

HV-122-DCA DVB-T 2-Way Diversity Receiver Box Quick Installation Guide

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Package Contents

- HV-122 Diversity Receiver Box ۲
- 12V DC adapter
- CVBS & Line-out cable
- Remote Controller (type A, B, or C)
- Firmware version code:
 - V0.0.6.72.149
 - Low latency firmware for HV-310Tx/HV-320Tx: V0.0.6.79.96

Front Panel View



Back Panel View





Board View





IR Remote Controller-TYPE A



Fill Battery to IR Controllers: AAA x 2 pcs



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IR Remote Controller-TYPE B



Remove Battery Protector





IR Remote Controller-TYPE C



Remove Battery Protector





Power on

HV-122-DCA can support 1/1.5/2/2.5/3/4/ 5/6/7/8 MHz bandwidth DVB-T signal automatically, and there no need to set bandwidth mode switch as HV-110.

Apply DC 12V to the power jack.

Note:

In Single antenna mode, the bandwidth support is 1/1.5/2/2.5/3/4/ 5/6/7/8 MHz In Diversity antenna mode, the bandwidth support is 2.5/3/4/ 5/6/7/8 MHz

Connect RF-in and the display output

There are two antenna ports for diversity reception; one is master while the other is slave.

To get the best performance, please install both antennas.

Active antenna (12V power) is also supported, but you need to install a jumper on the board and enable it in the menu. More details described later.

Both HDMI and CVBS output are supported simultaneously, but the mechanical design allows only one to be connected.





Channel Scan

It's necessary to do channel scan in the first time usage.

When the box is powered on well, click on the IR "Back"/"Menu" key to popup the menu



Main Menu	
Installation You can set some default settings by this item, such as region, OSD language, time zone, summer time etc.	 Installation Channel Manager Time Manager Multimedia Settings Tools
	Save En Exit

Select Installation. There are three modes to scan channel, auto scan, manual scan and manual input.

The auto scan mode will scan a predefined channel frequency list to find TV service.

The manual scan mode scans a channel specified by the user input.

The manual input mode allow user to specify the program channel frequency, bandwidth and audio/video/PMT/PCR PID's directly..



Channel Scan-Auto mode

Installation		
Country	ATV-2/3/4M	•
OSD Language	English	
Time Zone	GMT+08:00	
Summer Time	Off	
LCN	Off	
Ant Power	Off	
Auto Manual Scan Scan	🖁 Select 🚺 Adjust 🚥	Save ENT Ent

- 1. You may select a Country to do auto scan
- 2. Country: ATV-2/3/4M is for Europe DATV 2/3/4 MHz BW channel list auto scan
- 3. Country: ATV-6M is for Europe DATV 6 MHz BW channel list auto scan
- 4. Country: ATV(US)-2/3/4M is for USA DATV 2/3/4 MHz BW channel list auto scan
- 5. Country: ATV(US)-6M is for USA DATV 6 MHz BW channel list auto scan
- 6. Click on Remote Controller "Red" button to start auto scan.

ATV-2/3/4M Channe	el list
Frequency(MHz)	Bandwidth(MHz)
423.000	2
423.000	3
434.000	2
434.500	2
436.000	2
436.000	3
436.500	2
437.000*	2
440.000	3



440.000	2
515.000	2
560.000	2
604.000	2

* 437/2M is added from version V0.0.1.71.4

ATV-6M BW Channel list

Frequency(MHz)	Bandwidth(MHz)
515	6
525	6
535	6
560	6
580	6
604	6
612	6
624	6

ATV(US)-6M BW Channel list

Frequency(MHz)	Bandwidth(MHz)
423	6
429	6
435	6
441	6

ATV(US)-2/3/4M BW Channel list

Frequency(MHz)	Bandwidth(MHz)
423	2
423	4
429	2
434	2
434	4
435	2
438	2
438	4
439	2
439	4
441	2



User Defined Channel List

In "Auto scan", you may select the country "User Defined", which is user configurable.



You may define your own channel list by modifying a text file, named "CustomChannelTable.txt". A sample "CustomChannelTable.txt" is included with this release for reference.

To load the new user defined channel list, please

- 1. copy the file to an SD card.
- 2. Put the SD card in the SD card



3. Enter Menu -> Tools, Select "User Defined channels"



Tools	
User Defined Channel	 Storage Manager Software Upgrade Factory Reset User Defined Channel System Information
	੍ਹਿੰ। Select 🚾 Enter 💷 Exit

4. Select "Yes" to update the channel list.



5. If "CustomChannelTable.txt" is read successfully from the SD card, it will show the following message to inform successful update.





Channel Scan-Manual mode





- In installation menu, if click on Remote controller "Green" 1. up.
 - button, Manual Scan menu pops

- 2. Select the bandwidth by arrow keys
- 3. Specify the channel frequency manually,
 - Type-A RC, you may input with numeric keys (0~9) Α.



- Β. Type-B RC,
 - i. please click on Yellow key first



	Installtion / Manual Scan	
	Bandwidth 2 MHz	
0	Start Frequency CH27 300000	
VOL+ CH+	End Frequency CH89 927000	
VOL- CH-		
	Signal Strength 6 % Signal Quality 18 %	
Yellow Kev	Edit Frequency	

ii. use arrow keys to edit the start channel frequency.

Installtion / Manual Scan	
Bandwidth 2 MHz Start Frequency 434000 End Frequency Cyco 927000 Signal Strength 1 % Signal Quality 18 %	
Edit Frequency	-ul

- Don't care about "End Frequency", which will be ignored 4.
- If the input channel frequency can be locked well, the transmission parameters (TPS), signal 5. quality and strength will be shown, as show below. You may adjust antenna direction to optimize the reception here.



		2 MHz		
Start Fre	quency	434000		
		CH89 92700	0	
Constellation: 16	QAM Cod	e Rate: 5/6	Guard <mark>Interva</mark>	1:1/8
Sig	nal Strength 🗲		98 %	

"Enter/OK" to scan the specified channel, it will prompt a message to clear the old Press 6. program list. You may select "Yes" to continue.

Installtion / Manual Scan	
Do you want to clear channel list?	
Censte No Signal Quality 100 %	L 18
Car Select 🙀 Setting 🚥 Scar	e en Exit

When scan is done and a service is found, it will start to play the first service found.





Channel Scan-Manual Input

Installation	
Country	∢ UK ►
	English
	GMT+00:00
	On
	On
Auto Manual Manual Scàn Scan Input	Select 🖨 Adjust 🚳 Save 🎒 Exit

Bandwidth	◀ 8 MHz	



- 1. In installation menu, if click on Remote controller "Yellow" button, Manual Scan menu pops up.
- 2. Select the bandwidth by arrow keys
- 3. Specify the channel frequency manually,
 - A. Type-A RC, you may input with numeric keys (0~9)



- B. Type-B RC,
 - i. please click on Yellow key first

	Installtion / Manua	ıl Input	
		6 MHz	
	Frequency	4 177000	
0		0x0641	
VOL+ CH+		0x0642	
VOL- CH-			
Yellow Key	Edit	Select 😝 Setting 🚥	Save ENT: Exit

ii. use arrow keys to edit the start channel frequency.



iii. Click "OK" button when the frequency input is done.

 Video/Audio PID's are specified in HEX, and please click on "Yellow" button to edit the PID's with arrow keys, as described above.
 Noto:

Note:

- A. The default PID's (video: 0x641, audio: 0x642) are set to the same as HV-10x and HV-20x.
 (and HV-310 with firmware 0.0.2.4.56 or later)
- B. In "Manual Input" mode, PAP/PMT mismatch handling mechanism is disabled.

(Hint: While a service/program is tuned and played well, you may click on "Yellow" button to learn the signal statistics and the PID's of current service/program.)

Channel Switch in Manual Input mode

When you use "Manual Input" mode to specify the channel frequency, bandwidth and PID's. You may switch channel by CH+/CH- keys. It will change the channel the channel frequency, bandwidth according to the channel table specified in "Channel Scan-Manual Input" menu. There are 5 channel tables, "6MHz", "7+8MHz", "7MHz", "8MHz", and "User Defined". When you select "User Defined" channel table, the table is user configurable. Please refer to previous paragraph "User Defined Channel List" for more details.

Channel PAT Changed

When the source video of the channel is changed and if the PAT version code is different from the



previous one, you may need to do channel scan again. Typical example is that the transmitter is changed from HV-100 to DC-101 or any other Tx devices.

If you start to play TV, and the following message pop up, please click on "OK" to do channel scan. (PAT is short for Program Association Table in a video transport stream.)



Show Signal Statistics

When watching TV, you may click on "Yellow" Key to pop up simple signal statistics for checking the transmission parameters or optimizing antenna direction.

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474000		
8M		
Yes		
Yes		
E	100 %	
	96 %	
16QAM	Guard Interval:	1/16
5/6	TransmissionMode:	8K
0x641	PCR PID:	0x641
0x642	PMT PID:	0x640
	474000 8M Yes Yes 16QAM 5/6 0x641 0x642	474000 8M Yes Yes 100 % 96 % 16QAM Guard Interval: 5/6 TransmissionMode: 0x641 PCR PID: 0x642 PMT PID:

You click on "Back"/"Exit" or "Yellow" key to close the signal statistics display, and show Signal OSD only service name (call sign), signal strength and SNR

You click on "Back"/"Exit" or "Yellow" key to close Signal OSD and return to TV only.

Frequency/Bandwidth

Master/Slave					
1	產	品	葉黃素標示值	實際含量	IED
	優佳視麗	膠囊食品	20mg	8%	ILIN
	幼添明兒	童咀嚼錠	5mg	30%	
	舒利視膠	囊	5mg	35%	
	舒利視Plu	us 膠囊	6mg	69%	
	舒利視口	眉錠	6mg	13%	
	薇達葉黃	素	30mg	0.2%	
▲ 葉黃素標示騙很大優佳視開發充福含量 环史 er/Slave					
中視新聞 福泉 经关关 美國佛州夜店血案 習近平今致電歐巴馬慰問					
					'NR

Service Name

You may also click on "Green" Key to pop up detailed signal statistics info, as shown below. "Back"/"Exit" or "Green" key will switch to show OSD, then click again to return to TV only.



			- Surena -
+ Frequency	533000	Signal Quality	62 1010 24
Bandwidth	eM	Signal Strength:	25
Constellation:	64QAM	CN: 181/172	
High Code Rate	2/5	MER 8.3/11.7	
Guard Interval			揮皇
Transmission Mode	28		<u><u><u>u</u></u></u>
TPS Lock	/ Yes		
MPEG2 Lock	Yes		
BER: //J	7.52e-06		明聖
Packet Errors			2121
Packet Error Count:			31
			(課)
Esst.			
「「「「「「「「「「「「」」」」。 二二二二二二二二二二二二二二二二二二二二二二	「騙很大	過度な声音が不足	公司不足
	67两小百七郎	(文通即支・航手調手	PREDATE

When signal statistics OSD is enabled, there might be snow noise sometimes, with HD service and HDMI display output specifically.



The problem is caused by the bottleneck of DDR memory access. You may minimize this problem by lowering display memory access.

In Menu-> Settings-> Display Preference, please set the display mode to1080P30 or 1080P25 if the service is 1080P, and set to720P30 or 720P25 if the service is 720P.



Display Mode	< 1080P30
Aspect Ratio	Auto
7ideo Output	RGB
	Rescan
gnal OSD	OFF
	00000000
	OFF
	OFF
	000000000000000000000000000000000000000

Set Display Preference: Display Mode

You may set the display output resolution and aspect ratio in this configuration option. Click on the IR "Back"/"Menu" key to popup the menu



Main Menu	
Settings Deference, researd settings and parential control four classifications.	 Installation Channel Manager Time Manager Multimedia Settings Tools
a a	Select Adjust OK Save EU Exit

Select Settings

Settings	
Display Preference, such as dispary mode, aspect ratio, video comput.	 Language Preference Display Preference Record Settings Parental Control
	Carles Carles Enter Enter

Select Display Preference



Settings / Display F	Preference	
Display Mode	576150	Þ
	Auto	
	RGB	
	Rescan	
	OFF	
	🖁 : Select 🛛 🚺 Adjust	ok : Save 🛛 🕅 : Exit

When using CVBS AV, the display mode should be 576i50(PAL) or 480i60(NTSC) The video output should be "CVBS"

If only HDMI output is used, you may set any Display Mode which is supported by the HDMI display.

Note 1:

For firmware version from 5.72.104 (released on 2016/5/9):

If the display mode is set incorrectly, and the display is out of order, please

- A. click on the "Clear" key of the Type-A RC or "Power" key of the Type-B RC or "Power" key of the Type-C RC to reset the display mode to 720i50 PAL mode.
- B. click on the "Cancel" key of the Type-A RC or "F1" key of the Type-B RC or "Sub" key of the Type-C RC to reset the display mode to 720i60 NTSC mode.

Type-A:



Type-B:





Note 2:

Because your HDMI display may not support CVBS display modes, like 720x576i/720x480i, you may fail to set HV-110 720x576i/720x480i mode if your HDMI display attached.

You may change another HDMI display. Or, you can try in this way,

a. remove HDMI cable, and connect CVBS cable to CVBS display.

b. power on HV-110

c. press **the "Clear" key of the Type-A RC or "Power" key of the Type-B/Type-C RC** to set the display to PAL 576i for CVBS.

press the "Cancel" key of the Type-A RC or "F1" key of the Type-B RC or "Sub" key of the Type-C RC to set the display to NTSC 480i for CVBS.

Set Display Preference: PAT Mismatch

The setting is related to the default behavior when the channel's PAT version code is changed.

If the setting is OFF, it will pop up the following warning message.

If no user input, the message will disappear in 10 seconds and nothing is changed.





If the setting is ON, it will pop up the following warning message.

If no user input, the system will erase all channels and rescan the current channel automatically.



Set Display Preference: Signal OSD

If it's on, the signal OSD will be shown by default when power on. You may switch it off by clicking Green or Yellow key.

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Service Name

Record and Playback

From V0.0.1.72.10 on, "Record" feature is supported. **Note: the PVR feature is a trial release and provided as it is.** You may need to open the front panel to plug in a micro-SD card. The micro-SD card should be formatted in FAT. NTFS or other formats are not supported.



Click on the "Red" button to start recording. In the upper-left corner, an OSD pops up to show the recording time.





Click on the "Red" button again to stop recording.

The file recorded can be played in the main menu "Multimedia". Click on the IR "Back"/"Menu" key to popup the menu. Select "Meltimedia".

Main Menu	
Multimedia Music, photo, movie and PVR, are available through this item.	 Installation Channel Manager Time Manager Multimedia Settings Tools
	Select 🚺 Adjust 🞯 Save 💷 Exit

Select "PVR".



Multimedia	
PVR PVR	Music Photo Movie PVR
	C. Select 🚳 Enter 💷 Exit

The file recorded is in TS format. If you want to play it in Windows environment, it's recommended to install VLC(http://www.videolan.org/) or MPC-HC (http://mpc-hc.org/).

Delete Recordings

Menu-> Multimedia->Movie



Multimedia	
Movie Tou can display movies here.	Music Photo Movie PVR
	Estect OR Enter Est Exit

Click on "Red" Key to delete the selected file.

Movie		
		Movie list
		system a.ts
-		
89 -0-	03)	
Delete		Select OS: Enker Enit



Reset System to Factory Default in Menu

If necessary, you can reset the receiver box to factory default. The program list will be cleared and the display mode will be set to 720i50 PAL mode. Click on the IR "Back"/"Menu" key to popup the menu

Main Menu	
Tools It contains storage manages, software upgrade, factory reset and suftware information four classifications.	 Installation Channel Manager Time Manager Multimedia Settings Tools
	Select 🚺 Adjust 🞯 Save 💵 Exit

Select Tools.



Tools	
Factory Reset	 Storage Manager Software Upgrade Factory Reset System Information
	Select OK Enter ENT Exit

Select Factory Reset.

If reset successfully, all channels will be cleared and it pops up channel scan menu.

Installation	
Country	▲ UK
OSD Language	English
Time Zone	GMT+00:00
Summer Time	On
LCN	On
Ant Power	Off
Auto Manual Scan Scan	Select Adjust OK Save ENT Exit



Reset System to Factory Default by Hardware Buttons

When the system is configured wrongly, and cannot be reset to factory default in menu, you may reset it by hardware buttons.



While pressing CH+ and CH- buttons on the front panel simultaneously for 3 seconds, the LED display will show "99", reset to factory default and the configurations and program list will be cleared.

Firmware Update-SD card Method 1

There are two ways to update the firmware with SD card. You can choose either one to update the firmware of the box. If you cannot control HV-122 well with remote controller or the display is not normal, please use Method 2.

- Copy the firmware image file "dtv.img" to the root directory of a micro SD card. Note 1: the micro SD card should be formatted in FAT32 or FAT16.
 Note 2 Please delete the file dtv_temp.img on the SD card if it exists.
 Note 3 the firmware image file "dtv.pkg" is used with a flash kit, described below.
- 2. Click on the IR "Back"/"Menu" key to popup the menu, and select "Tools"



Main Menu		
Tools At contains storage manager, software upgrade, factory reset and software information four classifications.	 Installation CH Channel Manager Time Manager Multimedia Settings Tools 	
	🖁 Select 😝 Adjust 📴 Save 🖽 E	

Select "Software Upgrade" 3.

Tools	
	Storage Manager
	Software Upgrade
	Factory Reset
Software Upgrade	i System Information
You can do software upgrade from your storage device.	
	Select OK : Enter Ent

Plug in the micro SD card. 4.





Select "Upgrade by SD Card" 5.

Tools / Software Upgrade	
Upgrade by SD Card	Upgrade by USB Upgrade by SD Card
	🖁 : Select 🚥 : Enler 🚥 : Exit

Select "Yes" 6.

Tools / Software Upgrade	
The operation will upgrade software. Are you sure to process? Upgrad Yes No	ard
Select OR Enter	ENT Exit



7. When the progress bar reaches the end, the update is done.

Tools / Software Up	pgrade
Upgrad Tou can upp	code successfully, please reboot.
	Select ON Enler Ent

Remove the micro SD card, power off, then power on the receiver box. 8. Note: If you do not remove SD card, the reboot will fail!

Firmware Update- SD card Method 2

There are two ways to update the firmware . You can choose either one to update the firmware of the box. If you can control HV-122 well with remote controller and the display is normal, please use Method 1.

- Copy the firmware image file "dtv.img" to the root directory of a micro SD card. 1. Note 1: the micro SD card should be formatted in FAT32 or FAT16. Note 2 Please delete the file dtv_temp.img on the SD card if it exists. Note 3 the firmware image file "dtv.pkg" is used with a flash kit, described below.
- Power the receiver box down. 2.
- 3. Plug in the micro SD card.



4. Power on the receiver box and wait for about 60 seconds.

If the SD card is detected properly and DTV.IMG is found, the update progress will be started. When the update is on going, it's possible there is no display or the display freezes and no response with remote controller.

If you can connect to the UART debug port (refer to next chapter), you will see the debug messages, "sd upgrade start" and "sd upgrade finish"

Note: the 7-SEG LED shows "88" when updating, and turns off when update is done.

- 5. Remove the micro SD card, power off, then power on the receiver box. Note:
- 1. If you do not remove SD card, the reboot will fail!
- 2. dtv.img will be rename to dtv_tmp.img when update is done.

Firmware Update- Flash kit

In case the boot code is corrupt due to failure of SD card update, HV-122 will fail to boot and cannot be updated with SD card any more. The only way to recover the boot code and firmware is to re-flash the NOR with a flash kit. The firmware for a flash kit is named "dtv.pkg", instead of "dtv.img". Consult Hides for details about the flash kit.









UART Debug Messages

The UART debug port is located in J10. You may dump debug messages from this J10 pin2 UART Tx. J10: Pin 1: Ground

Pin 2: UART Tx

Pin 3 :UART Rx

The communication parameters are 115200,n,8,1.



UART Control & Demux

The other UART port on J9 can be used as a control interface or UART data demux output.

While used as a control interface, an external host controller can control HV-122 thru this UART port.

Refer to ITEU2-AN-IT9070-16001 UART Control Protocol.PDF for more details.

While used as a data demux output, it can output the mux'ed the UART data in the received TS(transport stream),

Refer to ITEU2-AN-IT9070-16002 TS UART Data Demux for AV Sender.pdf for more details.



Shorten receiver latency

You may enable "Low Latency Mode" in menu "Settings"->"Display Preference". There are three options for low latency mode, OFF: latency is about 1~1.5 second Middle: latency is about 250ms (for SD) ~300ms (for 1080P Full HD) Low: latency is about 200ms (for SD) ~250ms (for 1080P Full HD)

By default, the option is "Middle"

	480160		
Aspect Ratio	Auto	Change to	
	RGB	P mode	
	Disable		
	OFF		
RF Kuy	00000000		
Low Latency Mode	 Middle 		
	OFF		
	004		
	0000000-000000	00-0000000-00000000	

The latency is decreased gracefully. In the beginning the latency is longer, and reduces to the lowest value after 10~30 seconds.

The Display mode must be set to P (progressive) mode for the low latency algorithm to work properly, for example

1080p60, 1080p50, 720p60, 720p50, 576p60, 480p60.

If the transmitter source is from HV-310 or HV-320, you may use the special firmware in the folder <Firmware\Low Latency Firmware for HV310&320 _xxx>. This special firmware's latency is constantly low from the beginning.



Long latency problem with HV-10X/HV-20X transmitter

While using HV-110/HV-12x with HV-10x/HV-20x transmitter, if the latency is still very long (>1 sec) even low latency mode enabled, there might be no audio packets in the received stream.

This problem happens when the video input source of HV-10x/HV-20x is either HDMI or HDSDI, and there is no embedded audio in the video source. In such a case, please set the audio source to "External line-in" in the MediaConfig Page for HV-10x/HV-20x with AVSenderUARTGUI.exe

AVSender Tool Kit			2.81.82					
ComPort (COM17) -	MediaConfig TansmissionConfig	TS Info EIT In	fo RegisterControl	System Info	Raw Data	Network Config	SerialPortC	Config
status : Connected	MediaConfiguration							
Open / Close	Video Input Port	AUTO	 Video 	aspect ratio		16:9	•	
Auto Detect	Video Input Mode	AUTO	▼ Video	Encoding GOI	P Length	30		
Get All Config	Video Encoding Type	H264	▼ Video	Encoding B Fi	rame Num	0		
	Video Encoding Resolution	AUTO	✓ Line-:	in Mode		Stereo	Ŧ	
	Video Encoding Width	1600	Line-:	in Gain(db)		0		
	Video Encoding Height	1080	Audio	o Encoding Typ	e	AAC	•	
Reset to Default	Data Rate Control Type	CBR	- Audio	e Encoding Bit	Rate (Kbps)	96	•	
	Max Bit Rate (kbps)	8000	Audio	Source		External Line-in	•]
Set All Config	Avg Bit Rate (kbps)	8000	Fast P	layback		Disable	•	
Save Config to file	Video Frame Rate Drop	AUTO	•					
Get Config from file	Video Encoding Frame Rate(fps	29.97		Set MediaConfi	ie 🗌	Get MediaConfig		

Specify RF key for protected signal

HV-122-DCA does not support RF key decryption.

Decrypt Encrypted Streams

If you are tuning a transmitter with TS data encrypted, you should enable the decrypt function and specify the decrypt key. You may edit RF key in menu "Settings"->"Display Preference". Enable the "Decrypt Mode"



	576150
	Auto
	RGB
	Rescan
	OFF
	0000000
	OFF
Decrypt Mode	<0N ►
	00000002-00000000-0000000-00000001

Specify the decrypt key, which is a 32-digit HEX number.

Settings / D	isplay Preference
Display Mode	576150
Aspect Ratio	Auto
Video Output	RGB
PAT Mismatched	Rescan
Signal OSD	OFF
RF Key	000000000
Low Latency Mode	OFF
Decrypt Mode	ON
Decrypt Mode	000000002-00000000-00000000-000000001



Then, use arrow keys to change the key.



Active Antenna

HV-122 supports active antenna on the SMA RF connectors.

The supplied power current is 12V DC, 500mA maximally.

To enable power for active antenna,

- 1. Please remove J6 jumper if any; J6 should be open.
- 2. HV-122-TV, install a jumper on J7; J7 should be shorted and leave J18 open.
- 3. HV-122-2.4G and HV-122-A, install a jumper on J18; J18 should be shorted and leave J7 open.
- 4. Enable the active antenna in menu "Settings"->"Display Preference".







Signal OSD	OFF
RF Key	0000000
Low Latency Mode	OFF
Decrypt Mode	OFF
Decrypt Start Byte	000
Decrypt Key	0000000-000000-0000000-0000000-00000000
Cart Demux Mode	OFF
Uart Demux Baudrate	38400
	OFF
Antenna Power	< OFF □

Channel switch buttons

There are CH+/CH- buttons on the front panel and the remote controller.

You may switch channel with the two buttons.

For "Auto scan" and "Manual scan" modes, it works only if there are multiple services in the service list scanned.

In "Manual Input" mode, it switches the channel frequency and bandwidth according to the channel table specified in the "Manual Input" page.







Bandwidth (CH 00)	< 8 MHz ►
	226750
	0x0641
	0x0642
	7+8 MHz
Signal Strength	3 % -88 dBm
Signal Quality	0 %



DVB-T Channel Frequency Table: 7+8MHz Bandwidth

DIP Switch Settings (0-99) Channel ID	Band	Center Frequency [MHz]	BW [MHz]
0		Configured by SW	7
1	Special (VHF low band)	142.5	7
2	Special (VHF low band)	149.5	7
3	Special (VHF low band)	156.5	7
4	Special (VHF low band)	163.5	7
5	VHF III	177.5	7
6	VHF III	184.5	7
7	VHF III	191.5	7
8	VHF III	198.5	7
9	VHF III	205.5	7
10	VHF III	212.5	7
11	VHF III	219.5	7
12	VHF III	226.5	7
13	Special (UHF hyper band)	410	8
14	Special (UHF hyper band)	418	8
15	Special (UHF hyper band)	426	8
16	Special (UHF hyper band)	434	8
17	Special (UHF hyper band)	442	8
18	Special (UHF hyper band)	450	8
19	Special (UHF hyper band)	458	8
20	Special (UHF hyper band)	466	8
21	UHF IV	474	8
22	UHF IV	482	8
23	UHF IV	490	8
24	UHF IV	498	8
25	UHF IV	506	8
26	UHF IV	514	8
27	UHF IV	522	8



28	UHF IV	530	8
29	UHF IV	538	8
30	UHF IV	546	8
31	UHF IV	554	8
32	UHF IV	562	8
33	UHF IV	570	8
34	UHF IV	578	8
35	UHF IV	586	8
36	UHF IV	594	8
37	UHF IV	602	8
38	UHF V	610	8
39	UHF V	618	8
40	UHF V	626	8
41	UHF V	634	8
42	UHF V	642	8
43	UHF V	650	8
44	UHF V	658	8
45	UHF V	666	8
46	UHF V	674	8
47	UHF V	682	8
48	UHF V	690	8
49	UHF V	698	8
50	UHF V	706	8
51	UHF V	714	8
52	UHF V	722	8
53	UHF V	730	8
54	UHF V	738	8
55	UHF V	746	8
56	UHF V	754	8
57	UHF V	762	8
58	UHF V	770	8
59	UHF V	778	8
60	UHF V	786	8
61	UHF V	794	8
62	UHF V	802	8
63	UHF V	810	8
64	UHF V	818	8



99(0x99)	UHF IV	474	8
98	DATV	2443	6
97	DATV	2420	6
96	DATV	2406	8
95	DATV	2402	3
94	DATV	2395	8
93	DATV	2395	4
92	DATV	2395	2
91	DATV	2385	8
90	DATV	2380	3
89	DATV	2360	4
88	DATV	2350	3
87	DATV	2334	3
86	DATV	1280	8
85	DATV	1280	4
84	DATV	1265	8
83	DATV	1265	3
82	DATV	1265	2
81	DATV	436	3
80	DATV	436	2
79	UHF V	938	8
78	UHF V	930	8
77	UHF V	924	8
76	UHF V	915	8
75	UHF V	906	8
74	UHF V	898	8
73	UHF V	890	8
72	UHF V	882	8
71	UHF V	874	8
70	UHF V	866	8
69	UHF V	858	8
68	UHF V	850	8
67	UHF V	842	8
66	UHF V	834	8
65	UHF V	826	8

Note: HV-122-DCA does NOT support CH70~CH98.



Trouble Shooting

Q: Why the video is not smooth when playing HD video service specifically?

A:

- 1. Disable low latency mode in Menu-> Settings-> Display Preference
- 2. Set the display mode to the same as the video service, 1080P30 or 1080P25 if the service is 1080P, and set to720P30 or 720P25 if the service is 720P.

Q: The video is noisy when signal statistics OSD enabled.

A:

The problem is caused by the bottleneck of DDR memory access. You may minimize this problem by lowering display memory access.

In Menu-> Settings-> Display Preference, please set the display mode to1080P30 or 1080P25 if the service is 1080P, and set to720P30 or 720P25 if the service is 720P.

Contact Information

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