Multi2SDI BOX

User Manual

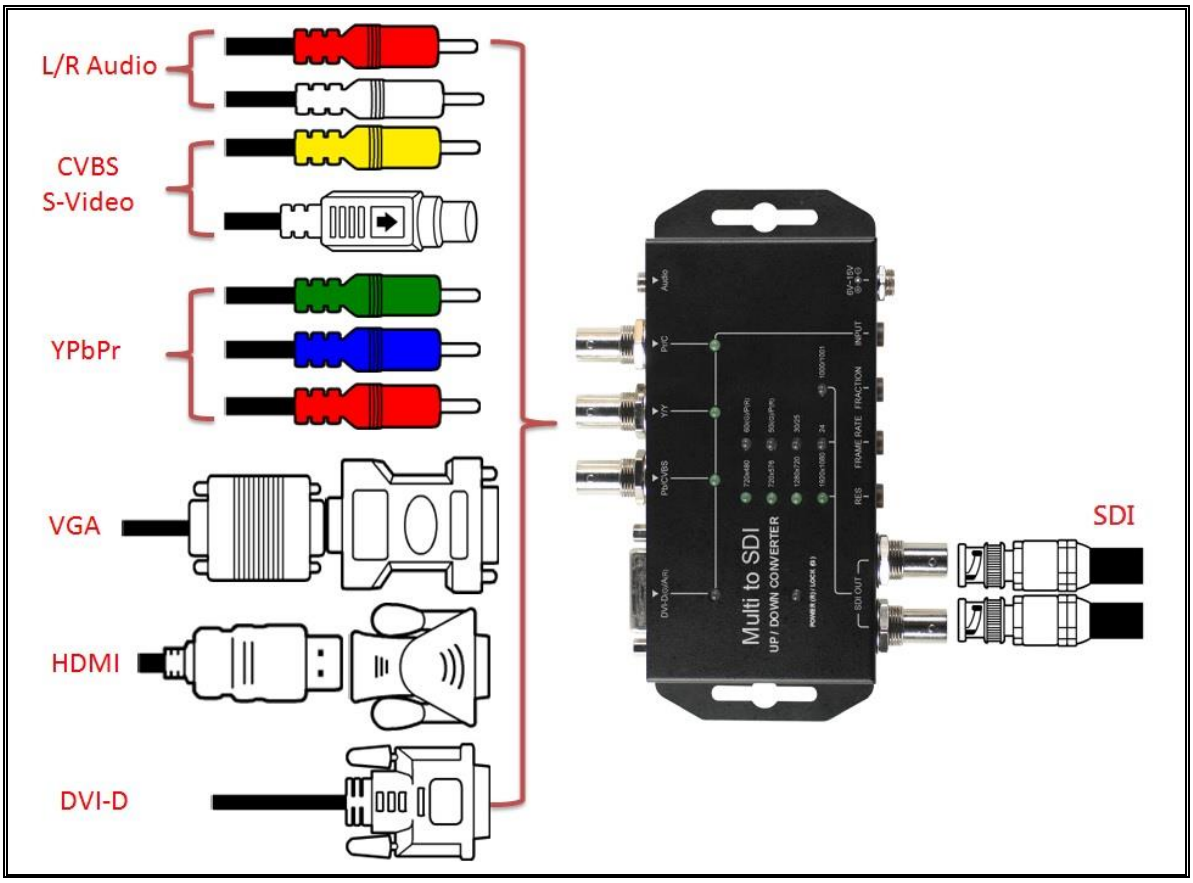
Rev1.3

Content

Feature 3
Front Panel.....4
Rear Panel.....4
Top Panel.....5
Side Panel 5
Button/LED Indicate 6
Installation 18
Package Contents 18
Specifications..... 19
Firmware Upload..... 20
Appendix Table A 22
Update List..... 23

Feature

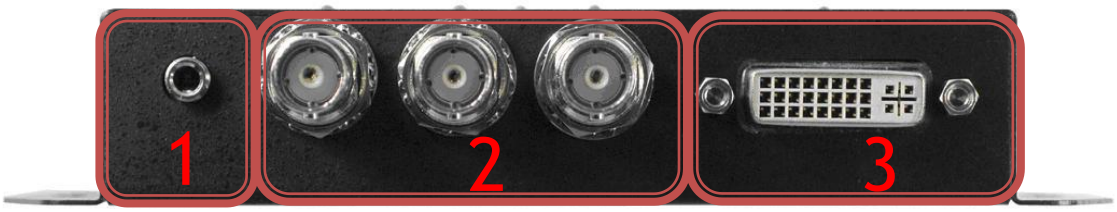
- SDI Supports HD formats :
  - 720p50 & 60
  - 1080i50 & 60
  - 1080p24, 25, 30, 50 & 60
- SDI Support 525i & 625i SD D1 format
- Auto 3G/HD/SD-SDI detection
- Can be split one 3G-SDI displays simultaneously.
- Frame rate conversion(1.000/1.001)
- External Button Configuration
- Firmware is upgradable in the field using the integrated USB port
- The converter is Plug-and-Play
- Support DVI-D, DVI-A, Component, CVBS and S-Video Input



Front Panel

NO	Component	Function
1	SDI Output Port	From your SDI Display Device plug into this ports
2	Mode Buttons	Select Format/Output Port
3	Power Jack	The Power adapter plug into here

Rear Panel



NO	Component	Function
1	Phone Jack	Form you Audio Device plug into this port
2	Component/CVBS/S-Video Input Port	From your YPbPr/CVBS/S-Video Device plug into this port
3	DVI-D/DVI-A Input Port	From your DVI-D/DIV-A Device plug into this port

Top Panel

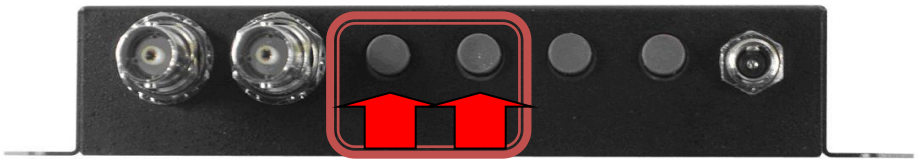
NO	Component	Function
1	Input Source LED	The LEDs are indicate Input source
2	Power and Lock LED	The LEDs is indicate power and signal locked.
3	Main Format LED	The LEDS are indicate output format

Side Panel

NO	Component	Function
1	USB Port	Upgrade firmware/Control Box From PC

Button/LED Indicate

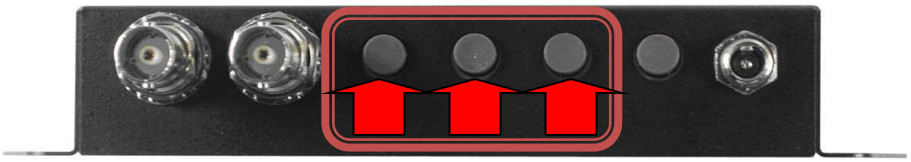
1. Firmware Mode:



Hold on the 1 and 2 button, the display is showed firmware version on display of left upper.

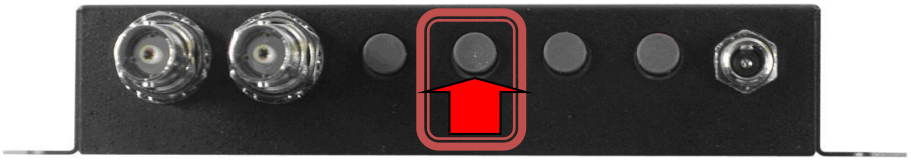
FIRMWARE VERSION 0.1.0.1

2. Default Mode:



Pull all button (1, 2 and 3) at same time, the box auto reset to default.

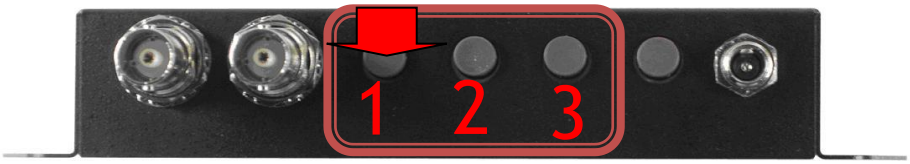
3. Audio Mode



Pull all button 2 to setting audio Mode..

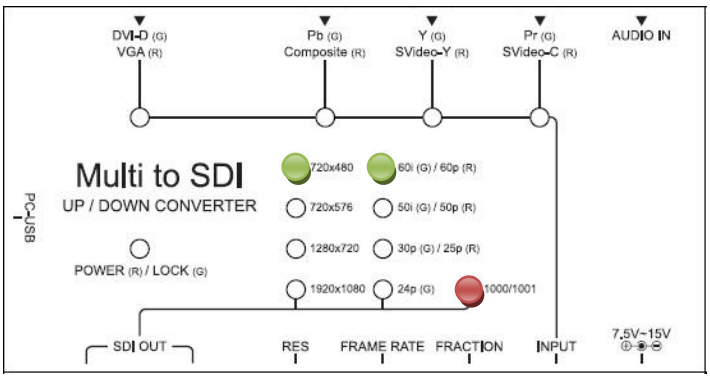
DVI-D	Embadded Audio (Default)
	External Audio
	Mute
DVI-A	Mute
YPbPr	
Composite	External Audio
SVIdeo	

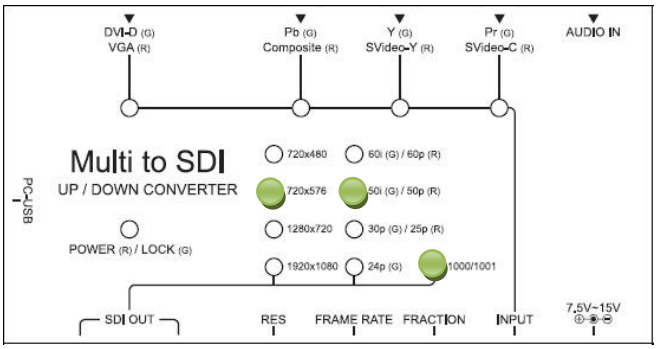
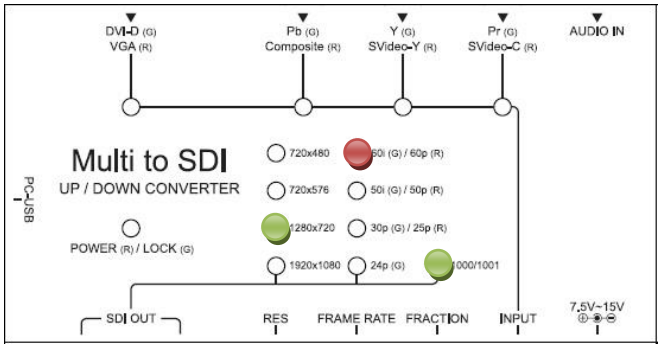
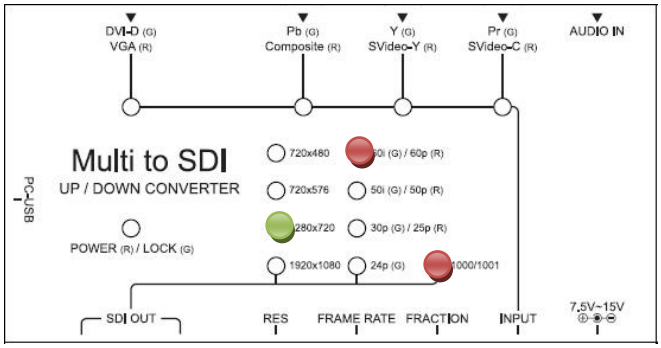
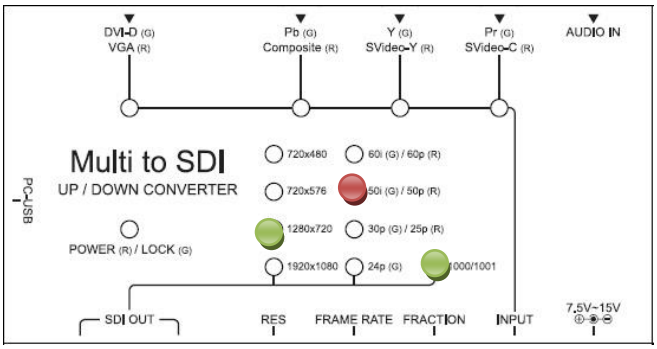
4. Output Format Mode:

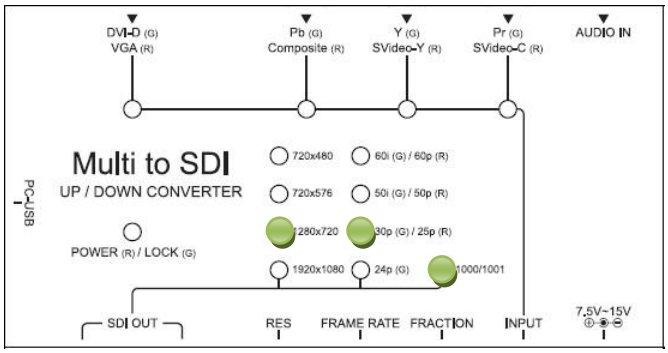
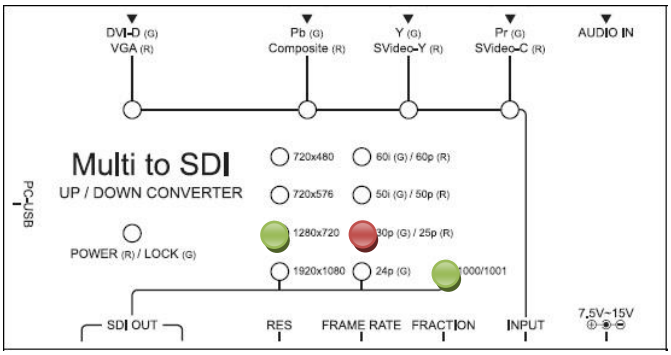
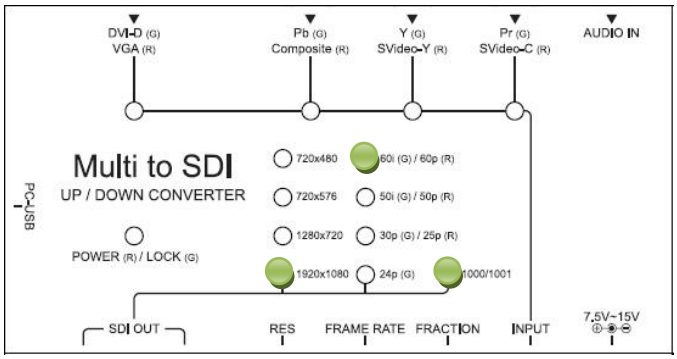
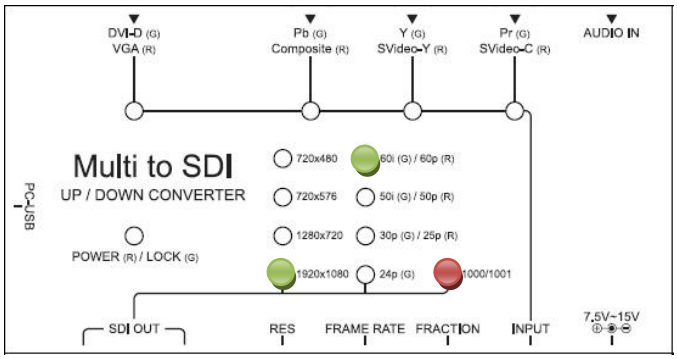


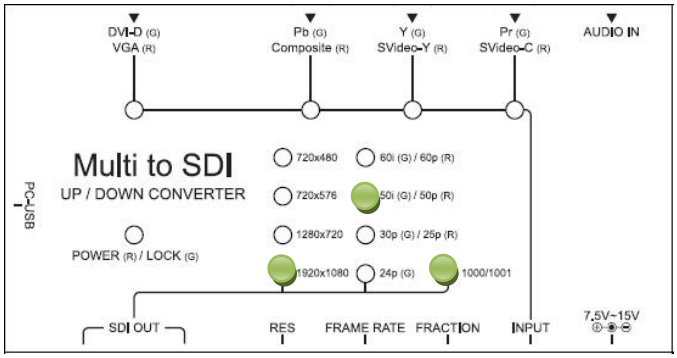
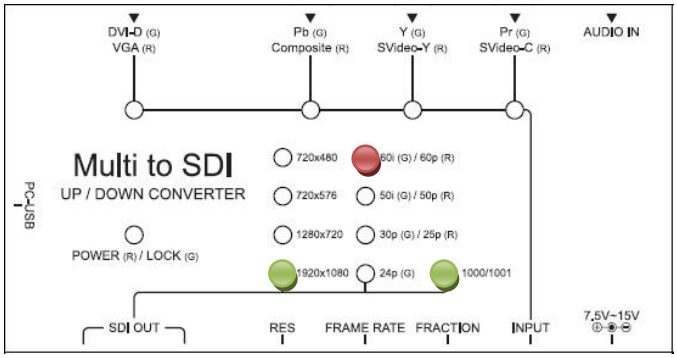
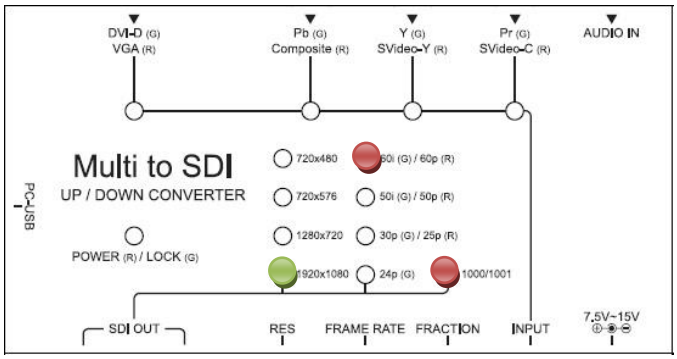
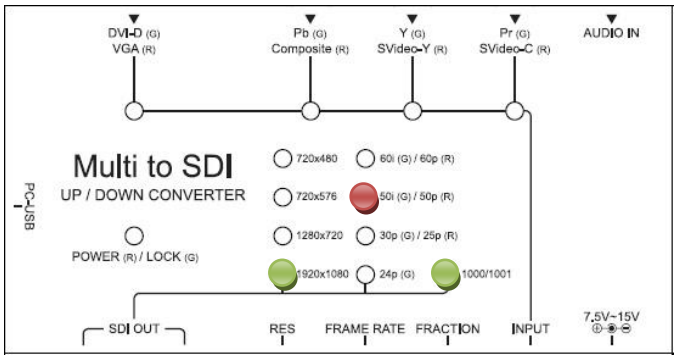
Pull button 1 change to format mode, frame rate and Fraction by button 2 and 3.

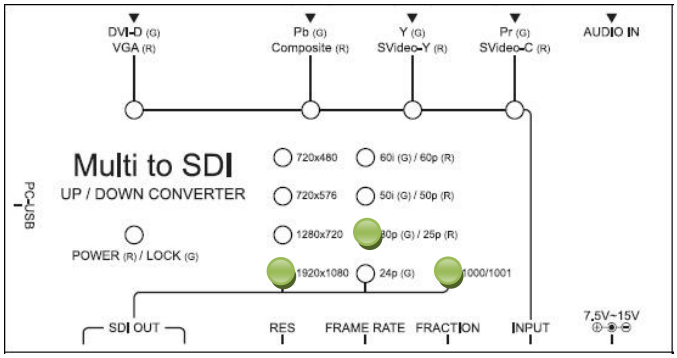
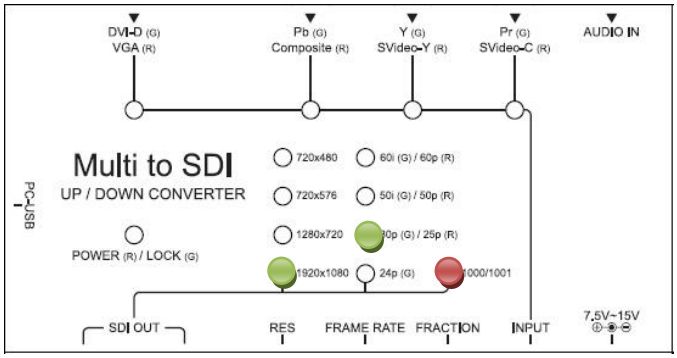
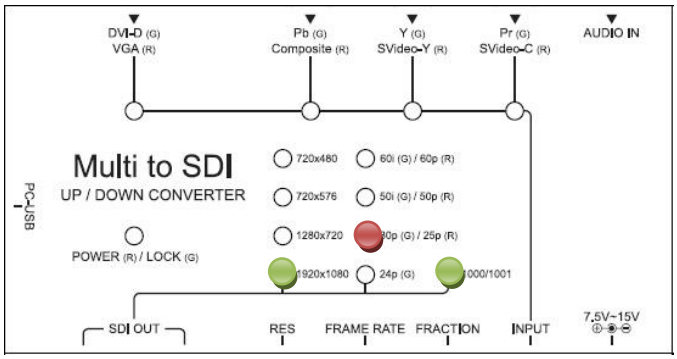
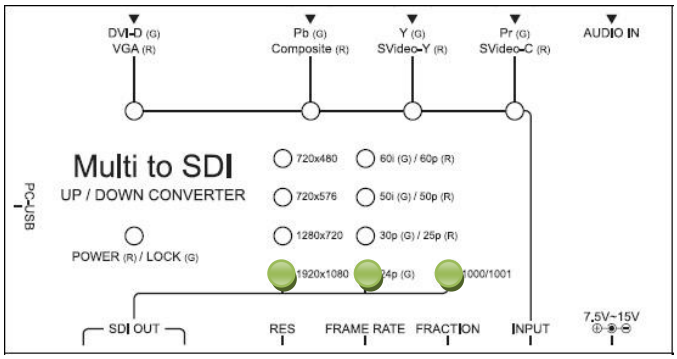
Button 1	Button 2	Button 3
720x480	59.94i	
720x576	50i	
1280x720	60p	59.94p
	50p	
	30p	
	25p	
1920x1080	60i	59.94i
	50i	
	60p	59.94p
	50p	
	30p	29.97p
	25p	
	24p	23.98p

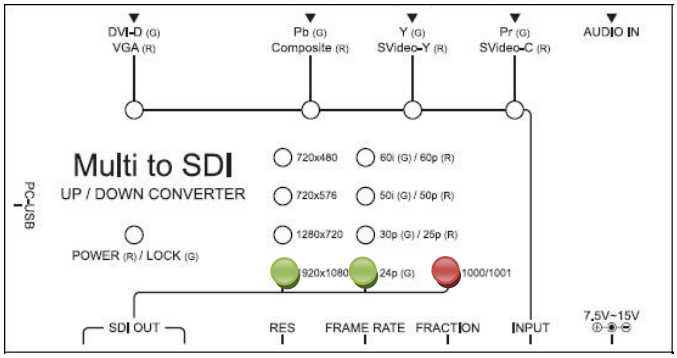
720x480 59.94i	

720x576 i50	
1280x720 p60	
12080 x720 p59	
1280x720 p50	

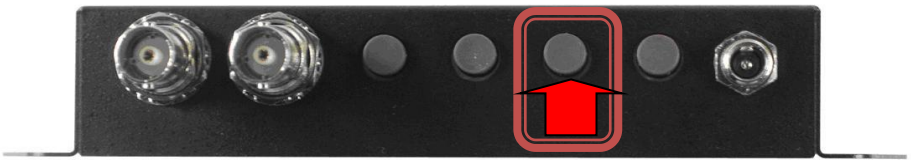
1280x720 p30	
1280x 720 p25	
1920x1080 i60	
1920x1080 i59	

1920x1080 i50	
1920x1080 p60	
1920x1080 p59	
1920x1080 p50	

1920x1080 p30	
1920x1080 p29	
1920x1080 p25	
1920x1080 p24	

1920x1080 p23	

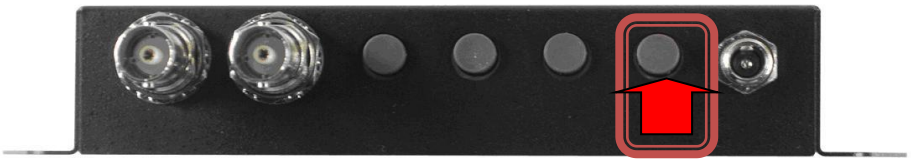
5. Aspect Ratio Mode:



Check the button 3 , the box will be seting to Aspect Ratio Mode.

Mode	Display
16:9 (Default)	
4:3	
1:1 (dot by dot)	

6. Function Button Mode:

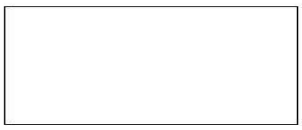


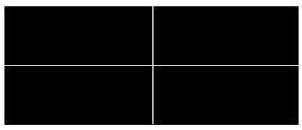
Hold on the button 4 until show the Func button Mod

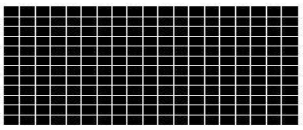
FUNCTION BUTTON UN-LOCK/LOCK

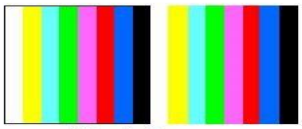
7. Pattern Genertor Mode:

input signal is plug out, the Box auto change to Pattern Genertor mode. It is proivded the 13 of Mode


(1) white screen

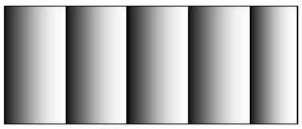

(2) cross


(3) cross hatch


(4) color bar

(5) horizontal gray scale

(6) white window

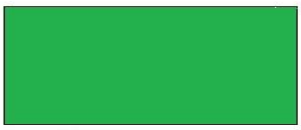

(7) ramp

(8) wide horizontal ramp

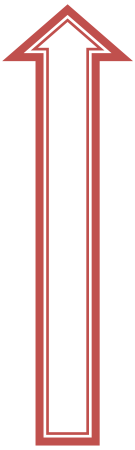
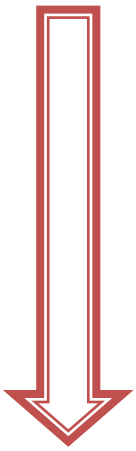
(9) wide vertical ramp

(10) diagonal lines

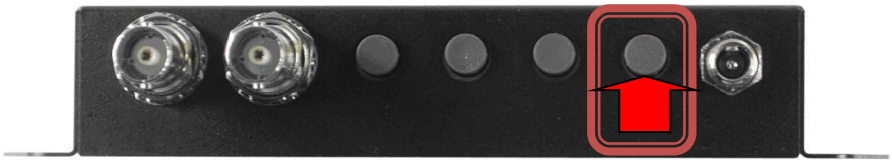
(11) red screen


(12) green screen

(13) blue screen

Button 2	Pattern Mode	Button 3
	BLUE	
	GREEN	
	RED	
	DIAGONAL	
	WV RAMP	
	WH RAMP	
	H RAMP	
	WINDOW	
	GRAY	
	COLOR BAR	
	HATCH	
	CROSS	
	WHITE	

8. Input Source Mode:

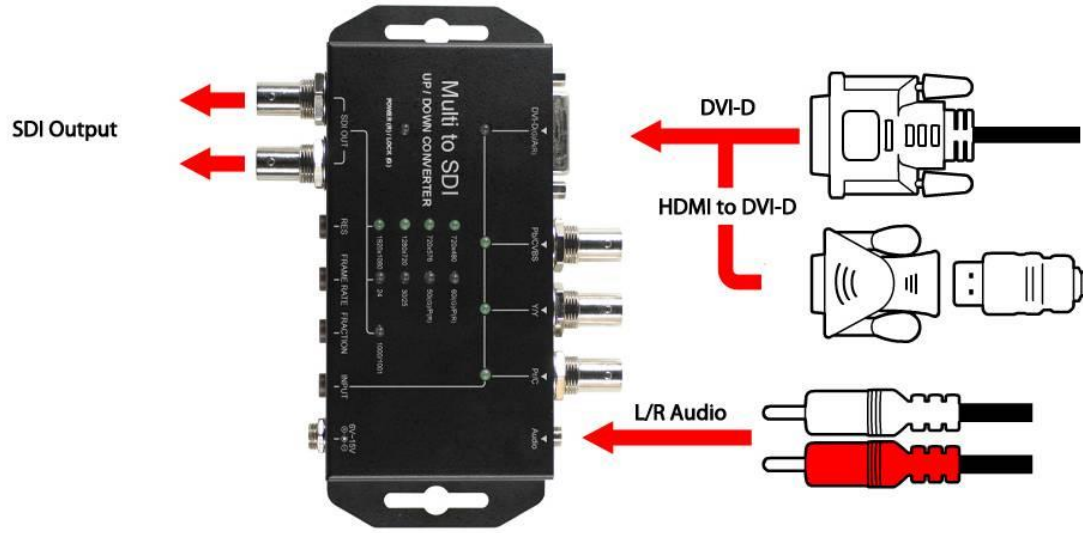


Pull button 4 change to input source mode. The button 3 and 4 can be switch output source.

	DVI-D/DVI-A	Pb/CVBS	Y/Y	Pr/C
DVI-D	●	○	○	○
DVI-A	●	○	○	○
YPbPr	○	●	●	●
CVBS	○	●	○	○
S-VIDEO	○	○	●	●

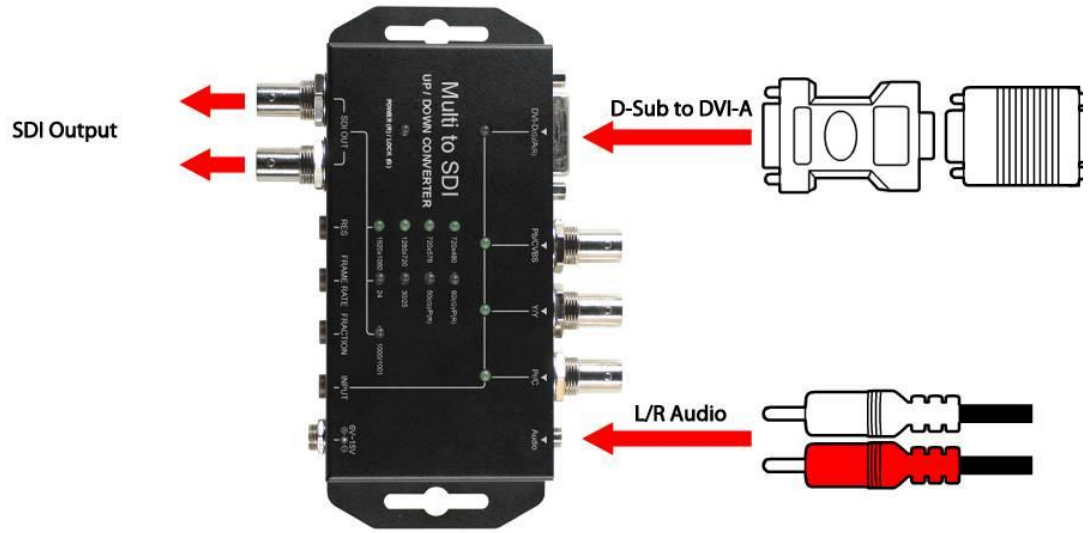
1. DVI-D + L/R Audio:

DVI-D + L/R Audio



2. DVI-A+ L/R Audio:

DVI-A + L/R Audio



3. YPbPr + L/R Audio:

YPbPr + L/R Audio

4. Composite (CVBS) + L/R Audio:

Composite(CVBS) + L/R Audio

5. S-VIDEO + L/R Audio

Composite(CVBS) + L/R Audio

Installation

MULTI2SDI installation consists of the following:

1. Disconnect +12DC adaptor to converter.
2. Connect Video Source to the Input Connector.
3. Connect Display Equipment to the output's connector
4. Connect the +12DC adaptor to the converter.

Package Contents

The MULTI2SDI-S package contains the following items:

- User Manual x 1
- +12 DC Adapter x 1
- MULTI2SDI Converter x 1

Specifications

DESCRIPTION	
SDI Format	SD-SDI, HD-SDI & 3G-SDI
SDI Transition Rate	2.970Gb/s, 10485Gb/s and 270Mb/s
Audio Support	8-Channel (L/R Audio only 2 channel splitter to 8 channel)
Re-Sample Clock	Auto Resample audio clock to 48Khz
Coaxial Cable Type	RG6/RG59(75Ω)
Cable Equalization	3G: 100m of RG6/ 86m of RG59 HD: 170m of RG6/ 120m of RG59 SD: 400m of RG6/ 280m of RG59 *1 RG6: CANARE L-5CFB Cable / RG59: Belden 9275 Cable *2 Cable Length Performance: Depending on SDI Signal and Cable Quality
Input Format Support	Appendix Table A
Output Format Support	Appendix Table A
Firmware Updates	Via Mini-USB
Output Connector	1 x BNC [SDI]
Input Connector	1 x BNC [SDI] 1 x DVI-I [DVI-D + DVI-A] 3 x BNC [YPbPr or YC + CVBS] 1 x Phone Jack
BNC Connector	3G 75 Ω inter-locked socket
USB Connector	Mini-USB
Bottom	Output Format/Audio Source/TV Ratio
Housing	SECC
Dimension	L:153mm x W:63.3mm xH:26mm
Power Source	Power Adapter: AC 100 ~ 240 V/DC (+6 ~ 15 V)
Operation Temperature	0~50°C [32~114°F]
Storage Temperature	-20~+60°C

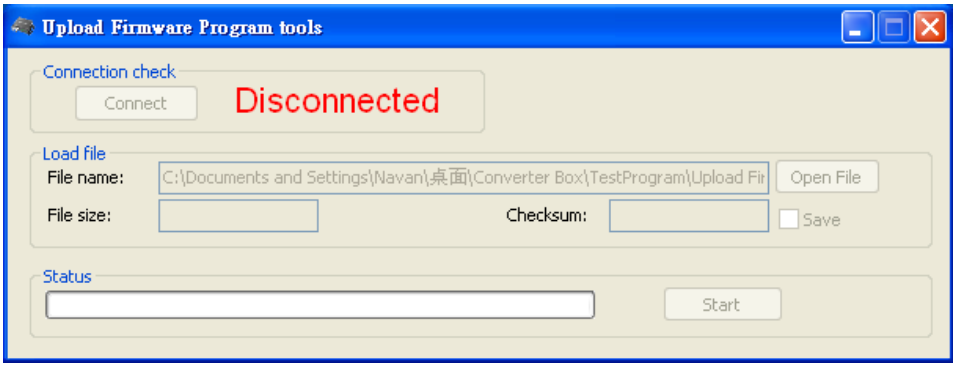
Firmware Upload

Firmware is upgradable in the field using the integrated USB port

How to Firmware upgrade:

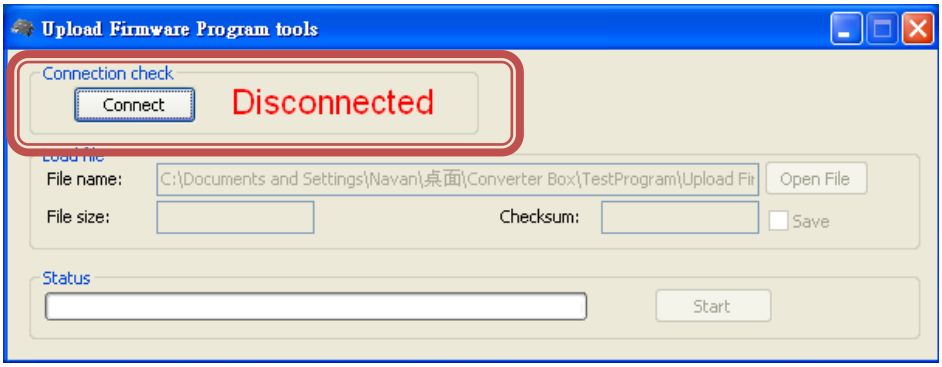
Step1.

Open Upload Firmware Program tools.exe and connect box to PC by USB Cable.



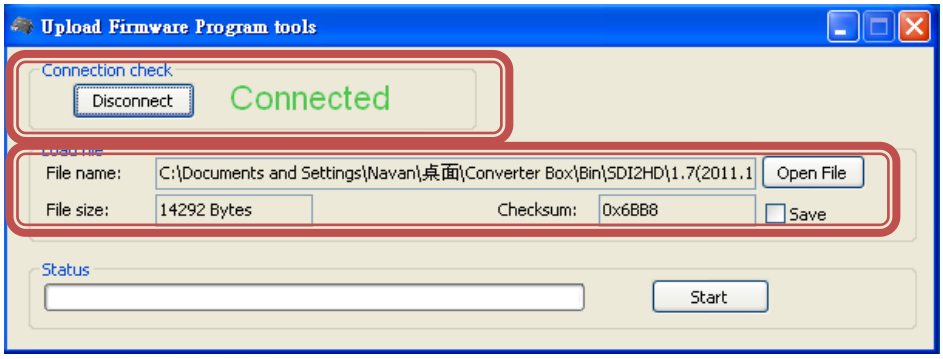
Step2.

Plug and un-plug “DC adapter” to power on/off the converter box (the connection check status will be changed to “Connect”)



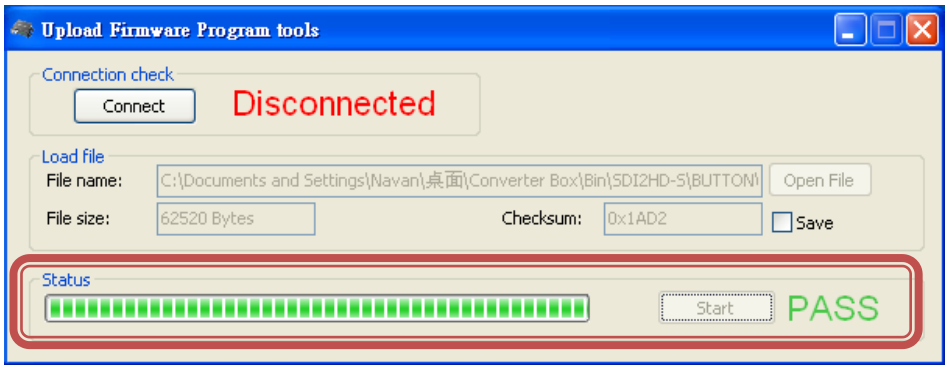
Step3.

Plug and un-plug “DC adapter” again (the connection check status will be changed to “Connected”) and Please click the Open File button to select the firmware bin file.



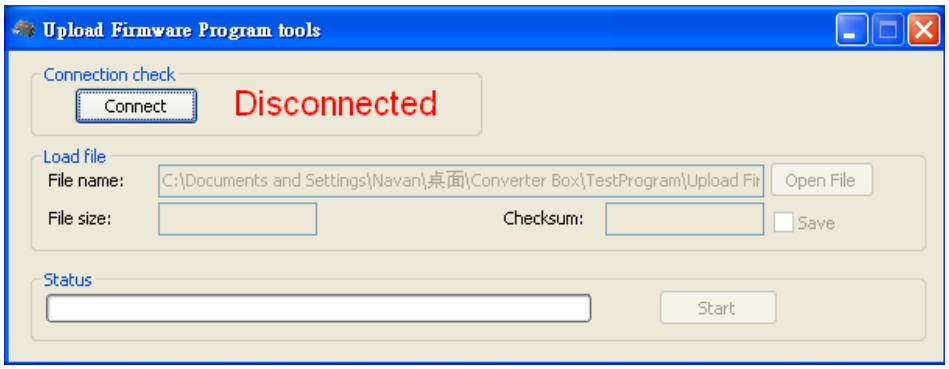
Step4.

Please click “Start’ Button to proceed with new firmware programming. The PASS message will appear when the procedures finished.



Step5.

Close Upload Firmware Program tools



Appendix Table A

Support Input Format:

720x480i60	720x576i50	720x480 p60	720x576 p50
1280x720p60	1280x720p50	1920x1080i60	1920x1080i50
1920x1080p24	1920x1080p25	1920x1080p30	1920x1080p60
1920x1080p50			
640x350p85	640x400p85	720x400p85	640x480p60
640x480p72	640x480p75	640x480p85	800x600p56
800x600p60	800x600p72	800x600p75	800x600p85
848x480p60	1024x768p50	1024x768p59	1024x768p60
1024x768p70	1024x768p75	1024x768p85	1152x864p70
1152x864p75	1280x768pRB	1280x768p60	1280x768p75
1280x768p85	1280x800p60	1280x800p75	1280x800p85
1280x960p60	1280x960p75	1280x960p85	1280x1024p60
1280x1024p75	1280x1024p85	1360x768p60	1366x768p50
1366x768p60	1400x1050p50	1400x1050p59	1400x1050p60
1400x1050p75	1440x900p60	1440x900p75	1440x900p85
1600x1200p50	1600x1200p59	1600x1200p60	1600x1200pRB
1680x1050pRB	1680x1050p60	1920x1200pRB	2048x1052p60
2048x1080p50	2048x1080p59	2048x1080p60	

Support Output Format:

HDMI Mode		
720x480 i60	720x480 i59.94	720x576 i50
1280x720 p60	1280x720 p59.94	1280x720 p50
1920x1080 i60	1920x1080 i59.94	1920x1080 i50
1920x1080 p60	1920x1080 p59.94	1920x1080 p50
1920x1080 p30	1920x1080 p29.97	1920x1080 p25
1920 x 1080 p24	1920 x 1080 p23.98	

Update List

Data	Version	Command
2013.03.04	V1.0	1. Release
2013.05.13	V1.1	1. Modify Feature Section 2. Modify Front /Rear Panel Section 3. Modify Output Format Mode
2013.10.08	V1.2	1. Rename to Multi2SDI 2. Add Pattern generator function
2013.01.21	V1.3	1. Add Aspect Ratio 2. Add Function Button Lock/Unlock