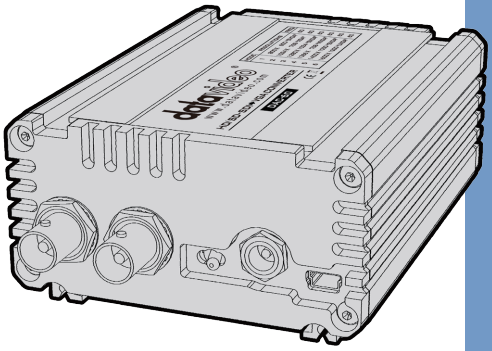
datavideo



HD/SD-SDI TO VGA CONVERTER

DAC-60

Instruction Manual

www.datavideo.com

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Disclaimer of Product & Services

The information offered in this instruction manual is intended as a guide only. At all times, Datavideo Technologies will try to give correct, complete and suitable information. However, Datavideo Technologies cannot exclude that some information in this manual, from time to time, may not be correct or may be incomplete. This manual may contain typing errors, omissions or incorrect information. Datavideo Technologies always recommend that you double check the information in this document for accuracy before making any purchase decision or using the product. Datavideo Technologies is not responsible for any omissions or errors, or for any subsequent loss or damage caused by using the information contained within this manual. Further advice on the content of this manual or on the product can be obtained by contacting your local Datavideo Office or dealer.

FCC Compliance Statement

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

Warnings and Precautions

1. Read all of these warnings and save them for later reference.
2. Follow all warnings and instructions marked on this unit.
3. Unplug this unit from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.
4. Do not use this unit in or near water.
5. Do not place this unit on an unstable cart, stand, or table. The unit may fall, causing serious damage.
6. Slots and openings on the cabinet top, back, and bottom are provided for ventilation. To ensure safe and reliable operation of this unit, and to protect it from overheating, do not block or cover these openings. Do not place this unit on a bed, sofa, rug, or similar surface, as the ventilation openings on the bottom of the cabinet will be blocked. This unit should never be placed near or over a heat register or radiator. This unit should not be placed in a built-in installation unless proper ventilation is provided.
7. This product should only be operated from the type of power source indicated on the marking label of the AC adapter. If you are not sure of the type of power available, consult your Datavideo dealer or your local power company.
8. Do not allow anything to rest on the power cord. Do not locate this unit where the power cord will be walked on, rolled over, or otherwise stressed.
9. If an extension cord must be used with this unit, make sure that the total of the ampere ratings on the products plugged into the extension cord do not exceed the extension cord rating.
10. Make sure that the total amperes of all the units that are plugged into a single wall outlet do not exceed 15 amperes.
11. Never push objects of any kind into this unit through the cabinet ventilation slots, as they may touch dangerous voltage points or short out parts that

could result in risk of fire or electric shock. Never spill liquid of any kind onto or into this unit.

12. Except as specifically explained elsewhere in this manual, do not attempt to service this product yourself. Opening or removing covers that are marked "Do Not Remove" may expose you to dangerous voltage points or other risks, and will void your warranty. Refer all service issues to qualified service personnel.
13. Unplug this product from the wall outlet and refer to qualified service personnel under the following conditions:
    a. When the power cord is damaged or frayed;
    b. When liquid has spilled into the unit;
    c. When the product has been exposed to rain or water;
    d. When the product does not operate normally under normal operating conditions. Adjust only those controls that are covered by the operating instructions in this manual; improper adjustment of other controls may result in damage to the unit and may often require extensive work by a qualified technician to restore the unit to normal operation;
    e. When the product has been dropped or the cabinet has been damaged;
    f. When the product exhibits a distinct change in performance, indicating a need for service.

Warranty

Standard Warranty

- Datavideo equipment are guaranteed against any manufacturing defects for one year from the date of purchase.
- The original purchase invoice or other documentary evidence should be supplied at the time of any request for repair under warranty.
- The product warranty period beings on the purchase date. If the purchase date is unknown, the product warranty period begins on the thirtieth day after shipment from a Datavideo office.
- Damage caused by accident, misuse, unauthorized repairs, sand, grit or water is not covered under warranty.
- Viruses and malware infections on the computer systems are not covered under warranty.

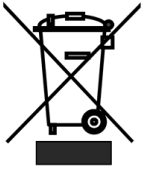
- Any errors that are caused by unauthorized third-party software installations, which are not required by our computer systems, are not covered under warranty.
- All mail or transportation costs including insurance are at the expense of the owner.
- All other claims of any nature are not covered.
- Cables and batteries are not covered under warranty.
- Warranty only valid in the country or region of purchase.
- Your statutory rights are not affected.

Three Year Warranty

- All Datavideo products purchased after July 1st, 2017 are qualified for a free two years extension to the standard warranty, providing the product is registered with Datavideo within 30 days of purchase.

- Certain parts with limited lifetime expectancy such as LCD panels, DVD drives, Hard Drive, Solid State Drive, SD Card, USB Thumb Drive, Lighting, Camera module, PCIe Card are covered for 1 year.
- The three-year warranty must be registered on Datavideo's official website or with your local Datavideo office or one of its authorized distributors within 30 days of purchase.

Disposal



For EU Customers only - WEEE Marking

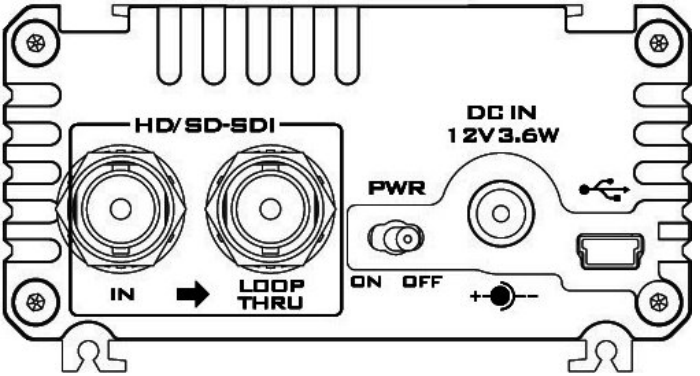
This symbol on the product or on its packaging indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your

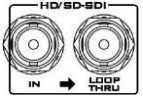
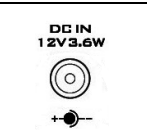
waste equipment for recycling, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

CE Marking is the symbol as shown on the left of this page. The letters "**CE**" are the abbreviation of French phrase "Conformité Européene" which literally means "European Conformity". The term initially used was "EC Mark" and it was officially replaced by "CE Marking" in the Directive 93/68/EEC in 1993. "CE Marking" is now used in all EU official documents.

1. Connections and Controls

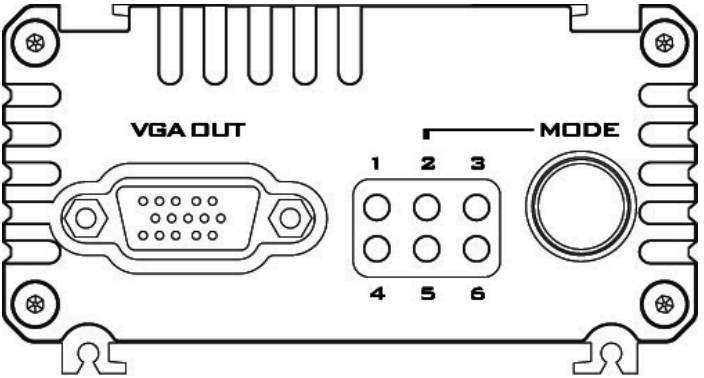
Front Panel

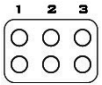


	**HD/SD - SDI Input & Output (bypass)** SDI provides video signals for professional applications and allows long distance signal transmission. Left BNC connector: HD/SD-SDI Input Right BNC connector: Loop Thru Output
	Power Switch Switches the power On / Off.
	**DC In Socket** Connects the supplied 12V PSU to this socket. The connection can be secured by screwing the outer fastening ring of the DC In plug to the socket.

	USB Connects to PC for Firmware Upgrade; please see the Firmware Upgrade section for details.

Rear Panel



	VGA Output Connects your VGA display to this port; please see the System Setup section for connection details.
	**LED** The LEDs display the VGA output format; please see the Mode Selection section for details of the LED display.

Mode Select
Press to select VGA Output Format (Please see the Mode Selection section for more details).

Press and hold the **MODE** button for 3 seconds to enter **TV SCREEN MODE**, and then press this button again to switch screen ratio mode.

Note: OPTIMAL RATIO = 16:9 mode

2. System Setup

Please follow the steps below to set up your system using the DAC-60 Converter.

1. First make sure your DAC-60 is not connected to power or disconnect the power connection before connecting the video display.

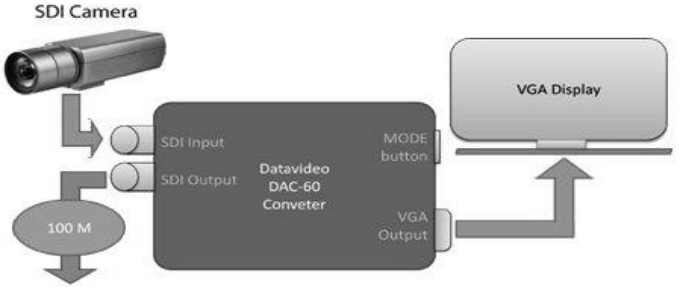
2. Connect the Video Source (SDI) to the SDI BNC input port.

3. Connect a VGA display to the VGA port.

4. Connect an optional SDI device to the SDI BNC output connector.

5. Connect the +12V DC power adapter to the converter.

6. Turn on the DAC-60 Converter power switch to start displaying the video on the VGA display.



3. Mode Selection

Different modes can be selected using the **MODE** button. This section describes how the user can switch between different VGA output formats and aspect ratios.

VGA Output Format

The DAC-60 provides the user with nine VGA output format presets as listed in the table below. The presets can be selected by pressing the **MODE** button.

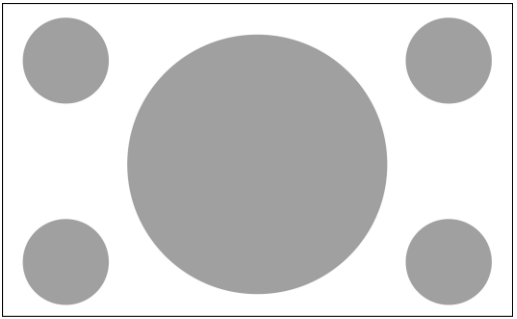
Resolution	LED Indication
800 x 600 60Hz	●○○ ○○○
1024 x 768 60Hz	○●○ ○○○
1280 x 800 60Hz	○○● ○○○
1280 x 1024 60Hz	○○○ ●○○
1366 x 768 60Hz	○○○ ○●○
1400 x 1050 60Hz	○○○ ○○●
1600 x 1200 60Hz	●●○ ○○○
1920 x 1080 60Hz	○●● ○○○
1920 x 1200 60Hz	○○● ●○○
●: LED ON ○: LED OFF	

TV Screen Modes

The DAC-60 offers the user three TV Screen modes, which are **Full Screen**, **Dot by Dot** and **Optimal Ratio**. Press and hold the **MODE** button for 3 seconds to enter **TV SCREEN MODE**, and then press the button again to switch the **TV SCREEN MODE**. The example below will give you an idea as to how your image will be displayed on the TV screen in different **TV SCREEN MODES**.

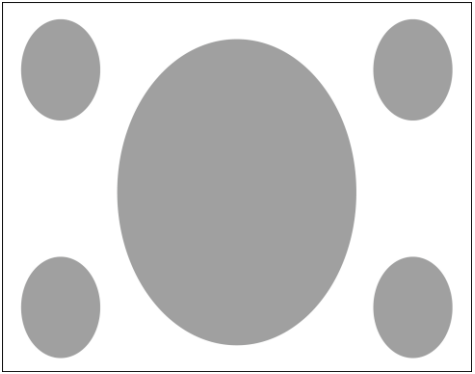
Given that the source is 1920x1080 (16:9), the pictures below provide an illustration as to how the video source will be displayed in different TV Screen modes if the output format is set to 800x600 (4:3).

Source = 1920x1080 (16:9)



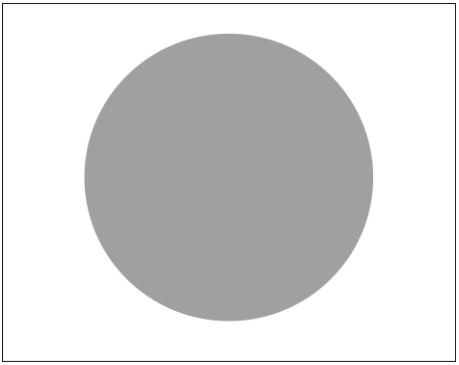
1. Full Screen Mode

Source = 1920x1080 (16:9)
Output = 800x600 (4:3)



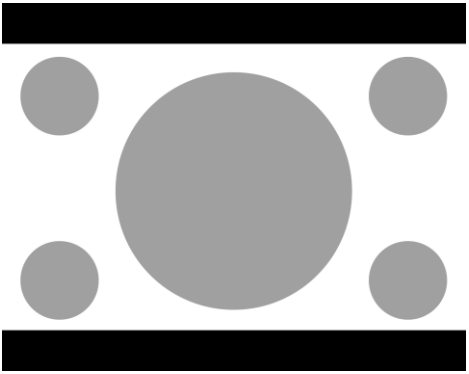
2. Dot by Dot Mode

Source = 1920 x 1080 (16:9)
Output = 800 x 600 (4:3)



3. Optimal Ratio Mode

Source = 1920 x 1080 (16:9)
Output = 800 x 600 (4:3)



4. DAC-60 Center Utility

The DAC-60 Center Utility allows the user to set the output format as well as image parameters such as brightness, contrast, hue and saturation.

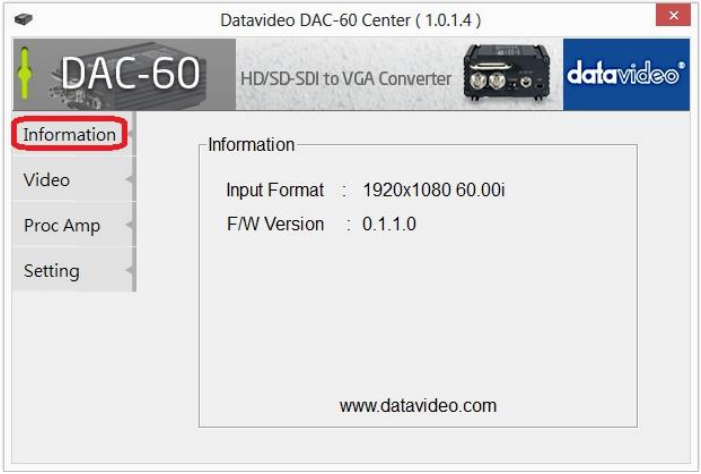
To use the utility, please first copy the DAC-60 Center.exe utility software from the supplied CD to your Windows computer. Now connect the DAC-60 by USB cable to the same computer. Switch on the DAC-60 and then launch the DAC-60 Center utility software.

Note: When the utility is opened, the first priority is PC.

Control Priority	Controller
1	PC Controller – Utility
2	Converter Box Controller – Mode Button

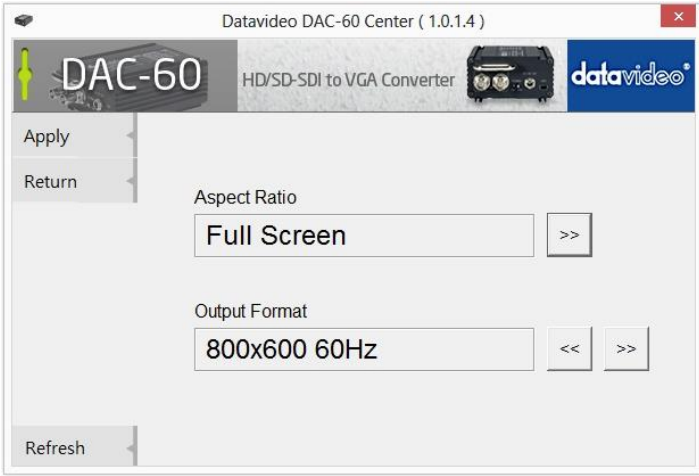
Information Display

- Click on the **Information** tab to display the input format & firmware version.



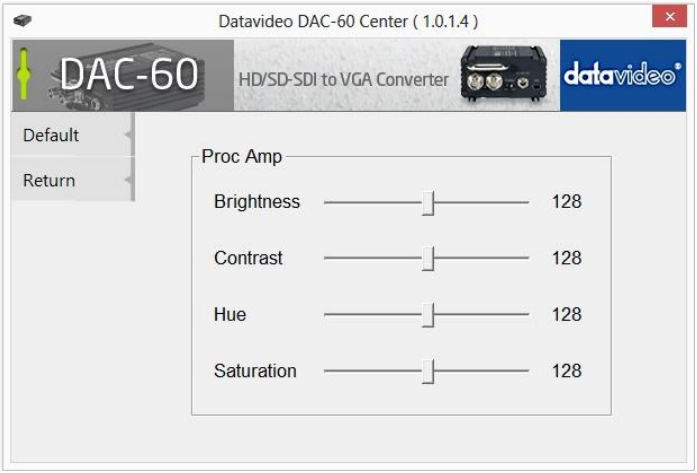
Video Setting

- Click on the **Video** tab to enter the video setup.
- Set the aspect ratio and output format then click **Apply.**



Picture Setting

- Click the **Proc AMP** tab to adjust the picture settings.
- Set the Brightness, Contrast, Hue and Saturation values.



Restore to Factory Defaults

- Click the **Setting** tab to access the restore factory defaults window.
- Set the OSD Hide Function **Enable/ Disable**.
- Click the **Factory Default** button to reset the DAC-60 to factory defaults.

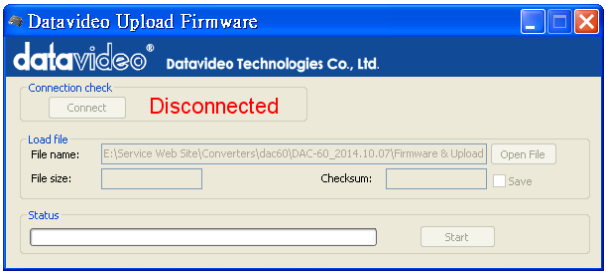
Datavideo DAC-60 Center (1.0.1.4)
DAC-60
HD/SD-SDI to VGA Converter
datavideo
Apply
Return
OSD Hide Mode
Disable
>>
Factory Default

5. Firmware Upgrade

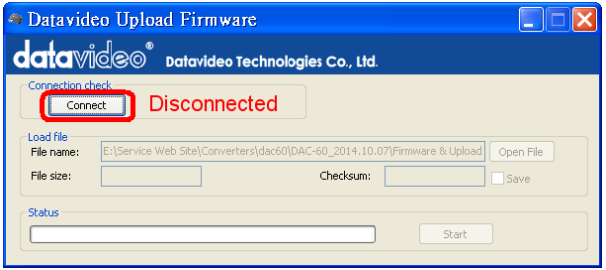
Firmware is upgradable in the field using the integrated USB port.

Step 1 – Connect the DAC-60 to the PC using a USB cable. Connect the supplied 12V PSU to DC IN socket and turn off the power.

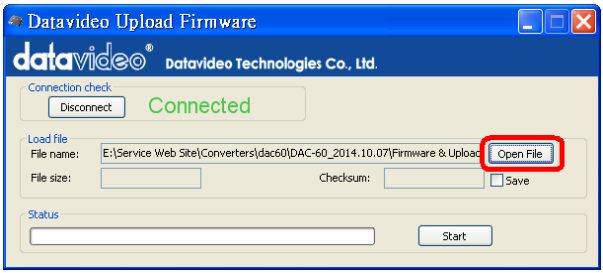
Step 2 – Open the “Datavideo Upload Firmware” program and turn on the DAC-60 power.



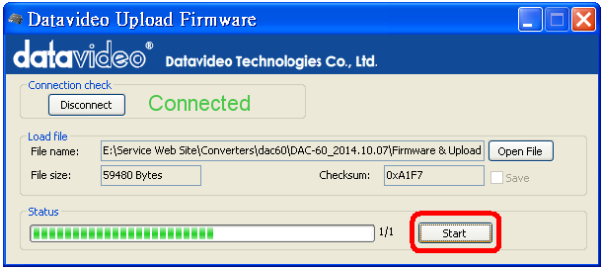
Step 3 – Click the **Connect** button.



Step 4 – Click the **Open File** button to select firmware.



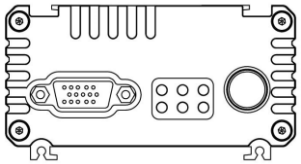
Step 5 – Press the **Start** button to start updating the firmware.

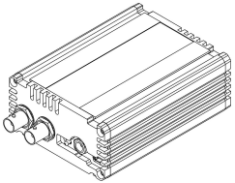


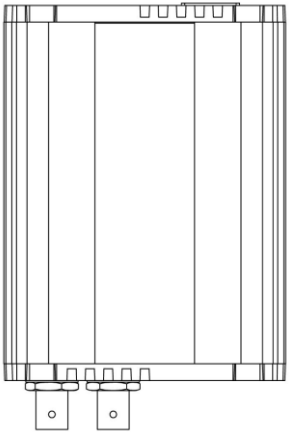
Step 6 – Close the "Datavideo Upload Firmware" program

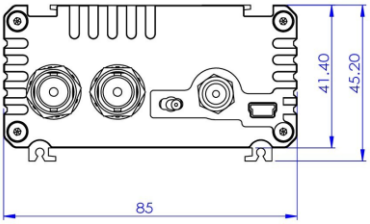
Note: The latest Firmware updates and Software applications for the DAC-60 can be obtained from your local Datavideo office or dealer. A list of regional Datavideo offices is provided at the rear of this manual.

6. Dimensions









All measurements in millimeters (mm)

7. Specifications

Supported Input Video Formats	SD	720 x 480 i / 720 x 576 i
	HD	1280 x 720 50p/60p/59.94p 1920 x 1080 50i/60i/59.94i 1920 x 1080 24p/25p/30p
	3G	1920 x 1080 50p/60p/59.94p
SDI Formats	SD-SDI (SMPTE 259M) HD-SDI (SMPTE 292M) 3G-SDI (SMPTE 494M/495M)	
VGA Output Formats	800 x 600 1024 x 768 (XGA projector) 1280 x 800 (WXGA projector) 1280 x 1024 1366 x 768 1400 x1050 1600 x 1200 1920 x 1080 1920 x 1200 (WUXGA projector)	
Re-clock Function	Yes (Default)	
Firmware Updates	USB	
Software Support	Yes (OS: Windows XP/ Windows 7)	
Coaxial Cable Type	RG6/RG59 (75Ω)	
Cable Equalization	3G: 140m of RG6/ 100m of RG59 HD: 200m of RG6/ 140m of RG59 SD: 400m of RG6/ 280m of RG59	
Input Connections	1 x BNC [SDI]	
Output Connections	1 x VGA 1 x BNC [SDI]	
BNC Connectors	3G 75 Ω inter-locked socket	
Button	VGA Format Switching	
Weight	0.4 kg	
Power Source	AC 100 ~ 240 V / DC (12V/3.6W)	

Notes

Service & Support

It is our goal to make your products ownership a satisfying experience. Our supporting staff is available to assist you in setting up and operating your system. Please refer to our web site www.datavideo.com for answers to common questions, support requests or contact your local office below.

Please visit our website for latest manual update.
www.datavideo.com/product/DAC-60

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