











































AV Connectivity & Signal Distribution



Introduction &

CIE-Group – one of the UK's most experienced suppliers of high quality and unique Audio Visual products - now introduce a brand new range of connectivity and signal distribution solutions for the professional installation sector.

Ease and quality of installation are essential requirements for the AV project engineer and installer - a key element reflected in our exciting new product range which includes innovative solutions from **Databay** and **Clever Little Box** such as HDMI and DVI signal distribution, time-saving VGA ferrule cables and solderless termination systems.

In addition to our vast range of standard stock products, CIE-Group specialise in custom solutions to meet your specific technical/branding requirements.

Our team of advisors are on-hand to discuss your bespoke connectivity needs and to design a solution which meets both specification and budget. See 'Custom Solutions' on page 30 for examples of our bespoke solution capabilities.















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AV Connectivity & Signal Distribution









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Signal .º Distribution

VGA Products .º

Although only analogue, VGA is still a dominant force in the AV sector and will be for some time. Centred around the 15 way High Density 'D' type connector, we have equipment to distribute and interconnect VGA signals (including audio!) in a variety of configurations.

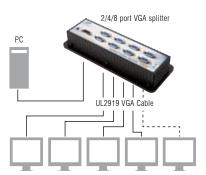


VGA Splitters

With 350MHz bandwidth these units allow video to be simultaneously displayed across multiple displays quickly and effectively. The bases of the units are magnetic to allow for easy attachment to most metal surfaces.



Typical Configuration:



Model:	VS-201H:	VS-401H:	VS-801H:
Power Consumption	DC 9v; 200mA	DC 9v; 200mA	DC 9v; 200mA
Cable Distance	65m (210 feet) max	65m (210 feet) max	65m (210 feet) max
Signal Type	VGA, SVGA, XGA, Multi-sync, TFT-LCD monitor	VGA, SVGA, XGA, Multi-sync, TFT-LCD monitor	VGA, SVGA, XGA, Multi-sync, TFT-LCD monitor
Connector	Input: 1 x HD15 male / Output: 2 x HD15 female	Input: 1 x HD15 male / Output: 4 x HD15 female	Input: 1 x HD15 male / Output: 8 x HD15 female
LED Display	Power indicator x 1, Active indicator x 1	Power indicator x 1, Active indicator x 1	Power indicator x 1, Active indicator x 1
Enclosure	Plastic	Plastic	Plastic
Dimensions	23(H) x 100(W) x 56(D) mm	36(H) x 220(W) x 80(D) mm	36(H) x 220(W) x 80(D) mm



OVGA Switch

Self-powered VGA switch allowing one of two VGA sources to be selected at any time. The unit can be manually or auto switched.

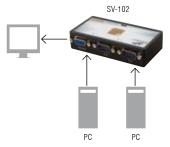
Features:

- Manual or Auto switching
- Supports VGA, XGA, SVGA, Multi-sync & TFT-LCD monitors

• SV-102 - 2 in, 1 out switch



Typical Configuration:



Model:	SV-102:
VGA Select Method	Auto sensing, Front push button
Signal Type	VGA, XGA, SVGA, Multi-sync, TFT-LCD monitor
Extended Length	30m (max)
Connector	Input: 2 x D-sub 5, male / Output: 1 x D-sub15, female
LED Display	2 LEDs, VGA1 & VGA2
Enclosure	Plastic
Power	Self-powered via VGA connection
Dimensions	23(H) x 100(W) x 56(D) mm



VGA over Cat5e/6 Range Extenders (up to 300m)

Utilising cost effective and readily available Cat5e/6 cable, these units allow extended distances to be quickly and easily covered between AV source and display devices.

In the basic form, the configuration is a Transmit unit and a Receive unit; however, source signals can also be split to provide simultaneous multiple displays if required.

Whilst VGA is video only, these devices cleverly allow for the transmission of the audio signal as well!

Transmitters:

• AVE-301T - 1 port transmitter



• AVE-308T - 8 port transmitter



• AVE-304T - 4 port transmitter



• AVE-316T - 16 port transmitter



Model:	AVE-301T:	AVE-304T:	AVE-308T:	AVE-316T:
Description	1 port transmitter	4 port transmitter	8 port transmitter	16 port transmitter
AV Inputs	VGA x 1, 3.5mm jack x 1			
AV Outputs	VGA x 1, RJ-45 x 1, 3.5mm jack x 1	VGA x 1, RJ-45 x 4, 3.5mm jack x 1	VGA x 1, RJ-45 x 8, 3.5mm jack x 1	VGA x 1, RJ-45 x 16, 3.5mm jack x 1
LED	Two colour LEDs	Two colour LEDs	Two colour LEDs	Two colour LEDs
Video quality	Maximum VGA resolution & distance: 2048 x 1536 @ 300m	Maximum VGA resolution & distance: 2048 x 1536 @ 300m	Maximum VGA resolution & distance: 2048 x 1536 @ 300m	Maximum VGA resolution & distance: 2048 x 1536 @ 300m
Dimensions	29(H) x 113(W) x 62(D) mm	44(H) x 240(W) x 130(D) mm	44(H) x 240(W) x 130(D) mm	44(H) x 240(W) x 130(D) mm



Transceivers:

• AVE-304TR - 4 port transceiver



Receiver:

• AVE-301R - 1 port receiver



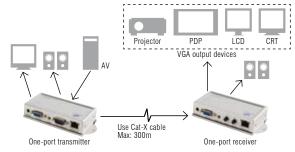
• AVE-308TR - 8 port transceiver

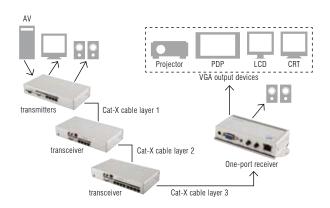


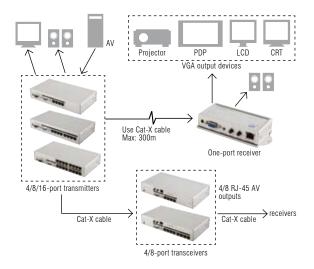
Specifications:

Model:	AVE-304TR:	AVE-308TR:	AVE-301R:
Description	4 port AV transceiver	8 port AV transceiver	1 port receiver
AV Inputs	RJ-45 x 1	RJ-45 x 1	RJ-45 x 1
AV Outputs	RJ-45 x 4, VGA x 1, 3.5mm jack x 1	RJ-45 x 8, VGA x 1, 3.5mm jack x 1	VGA x 1, 3.5mm jack x 1
LED	Two colour LEDs	Two colour LEDs	Two colour LEDs
Video quality	Maximum VGA resolution & distance: 2048 x 1536 @ 300m	Maximum VGA resolution & distance: 2048 x 1536 @ 300m	Maximum VGA resolution & distance: 2048 x 1536 @ 300m
Dimensions	44(H) x 240(W) x 130(D) mm	44(H) x 240(W) x 130(D) mm	29(H) x 113(W) x 62(D) mm

Typical Configurations:







Component and Composite Video Accessories

By using the cables below with the AVE-300 series equipment, component or composite video can be easily distributed/extended in the same way as VGA.

Component Video:

• HD15F-YCBCR70 - Source Cable 0.7m



• HD15M-YCBCR180 - Monitor Cable 1.8m



For further information and specification on these cables see page 34.

Composite Video:

• HD15F-S3RCA70 - Source Cable 0.7m



• HD15M-S3RCA180 - Monitor Cable 1.8m





One-port VGA+Audio Mini Extender Kit

Probably the world's smallest VGA+Audio Extender Kit, transmitting VGA and Audio over CAT5e cable up to 180m. The kit comprises of both the transmitter and receiver units.

Features:

- Super compact design, allowing direct connection into the VGA sockets
- Pure hardware design, no software
- Support for VGA, SVGA, XGA, TFT, LCD & DDC2B function
- Transmitter takes power from USB port
- Receiver has built-in EQ adjustment for improved image quality
- · Carries both Audio & Video signals



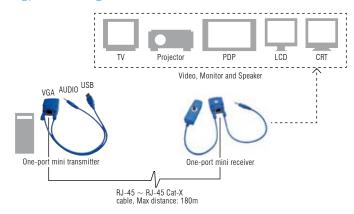


 VGA connector of both Transmitter and Receiver units features RJ-45 connector on the rear for CAT5e transmission up to 180m.

Specifications:

	AVE-N	AVE-M180TR:		
Model:	Transmitter:	Receiver:		
Description	Super mini AV transmitter	Super mini AV receiver		
AV Inputs	VGA x 1, 3.5mm jack x 1	RJ-45 x 1		
AV Outputs	RJ-45 x 1	VGA x 1, 3.5mm jack x 1		
Video Control	-	Video EQ		
LED	Power and video status	Power and video status		
Video Quality	Maximum VGA resolution & distance: 2048 x 1536 @ 180m	Maximum VGA resolution & distance: 2048 x 1536 @ 180m		
Environmental Condition	Operation temp: 0~50°C, Storage temp: -20~60°C, Humidity: 10~90%	Operation temp: 0~50°C, Storage temp: -20~60°C, Humidity: 10~90%		

Typical Configurations:





Touch Screen VGA Extender Kit

The VDE-300 system simplifies installation by allowing the PC server to be sited centrally in a secure place, then extending the signal up to 300m to a touch screen display.

The video (VGA) and data (RS232) signals are extended via low cost Cat5e/Cat6 cable.

Features:

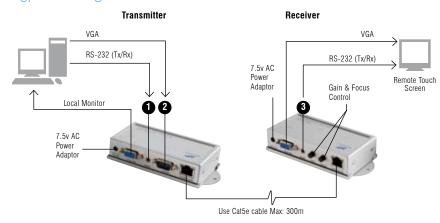
- Bi-directional serial RS232 (Tx/Rx) control
- Remote & local monitor simultaneous display
- Software-free design
- Supports VGA, SVGA, XGA, TFT-LCD & DDC2B
- Focus & Gain Controls for improved image
- Supplied as a pair (Transmitter & Receiver)



	VDE-300T/R:		
Model:	Transmitter:	Receiver:	
Description	One-port VGA & data extender transmitter	One-port VGA & data extender receiver	
AV Inputs	VGA x 1, RS232 x 1	RJ-45 x 1	
AV Outputs	VGA x 1, RJ-45 x 1	VGA x 1, RS232 x 1	
Video Control	-	Gain/Focus	
LED	TX-RX	TX-RX	
Power Input	7.5v AC	7.5v AC	
Video Quality (max)	1280 x 1024 x 60Hz @ 300m, 1600 x 1200 x 60Hz @ 200m	1280 x 1024 x 60Hz @ 300m, 1600 x 1200 x 60Hz @ 200m	
Dimensions	29(H) x 113(W) x 62(D) mm	29(H) x 113(W) x 62(D) mm	



Typical Configurations:



Cables included with this kit:





DVI over Cat5e/6 Splitters

These units allow video to be simultaneously displayed across multiple displays quickly and effectively. Optional audio splitting/extending is also possible. (See page 13 for Model DVS-DR)

Features:

- Extended DVI distances
- Stereo audio over RJ11 telephone cable
- Video amplifier bandwidth 1.65GHz
- Local monitor port

• DVS-102C - 2 port splitter



• DVS-104C - 4 port splitter



• DVS-108C - 8 port splitter



	DVS-102C:	DVS-104C:	DVS-108C:
Description	2-port Cat5e DVI-D & audio splitter	4-port Cat5e DVI-D & audio splitter	8-port Cat5e DVI-D & audio splitter
AV Inputs	DVI female x 1, Audio x 1	DVI female x 1, Audio x 1	DVI female x 1, Audio x 1
AV Outputs	DVI female x 1 / Audio x 1 / RJ-45 x 2 / RJ-11 x 2	DVI female x 1 / Audio x 1 / RJ-45 x 4 / RJ-11 x 4	DVI female x 1 / Audio x 1 / RJ-45 x 8 / RJ-11 x
RJ-45 to DVI-D receiver (DAS-DR) and RJ-11 to Audio Receiver (DAS-AR)	2 sets	4 sets	8 sets
Max Distance & Resolution	DVI input: transmitting over standard DVI cable up to 10 metres / DVI output: transmitting over standard DVI cable, DVI resolution, 1920 x 1200 @ 10m With Long Range Receiver (DVIE-101R) 1280 x 1024 @ 50m / 1920 x 1200 @ 20m With Short Range Receiver (DVS-DR) 1280 x 1024 @ 25m / 1920 x 1200 @ 10m		
Signal Type	DVI-D	DVI-D	DVI-D
Power Consumption	DC 5v, 800mA	DC 5v, 1000mA	DC 5v, 1200mA
Housing	Metal	Metal	Metal
Weight	550g	1.04kg	1.2kg
Dimensions	23(H) x 194(W) x 80(D) mm	44(H) x 240(W) x 130(D) mm	44(H) x 240(W) x 130(D) mm



DVI-D over Cat5e/6 Range Extenders

Utilising cost effective and readily available Cat5e/6 cable, these units allow extended distances to be quickly and easily covered between AV source and display devices.

The usual configuration is in the form of a transmit unit and a receive unit. The transceiver is capable of being cascaded, allowing multiple displays to be driven simultaneously.

DVI-E102T, DVI-E102TR and DVI-E101R models feature easy magnetic mounting and detachable screw-mounting plate for ease of installation.

Transmitters:

• DVI-E101T - One port compact DVI transmitter



• DVI-E102T - One port powered DVI transmitter (Includes EQ control for improved image quality)



Transceivers:

• DVI-E102TR - One port Cascadable DVI Transceiver (Includes EQ control for improved image quality)



Model:	DVI-E101T:	DVI-E102T:	DVI-E102TR:
Description	One-port self-powered DVI-D transmitter	One-port DVI-D transmitter	One-port DVI-D transceiver
AV Inputs	DVI female x 1	DVI-HDMI x 1	RJ-45 x 1
AV Outputs	RJ-45 x 1	DVI Female x 1, RJ-45 x 1	DVI Female x 1, RJ-45 x 1
Max Distance & Resolution	Transmitting over Cat5/5e/6 cable, DVI resolution 800 x 600 @ 100m, 1024 x 768 @70m, 1280 x 1024 @ 50m, 1920 x 1200 @ 30m	The video resolution can reach 800×600 with each cascading length < 80 m, 1024×768 with each cascading length < 50 m and 1280×1024 with each cascading length < 40 r (Above distances are based on cable skew < 15 ns/100m)	
Video Control	-	EQ x 1	EQ x 1
Signal Type	DVI-D	DVI-D	DVI-D
Power Consumption	DC 5v, 800mA	DC 5v, 650mA	DC 5v, 650mA
Housing	Plastic	Metal	Metal
Dimensions	19(H) x 42(W) x 68(D) mm	29(H) x 113(W) x 62(D) mm	29(H) x 113(W) x 62(D) mm



Receivers:

• **DVS-DR** - Short range (10m) DVI Receiver (self-powered)



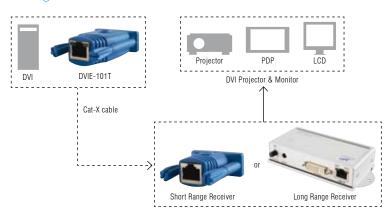
• DVI-E101R - Long range (up to 100m) DVI receiver (includes focus control for improved image quality)

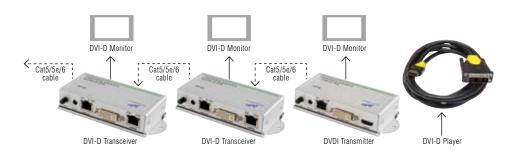






Typical Configurations:





Model:	DVS-DR:	DVS-AR:	DVI-E101R:
Description	Cat5 DVI-D changer short range receiver	3.5mm ~ RJ11 adaptor	Cat5 DVI-D long range receiver
AV Inputs	RJ-45 x 1	RJ45 x 1 / 3.5mm jack	RJ-45 x 1
AV Outputs	DVI female x 1	RJ45 x 1 / 3.5mm jack	DVI female x 1
Max Distance & Resolution	1280 x 1024 @ 10m 1024 x 768 @ 20m	50m stereo audio	Transmitting over Cat5/5e/6 cable, DVI resolution 800 x 600 @ 100m 1024 x 768 @70m, 1280 x 1024 @ 60m, 1920 x 1200 @ 35m
Signal Type	DVI-D	Line level 1v peak - peak	DVI-D
Power Consumption	-	-	DC 9v, 800mA
Housing	Plastic	Plastic	Metal
Dimensions	20(H) x 40(W) x 50(D) mm	18(H) x 20(W) x 90(D) mm	29(H) x 113(W) x 62(D) mm



HDMI Products .

HDMI (High Definition Multimedia Interface) was introduced c2004 and was a major step forward in AV signal transmission as it not only offers superior digital video, but also incorporates the audio signal as well.



HDMI over Cat5e/6

Utilising cost effective and readily available Cat5e/6 cable, these units allow extended distances to be quickly covered between AV source and display devices. The configuration is normally in the form of a transmit unit and receive unit. Ideal for digital signage applications.

Incredibly compact sized units

Mini HDMI Extender System:

Mini HDMI to Cat-x converter, perfect for HDMI expansion / digital signage whilst minimising the use of expensive HDMI cables.

Normally used in conjunction with a **ET-HC0101-R** Cat-x to HDMI receiver (right).

• ET-HC0101-T - Transmitter



Mini Cat-x to HDMI converter, which is normally used with the **ET-HC0101-T** transmitter (left). However, it is also compatible with other Databay HDMI transmitters shown opposite. The receiver has built-in EQ to allow fine tuning of the video image.

• ET-HC0101-R - Receiver

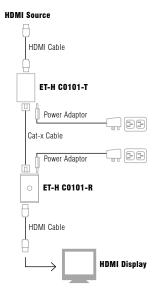


Specifications:

Model:	ET-HC0101-T:	ET-HC0101-R:
Description	Mini HDMI Cat-X transmitter	Mini HDMI Cat-X receiver
AV Inputs	HDMI x 1	RJ-45 x 1
AV Remote Outputs	RJ-45 x 1	HDMI x 1
Resolution & Extension	480p @ 80m, 1080i / 720p @ 60m / 1080p @ 30m	480p @ 80m, 1080i / 720p @ 60m / 1080p @ 30m
Power	DC 5v	DC 5v
Dimensions	21(H) x 69(W) x 39(D) mm	21(H) x 69(W) x 39(D) mm

The use of low skew Cat-X cable is recommended for best performance.

Typical Configuration:



HDMI Cat-X Expander

Capable of expanding high quality HDMI sources to multiple displays, these HDMI Expanders provide a complete solution whether splitting, switching or extending.

Users can switch HDMI sources from up to four different devices such as DVD player, satellite receiver, digital recording device, digital set-top box, advanced gaming console and any other high definition source equipped with HDMI/DVI outputs.

Features:

- User-controlled HDMI switching from up to four different sources
- Easy selection via infrared remote control or front panel buttons
- Auto-scan function to cycle all connecting devices at user-defined intervals if required
- Splitting HDMI video and audio to up to 16 high definition displays
- Extending up to 30m through Cat-X cable to a ET-HC0101-R Mini HDMl Cat-X Receiver (sold separately)
- Rack-mount kit included
- Supports 1080p resolution
- Compliant with HDMI 1.2
- Built-in 8 level EQ adjustment to fine-tune image quality

• EP-HC0408 - 4 x 8 Cat-x HDMI expander / selector



• EP-HC0416 - 4 x 16 Cat-x HDMI expander / selector



Model:	EP-HC0408:	EP-HC0416:
Description	4 x 8 Cat-X HDMI expander	4 x 16 Cat-X HDMI expander
Source Inputs	HDMI x 4	HDMI x 4
Local Output	HDMI x 1	HDMI x 1
Extension Outputs	RJ-45 x 8	RJ-45 x 16
Select Method	Auto-switching / Front panel button / Remote control	Auto-switching / Front panel button / Remote control
Resolution	Up to 1080p	Up to 1080p
Supported Signal	HDMI 1.2 / DVI	HDMI 1.2 / DVI
Extension Distance	30m (with ET-HC0101-R) @ 1080p	30m (with ET-HC0101-R) @ 1080p
Signal Adjustment	8 level electronics	8 level electronics
Housing	Metal	Metal
Dimensions	45(H) x 438(W) x 181(D) mm	45(H) x 438(W) x 181(D) mm



HDMI Expander System

By using a combination of Databay HDMI transmitters and transceivers, HDMI signals can be expanded via Cat5e/Cat6 cable, with almost unlimited capacity, making them ideal for high quality video distribution.

Features:

- Almost unlimited cascading capacity
- Local HDMI outputs
- Compliant with HDMI 1.2 & DVI 1.0
- Compatible with 480p, 720i, 720p, 1080i & 1080p
- Built-in EQ for improved image quality

Tupical Configurations:



Specifications:

Model:	HDMI-E102T:	HDMI-E102TR:	HDMI-E104C & HDMI-E108C:
Description	One-port transmitter	One-port transceiver	4 & 8 port transceivers
AV Inputs	HDMI female x 1	RJ-45 x 1	HDMI female x 1
AV Outputs	HDMI female x 1, RJ-45 x 1	HDMI female x 1, RJ-45 link out x 1	HDMI female x 1, RJ-45 HDMI out x (HDMI-E104C:4 / HDMI-E108C:8), RJ-45 link out x 1
Max Distance & Resolution	480p with each cascading length $<$ 80m, 720/1080i with each cascading length $<$ 70m, 1080p with each cascading length $<$ 30m		
Video Control	EQ x 1	EQ x 1	EQ x 1
Signal Type	HDMI	HDMI	HDMI
Power Consumption	5v DC, 750mA	5v DC, 750mA	HDMI-E104C: 5v DC, 1.8A / HDMI-E108C: 5v DC, 2.5A
Housing	Metal	Metal	Metal
Dimensions	29(H) x 113(W) x 62(D) mm	29(H) x 113(W) x 62(D) mm	44(H) x 240(W) x 130(D) mm

Transmitter:

One-port transmitter with local HDMI port for a monitor if required. The unit includes a HDMI cable to connect to the HDMI source.

Output is then via Cat5e/Cat6 cable to further transceivers.

· HDMI-E102T - transmitter



Transceivers:

Consisting of an RJ-45 Cat-x input from a transmitter or transceiver, a local HDMI output and an onward RJ-45 Cat-x connectivity to further devices. Models are available as 1, 4 or 8 RJ-45 output port versions.

• HDMI-E102TR - 1 port transceiver



The recommended receivers for use with the 4 & 8 port transceivers below are the ET-HC0101-R (pg14) or HDMI-HR (pg17).

• HDMI-E104C - 4 port transceiver



HDMI-E108C - 8 port transceiver





•RJ-45/HDMI Receiver (non-powered)

Suitable as a short-range receiver (up to 10m) converting from RJ-45 to HDMI. This non-powered device plugs directly into a monitor's HDMI socket.

Note: some displays (particularly Samsung brand products) require a power source to function correctly; in this case please use the powered product below.

• HDMI-HR - receiver (non-powered)

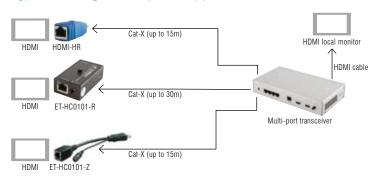


•RJ-45/HDMI Receiver (powered)

A powered version of the above product. This is required on some brands of flat screen displays, particularly Samsung products.



Typical Configuration (at 1080p):



HDMI 4 Way Selector Switch

This 4-into-1 HDMI switch selects between four HDMI sources, providing one output. Ideal for retail stores, conference rooms, home theatre, etc. The source material is easily switched via a slimline remote control.

Features:

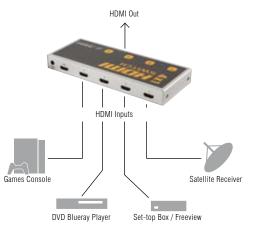
- Three switch modes automatic, manual or remote control
- HDMI 1.3a & HDCP compliant
- Supports full 1080p HD
- Built-in EQ for fine tuning



Specifications:

SW-H00401-H:
4-into-1 HDMI switch
HDMI x 4
HDMI x 1
480i, 480p, 720p, 1080i, 1080p
20m
10m
5v DC
23(H) x 198(W) x 80(D) mm

Typical Configuration:





Video Distributor Amplifiers

Ideal for use in retail and audio visual installations, or any application requiring the duplication and distribution of high quality video signals.

Features high quality BNC type connectors (1~2Vpp / 75ohm) for video signal input and video signal output, plus a fixed mains lead on the rear. Optional 19" rack kits are also available.

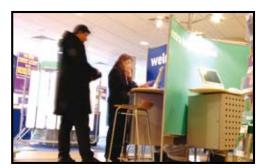
Part Numbers:

• **TD104** 1 in~4 out

• **TD204** 1 in~8 out or 2 in~4 out

TD408 1 in~8 out, 2 in~4 out or 4 in~2 out
 TD816 2 in~8 out, 4 in~4 out or 8 in~2 out





Audio / Video Matrix Switch Box

A simple yet effective 8 input/8 output BNC Audio and Video Matrix unit, allowing selection and allocation of separate audio and video sources.

This incredibly cost effective, 19" rack mounting unit uses simple selection switches and highly visible LED display on the front panel to show which input (audio and video) is routed to which output. Alternatively, the unit can be controlled using RS232 via Crestron, AMX or Extron systems or equivalents, via a 9pin D type connector.

Units may also be cascaded to increase the flexibility and applications of the devices using the serial connector on the rear.

• VAMS-0808 - 8 input, 8 output Audio and Video Matrix unit







To make the ordering and installation process even easier, we've developed a range of AV Faceplate Kits which are ideal for use in many system installations.

Single-Gang Faceplate Kit

- 1 x Single-gang AV faceplate (1GEIAVPLT)
- 1 x VGA cable 15m with easy route ferrule ends (VGA-FRL-15.0M)
- 2 x Twin RCA audio cables 15m (2XRCA-FE15MRDWH)
- 1 x RCA video cable 15m (RCAYELW-FREE15M)
- VGAKIT-1G-15M Single-Gang Faceplate Kit



Double-Gang Faceplate Kit

- 1 x Double-gang AV faceplate (2GEIAVPLT) incorporating a 3m whiteboard USB B cable & back-to-back RJ45 socket
- 2 x VGA cable 15m with easy route ferrule ends (VGA-FRL-15.0M)
- 1 x Twin RCA audio cables 15m (2XRCA-FE15MRDWH)
- 1 x RCA video cable 15m (RCAYELW-FREE15M)
- VGAKIT-2G-15M Double-Gang Faceplate Kit



Pre-terminated AV Wallbox Kit

This fully pre-terminated AV wallbox kit comes with all installation cables already internally connected, providing high speed 'plug & play' installation.

- Wallbox connections made from below for tidy, secure cable connectivity
- Wallbox features input connections for 2 x VGA, composite video, L & R RCA audio, whiteboard USB, RJ-45 and HDMI

Kit also includes:

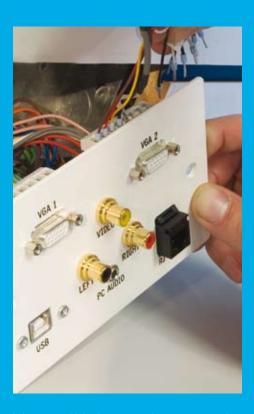
- 2 x prewired VGA cables
- 1 x stereo 3.5mm plug-to-plug cable
- 1 x prewired USB lead
- 1 x prewired HDMI lead
- AVWB1-10M 10m cable kit
- AVWB2-15M 15m cable kit



• Supplied with fully terminated cable







Many AV installations require wall-mounted interconnection plates to allow equipment to be interfaced together as required

Quality built and designed with ease of installation in mind, our wide range of faceplates are ideal for use in most applications

Single-Gang AV Plate

- 1 x Easy-Install, solderless VGA HD15F (VGAPCBUNITNEW)
- 4 x RCA audio sockets, 2 x left plus 2 x right
- 1 x RCA video socket
- 1GEIAVPLT Single-gang AV plate



Double-Gang AV Plate

- 2 x Easy-Install, solderless VGA sockets (VGAPCBUNITNEW)
- · 2 x RCA audio sockets; left and right
- 1 x RCA video socket
- 1 x 3.5mm PC audio socket
- 1 x USB B Male to USB B Female 3m whiteboard flying lead
- 1 x RJ-45 back-to-back socket
- 2GEIAVPLT Double-gang AV plate



Solderless VGA Module

For use with our range of Easy-Install VGA Cables (VGA-FRL-xxM) on page 22, this solderless VGA module can be installed into your own equipment or plate as required.

The module incorporates a HD 15-way female D-type and rear screw terminals for quick and easy installation on site. Supplied complete with a clear, easy to use wiring diagram.

• VGAPCBUNITNEW - Solderless VGA Module



• See pages 22 ~ 27 for a full range of AV installation cables.



Single-Gang Basic VGA Plate

- 1 x Easy-Install, solderless VGA plate HD15F with rear screw terminations.
- Ideal for use with our Easy-Install VGA cables - see page 22
- AVPLATE1 Single-gang VGA plate



Single-Gang RCA PlateSingle-Gang XLR Plate

- 2 x RCA audio sockets, left and right
- 1 x RCA composite video socket
- · Solder connections at the rear

- Solderless rear screw terminations
- Quick and easy installation
- · High quality Switchcraft XLR
- Available with a male or female XLR

Single-Gang HDMI Plate

- · HDMI connection front & rear
- Rear socket is aligned for side entry
- Designed for use with metal in-wall pattress with side knock-outs



• AVPLATE2 - Single-gang AV plate





• 1GEIHDMI - Single-gang HDMI plate



• 1GEIXLRF - Single-gang female XLR plate



 Solderless screw-terminal rear connections



• HDMI rear connection



VGA Cables

15 way Male-to-Female and Male-to-Male cables.

Part Numbers (Male-to-Female):

- TSVGALEAD0.5M/F 0.5m
- TSVGALEAD5.0M/F 5m
- TSVGALEAD15.0M/F 15m

Part Numbers (Male-to-Male):

- TSVGALEAD0.5M 0.5m
- TSVGALEAD1.0M 1m
- TSVGALEAD2.0M 2m
- TSVGALEAD3.0M 3m
- TSVGALEAD5.0M 5m
- TSVGALEAD10.0M 10m
- TSVGALEAD15.0M 15m
- TSVGALEAD20.0M 20m



•Low Profile Male-to-Male •Easy-Install VGA VGA Cable

Low Profile VGA cables are unobtrusive, yet attractively designed. Ideal for use in highly visible areas or in racks where space may be limited.

Part Numbers:

- LPVGA-M/M-1.0M 1m
- LPVGA-M/M-3.0M 3m
- LPVGA-M/M-5.0M 5m

Cables

Easy-Install Male VGA-to-Ferrule Free ends.

Ideal for use with our range of AV Wall Faceplates or Solderless VGA modules (see pages 20 & 21), these cables allow the VGA cable to be routed through tight spaces/conduit and then quickly terminated at the faceplate without the need to solder, helping to dramatically reduce installation times. The cables consist of 3 coax cores, 5 signal wires plus a screen wire.

Part Numbers:

 VGA-FRL-1.0M 1m VGA-FRL-5.0M 5m VGA-FRL-10.0M 10m VGA-FRL-15.0M 15m VGA-FRL-20.0M 20m

Premier Grade VGA Cables

Male-to-Male & Male-to-Female Premier Grade VGA Cable.

Utilising high quality, high performance cable, these premier grade blue sheathed VGA cables are suitable for use in the most demanding of applications.

Part Numbers:

 SVGAPREM2.0M/M 	2m
 SVGAPREM10.0M/M 	10m
 SVGAPREM15.0M/M 	15m
 SVGAPREM0.5M/F 	0.5m
 SVGAPRFM2.0M/F 	2m





. Low Profile VGA Moulding compared to Standard Size VGA Moulding







DVI Cables & Adaptors

DVI cables are suitable for distributing high quality video and are ideal for use with the Databay DVI equipment shown on pages $11\sim13$.

DVI-D to DVI-D Cables:

DVI-DVI 2MDVI-DVI 5M

DVI-A to VGA Cable:

Used to interconnect DVI-A & 15-way High Density VGA connectors. The cable has Male-to-Male orientation and is 2m in length.

• DVI-A to VGA M/M 2M 2m

DVI-A to VGA Adaptors:

DVI to VGA F/M Adaptor
 DVI to VGA M/F Adaptor
 DVI Male to VGA Female



DVI-A to VGA Adaptors (Male and Female)







HDMI Cables & Adaptors

HDMI cables suitable for distributing high quality digital video and audio. These cables are ideal for use with the Databay HDMI equipment shown on pages 14~17.

Featuring gold plated connectors for improved performance, these cables are HDMI 1.3b compliant.

Part Numbers:

HDMI1MTR 1m
 HDMI3MTR 3m
 HDMI5MTR 5m
 HDMI10MTR 10m



• HDMI ~ HDMI F/F - HDMI to HDMI coupler



• HDMI Cable 1.3b Category 2

These high quality certified HDMI cables are capable of 20.4Gbps and of displaying video up to 2160p.

Features:

- Fully support 480p, 720/1080i, 1080p, 1440p, WQXGA & 2160p
- Digital audio capabilities of multi-channels from 5.1, 7.1, 8.1 to 13.1
- Deep colour capability up to 16 bit (over 1 billion colours)
- HDCP compliant
- The connectors incorporate seamless EMI/RFI shielded hoods providing excellent interference rejection

Part Numbers:

• HDMI CAT2 1M 1m • HDMI CAT2 3M 3m • HDMI CAT2 5M 5m

• HDMI ~ HDMI - 1.3b Category 2 cable



HDMI ~ DVI Cables & Adaptors

A convenient range of convertor cables, allowing HDMI sources to be connected to DVI-D equipment and vice-versa.

HDMI ~ DVI Cable Part Numbers:

• HDMI-DVI 2M HDMI to DVI-D 2m • HDMI-DVI 5M HDMI to DVI-D 5m

HDMI ~ DVI Adaptor Part Numbers:

• HDMI-DVI F/M Adaptor
• HDMI-DVI M/F Adaptor
HDMI Male to DVI-D Female

• HDMI ~ DVI - cable



• HDMI ~ DVI F/M adaptor - HDMI to DVI adaptor





•RCA (Phono) Pre-Made Cables

A range of RCA cables ideal for use in most AV installations and particularly suitable for use with the Clever Little Box range of faceplates.

The range includes plug-to-plug cables in 1, 2 & 3 way versions, as well as plug-to-free end cables, ready to be terminated on the rear of a faceplate.

RCA Plug-to-RCA Plug Cables Part Number:

 2XRCA-2XRCA0.75M 2 x RCA to 2 x RCA, Red/White 2XRCAREDBLK15M 3 x RCA to 2 x RCA, Red/Black 3XRCA-3XRCA1.5M 3 x RCA plugs to 3 x RCA plugs, Gold, Red / Yellow / Black 3XRCA-3XRCA3.0M 3 x RCA plugs to 3 x RCA plugs, Gold, Red / Yellow / Black 3XRCA-3XRCA5.0M 3 x RCA plugs to 3 x RCA plugs, Gold, Red / Yellow / Black 3XRCA-3XRCA5.0M 3 x RCA plugs to 3 x RCA plugs, Gold, Red / Yellow / Black 3XRCA-3XRCA10M 3 x RCA plugs to 3 x RCA plugs, Gold, Red / Yellow / Black 3XRCA-3XRCA15M 3 x RCA plugs to 3 x RCA plugs, Gold, Red / Yellow / Black 3XRCA-RYW0.75M 3 x RCA plugs to 3 x RCA plugs, Red / Yellow / White 3XRCA-RYW1.5M 3 x RCA plugs to 3 x RCA plugs, Red / Yellow / White 3XRCA-RYW2.0M 3 x RCA plugs to 3 x RCA plugs, Red / Yellow / White 3XRCA-3XRCA10M 3 x RCA plugs to 3 x RCA plugs, Red / Yellow / White 3XRCA-3XRCA10M 3 x RCA plugs to 3 x RCA plugs, Red / Yellow / White 3XRCA-3XRCA15M 3 x RCA plugs to 3 x RCA plugs, Red / Yellow / White 3XRCA-3XRCA15M 3 x RCA plugs to 3 x RCA plugs, Red / Yellow / White 3XRCA-3XRCA15M 3 x RCA plugs to 3 x RCA plugs, Red / Yellow / White 			
• 3XRCA-3XRCA1.5M 3 x RCA plugs to 3 x RCA plugs, Gold, Red / Yellow / Black 1.5m • 3XRCA-3XRCA3.0M 3 x RCA plugs to 3 x RCA plugs, Gold, Red / Yellow / Black 3m • 3XRCA-3XRCA5.0M 3 x RCA plugs to 3 x RCA plugs, Gold, Red / Yellow / Black 5m • 3XRCA-3XRCA10M 3 x RCA plugs to 3 x RCA plugs, Gold, Red / Yellow / Black 10m • 3XRCA-3XRCA15M 3 x RCA plugs to 3 x RCA plugs, Gold, Red / Yellow / Black 15m • 3XRCA-RYW0.75M 3 x RCA plugs to 3 x RCA plugs, Red / Yellow / White 0.75m • 3XRCA-RYW1.5M 3 x RCA plugs to 3 x RCA plugs, Red / Yellow / White 1.5m • 3XRCA-RYW2.0M 3 x RCA plugs to 3 x RCA plugs, Red / Yellow / White 2m • 3XRCA-3XRCA10M 3 x RCA plugs to 3 x RCA plugs, Red / Yellow / White 3x RCA plugs to 3 x RCA plugs, Red / Yellow / White • 3XRCA-3XRCA15M 3 x RCA plugs to 3 x RCA plugs, Red / Yellow / White 15m	 2XRCA-2XRCA0.75M 	2 x RCA to 2 x RCA, Red/White	0.75m
Gold, Red / Yellow / Black 3 x RCA plugs to 3 x RCA plugs, Gold, Red / Yellow / Black 3 x RCA plugs to 3 x RCA plugs, Gold, Red / Yellow / Black 3 x RCA plugs to 3 x RCA plugs, 5m Gold, Red / Yellow / Black 3 x RCA plugs to 3 x RCA plugs, Gold, Red / Yellow / Black 3 x RCA plugs to 3 x RCA plugs, Gold, Red / Yellow / Black 3 x RCA plugs to 3 x RCA plugs, 15m Gold, Red / Yellow / Black 3 x RCA plugs to 3 x RCA plugs, Gold, Red / Yellow / Black 3 x RCA plugs to 3 x RCA plugs, 0.75m Red / Yellow / White 3 x RCA-RYW1.5M 3 x RCA plugs to 3 x RCA plugs, Red / Yellow / White 3 x RCA-RYW2.0M 3 x RCA plugs to 3 x RCA plugs, Red / Yellow / White 3 x RCA-3xRCA10M 3 x RCA plugs to 3 x RCA plugs, Red / Yellow / White 3 x RCA-3xRCA15M 3 x RCA plugs to 3 x RCA plugs, 10m Red / Yellow / White 3 x RCA-3xRCA15M 3 x RCA plugs to 3 x RCA plugs, 15m	 2XRCAREDBLK15M 	2 x RCA to 2 x RCA, Red/Black	15m
Gold, Red / Yellow / Black 3 x RCA plugs to 3 x RCA plugs, Gold, Red / Yellow / Black 3 x RCA plugs to 3 x RCA plugs, Gold, Red / Yellow / Black 3 x RCA plugs to 3 x RCA plugs, Gold, Red / Yellow / Black 3 x RCA plugs to 3 x RCA plugs, Gold, Red / Yellow / Black 3 x RCA plugs to 3 x RCA plugs, Gold, Red / Yellow / Black 3 x RCA plugs to 3 x RCA plugs, Gold, Red / Yellow / Black 3 x RCA plugs to 3 x RCA plugs, Red / Yellow / White 3 x RCA-RYW1.5M 3 x RCA plugs to 3 x RCA plugs, Red / Yellow / White 3 x RCA-RYW2.0M 3 x RCA plugs to 3 x RCA plugs, Red / Yellow / White 3 x RCA-3xRCA10M 3 x RCA plugs to 3 x RCA plugs, Red / Yellow / White 3 x RCA-3xRCA10M 3 x RCA plugs to 3 x RCA plugs, 10m Red / Yellow / White 3 x RCA-3xRCA15M 3 x RCA plugs to 3 x RCA plugs, 15m	3XRCA-3XRCA1.5M		1.5m
Gold, Red / Yellow / Black 3 x RCA plugs to 3 x RCA plugs, Gold, Red / Yellow / Black 3 x RCA plugs to 3 x RCA plugs, Gold, Red / Yellow / Black 3 x RCA plugs to 3 x RCA plugs, Gold, Red / Yellow / Black 3 x RCA plugs to 3 x RCA plugs, Gold, Red / Yellow / Black 3 x RCA plugs to 3 x RCA plugs, Red / Yellow / White 3 x RCA plugs to 3 x RCA plugs, Red / Yellow / White 3 x RCA plugs to 3 x RCA plugs, Red / Yellow / White 3 x RCA plugs to 3 x RCA plugs, 2m Red / Yellow / White 3 x RCA-3xRCA10M 3 x RCA plugs to 3 x RCA plugs, 10m Red / Yellow / White 3 x RCA-3xRCA15M 3 x RCA plugs to 3 x RCA plugs, 15m	3XRCA-3XRCA3.0M		3m
Gold, Red / Yellow / Black 3 x RCA plugs to 3 x RCA plugs, Gold, Red / Yellow / Black 3 x RCA plugs to 3 x RCA plugs, Gold, Red / Yellow / Black 3 x RCA plugs to 3 x RCA plugs, D.75m Red / Yellow / White 3 x RCA plugs to 3 x RCA plugs, Red / Yellow / White 3 x RCA plugs to 3 x RCA plugs, Red / Yellow / White 3 x RCA plugs to 3 x RCA plugs, 2m Red / Yellow / White 3 x RCA plugs to 3 x RCA plugs, 2m Red / Yellow / White 3 x RCA plugs to 3 x RCA plugs, 10m Red / Yellow / White 3 x RCA-3xRCA15M 3 x RCA plugs to 3 x RCA plugs, 15m	3XRCA-3XRCA5.0M		5m
Gold, Red / Yellow / Black 3 x RCA plugs to 3 x RCA plugs, Red / Yellow / White 3 x RCA plugs to 3 x RCA plugs, Red / Yellow / White 3 x RCA plugs to 3 x RCA plugs, Red / Yellow / White 3 x RCA plugs to 3 x RCA plugs, 2m Red / Yellow / White 3 x RCA plugs to 3 x RCA plugs, 2m Red / Yellow / White 3 x RCA plugs to 3 x RCA plugs, 10m Red / Yellow / White 3 x RCA-3xRCA15M 3 x RCA plugs to 3 x RCA plugs, 15m	3XRCA-3XRCA10M		10m
Red / Yellow / White 3XRCA-RYW1.5M 3 x RCA plugs to 3 x RCA plugs, Red / Yellow / White 3XRCA-RYW2.0M 3 x RCA plugs to 3 x RCA plugs, Red / Yellow / White 3XRCA-3XRCA10M 3 x RCA plugs to 3 x RCA plugs, Red / Yellow / White 3XRCA-3XRCA15M 3 x RCA plugs to 3 x RCA plugs, 15m 3XRCA-3XRCA15M 3 x RCA plugs to 3 x RCA plugs, 15m	3XRCA-3XRCA15M		15m
Red / Yellow / White 3XRCA-RYW2.0M 3 x RCA plugs to 3 x RCA plugs, Red / Yellow / White 3XRCA-3XRCA10M 3 x RCA plugs to 3 x RCA plugs, Red / Yellow / White 3XRCA-3XRCA15M 3 x RCA plugs to 3 x RCA plugs, 15m	• 3XRCA-RYW0.75M		0.75m
Red / Yellow / White 3 X RCA-3XRCA10M 3 x RCA plugs to 3 x RCA plugs, 10m Red / Yellow / White 3 XRCA-3XRCA15M 3 x RCA plugs to 3 x RCA plugs, 15m	• 3XRCA-RYW1.5M		1.5m
Red / Yellow / White • 3XRCA-3XRCA15M 3 x RCA plugs to 3 x RCA plugs, 15m	• 3XRCA-RYW2.0M		2m
	3XRCA-3XRCA10M		10m
	3XRCA-3XRCA15M		15m

Plug-to-Free End RCA Cables Part Number:

 2XRCA-FE10MRDWH 	2 x RCA (1 red / 1 white) to Free End	10m
 2XRCA-FE15MRDWH 	2 x RCA (1 red / 1 white) to Free End	15m
 RCAYELW-FREE10M 	1 x RCA (yellow) to Free End	10m
 RCAYELW-FREE15M 	1 x RCA (yellow) to Free End	15m



• 3.5mm Pre-Made Cables

A range of 3.5mm plug cables, ideal for use with most AV installations and particularly suitable for the Clever Little Box range of quality faceplates.

Normally used to carry PC audio, the range includes plug-to-plug ends, plug-to-ferrule ends and plug-to-free end cables, ready to be terminated on the rear of a faceplate.

Part Numbers:

3.5mm stereo plug-to-plug lead

• 3.5STRLEAD3.0M 3m • 3.5STRLEAD5.0M 5m • 3.5STRLEAD15M 15m

3.5mm stereo plug-to-bootlace ferrule lead

• 3.5STRLD-FRL10M 10m • 3.5STRLD-FRL15M 15m

High quality 3.5mm stereo plug-to-free end

• **35HR07884X** 2m

High quality 3.5mm stereo plug-to-plug lead

• **35HR07235X** 1.8m



OUSB Extender Kit

Used to simply but effectively extend a USB 1.1 signal beyond the normal 5m limit. Supplied as a transmitter & receiver kit, the two devices are linked via user supplied Cat5e cable up to a maximum of 30m.

USBEXKIT



Interactive Whiteboard USB CableMains Cords

USB 'B' panel mount Male to USB 'B' cable Female - 3m

USB-BML-BFMPN3M



A selection of standard 5A fused Mains Cords to suit most AV installations.

Part Numbers:

• CCC600 UK wall plug (5A fused) to IEC Female (0.75mm²) 1.9m CCC280 UK wall plug (5A fused) to IEC Female (1.0mm²) 5m CCC001 IEC extension lead - Male to Female (0.75mm²) 2m





We stock a wide range of installation cables ideal for use in professional AV and PA installations, including the high quality WEST PENN WIRE range from the USA, as well as a variety of other cables commonly used in AV installation.

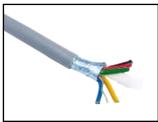
Part Number:

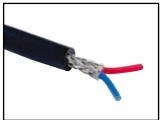
i dit italiiboi.		
• RG59	RG59/U Co-axial Cable, black sheath	100m reel
• URM70	URM 70 75ohm Co-axial Cable, black sheath	100m reel
 5XRG179LSFGREY 	5 Core RG179 Co-axial Cable - low smoke fume, grey sheath	100m reel
• 16-2-2C	16/0.2mm 2 Core screened to DEF-STAN 61-12, black sheath	100m reel
• 3182Y	2 Core cable, 0.75mm sq (24/0.2mm) 6A rated, black sheath	100m reel
• 3183Y	3 Core cable, 0.75mm sq (24/0.2mm) 6A rated, black sheath	100m reel
• 224-1000*	West Penn Twin Twisted Speaker Cable (approx 0.9mm²)	305m box
225-1000*	West Penn Twin Twisted Speaker Cable (approx 1.25mm²)	305m box
226-1000*	West Penn Twin Twisted Speaker Cable (approx 2.0mm²)	305m box
• 291-1000*	West Penn Twisted Pair Shielded Microphone Cable (approx 0.5mm²)	305m box
• 293-1000*	West Penn Twisted Pair Shielded Microphone Cable (approx 1mm²)	305m box
• 357-1000*	West Penn 2 x Twisted Pair Mic Cable (approx 0.35mm²)	305m box
• 7987R	Belden Cat-X Low Skew Cable (ideal for use with Databay range)	305m box









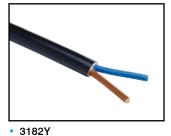


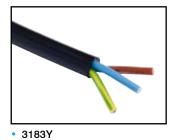
• RG59

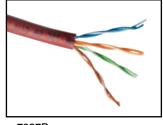
• URM70

5XRG179LSFGREY

• 16-2-2C







Unified Housing Connectors

This range of connectors provides excellent installation flexibility by offering a range of connector types in a unified housing.

VGA (HD15)

Back to Back, Male/Male Connector EHHD15MM EHHD15FF Back to Back, Female/Female Connector EHHD15MF Back to Back, Male/Female Connector



3.5mm Part Number:

 EH35MMSSC 3.5mm Stereo Socket Rear Solder Connection



RCA Part Number:

 EHRCA2X Back-to-Back RCA Connector



USB:

 EHUSBABBPKG USB A to B Connector EHUSBBABPKG USB B to A Connector



S-Video Part Number:

 EHSVHS2X Back-to-Back S-Video Connector



•IEC Re-Wireable Connectors

We've all encountered the frustration of trying to wire up a re-wireable IEC connector on site; you either lose the contacts that drop out all too easily, struggle to correctly locate the bare wire under the screw terminal, or the cable clamp goes missing.

Help is at hand! These are without doubt the most user-friendly, re-wireable IEC connectors around; an absolute joy to use.

Part Numbers:

• 4732.0000 Re-wireable IEC Male Easy-Install

Re-wireable IEC Female • 4782.0000 Easy-Install design



VGA Gender ChangersXLR Connectors

15 way HD VGA gender changers and portsavers which so often prove invaluable in an installer's toolbox.

Part Numbers:

GEN/SLIM/15/HDF

VGA HD 15 way D type, Female-to-Female gender

changer

GEN/SLIM/15/HDM

VGA HD 15 way D type, Male-to-Male gender

changer

GEN/SLIM15/HDM/F VGA HD 15 way D type,

Male-to-Female Port Saver



Are you using cable XLRs comprising of maybe four component parts to assemble (and lose!)?

These TWO piece XLRs from Switchcraft USA have revolutionised the installation market. Tests have shown that the time taken to assemble these XLRs can be reduced by as much as 60% when compared to other brands.

The metal handle versions are particularly robust as well as being aesthetically pleasing and, combined with the very attractive price tag, make for an unbeatable solution.

Part Numbers:

AAA3F

3 Pole female cable XLR, robust metal handle, Easy-Install design

AAA3M

3 Pole male cable XLR, robust metal handle,

Easy-Install design

AAA3FP

3 Pole female cable XLR, black plastic handle,

Easy-Install design

AAA3MP

3 Pole male cable XLR, black plastic handle,

Easy-Install design



Miscellaneous Connectors

We stock a vast range of connectors and cables, so if you haven't seen what you require, please do not hesitate to contact us.







Custom . Products

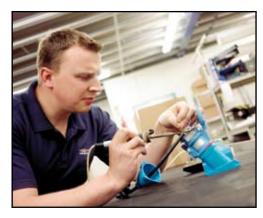
We understand that not every project is 'standard' or that to set your company apart you may wish to customise items require a special configuration on a

The following are just a few examples of how the capability and flexibility of already benefitted many of our key AV

Please do not hesitate to contact us may have.

buffer stocks ready for immediate dispatch?

Our modern, on-site warehouse facilities consistently hold approximately £1 million worth of stock to supply the UK audio visual market. We would be very happy to discuss holding buffer stock to ensure your specific product requirements can be met for immediate delivery.





•Would you like us to hold •Do you need bespoke cables produced to your spec?

Our project management service also allows for full consultation/design/manufacture of bespoke cable assemblies to meet the specific requirements of your installations or products. We have consistently surprised many customers with our ability to provide an alternative cable/ connector solution to provide both significant cost savings and faster, easier installation.



Would you like your company logo on your connectivity products?

Many of our products can also be supplied printed with your company branding as required. This can provide both a professional finish to your installations and also allow for telephone/ web contact details to be included for future business opportunities.





• Do you use over 100 pieces of any faceplate or kit of parts and need it customising?

We will provide faceplates/kits to your own specification, straight from the pack and ready to install without any 'remanufacture' requirements from your own installers/engineers.

Would it be more convenient to have all your cables in one loom?

Many of the UK's leading manufacturers and AV integrators benefit from bespoke-built full cable looms from CIE-Group, ensuring fast, efficient and tidy project results.







Installation Advice & Information &

DataBay Signal Distribution Products

The DataBay range of AV signal distribution equipment is capable of high quality results. This guide is intended to help achieve optimum performance from the equipment by following simple guidelines and good installation practice.

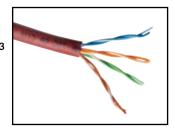
Cable

The DataBay product range distributes the AV signals via various cable types. As with any installation, the type and quality of cable can have a dramatic effect on the resultant performance. For example, a CCTV system may be installed with all manner of RG59 cable, but the resultant differences in image quality from best to worst can be huge.

Where a DataBay system is extended via Cat5e / Cat6 cable, we strongly recommend the use of a Low Skew cable. Skew is a measurement (normally in nanoseconds) that measures the time delay between the first and last signal arrival in different twisted pairs. If the time difference is too large, image quality can be affected, possibly manifesting itself in bright vertical lines, ghosting, colour smudging or worst case, no image at all. Low Skew in video terms is cable with Skew rates lower than 15nS per 100m.

The following Cat-X cables should all perform well:

Belden 7987R Belden 1700A Canford 31-953 Mohawk M58813



Environmental issues:

The area surrounding an installation can also have an impact on its performance. In particular electrical noise from mains cables, fluorescent lighting or electric motors / installations, etc, could result in interference being induced into the AV cabling system and affecting its performance.

The same applies to airborne radio frequency interference.

Common sense and good installation practice should minimise these effects through careful cable routing, avoiding mains cables or other areas of potential interference. In areas of high susceptibility, it would be sensible to use low skew screened cables.

Display resolutions & refresh rates:

Higher display resolutions and video refresh rates all require higher bandwidths and data rates. The result of the greater demands on the cable is, consequently, reduced achievable distances.

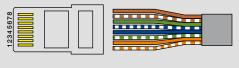
For example:

A display running a resolution of 480p may happily work across a 100m link; the same infrastructure running a display @ 1080p may only achieve 30m.

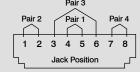
FAQ

- Q. What is Low Skew Cat-X cable?
- A. Skew is a measurement (normally in nanoseconds) which measures signal delays between different twisted pairs in a cable. Low Skew in video terms is cable with Skew rates lower than 15nS per 100m.
- Q. Can I extend the distances further than specified?
- **A.** This could be possible by:
- Reducing the display resolutions
- Using better quality Cat-X cable (low skew, shielded)
- Using better quality video cables (e.g. Cat2 HDMI cable)
- Q. I'm only using a 5 metre Cat-X link cable between the transmitter and receiver, but I cannot get a picture...
- A. This can occur when using short cables of maybe 5 or 10 metres with receivers that are optimised to function over much longer distances e.g. 300m. In this case either use a slightly longer Cat-X cable or use a different receiver.
- Q. I'm using a short range HDMI non-powered receiver (p/n HDMI-HR), but cannot see an image; why?
- A. Some flat panel monitors use a slightly non-standard input which requires power at the HDMI input socket to function correctly. Some Samsung and Goodmans monitors are known to suffer from this issue (there may be others). However, the problem can be easily overcome by using our p/n ET-HC0101-Z (see page 17), in place of the non-powered HDMI-HR.

- Q. If I 'mix' transmitters and receivers of different distance capabilities (e.g. AVE-301T 300m and the receiver from the AVE-M180TR 180m), what is the maximum distance achievable?
- **A.** In all such cases you are limited to the distance of the shortest device (in this case 180m).
- Q. How many levels of cascading can be achieved on HDMI?
- A. Normally two is recommended, although at lower resolutions and with good quality cables further cascading may be perfectly possible.
- Q. Can I use stranded Cat-X patch cord?
- A. Stranded Cat-X cable is not recommended
 use solid installation Cat-X cable for best results
- Q. How should I wire the Cat-X cable?
- **A.** The cable should be terminated to EIA 568B specifications.



EIA 568B specifications:



The EIA/TIA definition of 568B in the pin assignment is (1) orange white, (2) orange, (3) green white, (4) blue, (5) blue white, (6) green, (7) brown white, and (8) brown

Hints & Tips

When commissioning a DataBay system the following tips could help speed up the process and ensure a trouble-free installation:

Pre-Installation:

Undertake a full site survey. In addition to standard practice, take particular note of accurate cable lengths required, makes/models of the monitors to be connected and take into account any potential environmental factors that could cause interference. It is also preferential to have all devices powered from the same electrical phase and with common grounding.

Wherever possible, bench test your proposed system set-up at your facility before proceeding to site. Use interconnecting cables as they will be used on site, i.e. the same cable types and lengths.



During Installation:

Follow the user manuals to assist the installation process.

Firstly, if the first transmitter in the link has a local monitor output, then connect up a monitor to this port to confirm that the transmitter is receiving a valid signal. Use the EQ control (if available) on the transmitter to obtain the optimum picture quality. You can then proceed to setting up the receiver end.

Set-up the system by starting with the lowest video resolution outputs from the video source and establishing a working link. You can then increase the display resolutions in stages to ensure full system compatibility. Ensure the monitor is capable of displaying at the desired resolutions and refresh rates.

Most devices should function correctly with the EQ set to AUTO. However, if this does not give satisfactory results, then the EQ can be set manually. Please note that in manual mode the changes may not be instantaneous and may lag by a second or two. Therefore, adjust the EQ in small stages at a time and check the result on screen.

If a monitor does not appear to be displaying video, check the obvious things like power(!) correct source mode selected (e.g. HDMI, VGA, S-Video) and for correctly engaged connectors. If this fails, completely power down the monitor (not just standby) and then re-apply the power.







The following cables (available on page 8) enable the AVE-300 series VGA transmitters and receivers to be converted to transmit Component Video or Composite Video. Below is more detailed information regarding the use and connection of these cables.

• Component Video:

HD15F-YCBCR70 - Source Cable

Comprising of a high density 15 way female 'D' type connector to 5 x RCA (Phono) plugs. Cable length 0.7m. This cable is used in conjunction with the 'monitor cable' shown below.

The RCA connectors are used to connect to the source player in the following configuration:

Plug Colour:	Cable Colour:	Player Connection:
Red	Red	Component Video – Red Connector
Green	Green	Component Video – Green Connector
Blue	Blue	Component Video – Blue Connector
White	Black	Audio – Left
Red	Black	Audio – Right

The 'D' type connector is then connected to the VGA input port of a AVE-300 series transmitter.

HD15M-YCBCR180 - Monitor Cable

Comprising of a high density 15 way male 'D' type connector and 3.5mm plug to 5 x RCA (Phono) plugs. Cable length 1.8m. This cable is used in conjunction with the 'source cable' shown above.

The RCA connectors are used to connect to the monitor in the following configuration:

Plug Colour:	Cable Colour:	Monitor Connection:
Red	Red	Component Video – Red Connector
Green	Green	Component Video – Green Connector
Blue	Blue	Component Video – Blue Connector
White	Black	Audio In – Left
Red	Black	Audio In – Right

The 'D' type connector is then connected to the VGA output port of an AVE-300 series receiver.

The 3.5mm plug is connected to the audio output port of the AVE-300 series receiver.

• Composite Video:

HD15F-S3RCA70 - Source Cable

Comprising of a high density 15 way female 'D' type connector to 3 x RCA (Phono) plugs & an S-Video Mini-Din plug. Cable length 0.7m. This cable is used in conjunction with the 'monitor cable' shown below.

The RCA connectors are used to connect to the source player in the following configuration:

Plug Colour:	Cable Colour:	Player Connection:
Yellow	Black	Composite Video Out
White	Black	Audio Out – Left
Red	Black	Audio Out — Right

Alternatively, the S-Video Mini-Din plug could be used in place of the Yellow RCA plug.

The 'D' type connector is then connected to the VGA input port of an AVE-300 series transmitter.

HD15M-S3RCA180 - Monitor Cable

Comprising of a high density 15 way male 'D' type connector and 3.5mm plug to 3 x RCA (Phono) plugs & an S-Video Mini-Din plug. Cable length 1.8m. This cable is used in conjunction with the 'source cable' shown above.

The RCA connectors are used to connect to the monitor in the following configuration:

Plug Colour:	Cable Colour:	Function:	
Yellow	Black	Composite Video In	7
White	Black	Audio In – Left	
Red	Black	Audio In — Right	

Note: If the video source is via S-Video then replace the Yellow RCA connector with the S-Video plug.

The 'D' type connector is then connected the VGA output port of an AVE-300 series receiver.

The 3.5mm plug is connected to the audio output port of the AVE-300 series receiver.



°SP-H00104-0B4 Port HDMI Splitter

This simple but high quality, cost effective HDMI splitter is the latest addition to the new Databay AV distribution product range.

Featuring single HDMI input and four HDMI outputs, this unit provides fast and effective, multi-display output from high definition video/audio sources such as satellite, HD and DVD signals.

Features:

- Conforms to HDMI 1.3 specifications
- Fully HDCP 1.1 compliant
- Compatible with all HDMI equipped devices and HDCP-enabled HDTV devices
- Maximum distance 30m
- Supports high resolution input: PC: VGA, SVGA, VGA, SXGA and UXGA

HDTV: 480i, 576i, 480p, 576p, 1080i and 1080p

Specifications:

Model:	SP-H00104-0B:
Description	4 port HDMI splitter
Source Inputs	HDMI x 1
Extension Output	HDMI x 4
Display	4 x Output Device LED, 1 x Power
Video Bandwidth	2.25g single link
EDID Emulation	Yes
Power Supply	DC 5v, 2.6A
Operating Temperature	0~50°C
Housing	Metal
Dimension	23(H) x 149(W) x 64(D) mm
Weight	0.28kg

• SP-H00104-0B - Front



• SP-H00104-0B - Rear



Typical Configuration:





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