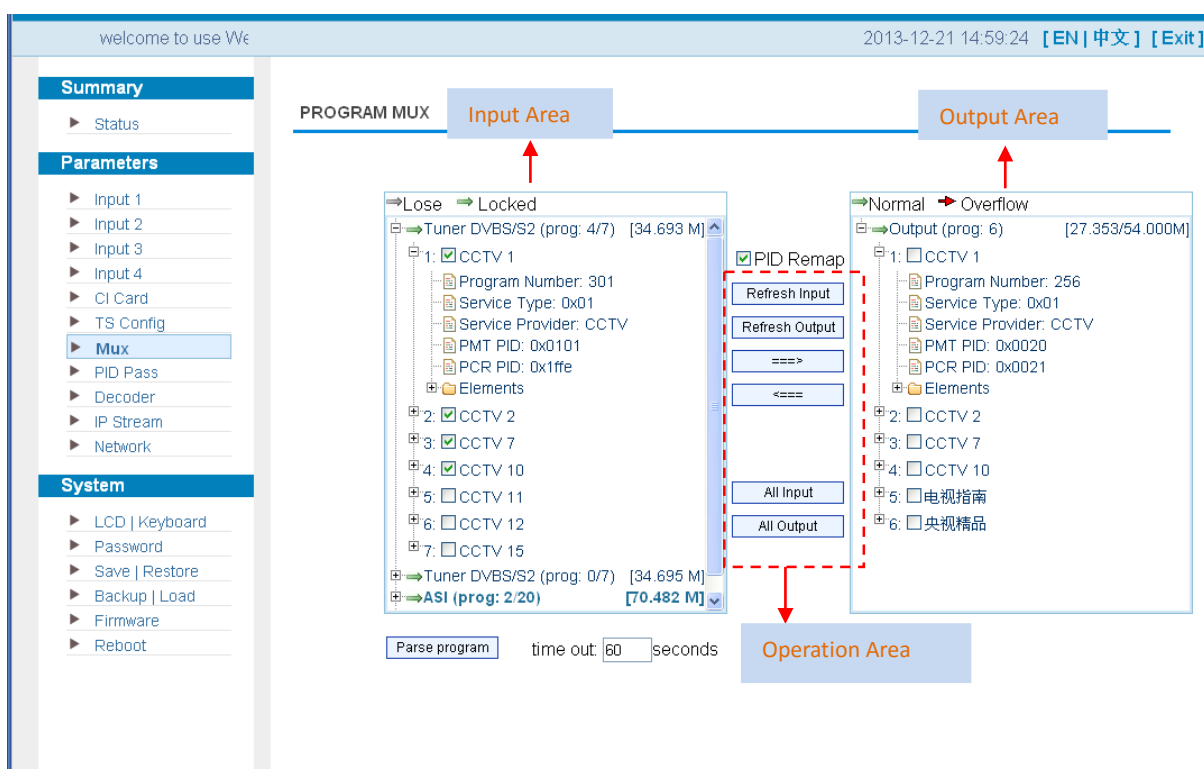


Figure 4-9

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

☒ **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.

: To select all the input programs

: To select all the output programs

: To parse programs  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 ☐ CCTV 1, it triggers a dialog box (Figure 10) where users can input new information.

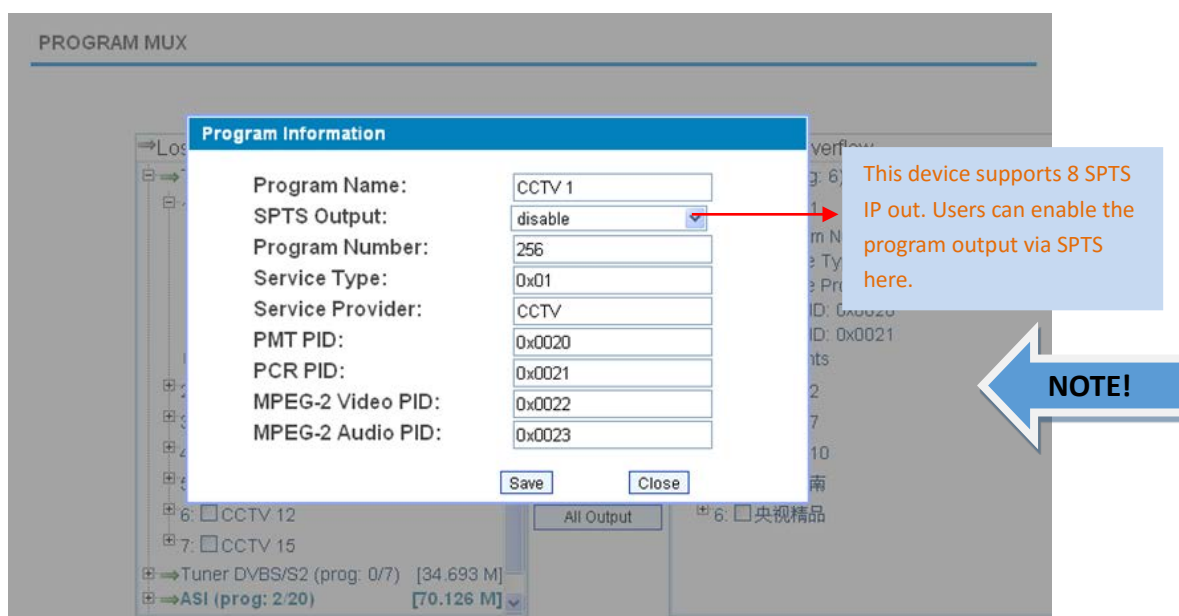


Figure 4-10

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

## Parameters → PID Pass:

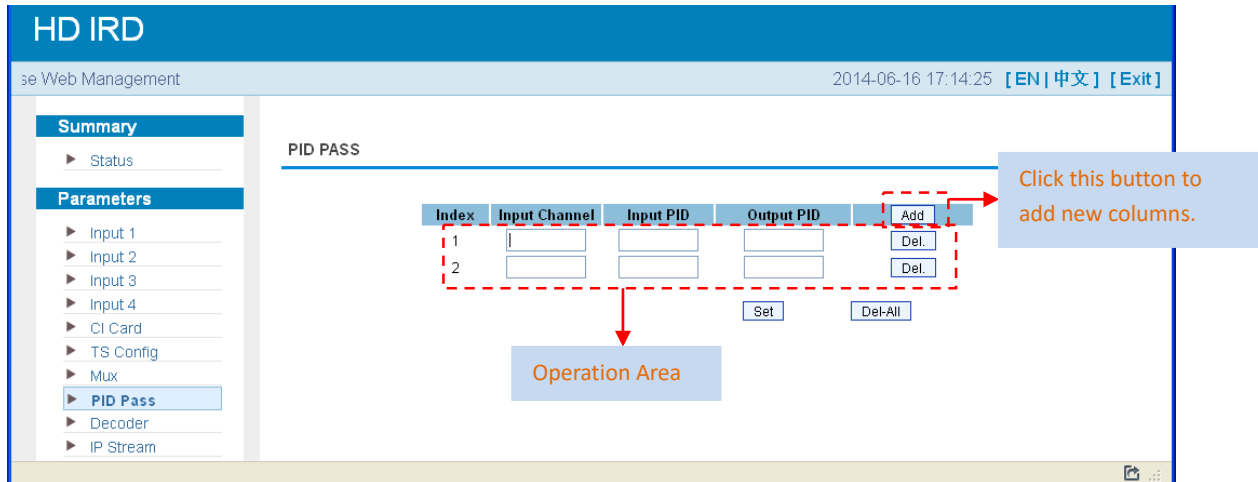


Figure 4-11

After finishing the configuration, click **Set** to confirm.

## Parameters → Decoder:

IRD1560 supports decoded program to output at HDMI/SDI/CVBS/YPbPr. Users can configure the Video/Audio output parameters in this tag. (Figure 4-12)

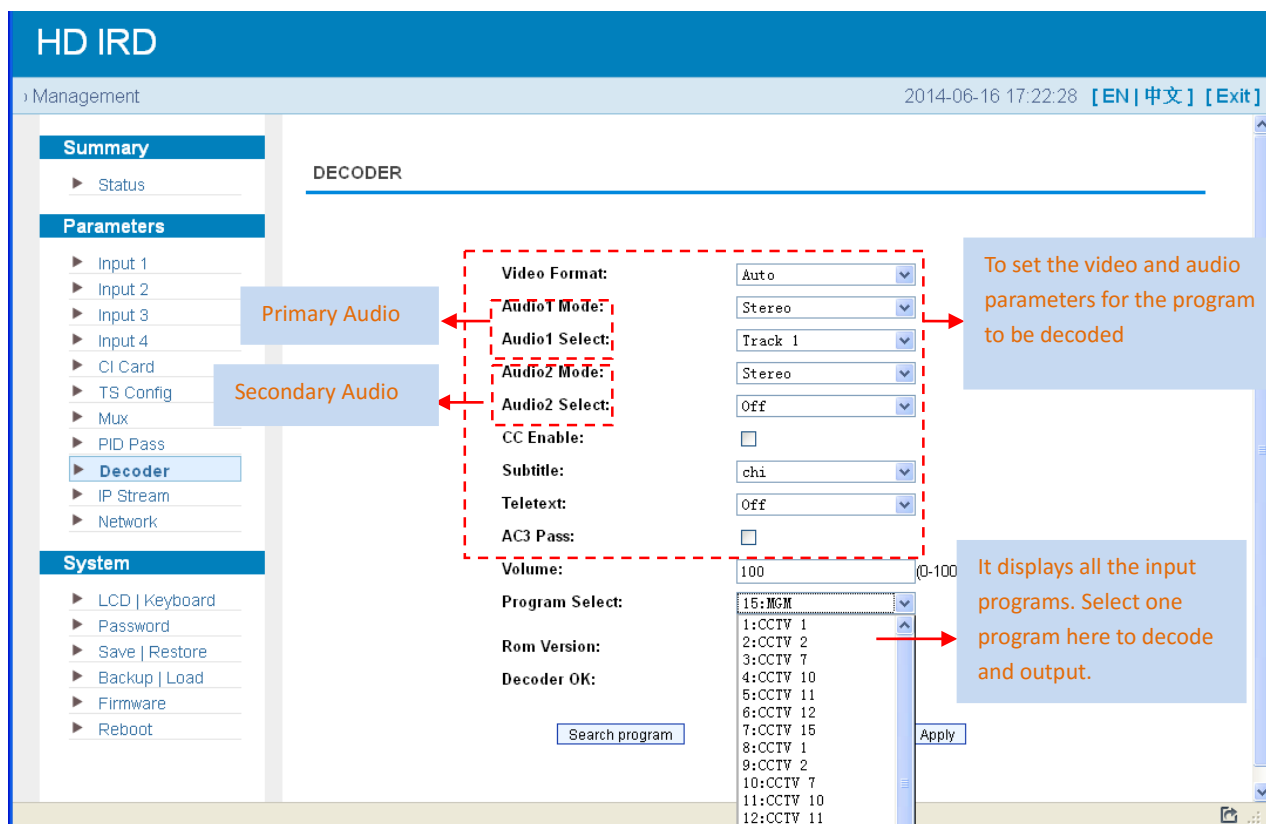



Figure 4-12



Note

- IRD1560 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 or 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  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 4-13)

HD IRD

Web Management

2014-06-16 17:24:42 [EN | 中文] [Exit]

Summary

Status

Parameters

Input 1

Input 2

Input 3

Input 4

CI Card

TS Config

Mux

PID Pass

Decoder

IP Stream

Network

System

LCD | Keyboard

Password

Save | Restore

Backup | Load

Firmware

Reboot

The UDP protocol port(like 8001), you should use Output IP and new port to receive IP Output data(like udp://@224.2.2.2:8001).

Service IP:  
The IP Output port address.The format is xxx.xxx.xxx.xxx(like 192.168.2.137).

Subnet Mask:  
General is 255.255.255.0,it is must the same in a local area network.

Gateway:  
If the device is in different net segment,you must set the gateway.

Service IP:

192.168.2.137

Subnet Mask:

255.255.255.0

Gateway:

192.168.2.0

Output Protocol:

UDP

UDP

RTP/RTSP

MPTS

Enable	Null PKT Filter	Output IP	Port
1: <input type="checkbox"/>	<input type="checkbox"/>	224.2.2.2	1234

SPTS

Enable	Null PKT Filter	Output IP	Port	Bitrate(Mbps)
1: <input type="checkbox"/>	<input type="checkbox"/>	224.2.2.2	2001	8
2: <input type="checkbox"/>	<input type="checkbox"/>	224.2.2.2	2002	8
3: <input type="checkbox"/>	<input type="checkbox"/>	224.2.2.2	2003	8
4: <input type="checkbox"/>	<input type="checkbox"/>	224.2.2.2	2004	8
5: <input type="checkbox"/>	<input type="checkbox"/>	224.2.2.2	2005	8
6: <input type="checkbox"/>	<input type="checkbox"/>	224.2.2.2	2006	8
7: <input type="checkbox"/>	<input type="checkbox"/>	224.2.2.2	2007	8
8: <input type="checkbox"/>	<input type="checkbox"/>	224.2.2.2	2008	8

Default

Apply

Figure 4-13

## Parameters → Network:

From the menu on left side of the webpage, clicking “Network”, it will display the screen as Figure-14 where to configure the network parameters for the device.

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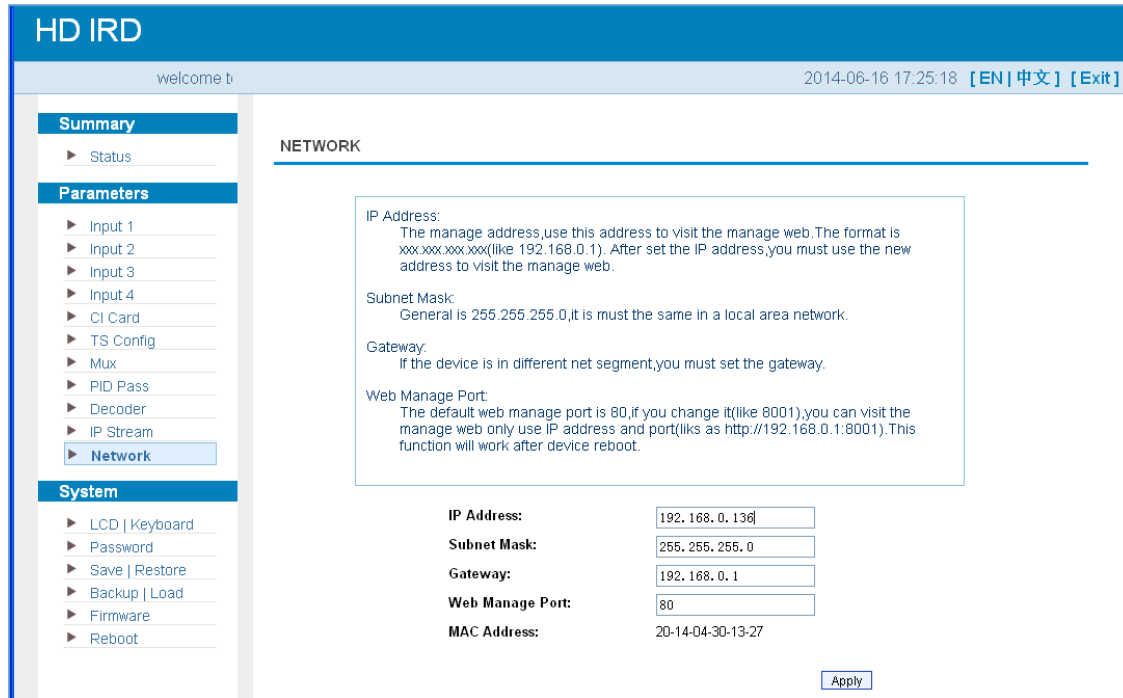


Figure 4-14

## System → LCD/Keyboard:

From the menu on left side of the webpage, clicking “LCD/Keyboard”, it will display the screen as Figure-15 where to control the device’s front panel.

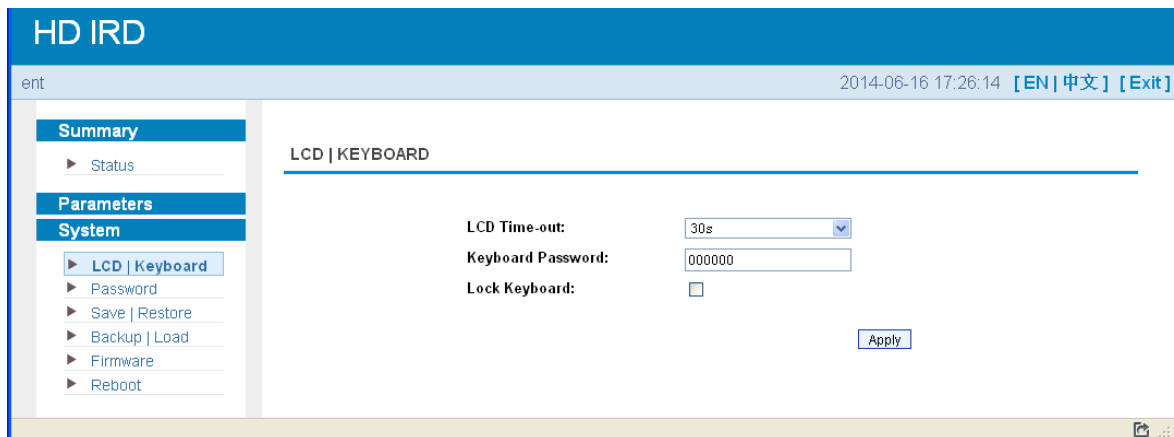


Figure 4-15

## System → Password:

From the menu on left side of the webpage, clicking “Password”, it will display the screen as Figure-16 where to set the login account and password for the web NMS.

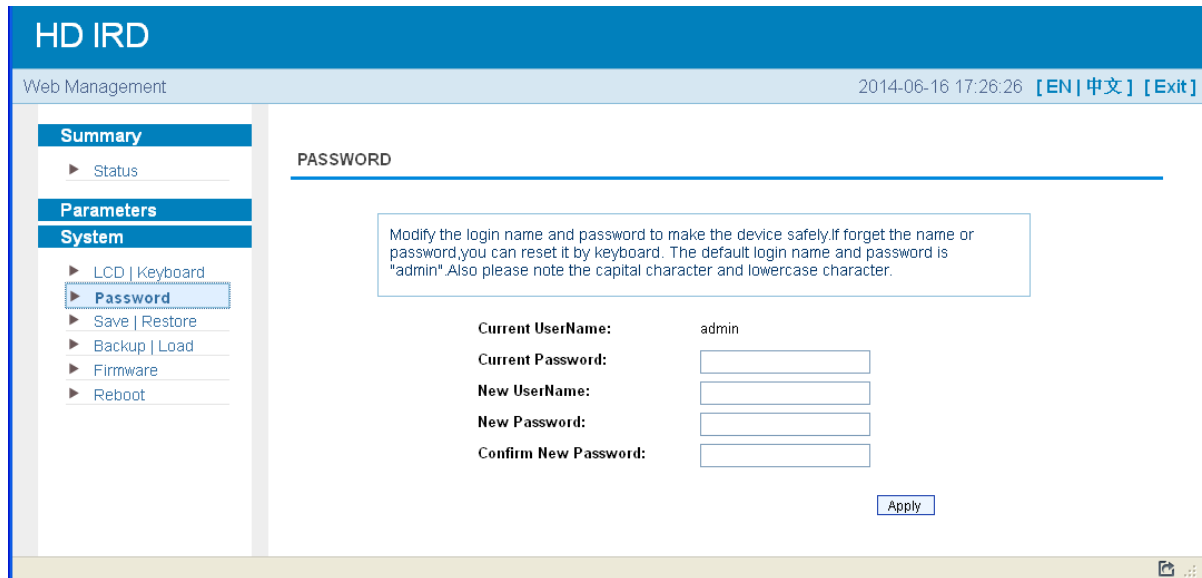


Figure 4-16

## System → Save/Restore:

From the menu on left side of the webpage, clicking "Save/Restore", it will display the screen as Figure-17 where to save or restore your configurations.

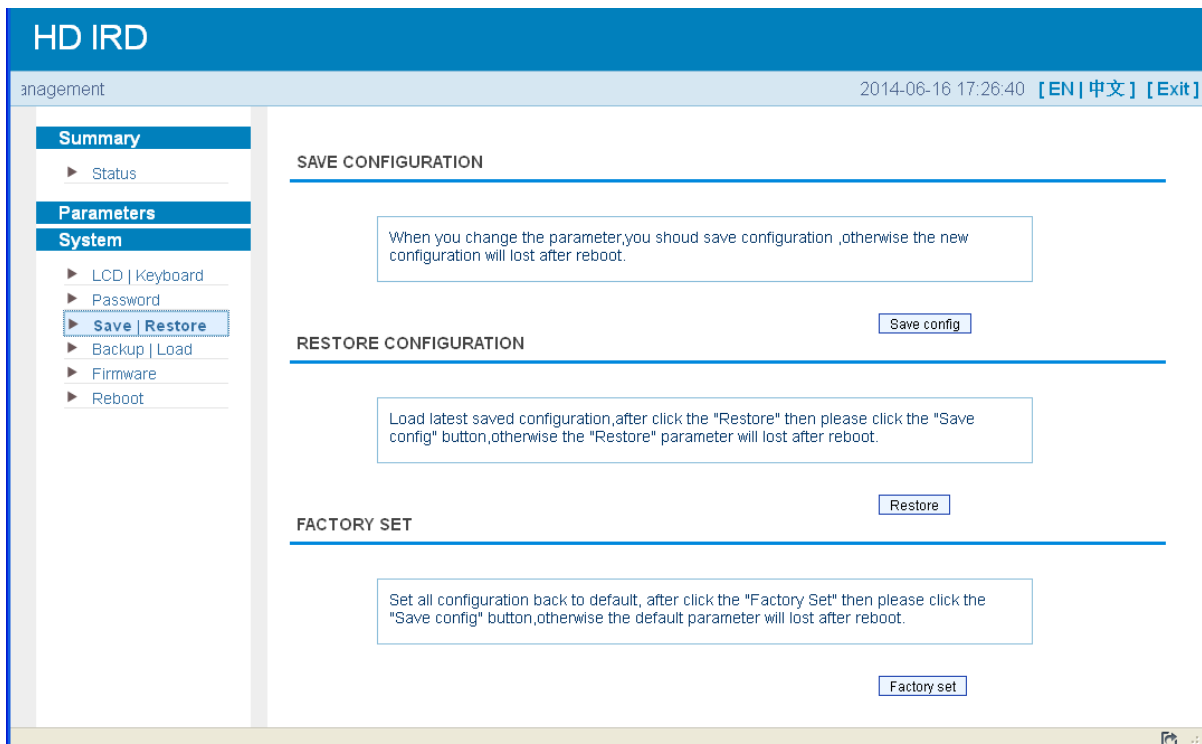


Figure 4-17

## 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.

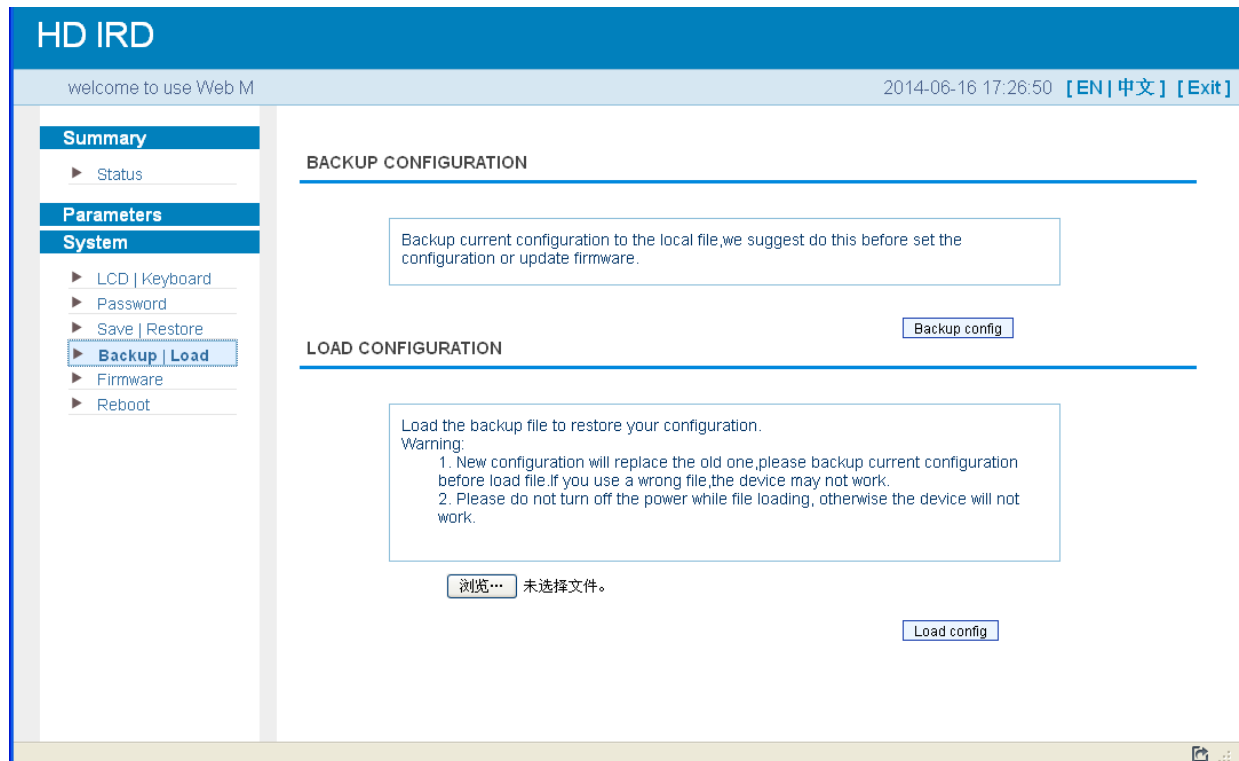


Figure 4-18

## 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.

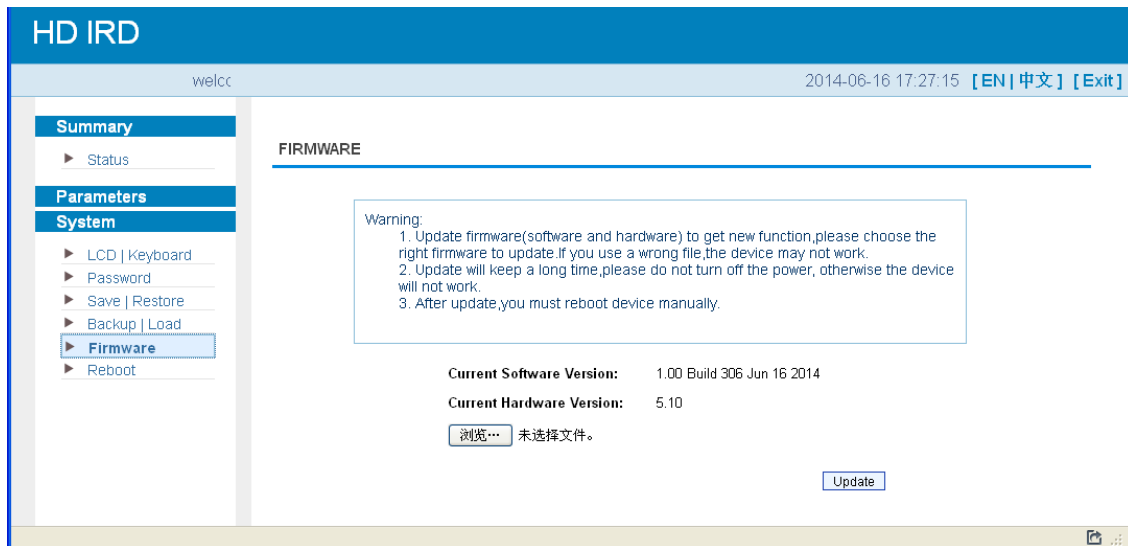


Figure 4-19

## System → Reboot:

From the menu on the left side of the webpage, clicking “Reboot”, it will display the screen as Figure-20 where to restart the device manually.

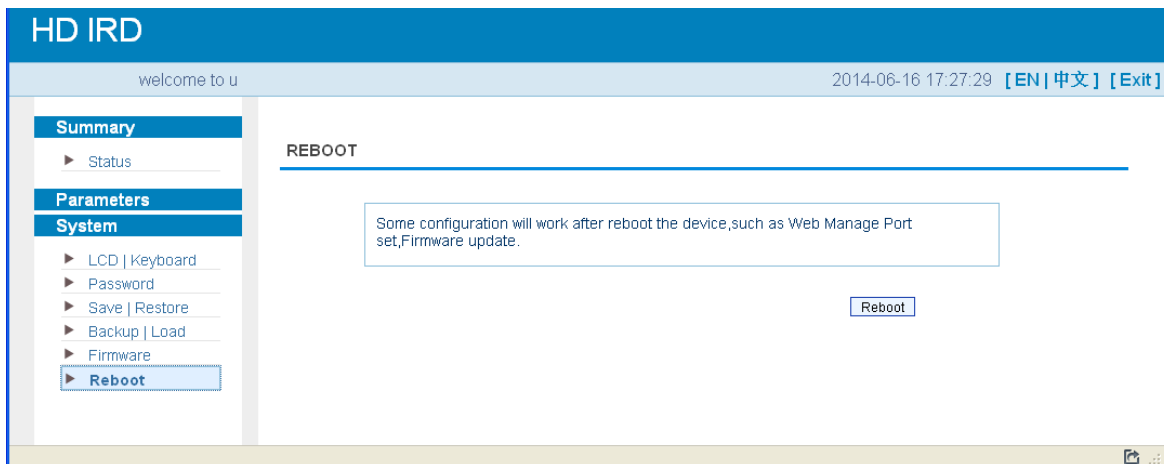


Figure 4-20

## Chapter 5. Troubleshooting

ASCENT's ISO9001 quality assurance system has been approved by CQC organization. For guarantee the products' quality, reliability and stability. All ASCENT 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 ASCENT. 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



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