



blueThing/redThing

SD/HD SDI to DVI Converter Operator's manual

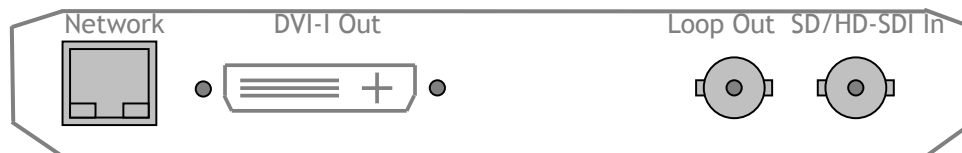
Packing list

In addition to the unit ordered please check the contents include an operator's manual (this). Power supply is not included with blueThing/redThing but is available separately. Report any shortages or damage immediately.

Please retain the box and original packing materials.

Connections

Front panel connections

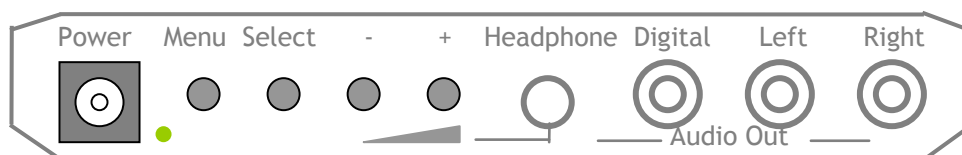


The DVI-I connector outputs either DVI or analogue RGBHV

Coaxial cables should be high quality double screened such as Belden 1694A.

Passive connector blocks are readily available to convert analogue RGB from the DVI connector to a standard 15 pin D-type socket. (e.g. RS 360-4481). Passive converters to an HDMI connector are available.

Rear panel connections (blueThing)



Interface descriptions

SD/HD-SDI in - Serial digital input. Standard Definition (270Mbits/s) or High Definition (1.5Gbits/s). The format is auto detected and may be any of the following: SD (525, 625); HD (1080i, 720P at 50, 59.94 or 60Hz; 1080P, 720P at 25, 29.98 or 30Hz).

Loop Out - Equalized and buffered copy of the input.

DVI-I Out - Connection for the Digital (DVI) or analogue (RGB) output. Optimal resolution is auto detected.

Network - Optional connection to a 10/100 Ethernet network for remote control. A built-in Java application serves a web page for control via any web browser.

Power - Connect to the provided power supply. Voltage must be in the range of 8 to 20VDC. Power required is approximately 10W. A centre positive 2.1mm jack is used (compatible with a locking plug).

Headphone (blueThing only) - 3.5mm stereo headphone jack socket. Will operate with headphones of 32Ω or greater. The +/- buttons control the headphone volume (when on-screen display is not visible).

Digital (blueThing only) - Digital audio output compatible with S/PDIF and AES formats. Output is 48kHz, 20bit (SD) or 24bit (HD). The de-embedded pair is selected via the local or remote control interface.

Left/Right (blueThing only) - Analogue audio output of a selected pair. The output level is set by the local or remote control interface (-6dBV to +12dBV).

Operation

1 Selecting Display type - Digital DVI or Analogue RGB

As supplied, the unit is set for a digital DVI display. To change the mode to use with an analogue RGB display, first connect the display using a DVI-I/A to 15-way D adapter. Press and hold the MENU button before applying power, then apply power and continue to hold MENU button until the monitor senses an input. This takes about 10s. If the MENU button is held for longer the unit will cycle between DVI and RGB every 5s. It is not necessary to connect an SDI input during this process.

2 Local Control

Press MENU button for the on-screen text to appear. Use +/- buttons to scroll through top level menus and SELECT button to enter a sub-menu. Use +/- buttons to scroll through sub-menus and SELECT to enter a control. Use +/- buttons to adjust the parameter and SELECT to permanently accept the change or MENU to cancel the change and return to the main menu selections. Finally, press MENU to clear the on-screen text.

3 Remote Control

First ascertain the type of network connection being used. The unit may be operated using a direct (one-to-one) connection to a PC or laptop or via a network. The network address assignment scheme may be either DHCP or static assignment (non-DHCP). If you are unsure of your network addressing scheme consult your network administrator.

3.1 Direct connection to a PC or laptop

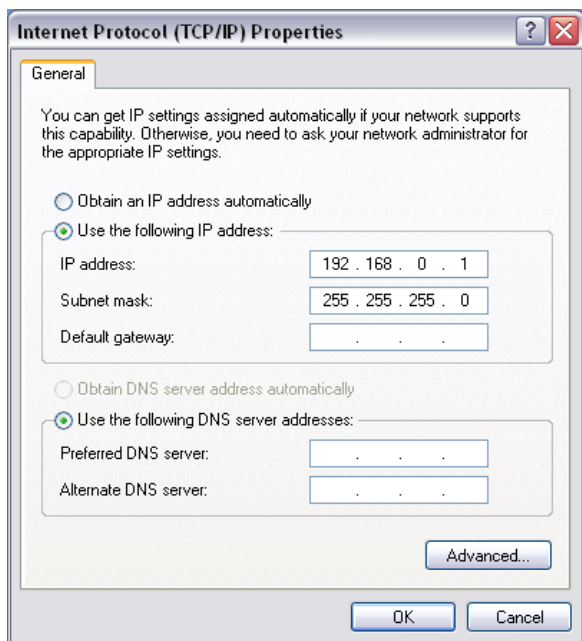
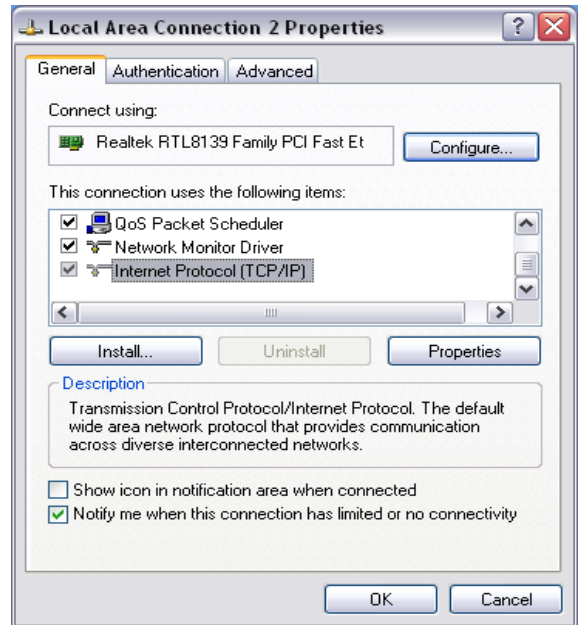
3.1.1 Connect the unit to the network port of the PC using a 'cross-wired' ethernet (RJ45) cable.

3.1.2 With the PC mouse, select *start --> Control Panel --> Network Connections* and select the network *local area connection*. If several local connections are shown, ensure the one corresponding to the port the unit is connected to is selected.

3.1.3 On the *General* tab, scroll through the options and highlight *Internet Protocol (TCP/IP)*. Select the *properties* button.

3.1.4 On the properties page of *Internet Protocol (TCP/IP)* select the option *Use the following IP address* and enter the *IP address 192.168.0.1* and the *Subnet mask 255.255.255.0*. Press *OK*.

3.1.5 Connect to the unit by entering the address 192.168.0.100 (or enter http://192.168.0.100) into your web browser. This completes the connection procedure.



3.2 Access through a non - DHCP network

3.2.1 Connect the unit to a network hub or switch using a standard (i.e. not 'cross-wired') ethernet (RJ45) cable.

3.2.2 Ascertain from the Network Administrator whether the IP address 192.168.0.100 (the default address for the unit) is a valid address for the network. If so, go straight to step 3.2.8. If not, continue with step 3.2.3.

3.2.3 If 192.168.0.100 is not a valid network address, the default IP address, net mask and gateway should be changed to valid settings using a display monitor connected to the unit as described in steps 3.2.4 to 3.2.7.

3.2.4 Connect the unit to a display, power on and then press MENU to view the on-screen menus. It is not

necessary for an SDI input to be connected. Use the +/- buttons to navigate through the main menu

options and then enter the *Initial Setup* sub-menu using the SELECT button. Use the +/- buttons to navigate to the *IP address* control and press the SELECT button.

- 3.2.5 Enter an IP address that is valid for the network router settings, as determined by the Network Administrator. Complete the setting by pressing the SELECT button to save the value.
- 3.2.6 Repeat the above procedure to set the *IP Net mask* and *Default gateway*.
- 3.2.7 Once the IP parameters of the unit are set, save all the settings by exiting the menus by pressing the MENU button. Switch the unit off and on again. (Any changes to the IP address settings only take effect on power-up.)
- 3.2.8 Connect to the unit by entering the address 192.168.0.100 (or the address as set in step 3.2.5, if appropriate) into your web browser, preceded by http:// if necessary. This completes the connection procedure.

3.3 Access through a DHCP enabled network

- 3.3.1 Ascertain from the Network Administrator the allocated IP address that corresponds to the unit's MAC address as written on the underside of the unit.
- 3.3.2 Connect the unit to a network hub or switch using a standard Ethernet (RJ45) cable.
- 3.3.3 Connect to the unit by entering the given address into your web browser. This completes the connection procedure.

4 Additional control information

- 4.1 Frame rate - sets the output frame rate of the unit. Note that some flat panel displays do not display the images at the input video frame rate and will produce excessive motion judder. Check to see if the moving bars in the PLUGE-M pattern move smoothly to determine whether your display can correctly displays 50 and 60Hz images. To do this set Frame rate to Follow input and apply in turn 50Hz and 60Hz video with the PLUGE-M pattern enabled.
 - 4.1.1 Follow input 60Hz - The output will always be 59.94 or 60Hz and will phase lock to the input frame rate if possible. 50Hz inputs will be converted to 60Hz prior to display.
 - 4.1.2 Follow input - The output will be 50Hz for 50/25Hz inputs and 60/59.94Hz for the corresponding inputs. Output will frame lock to the input if possible.
 - 4.1.3 Monitor rate - Will only output 50Hz for monitors that permit this rate.
- 4.2 Power save - with no SDI input detected for 5s the unit will disable the DVI/RGB output causing the display to enter a power save state.
- 4.3 Anamorphic SD - compensates for 16:9 Standard Definition images transmitted in the anamorphic format.
- 4.4 Line combine
 - 4.4.1 Pairs - Sums channels 1 & 3 of de-embed group and outputs on left analogue channel. Adds channels 2 & 4 of de-embed group and outputs on right analogue channel. Gain is reduced by 6dB.
 - 4.4.2 Channels - Sums all 4 channels of de-embed group and outputs on both left & right analogue channels. Gain is reduced by 12dB.



Disposal of Old Electrical & Electronic Equipment (Applicable in the European Union and other European countries with separate collection systems)

This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the organisation where you purchased the product.

EC DECLARATION OF CONFORMITY ACCORDING TO COUNCIL DIRECTIVES 89/336/EEC & 73/23/EEC

We, Bluefish 444 Europe Ltd, declare under our sole responsibility that the product:

Product Name:

Model Numbers:

Manufactured by:

to which this declaration relates, is in conformity with the protection requirements of the following Council Directives:

- The EMC Directive 89/336/EEC and
- The Low Voltage Directive 73/23/EEC
- As amended by Directive 93/68/EEC.

This Declaration of Conformity is based upon compliance of the product with the harmonised EMC standards:

- EN55022 Class 'A': 1998
- EN55024:1998
- EN61000-3-2 A14:2000
- EN61000-3-3:1995

And the harmonised safety standards:
EN60950:2000



Signed:

Name:.....

Position: Director

Place of issue:

Date of issue: