BLACK BOX®

KVGA-DVID Video Converter

Safety information

- For use in dry, oil free indoor environments.
- Not suitable for use in hazardous or explosive environments or next to highly flammable materials.
- No user serviceable parts are contained within the module - do not dismantle.

Radio Frequency Energy

All interface cables used with this equipment must be shielded in order to maintain compliance with radio frequency energy emission regulations and ensure a suitably high level of immunity to electromagnetic disturbances.

European EMC directive 2004/108/EC

C E This equipment has been tested and found to comply with the limits for a class A computing device in accordance with the specifications in the European standard EN55022. These limits are designed to provide reasonable protection against harmful interference. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions may cause harmful interference to radio or television reception. However, there is no guarantee that harmful interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment on and off, the user is encouraged to correct the interference with one or more of the following measures: (a) Reorient or relocate the receiving antenna. (b) Increase the separation between the equipment and the receiver. (c) Connect the equipment to an outlet on a circuit different from that to which the receiver is connected. (d) Consult the supplier or an experienced radio/TV technician for help.

FCC Compliance Statement (United States)

This equipment generates, uses and can radiate radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio communication. It has been tested and found to comply with the limits for a class A computing device in accordance with the specifications in Subpart J of part 15 of FCC rules, which are designed to provide reasonable protection against such interference when the equipment is operated in a commercial environment. Operation of this equipment in a residential area may cause interference, in which case the user at his own expense will be required to take whatever measures may be necessary to correct the interference. Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

Canadian Department of Communications RFI statement

This equipment does not exceed the class A limits for radio noise emissions from digital apparatus set out in the radio interference regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A prescrites dans le règlement sur le brouillage radioélectriques publié par le ministère des Communications du Canada.

Welcome

The Black Box KVGA-DVID (VGA to DVI-D Video Converter - USB Powered) module converts analog (VGA) video into digital video conforming to the DVI 1.0 standard. Installation is quick and easy: The converter attaches to the analog video output port on your computer and gains its power from a spare USB port. You then connect your DVI video display to the digital video output port on the converter module - and that's it. No special drivers are required and operation is totally transparent to the devices and to you, the user.

The Black Box KVGA-DVID Converter can support the majority of video modes defined by VESA DMT with vertical refresh rates of between 56Hz and 75Hz up to 1920 x 1200 @ 60Hz (reduced blanking). Refresh rates of 85Hz and 120Hz are not supported.
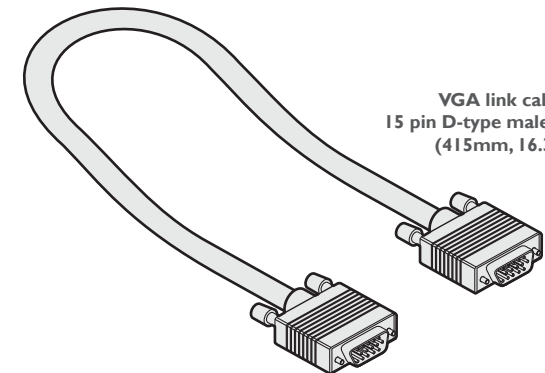
What's in the box
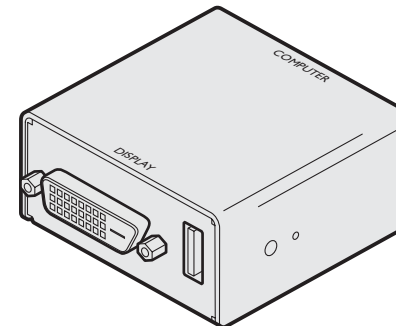
KVGA-DVID converter module
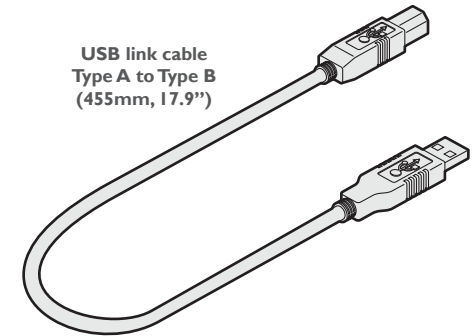
**USB link cable
Type A to Type B
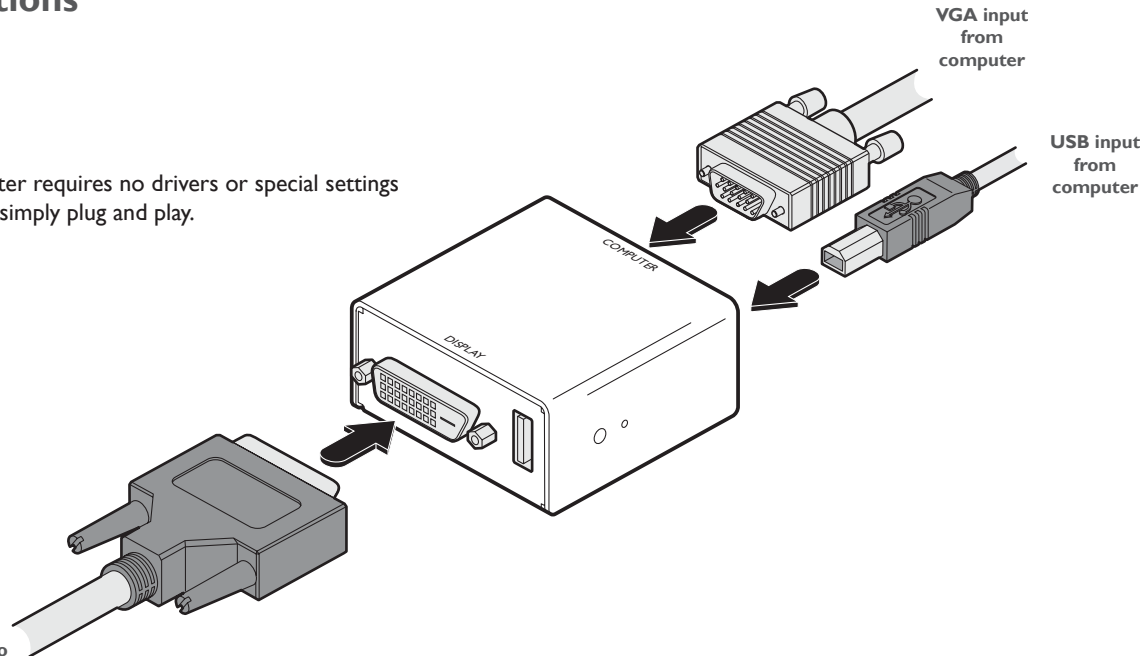(455mm, 17.9")**

**VGA link cable
15 pin D-type male to male
(415mm, 16.3")**

Connections

The converter requires no drivers or special settings to operate; simply plug and play.

VGA input from computer

USB input from computer

DVI output to video display

Optionally using the USB socket

If required, you can plug a USB peripheral, such as a mouse or keyboard, into the spare USB socket on the converter. However, ensure that the peripheral does not draw more current than 100mA, otherwise the operation of the converter module could be affected.
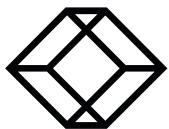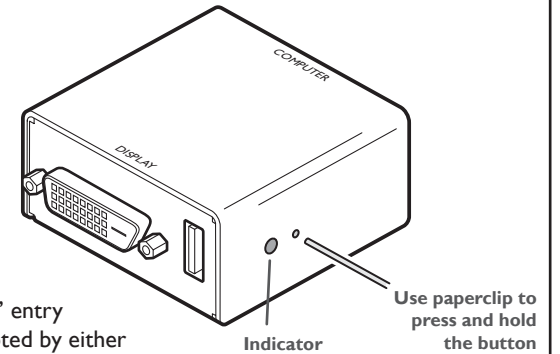
Note: The converter can be connected into a USB 3.0 connector as well as the standard USB 2.0 connector. However, there is no USB 3.0 operation, the USB feed through runs at USB 2.0 HS data rates.

From USB peripheral

Upgrade and reset modes

Note: When the converter is in upgrade mode, the video going through it is disabled, so you are recommended to connect it to a USB port on a different PC. On the side of the converter module, you will find a small hole and a recessed indicator. These are used to invoke special functions. Use a thin implement, such as a straightened paperclip to press and hold the button concealed behind the smaller hole. Depending on when you release the button, the module will either perform a normal reset, enter upgrade mode or completely reset itself to factory defaults:

Time (in seconds):	0 . . . . 5	10	15 . . .
Indicator	On	Flash	Rapid flash	On
Release button	*Normal reset*	*Enter upgrade mode*	*Reset to factory defaults*	*Normal reset*

The converter will report itself as a USB memory stick labelled 'Firmware'. The upgrade file is a binary file that you drag and drop into the converter's 'Firmware' entry within your computer's file manager; whereupon the file transfer process will commence. Once the file transfer has completed, the converter needs to be rebooted by either pressing the reset button again to bring it out of upgrade mode or alternatively the USB lead can be disconnected and reconnected. The current firmware version can be determined using our special app (a Windows app available for download from Black Box technical support).

Indicator

Use paperclip to press and hold the button

BLACK BOX®

KVGA-DVID Rev 1.2

We're here to help! If you have any questions about your application or our products, contact Black Box Tech Support at 877-877-2269 or go to blackbox.com and click on "Talk to Black Box." You'll be live with one of our technical experts in less than 60 seconds.