

Model No. SN1510-A2

Operating Instructions DUAL TUNER NETWORK TV BOX

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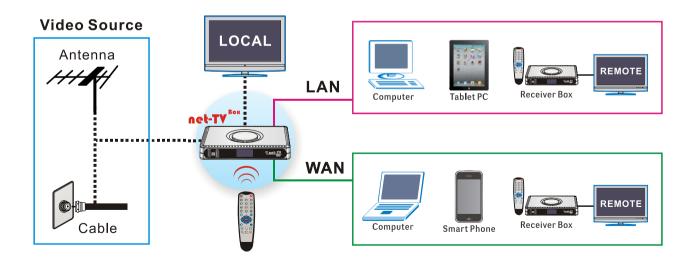
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Product Overview

Introduction

The net-TV Box is a device that connects to your cable and streams your TV shows over the network for you to watch and control anywhere you go.

net-TV Box provides simultaneous dual streams Full D1 video quality. With the net-TV Box placed in a living room for instance, you can enjoy any videos from anywhere in your home by using the computer, smart phone, tablet PC and receiver box on these client devices. Every two of the local, LAN and WAN users can watch different programs independently.



Key Features

- High quality encoding Advanced video (H.264) and audio coding (AAC) provides high quality encoding at low bitrates saving bandwidth without compromising
- Coding and TV OUT function Box has encoding and TV OUT function, so video files recorded can be watched on TV (using the supplied remote control).

quality in live streaming applications.

- 3 Local schedule recording
 The second generation PVR schedule record
 function can set the recording assignment from
 long-distance or the box. You can also record
 the video without PC.
- 4 IR Blaster
 Supports various remote controls of STB. User can control the video devices remotely after IR learning.
- WiFi wireless network connection*
 Supports the USB WiFi wireless network connection (the WiFi wireless network card is not supplied).
- * Only supports Ralink's 2571 chip.

- Dual tuner
 Built-in High Definition Tuner supports two services at the same time, and their video resolution can both achieve D1.

 Users can watch different TV
 - Users can watch different TV programs independently of each other.
- Convenient connection Supports connection from the remote Receiver Box / PC / Smart Phone AP, and you can connect it anywhere and anytime of the world.
- 8 Easy to install
 P2P server and UPnP communication protocol
 make an easy network connection. You can
 avoid the annoying network setting and just use
 it by Plug and Play.
- PVR & IP STB in one With cable TV (TUNER) and AV video input source, and has both functions of PVR and IP STB.
- Firmware upgradeable

 Provides remote firmware update mechanism, and retaining the lasted version and upgrading new version no longer need to spend money.

System Requirement

net-TV Box:
☐ Cable or DSL modem, Home network router (UPnP compatibility highly recommended)
☐ Cable TV source
256 Kbps upstream network speed (higher upstream network speeds yield higher quality video)
☐ USB storage such as USB flash disk for recording (Must be FAT32 File system)
4 TV 0040 6 NV 1
net-TV 2012 for Windows :
□ CPU : Intel Pentium 4 1.5GHz or above
□ RAM : 512MB or above
☐ Operating system : Windows XP, Vista, 7
☐ Hard disk: at least 100MB capacity or above
Windows-compatible Graphics Card with DirectDraw Overlay Support
☐ Sound Card: PCI sound card or on-board audio
☐ Network: 10/100Mbps Ethernet LAN port connection ability

net-TV mobile2 for Android:
☐ An Android mobile phone or Tablet with 3G or 4G wireless service or Wi-Fi Internet connectivity
☐ Android 1.6 or later
□ 5 MB free memory is required on the Android device to install the net-TV mobile2
■ Network download speed of 150Kbps (or higher)
net-TV mobile2 for iPhone:
□ Support devices: iPhone 3G, iPhone 3GS, iPhone 4, iPod touch
☐ Requires the latest software update
☐ 5 MB free memory is required on the iPhone or iPod touch to install the net-TV mobile2
□ Network download speed of 150Kbps (or higher)
net-TV mobile2 for iPad:
□ Support devices: iPad, iPad 2
□ iOS 4.2 or higher.
☐ 3G wireless service or Wi-Fi Internet connectivity.
□ 5 MB free memory is required on the iPad to install the net-TV mobile2
☐ Network download speed of at least 500 Kbps (Your results may vary based on network conditions).

Specification

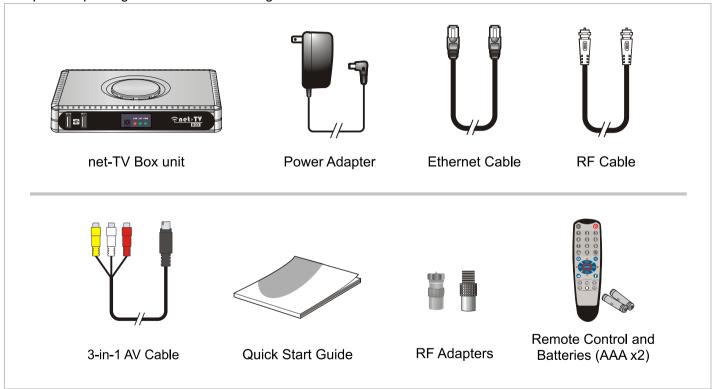
System		
OS	Embedded Linux	
CPU	Dual core (ARM 9 + DSP)	
Memory	FLASH:16MB; RAM:256MB DDR2	
Signal System	NTSC and PAL	
Network protocols	HTTP, UDP, TCP/IP, SMTP, FTP, NTP, PPPoE, DHCP, UPnP, RTSP	
Interface		
ANTENNA	1 x Antenna input, 75Ω (F type) 1 x Antenna output, 75Ω (F type)	
AV OUT	1 x VIDEO OUT (Female RCA) 1 x AUDIO OUT L/R Stereo Audio (Female RCA) The AV OUT signals above output by the supplied 3-in-1 AV cable.	
USB port	1 x Type A, USB host to connect flash drive / external HDD 1 x Type A, USB host to connect WiFi wireless network card 1 x Ethernet jack,10 Base-T/100 Base-TX	
Power	1 x 5.5V DC jack	
LEDs	3 x Indicate power, network and USB status	
Reset button	1 x semi-recessed pushbutton to load factory default.	

Recording		
Video compression	H.264 Main profile @ Level 3.0	
Support resolutions	D1, Half D1 , CIF all @30/25 fps	
Audio Compression	AAC	
Recording File format	MP4	
Recordable Media	USB External HDD or USB Flash drive	
File System	FAT32	
Recording Quality	D1 (about 1.5Mbps), Half D1 (about 1Mbps), CIF(about 512kbps)	
General		
Power Requirement	5.5VDC, 2A	
Power Consumption	< 10 Watts	
Operating Environment	0° C to 35°C, Humidity 10% to 80% RH(No condensation)	
Storage Environment	-10° C to 50°C, Humidity 5% to 95% RH(No condensation)	
Dimensions	185(L)x124(W)x28.5(H)mm	
Mass (weight)	TBC	

 $[\]mbox{\%}$ Specifications and design are subject to chang without notice.

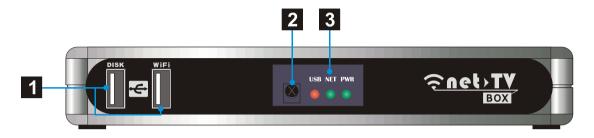
Package Contents

The product package includes the following items and accessories:



• One ID number is supplied on the sticker of Box for remote application login.

Guide to Parts and Control



Front Panel

1 USB Port:

DISK: Connect a USB storage device for record or playback.

WiFi: Connect a wireless USB adapter to access network (Only supports Ralink's 2571 chip.)

2 Remote Sensor:

Point remote control here.

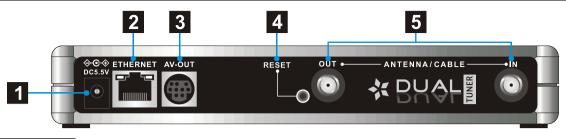
3 Status indicators:

Show the current status of this product.

USB :USB storage indication

NET: Network connection indication

PWR: Power indication.



Rear Panel

- DC-IN:
 Connect the supplied power adapter.
- **ETHERNET:**Connect a network with an always-on broadband connection.
- AV-OUT:
 Connect to the A/V input of TV by the supplied 3-in-1 AV cable.
- RESET:
 Press it with pen-point for three seconds, the box will reset to the default setting.
- ANTENNA IN/OUT:
 Connect the cable TV antenna to the ANTENNA/CABLE IN jack on the unit, then connect OUT jack to TV by the supplied RF cable.

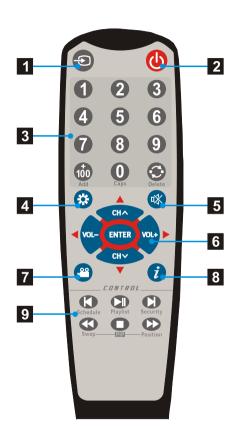
Table 1 The Status Indicators:

The net-TV Box has three status lights on the front to indicate what's happening.

LED	Indication	Meaning
PWR	Light off	The power of the box is off.
	Dark green static	The box is starting up or in standby.
	 Light green static 	The box is operating.
	Green flashing	The box is resetting to the factory defaults.
NET	Light off	Both the WAN and LAN connection are not ready, or have failed.
	 Red static 	LAN functionality is enabled.
	🔆 Red flashing	The box is sending or receiving data over LAN.
	 Green static 	Either WAN or WAN+LAN functionality is enabled.
	🔆 Green flashing	The box is sending or receiving data over either WAN or WAN+LAN.
USB	Light off	The USB storage is not being used.
	Red static	The USB storage is plugged into the USB port.
	* Red flashing	Illuminates when data is read from or written to the USB storage.

Viewing the Remote Control

- Shortcut of Remote assistance setting menu.
- On or off the video output to TV.
- 3 0-9 numerical buttons, +100 and channel return
- Menu key, press it to enter to function setting page.
- Mute button, temporary sound switch-off.
- 6 CH ^/CHv /VOL+/VOL-/ENTER
 Generally CH ^/v keys are used for channel selection and VOL+/
 keys for volume control. When in the menu page, The direction keys and ENTER key are used to select and confirm the function settings.
- Instant recording key.
- **8 i** On/off the system and network status information.



Play control keys
Please refer the following page for the detailed instructions.

These six keys have different functions when playing recorded files and watching TV programs:

Keys	Functions when playback	Functions when watching programs
M	Last file	Set schedule recording
►II	Play or pause	Open the play list
H	Next file	Function reservation for other products.
4	Fast rewind	Swap between main picture and sub picture under PIP.
	Stop	Start the PIP function.
>>	Fast forward	Switch the position of sub picture on TV.



1 Lift the cover at the back of the remote control upward as shown in the figure.



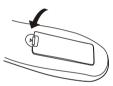
Install two AAA size batteries.

Make sure to match the "+" and "-" ends of the batteries with the diagram inside the compartment.



3 Replace the cover.

Remove the batteries and store them in a cool, dry place if you won't be using the remote control for a long time. The remote control can be used up to about 5 meters from the box.

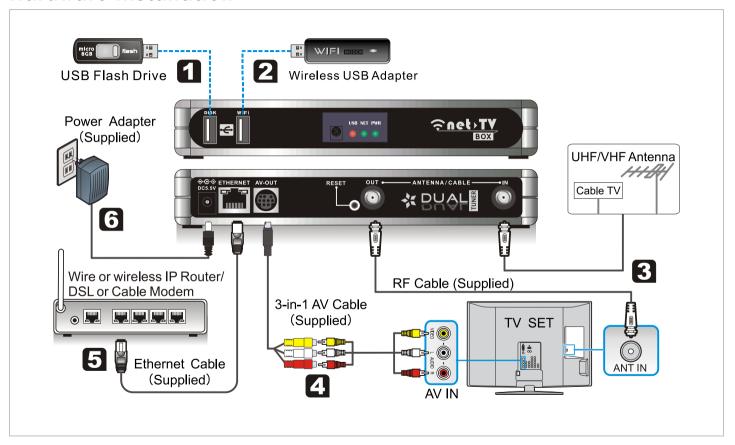




If the remote control doesn't work, check the following:

- Is the net-TV Box power on?
- · Are the plus and minus ends the batteries reversed?
- · Are the batteries drained?
- Is there a power outage, or is the power adapter unplugged?
- Is there a special fluorescent light or neon sign nearby?

Hardware Installation



1 Connect USB storage

If you want to set schedule recording or play the recorded files, you should plug the USB storage device in the **DISK** port at the front panel of the net-TV Box.



- The external USB device must be FAT32 format.
- The Box doesn't support some USB storage devices.

2 Connect the wireless WiFi adapter

Plug the USB WiFi wireless network card into the **WiFi** port, and set WiFi as the network configuration of the Box, and then you can get to internet via the WiFi wireless network.

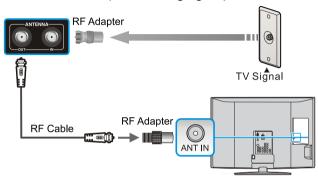


The two USB ports on the Box have their respective use, so the USB devices must be plugged into the correct port to avoid the unavailable situation.

Connect cable or antenna

Disconnect the Coaxial/RF cable from your TV's Antenna IN and reconnect it to the **Antenna IN** of net-TV Box. Then use the supplied RF cable to connect the **Antenna OUT** of net-TV Box to the RF Antenna IN of TV.

If your TV signal type is PAL (IEC connector), please connect your Coaxial/RF cable to the supplied RF Adapter and connect the PF Adapter to Box's Antenna IN. Then connect one end of the supplied RF cable to the Box's Antenna OUT and the other end to the other RF Adapter, then connect the RF Adapter to the Antenna IN of TV(as following figure).



4 Connect output

Use the supplied 3-in-1 AV cable to connect the **AV-OUT** jack on the net-TV Box. Then connect the other end to the 3RCA to 3RCA cable, then to the output of your TV.

5 Connect to your network

Connect the net-TV Box's **ETHERNET** port to the corresponding port on your Modem or Router using a LAN cable. Use a commercially available LAN or Ethernet cable (CAT5 or better withRJ-45 connector). If the Box is not near a network connection, many retailers have LAN cables in lengths of 50 feet or more.

Connect Power Source (Remember to place the step at last.)

Connect the supplied power adapter to the port labeled **DC5.5V**, and plug the power adapter into an electrical outlet.

When plugged in, the PWR light on the front panel comes on.

How to format the USB device with partition more than 32GB

If the USB device partition is more than 32GB, and it can't be format to FAT32 by Window system, you con format it to FAT32 by following these steps:

- **1.** Download a copy of fat32format.zip from http://www.ridgecrop.demon.co.uk/download/fat32format.zip, Extract the single EXE file to somewhere suitable, like C:\.
- 2. Click 「Start ► Run」 and enter

cmd

When the command prompt opens, type this - C:\ is the place you extracted the exe file to.

CD C:\

Press enter and then type this. You need to replace f: with the drive letter you are trying to format.

fat32format f:

You should see this displayed

Warning ALL data on drive 'f' will be lost irretrievably, are you sure (y/n)

Now when it says this, it really means it. If you format the boot sector, FATs and root directory will be filled with zeros. Type **y** and hit return if you are sure to format.

You should see this displayed

.

Initialising reserved sectors and FATs...

Done

This means that all has gone according to plan, and the USB device has been formatted to FAT32.

Local Operations

Using Rule

This product supports dual D1 streams. And every two of the local, LAN and WAN users can watch different programs independently. It can support two of the following services at the same time, and their video resolution can both achieve D1.

8960A2 Services:

Local(Box)	LAN(Remote)	WAN(Remote)
1. Watch TV / Instant Recording /	1. PC	1. PC
Playback Recorded Files	2. Phone or Table	2. Phone or Table
(select one of them)	3. Receiver box	3. Receiver box
2. Schedule Recording		



- · User who login first has high priority.
- Only schedule recording can be canceled or stopped. When there are two services going on and one of them is schedule recording, then the third user try to connect Box or the other online user try to switch source, it will remind and let user decide whether to stop the recording or not. If schedule recording happens when there are two services going on, it will ask the online user whether to cancel or enable the schedule recoding.
- Box can't support two services to access USB device at the same time. So Instant Recording, Playback Recorded Files and Schedule Recording can't be used at one time. Each function can only be used at a time.

On Screen Menu

You can also set the net-TV Box via OSD operation on TV without opening computer.

Use the supplied remote control and aim it at front led cap of the net-TV Box, then press the "" key, it will pop up the main menu page on TV as shown on the right.

Picture: Adjust brightness, contrast, hue and

saturation.

Channel: Scan channel.

Setup: Set the display language, clock, view system

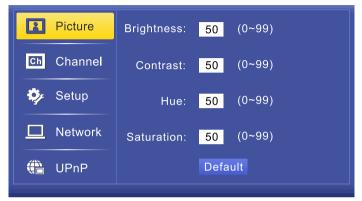
information and update firmware.

Network: Set the network type.

UPnP: Set the UPnP type.

Use the "▲/▼" keys to select an item, and press the "ENTER" or "▶" key to enter in the corresponding menu.

¾f you can't enter into the main menu, please press the "♣" key of the remote control to open the OSD function.



1 Picture

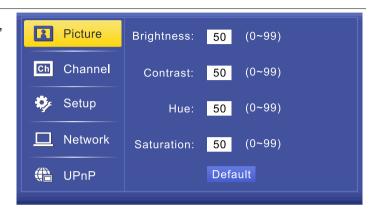
Select the 「Picture」 item, and press the "ENTER" or "▶"

to enter in the 「Picture」 page.

You can adjust brightness, contrast, hue and saturation in this page.

You can also set the default value by press the "**Default**" button.

Use the "▲/▼" keys to select the item, enter the value directly with the number keys or adjust the value with "◀/▶" keys, then press "ENTER" key to confirm.



2 Channel

Select the Channel item, and press the ENTER or ►

to enter in the 「Channel」 page.

Country/Region: Select the Country or Region where

you have installed the Box.

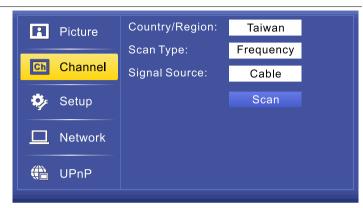
Scan Type: Select the scan type as Frequency

scan or Channel scan.

Signal Source: Select the TV signal source: Cable

or Air.

Scan: Begin to scan channel.



3 Setup

Select the 「Setup」 item, and press the "ENTER" or "▶"

to enter in the 「Setup」 page. You can set display

language and clock, view system information and update firmware here.

Display Language:

You can set the OSD display language in this page. Use the "▲/▼" keys to select the desired language, press "ENTER" key to save the setting.

Clock Settings:

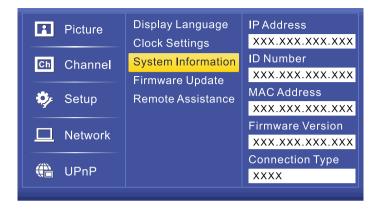
You can set time zone, date and time in this page. Use the " \blacktriangleleft / \blacktriangleright " keys to select the desired value, and use the " \blacktriangle / \blacktriangledown " keys to adjust the value, press "**ENTER**" key to save the settings.





System Information:

You can view the information such as IP Address, ID Number, MAC Address, Firmware Version and Connection Type in the page.



Firmware Update:

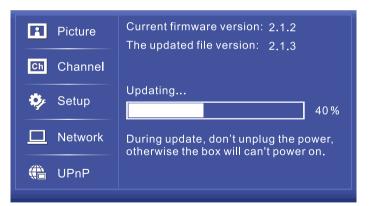
You can update firmware in the page. You have to insert the USB storage with firmware update file in net-TV Box first.

It will automatically display the firmware update file in the USB storage. Move the cursor to select the update file and then press "**ENTER**" to update.

It will display the transfer progress bar as right when updating.

Then the box will reboot to effect the firmware update. After that, you can enter in the 「System Information」 menu to check the Firmware Version.

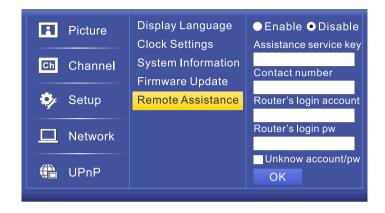




Remote Assistance:

To enable the remote assistance service please first confirm that the network equipment which the net-TV Box connected is a router, and the computers that connected to the router can access to the web, just the net-TV Box can't go online via internet (the NET light doesn't turn green).

This situation may be because that the router can't transmit the requisite connection ports for the net-TV Box, and then you have to set the router to configure these connection ports.



If you don't know how to set, select "Enable" to enable the remote assistance service and let the professional personnel help to set it.

Enter the Assistance service key, your contact number, Router's login account and password. Click 「OK」 then the box will reboot and waiting for the assistance service settings.

When the assist personnel complete the remote assistance settings, the Remote Assistance Service Settings item will be change to Disable, then the box will reboot and user can connect net-TV Box.



The Assistance service key is "nettvk3q3q", you can also find it in the Quick Start Guide.

4 Network

You can set network connection type in the 「Network」 page.

DHCP:

Choose this option to obtain an IP Address automatically from your ISP. (Applicable to most Cable MODEM or router users)

Picture PPPoE Static IP WiFi Network UPnP Host Name XXXXX OK

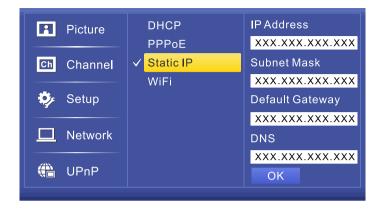
PPPoE:

Select this option when you want to connect the Receiver Box to DSL/ADSL modem directly. Then you need to enter the Account and Password by using the on screen keyboard.



Static IP:

Select this option and enter the static IP information provided by your ISP, such as IP Address, Subnet Mask, Default Gateway and DNS.



WiFi:

Select a WiFi wireless network, if it has password protection you should enter the correct password later.



5 UPnP

You can set the UPnP type in the 「UPnP」 page.

Auto:

The default UPnP setting is Auto. If there is more than one net-TV Box connected to a router, it will adjust communication port automatically.



Custom:

If the effect of automatic port isn't satisfying, you can set AV port for yourself.



Disable:

Select disable to close UPnP and change to DMZ or Virtual Server.

If the router supports UPnP, please don't select the item. If you select the item (only available under LAN) you have to enter the corresponding ports in the fields when set to DMZ or Virtual Server.



Watch Live TV

net-TV Box is very simple to use. To watch live TV, just control the box in the way you control TV set.

"VOL+" & "VOL-"
Adjust Volume.
"CH ^" & "CH v"
Adjust Channel.
"0 ~ 9"
Input number to change channel directly.
"+100"
Click "+100" key then click the last two digits when input a three-figure channel number.
" • • "
Go back to last channel.

Channel switch operating rules

Generally, 70 percent of TV channels are two digit number channels, so for user switch channel quickly, we define that user can press two digits to switch the desired channel directly.

If the channel number is only one digit number (as 7), user can click $\lceil 0 \rfloor$ and $\lceil 7 \rfloor$ to switch directly or click $\lceil 7 \rfloor$ to switch (3 seconds delay).

If it's a three digit channel number (as 119), user can click the "+100" button and then click the last two digits (「1」「7」) to switch directly; if the number is 100, user can press "+100" to switch(3 seconds delay); when the channel number is between 101~109(as 109), you can also click the "+100" button and then click the last digit ("9") to switch (3 seconds delay).

Picture In Picture (PIP)

PIP(Picture In Picture) function means that both the two video sources are displayed on TV as main picture and sub picture at the same time.

Enable PIP:

When watching one video source, pressing "
PIP" key can display the other video source as sub picture on TV (as right). The size of sub picture is fixed as 240x176(NTSC), 240x192(PAL).

Swap Pictures:

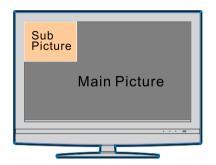
You can press "◀ Swap" key to swap the two video sources between main picture and sub picture.

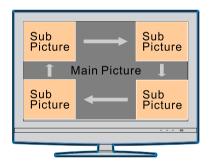
Change Position:

Sub picture is at the top left corner on TV as default. Pressing ">> Position" can switch sub picture position in a clockwise direction (as right).



- Because the two video sources are both in use when PIP is enabled, it will remind other users who want to connect the net-TV Box via network the message that 'the services have reached the limit'.
- Under PIP mode, the operations such as recording, audio output and channel switch are on main picture.
- PIP function can't be enabled when playback, in the on screen display menu or the other video source is in use.





Instant Recording

When watching the TV programs you can record them and enjoying them later.

- 1. First plug the USB storage device to USB connector of the Box, and ensure that the USB status light of Box is on.
- 2. Press "a" on the remote control, the Box will begin to record programs, and it will display the recording sign on the screen. The time at means the record duration. You can press the "a" button again to stop recording.
- 3. When meet the undesired video, you can also press "▶II" to pause, then press "▶II" again to continue.



For a USB recording task, it will create a recorded file every half hour. The default naming rule of the recorded files is as following (TV48-YYMMDD-HHMMSS_000.mp4 for example):

TV48	YYMMDD	HHMM(SS)	000
Video Source	Record date	Record time	The recorded file No.

So the name TV48-111117-1700_000 means that the file is recorded at 2011.11.17 17:00 and the recorded video source was TV source 48 channel. (The source item can be TV + channel number, AV or CAM.)

Schedule Recording

You can set the schedule recording task at the local Box and record the video without power on PC.

Press the " (Schedule)" key on the remote control to enter

in the \lceil Schedule Recording \rfloor page when watching TV .

It lists all the schedule recording tasks that have been set on the left, and show the current time and the detail information of the selected task on the right.

You can use "▲/▼" to select "New Schedule" or a task, then press "ENTER" to move the cursor to the edit area on the right and begin to add or modify a schedule recording task. You can also press "♣" (Delete)" to delete the selected schedule recording task.



Press "◄/▶" keys to select the item in the edit area, then press number keys or use "▲/▼" keys to adjust the value.

The system will automatically calculate the duration and required space of the task, and available disk space. Press the "**OK**" button to confirm and exit.

The description of the items in the recording task list is as following:

"01 08/15 Mon 16:00 Once" for example, it's the first recording task in the list, start recording time is 08/15 Mon 16:00, repeat mode is Once, that is record only for one time.

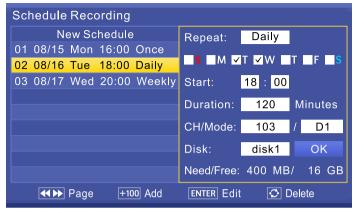
Item	Description	
01	Serial number	
08/15 Mon	The date of schedule recording task.	
16:00	OO The start time of schedule recording task.	
Once	Once The repeat mode of schedule recording task: Once, Daily and Weekly.	

The description of the items in the detailed recording task is as following:

Item	Description				
	The repeat mode of schedule recording task. There are three modes: Once, Daily and Weekly.	Repeat:	Once		
Repeat:	Once: Only record once	Date:	2011 / 0	08 / 15	
-	Daily: Record on the same days every week	Start:	16 : 00		
	Weekly: Record on the same day every week.	Duration:	120	Minutes	
_	The date of schedule recording task. This item display different according to the recording mode.	CH/Mode:	103	/ D1	
Date:	When selecting "Once", you can select the recording	Disk:	disk1	OK	
	date (as right). It will record that date only once.	Need/Free:	400 MB/	16 GB	
Start:	The start time of schedule recording task.				
Duration:	The duration of schedule recording task.				
O11/841	CH: Video source of schedule recording, showing the channel number.				
CH/Mode:	Mode: Recording video quality, you can select D1, Half D1 or CIF.				
Disk:	Select the disk to save the recorded file.				
Need/Free	The required space of the task and available disk space.				

When the repeat mode is "Daily", you can select the recording days from Sunday to Saturday (as right). And it will record at the selected days every week.

When the repeat mode is "Weekly", you can select the recording day from Sunday to Saturday (as right). And Box will record at the same day every week.





Play Recorded Files

You can play the recorded files in your USB storage device by following these steps:

- 1. First plug the USB storage device to USB connector of the Box, and make sure that the USB indication light is on. Then press "►II(Playlist)" on the remote control to enter the 「Play List」page. It will list all the recorded files in the USB storage device.
- **2.** Move the cursor to select the recorded file which you want to play, and then press "ENTER" to play it. You can also press "• (Delete)" to delete the selected file or press the "◀/▶" keys to move to the last or next page.
 - You can press "0" key on the remote control to change the playback repeat mode.





If you don't know how to switch the playback mode, press "Ž" to enter into to the 「Playback Options」 page. This page shows the loop mode switch method.



net-TV mobile2

Instructions before installation

net-TV mobile2 is an network TV player which designed based Android, iPhone and iPad for net-TV Box.

Android phones and Tablet use the same application named net-TV mobile2. The application used for iPhone and iPad is also named net-TV mobile2 but it's a different application.



Install the application

- 1. Start the "Market" in the application list of Android or "App Store" in the application list of iPhone or iPad.
- Enter the keywords "net-TV mobile2", then click the search button.



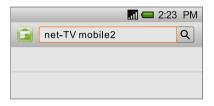
4. When install finished, it will appear the application icon as right in the installed applications.





Market

App Store







net-TV mobile2

Login

Before login, please make sure that your phone can access internet.

- 1. Click the application icon to start it.
- 2. Enter in the ID and password of net-TV Box you want to connect in the login page, then click the "Login" button.
- When login successfully, you can start to enjoy the wonderful video programs.

You can also click the " button to set the USB schedule recording tasks.

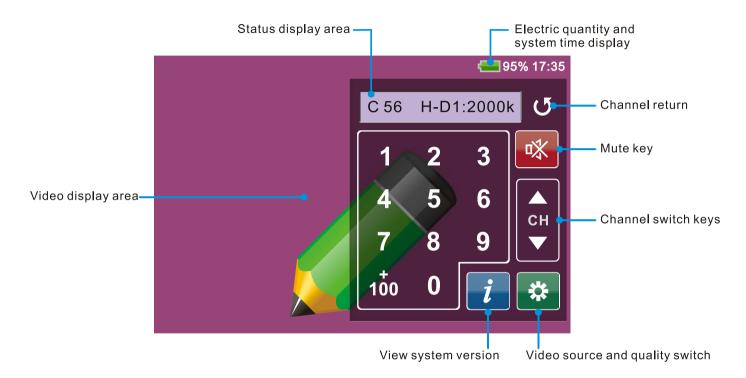
Clicking the "A" button can switch the display language.





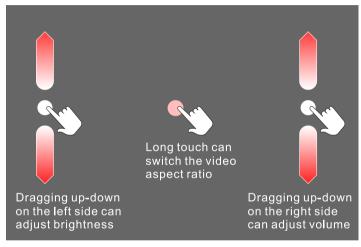
- The application can't scan channel, it will auto download the channel table from net-TV Box when login successfully. So please make sure that the net-TV Box has scanned channel, otherwise you can't watch TV programs.
- For the best quality and efficiency, this application uses the player of Android, iPhone and iPad's for coding. To come up to the player's use conditions, the video and audio data will buffer first when connect successfully, the step will take about 15~30 seconds according to your network condition (channel switch is the same).

Interface instructions





- Clicking on the video area can hide or display the remote control panel.
- As following, when the remote control panel is hidden, you can adjust the screen brightness and volume by dragging up-down on the video display area, and long touch can switch the video aspect ratio.



Above functions are for Android device only.

Quality switch

Click the button, it will pop up the quality switch page as right.

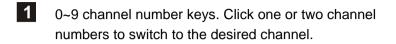
The video quality has three items: CIF, H-D1 and D1, user can select according to the displayed bit rate (the default is H-D1). The application will remember the quality status and use the same quality when login next time.

The video bit rate, frame rate and audio bit rate of each quality is as the following table:

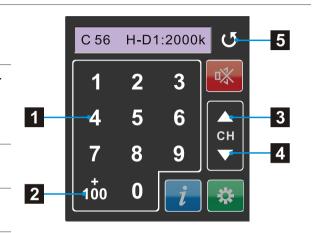
	CIF	H-D1	D1
Video bit rate	Video bit rate Auto Auto		Auto
Frame rate	e Auto Auto Auto		Auto
Audio bit rate	24kbps	24kbps	24kbps



Remote control panel



- +100 channel select key. When the desired channel number is a three digit number, click the key and then click the last two digits can switch channel quickly.
- Next channel (Channel up, as CH33 → CH34)
- 4 Last channel (Channel down, as CH34 → CH33)
- 5 Channel return, click it to return to the last channel.



When watching TV, you can adjust volume by pressing the volume control buttons of the mobile phone.

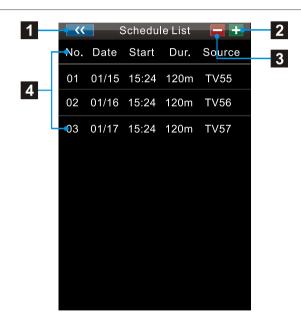
Schedule Recording

With net-TV mobile2, you can set the USB schedule recording tasks remotely, and then the Box will record the programs at the preset time. (You should connect the USB storage to the net-TV Box before).

Enter the Box's ID and password in the login panel then click " button to set schedule recording. The schedule recording main panel is as following:

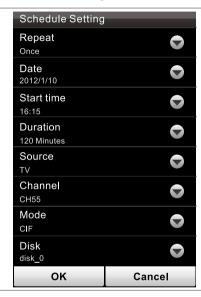
- 1 Return to the previous panel.
- Add button. Press it to add a new schedule recording task.
- 3 Enter the schedule delete page to delete the schedule recording task.
- Display all of the schedule recording tasks of the net-TV Box.

 It will list the recording start date and time, duration and source of the recording tasks.



Add or edit schedule task

In the Schedule List panel, you can click the "List" button to add a new recording task or click the existed task to edit. Then it will go to the Schedule Setting page as following.



Recording repeat mode:
Once: record only once; Daily: record at the preset days every week;
Weekly: record at the same day every week.
Recording date, this item display different according to the repeat mode.
Start time of the recording task.
Duration of the recording task.
Recording video source.
Recording channel number.
Recording quality, D1: 1.5Mbps, H-D1: 1Mbps, CIF: 512kbps.
Select the disk to save the recorded file.

Click the "T" button to set the recording items, and the value will be displayed below each item with small fonts. After setting, click the "OK" or "Update" button at the bottom to save the schedule. And the added schedule will be listed in the Scheduled List page.

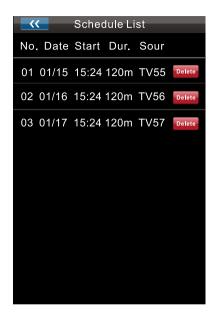
The "Start time" must be set 4 minutes later than current time, or else you will can't add new recording task.

Delete schedule task

You can delete the schedule recording task in the Schedule List.

Click the "button on the top of Schedule List panel to enter into the schedule delete page as right.

Then click the "Delete" button to delete the corresponding recording task.



net-TV 2012

What is net-TV 2012

Users can connect net-TV Box remotely by using net-TV 2012 installed on computer. The functions it supports are: watching TV programs, Time-Shifting, instant recording and setting schedule recording.

Software Installation

Before installing the net-TV Box, please make sure that your PC meets the minimum system requirement and is equipped with a HDD with at least 100MB free space.

Follow the following steps to complete the installation:

- Under the Operating System of Windows XP / Windows Vista/ Windows 7, download the installation folder from http://net-TVBox.dyndns.tv/, then run the finet-TV 2012.exe file after decompression.
- This is the first screen you will see. Click the Next button to begin the installation, and then follow the on-screen instructions.

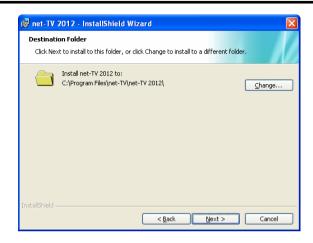


3. Choose the destination folder where net-TV 2012 will reside and then click "Next" to install. The defaults location is C:\Program Files\ net-TV\net-TV 2012\.

4. Click **Finish** to exit the installation wizard.



After finishing the installation, it will come up a net-TV 2012 icon " on the desktop, double-click it to start your net-TV 2012.





Remove Software

1. Click 「Start ▶ Programs ▶ net-TV 2012 ▶ Uninstall net-TV 2012」 to remove the software.



2. It will pop up a dialog asked "Are you want to uninstall this product?", Click 「Yes」to uninstall the program.



3. When the program is completed, you have finished removing net-TV 2012 application software.



Login

Double click net-TV 2012 icon "on your desktop to start your net-TV 2012.

The login window is attached to the center of the player window. It comes out along with the player window.

The application can login the net-TV Box from any place via network.

User can enter the ID and Password and click the 「login」 button to build up connection.

Before login, you can click "a" in the main panel to hide or show the login panel. And when under the login status, you can also click "a" to logout directly.



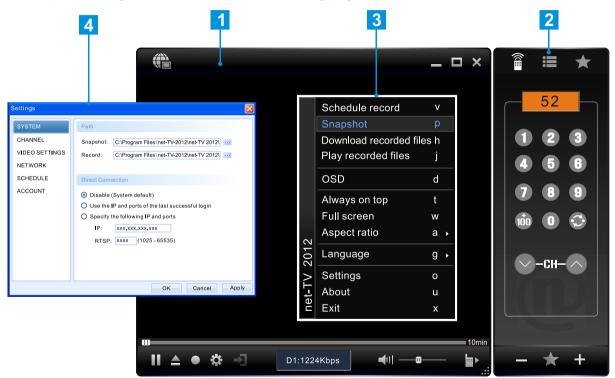
You can get the ID number on the sticker labeled at the bottom of the Box unit.

The default password is 「admin」, and you can change it on the setting page after login.

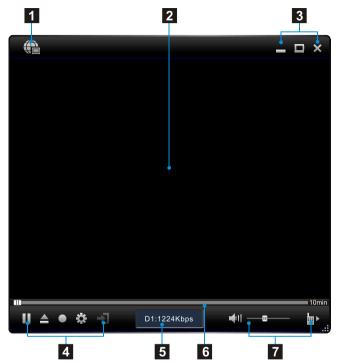


Operation Interface

The operation interface of net-TV 2012 includes 4 parts: 1. Main panel including video display area 2. On-screen remote control panel 3. Right click menu 4. Function setting pages



Main Panel Instructions



	Items	Instructions
1		Login/Logout
2		Video display area
3		Minimize
		Full-screen
	×	Close the application
4		Playback / Pause
		Open the Playlist (Recorded files list)
		Instant recording / Pause
	*	Function setting key
	→]	Video source switch(Function reservation)
5		Current status display
6		Playback and Time-Shift control slide bar
		and On/Off Time-Shift switch.
7	■ ►	On-screen remote control panel switch.
	4 1 - 0	 Mute key and volume control slide bar.

On-Screen Remote Control Panel Instructions

1 Remote control / Channel list / Favorite switch item.

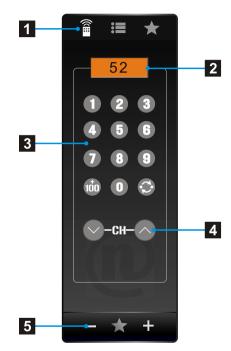
Switch to the remote control panel as shown on the right.

Switch to the channel list panel.

: Switch to the favorite channel list panel.

- 2 Display the current channel number.
- 0-9 number keys and channel return key. When you want to switch to the three-figure channel number, click the "tio" key and then click the last two digits.
- 4 Last Channel (Channel down, as CH25→CH24). Next Channel (Channel up, as CH25→CH26).
- Delete the current channel from favorite channel list or add the current channel as favorite channel.

 Click the switch "A", then Last/Next channel will switch among the favorite channels.



Channel list panel

Channel list panel switch C2 С3 Channel list-C5 C6 С8 C9 C10 C11 C12 C13 C14 C15 C16 C17 C18 C19 C20 Last page-

Next page-

Favorite channel list panel



Rename the selected channel

Mouse and Keyboard Operations

You can perform the following net-TV 2012 operations with your computer's mouse and keyboard.

Keyboard operations

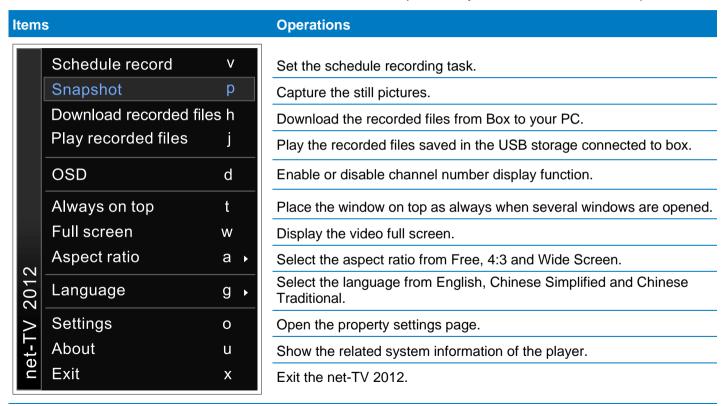
Shortcut Key	Operations	Shortcut Key	Operations
Α	Select the aspect ratio	V	Schedule recording
В	Pop-up the right-click menu	W	Full screen
D	Enable or disable channel OSD	X	Exit
G	Switch the display language	「Home」	Record
н	Download recorded files.	[「] End」	Stop recording
J	Play recorded files	<u> </u>	Channel up
L	Return to last channel		Channel down
M	Mute or restore sound	\rightarrow	Volume up
0	Pop-up the property setting page	←	Volume down
Р	Capture image	+	+100
R	Pop up the remote control panel	(0~9)	Jump to the monitoring point.
т	T Always on top		Play/pause(Only take effect when
U	Show the related system information	bw the related system information	

Mouse operations

Items	Operations		
Rotating the mouse wheel	On a screen, rotating the mouse wheel away from you volume up, and rotating it towards you volume down.		
	Volume up Volume down		
Scroll wheel click	Mute		
Right click	Right clicking anywhere inside the window displays a context menu as described below.		

Right click menu

When you run net-TV 2012, you could move your mouse cursor and right click to open the pop-up menus. The commands on this menu are the same with those on the control panel but you could find some more options.



Setting Page Instructions

GENERAL

■ Path:

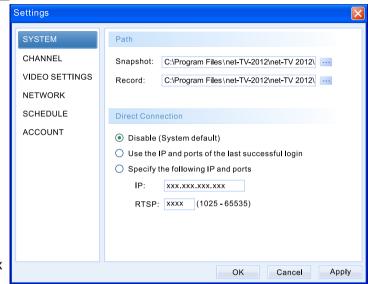
Snapshot: Select the directory path to save the captured picture files.

Record: Select the directory path to save the recorded files.

Direct Connection:

Disable (System default): Connect to Server to obtain the connection information of the Box first, then connect Box according to the information. Use the IP and ports of the last successful login: Connect the Box directly according to the last successful connection information.

Specify the following IP and ports: Connect the Box according to the specified IP and RTSP port.



CHANNEL

This page is used to scan channel.

Channel Setting:

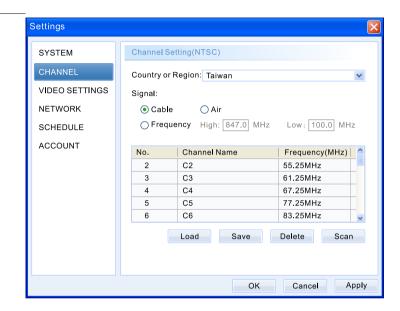
Country or Region: Select the Country or Region where you have installed the Box.

Signal: Select the TV signal reception mode including Cable TV, Air TV and Frequency Scan.

Load: Load the channel table you have saved beforehand.

Save: Save the current channel table. Delete: Delete the selected channel.

Scan: Begin to scan channel.



VIDEO

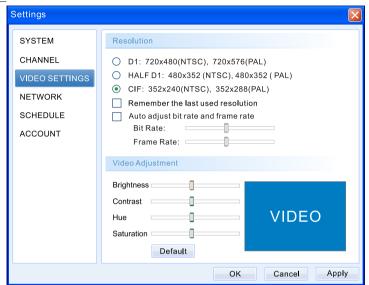
Resolution:

There are three resolutions for you to choose, and the vertical resolutions have a little difference under different TV system (NTSC/PAL).

Auto Adjust bit rate and frame rate:
When you select the item it will auto adjust the Bit
Rate and Frame Rate.

■ Video Adjustment:

You can adjust the Brightness, Contrast, Hue and Saturation. Drag the slide bar to adjust the value. You can also press the 「Default」 button to resume to the default value. It will show adjustment effect preview on the right.



NETWORK

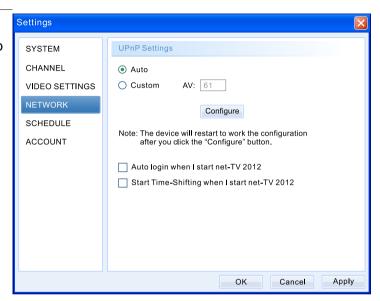
UPnP Settings:

The Box uses the UPnP communication protocol to transmit the audio and video data stream to petitioner for default.

Auto

The default UPnP setting is Auto. If there is more than one Box connected to a router, it will adjust communication port automatically. (Between 60~100, the default is 60.)

- Custom
 If the effect of automatic port isn't satisfying, you can set AV port for yourself.
- Auto login when I start net-TV 2012: When you select the item, it will auto login when you start the application next time.
- Start Time-Shifting when I start net-TV 2012: When you select the item, it will automatically start Time-Shifting function when you start the application next time.



SCHEDULE

This page implements the settings of the schedule recording.

Add:

The button only takes effect when there is a USB flash drive connected to the Box.

Press the 「Add」 button to add a new recording schedule.

■ Edit:

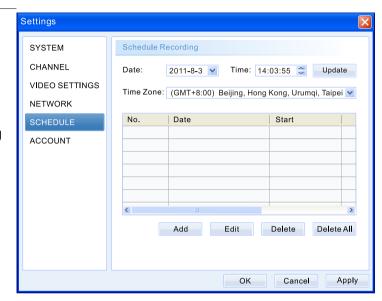
Edit the selected schedule.

Delete:

Delete the selected schedule task.

■ Delete All:

Delete all of the schedule task.



MY ACCOUNT

- My Account:
 - ID: ID number of the net-TV Box.

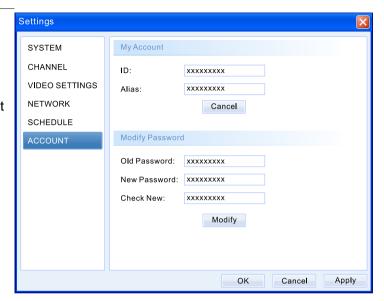
Alias: You can login by using the alias that you have set. Enter the alias that you want, and then click 「OK」 to complete alias setting. (The default alias is the same as the Box's ID.)

Modify Password:

You can modify the login password of net-TV Box here.

Enter the Old Password and New Password, then enter the new password again to check.

Press 「Modify」 button to complete the modification.



Easy Setup

Confirm Whether the UPnP is Useable

With the net-TV Box connected to network and power on, the net-TV Box will proceed to the start and network detecting program, the PWR led will turn constant on. Then you should notice that whether the NET led is green, if the NET led is green, it means that net-TV Box has been connected to internet, and you can login the net-TV Box and skip the instruction of EasySetup. If the NET led is off or red, please follow the below method for setting. \times It will not affect the LAN connection if the NET led is red.

There are two causes if the NET led isn't green:

- The UPnP function of the IP Router is not enabled.
- The Router is NON-UPnP or the UPnP isn't compatible with the net-TV Box.

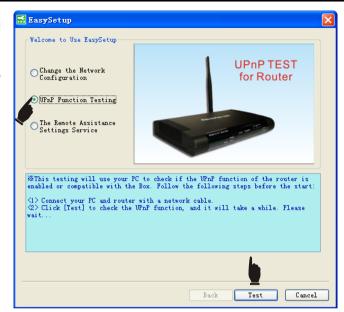
To confirm whether is the first cause, please connect your computer and net-TV Box to the same one IP Router, then click 「Start ► All Programs ► net-TV 2012 ► EasySetup」.



Select 「UPnP Function Testing」, and then click 「Test」 to start the testing.

If the test result is that UPnP is not enabled, please refer to the manual of the Router or contact manufacture of the Router for help to enter in the setting page of the Router to Enable the PnP function.

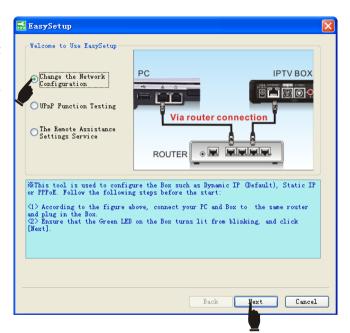
If the Router doesn't support UPnP or the UPnP is enabled but not useable, you could set the DMZ or Virtual Server to take the same effect, but there is network security problem for DMZ setting and Virtual Setting is so complex. We recommend you skip Router setting and connect to xDSL Modem (or Cable Modem) directly to go internet. Please refer to the following steps for detailed process.



Change the Network Configuration

When you decide to connect net-TV Box to xDSL Modem (If Cable Modem supports plug-n-play function, you needn't make any change) directly, you must change the factory connection status of the net-TV Box, so you should use the Ethernet Cable to connect your net-TV Box and computer.

Please follow the above process to start the EasySetup, select 「Change the Network Configuration」 as the right picture (you could follow the on-screen instruction to operate), click 「Next」 to forward to the next step.



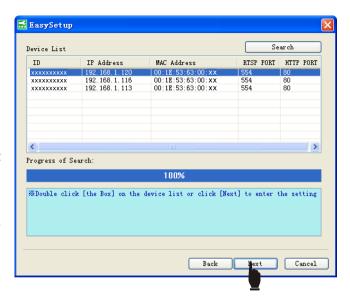
Search Device

Then the EasySetup will search the net-TV Box that have been connected, it will list the information of the searched net-TV Box, such as ID / IP Address / MAC Address. Then double click the device to login or click

Next
directly to forward to the setting page.

(If PC can't search any net-TV Box, please follow the instruction to do **RESET**, then search again. If PC still can't search any net-TV Box, please contact your distributor for help. Don't open the Box privately.)

Note: If your net-TV Box and PC are not under the same LAN network, you can't search out it.



Network Configuration (Choose one from four options)

■ Dynamic IP:

Choose this option to obtain an IP address automatically from your ISP.

Static IP:

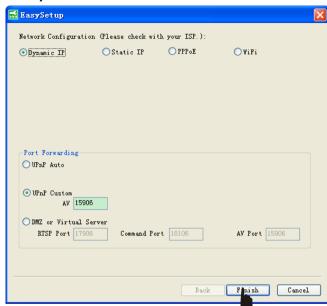
If the applied network type is Static IP, please select the [Static IP] option, and enter the related information provided by ISP(If there is any problem, please contact your ISP.) in the below blank column.

■ PPPOE:

If the applied network type is PPPoE, please select the 「PPPoE」 option as the right picture, then enter the account and password provided by ISP(If there is any problem, please contact your ISP for help) in the below blank column.

WiFi:

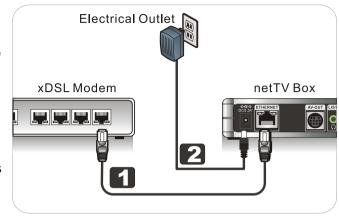
If you use the wireless network, you can select the option. Select a WiFi wireless network, if it has password protection you should enter the correct password later.



If you select PPPoE network configuration, after finish the information input and click 「Finish」 button, it will notice you connect net-TV Box to ADSL Modem and replug in the power source.

Please plug out the Ethernet Cable from the computer which is connected to net-TV Box and reconnect it to the xDSL Modem that has been set.

Plug on the power of net-TV Box after the Ethernet Cable is properly connected. Please notice the order of the two steps: Connect Ethernet Cable first, then plug on the power. Then the PWR led of the net-TV Box will turn constant on, you should notice whether the NET led is on afterwards. If so, congratulate that you have installed successfully, if not, please retry by above steps.



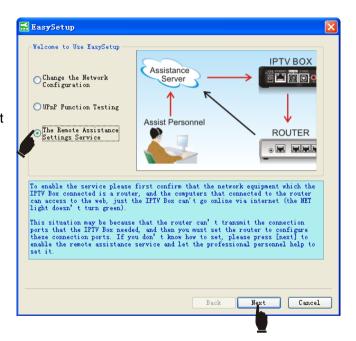
Port Forwarding:

The default setting is UPnP. If the effect of automatic port isn't satisfying, you can set AV port for yourself. If the router supports UPnP, please don't select DMZ or Virtual Server. If you select the item (only available under LAN) you have to enter the corresponding ports in the following fields when set to DMZ or Virtual Server. (Please refer to instructions of router.)

The Remote Assistance Settings Service

To enable the service please first confirm that the network equipment which the IPTV Box connected is a router, and the computers that connected to the router can access to the web, just the IPTV Box can't go online via internet (the NET light doesn't turn green).

This situation may be because that the router can't transmit the connection ports that the IPTV Box needed, and then you must set the router to configure these connection ports. If you don't know how to set, please press [next] to enable the remote assistance service and let the professional personnel help to set it.



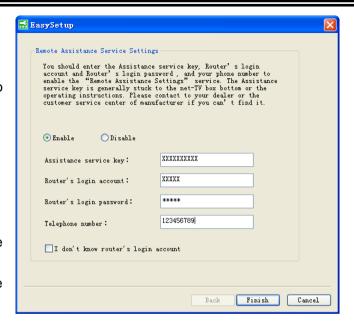
Then the EasySetup will search the net-TV Box that have been connected, it will list the information of the searched net-TV Box, such as ID / IP Address / MAC Address. Then double click the device to login or click 「Next」 directly to forward to the setting page.

Select "Enable", then enter the Assistance service key, Router's login account and Router's login password, and your phone number.

The Assistance service key is "nettvk3q3q", you can also find it in the Quick Start Guide.

Click Finish then the box will reboot and waiting for the assistance service settings.

When the assist personnel complete the remote assistance settings, the Remote Assistance Service Settings item will change to Disable, then the box will reboot and user can connect the net-TV Box.



Channel Scan

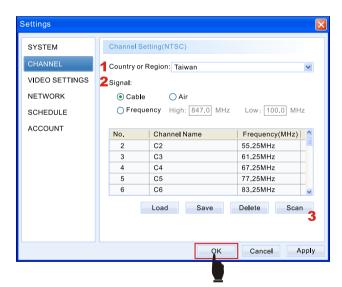
When you login net-TV 2012 for the first time or the channel table is empty, it will pop up a window for channel searching. Please press "Yes" to scan channel.

If you have not scanned channel at first or want to scan channel later, you can set as following steps:

- Choose Country or region where the Box has been installed.
- 2. Select the corresponding signal setting.
- Then click \[Scan \] to start to scan channel.

After Channel Scan, click 「OK」 button to return the main panel to enjoy the TV program.





You can switch channel following one of these steps:

- Use the 0-9 number buttons to switch channel. If the channel number is only one digit number (as 9), you can click "0" and "9" to switch directly or click "9" to switch (3 seconds delay). If it's a two digit number (as 59), you can click the two digits ("5" "9") to switch directly. If it's a three digit channel number (as 119), you can click the "button and then click the last two digits ("1" "9") to switch directly; when the channel number is between 100~109(as 109), you can also click the "button and then click the last digit ("9") to switch (3 seconds delay).
- Click the "button to return to the last channel.
- Click the " button to switch channel. When the switch " at the bottom change to " you can click the " button to switch channels among the favorite list.
- Click the "■" or "★" to go the channel list panel or favorite channel list panel, then double click the channel number to switch channel.(You can click the "D" button at the channel list panel to modify the channel name.)

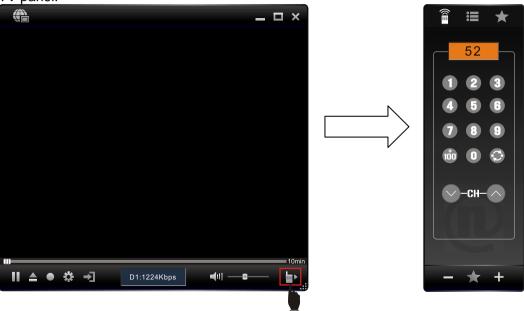




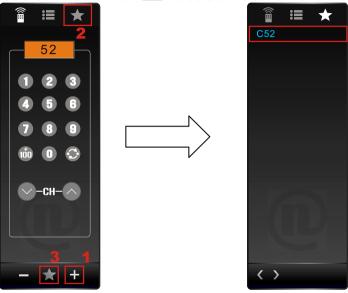
Favorite Channel Setting

When you are watching TV program on net-TV 2012, you can set the current channel as favorite channel and delete the current channel from the favorite channel list.

1. Switch the source to the TV source and click the " button at the bottom of the playing window to show the TV panel.



2. Click add button "to set the current channel as favorite channel, then select the "to set the top to go to the favorite channel panel, you will find the channel has been added to the favorite channel list. You can also click delete button "to delete the current channel from the favorite channel.

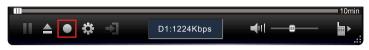


3. Click the switch "at the bottom of the panel until it change to "a", then you can click the "o" or "o" button to switch channels among the favorite list.

Instant Recording

When watching the TV programs you can record them and enjoying them later.

Press the recording button "o" to begin to record programs.
 While recording, it will display the recording sign on the video display area. The time means the recorded duration.



 The recording button will become stop recording button "" while recording.
 Pressing the "" button can stop recording.



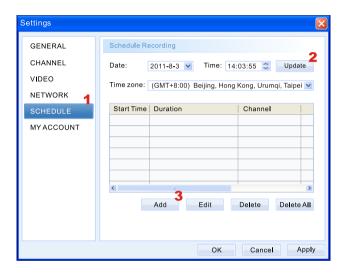
3. You can also click the "I" button to pause, then the time on the recording sign will pause too. Pressing the "I" button again can continue recording.



USB Schedule Recording

Before setting the schedule recording, make sure that there is a USB Flash Drive connected to the Box.

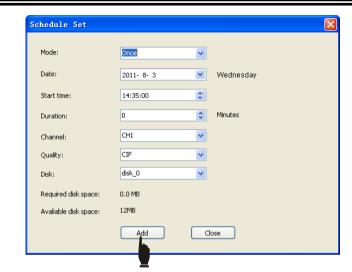
- Click the setting button to go to the setting page and select the 「Schedule」 page.
- 2. Select the time zone of your net-TV Box on the pull-down menu of 「Time Zone」.
 If time isn't adjusted to the corresponding Time Zone, please manually adjust the Box's time to the current local time, then click 「Update」 to update the Box's time.
- 3. Click the 「Add」 button to add a recording task.





- The external USB device must be FAT32 format.
- If there is no external storage plugged in the Box or the Box can't recognize the external storage, the button is shown in gray, and it will take no effect.

- 4. Select the recording information in the pop-up schedule set page, such as recording mode, date, start time and duration.
 For detail information, please refer to <u>Schedule Recording Items instructions</u>.
- 5. Click 「Add」 to complete your settings. The newly added task will show up on the following scheduled task list. You could click 「Add」, 「Edit」, 「Delete」 or 「Delete All」 to add a task, edit the selected task, delete the selected task or delete all tasks.



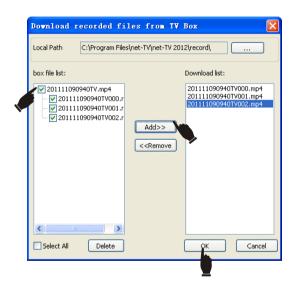


The 「Start time」 must be set 3 minutes later than Box time, or else you can't add recording task.

Download Recorded Files

You can download the recorded files from the net-TV Box to your PC by following these steps:

- **1.** Login the net-TV Box. Right click the image window and select 「Download files from net-TV Box」 on the popup menu.
- 2. On the setting page, 「Box file list」 will list down all the recorded files. If there is no USB device connected to the net-TV Box or the connected USB device has no recorded files, the 「Box file list」 is empty.
- 3. Select the wanted file and click 「ADD>>」 to add the file to the "Download list". You could remove the files from 「Download list」. Select a to-be-removed file on 「Download list」, and click the 「Remove」 button.
- **4.** Click the 「OK」 button to confirm the file download task.
- **5.** If there are too many recorded files and they occupy too many USB storage space, you could delete the selected files from your USB device remotely. Select a single file and click the 「Delete」 button at the bottom to delete it. You could also check 「Select All」 to select all files and click 「Delete」 to delete all files in the



USB device.

Play Recorded Files

You can use net-TV 2012 to play the recorded files saved in the USB storage which connected to Box by following these steps:

- 1. After login, right click and select 「Play recorded files」 on the pop-up menu.
- 2. Then it will list all the recorded files in the USB storage in the PlayList panel (as right figure). "#" means it's the first file of every recorded file.
- 3. Double click the desired file to play it. When playing, it will display the current playing duration as following (03:35), and you can drag the slide bar on the blue bar to play from any time.

When playing, it will display the recorded file's quality and current download speed from Box in the status display area as above (D1:1224Kbps). If the download speed is lower than the speed that the current resolution request, the video will be not smooth. You can click the "1" button to pause and let it buffer for a time, then click it again to enjoy the smooth video.



If you click the "—" button when playing recorded files, it will stop playing and logout, and ask "Do you want to re-login?". You can click "Yes" to re-login and play real-time programs.



Time-Shifting

The Time-Shifting function makes the Box can record the playing program at any time, and you can continue to watch later, it's also easy to skip advertisements. So if you need leave the player when watching program, you can enable the Time-Shifting function, and the Box will begin to record the programs automatically, then you can watch the program when get back.

- 1. Click the "10min" to enable the Time-Shifting function. (It can also disable the Time-Shifting function.)
- 2. Then the Box will begin to record the programs. The blue bar means the recording duration, and you can drag the slide bar to watch the recorded programs at any time. You can also drag it to the right of blue bar and watch the live program.







- When the Time-Shifting function is on, the interval of channel switch will has a longer delay time (about 3 three seconds).
- The Box can only record the programs for 60 minutes, and when it up to 60 minutes, the first recorded programs will be replaced. So you can only watch the program for the last 60 minutes.

Firmware Update

To upgrade the net-TV Box firmware, follow these instructions: When you upgrade the net-TV Box firmware, you will lose current configuration settings, so make sure you backup the net-TV Box settings before you upgrade its firmware.

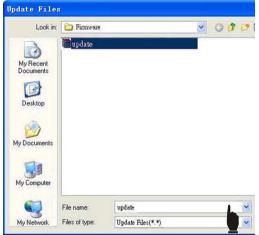
- 1. Download the latest firmware upgrade file from the manufacturer website.
- 2. Login net-TV 2012, right-click the image window to get the pop-up menu shown as the following figure. Then, select 「About」 on the pop-up menu.



3. Click the 「Update」 button on the pop-up window.

4. View the folders and select the downloaded file.





5. The Firmware update procedure is totally 2 phases: transmit the update file to the Box and the Box itself update.



During the firmware update, don't switch off the product itself or stop the activity, otherwise the product may be out of order.

6. After the completion of the firmware update, the window as right will pop up.

7. It takes about 1 minute for the product itself to restart. After that, please re-login and redo step 2 to check out the Firmware Version. If the Firmware Version is not correct, please redo step 2 to 6.

Transform Progress:91.9%(Translated 1819412 bytes/To







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