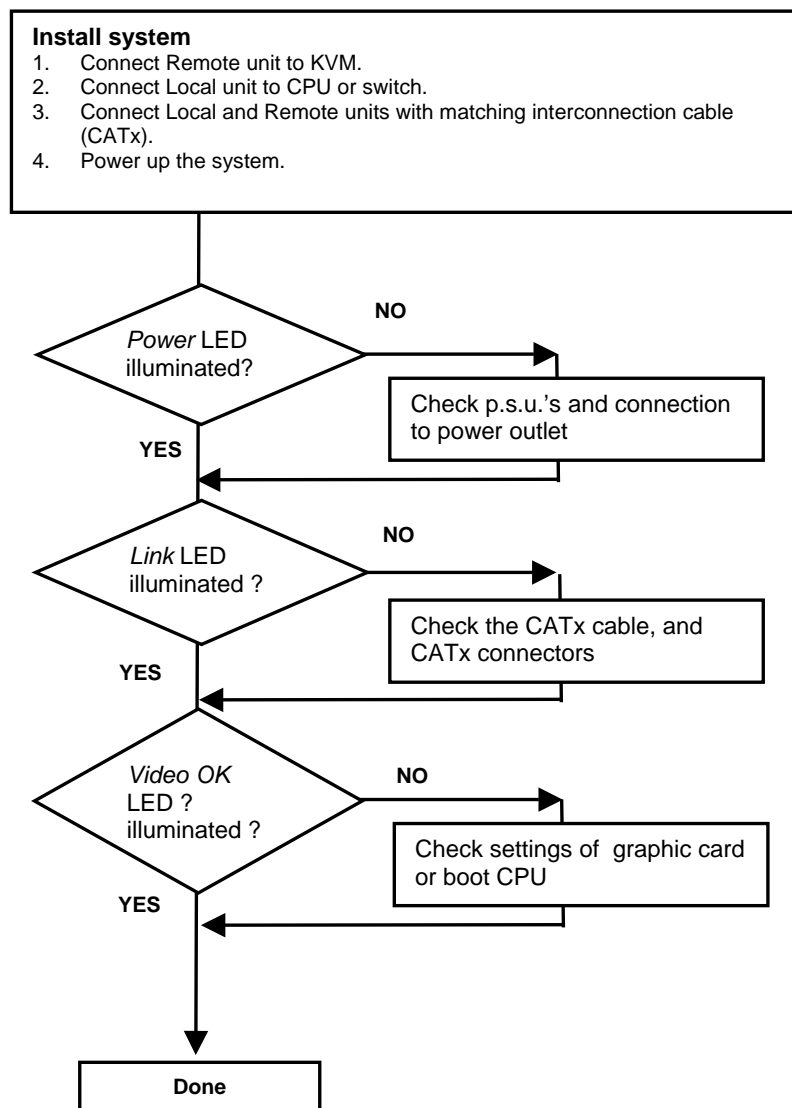


# 1 Quick Setup

This section briefly describes how to install your KVM extender system. Unless you are an experienced user, we recommend that you follow the full procedures described in the rest of this manual..



# 2 Installation

For first-time users, we recommend that you carry out a test placement, confined to a single room, before commencing full installation. This will allow you to identify and solve any cabling problems, and experiment with the KVM extender system more conveniently.

## 2.1 Package Contents

You should receive the following items in your extender package (all types):

- DVI-D KVM Extender KVM-Extender- pair (Local Unit + Remote Unit)
- 2x 5V DC universal power supply for the DVI-D KVM Extender - Extender
- 2x German type power cord
- Quick Install Guide (A user manual can be obtained from <http://www.blackbox.co.uk> )
- PS2-Keyboard-/ Mouse adapter to connect K/M to the Local Unit (keyboard can be plugged in directly, without using an adapter)
- KVM CPU cable set (1.8m) with one side: PS/2 (6-pin mini-DIN male) keyboard and mouse connector and DVI-I video (DVI-I dual link male) connector – other side: DVI-I video (DVI-I dual link male) connector

**ACS2209A (additionally):**

- 1.8m DVI-D M/M cable
- If anything is missing, please contact Technical Support

## 2.2 System Setup

To install your DVI-D KVM Extender – Extender system:

1. Switch off all devices.
  2. Connect your keyboard, monitor(s) and mouse to the Remote unit (depending on device type). Please ensure, to not swap Mouse- and Keyboard connector. The Keyboard connector is purple and the Mouse connector is green.
  3. Using the supplied CPU KVM cable(s), connect the keyboard, monitor(s) and mouse connectors on the computer (or KVM switch). Please ensure, to not swap Mouse- and Keyboard connector. The Keyboard connector is purple and the Mouse connector is green.
  4. Connect the interconnect cable to the INTERCONNECT socket(s)
  5. Connect the 5V power supply to power the unit.
- Only use the power supply originally supplied with this equipment or a manufacturer-approved replacement.
6. For a dual access system, connect the keyboard, mouse and monitor for the Local console to the appropriate ports on the Local unit. The ports may also be used to feed into a KVM switch. To the local (PS2-) Keyboard-/ Mouse port you can attach a Keyboard directly or Mouse/ Keyboard together, using the delivered adapter.
  7. Power up the system.

## 2.3 Interconnection Cable Requirements

To connect the Local and Remote units you will need:

- **DVI, PS2-Keyboard, PS2-Mouse:** Connect the supplied KVM CPU cable set to your CPU (KVM.- Switch, etc.). Please ensure that the connection is tension-free! Devices ACS1009A + ACS2209A
- **DVI:** Connect the supplied DVI CPU cable set to your CPU (KVM.- Switch, etc.). Please ensure that the connection is tension-free! Devices ACS2209A
- **CATx Cable:** Recommended cable: S/UTP (Cat5) according EIA/TIA 56A, TSB 36 or Digital STP 17-03170. Four pairs AWG 24. connection according EIA/TIA 568A (10BaseT). Use of cables from a higher category (Cat5e, Cat6, Cat7) is possible.

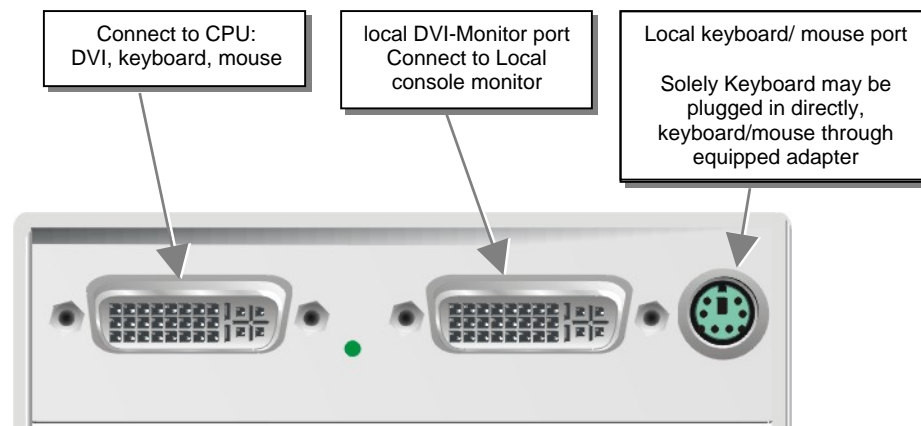
The use of unshielded CATx Cable is possible, because of the higher electromagnetic noise/sensitivity the device class may not be reached.

The use of flexible Cables (Patch cable) Type AWG26/8 is possible. Because of the higher loss of the stranded cables, the maximum distance is reduced to app. half the value of solid cables.

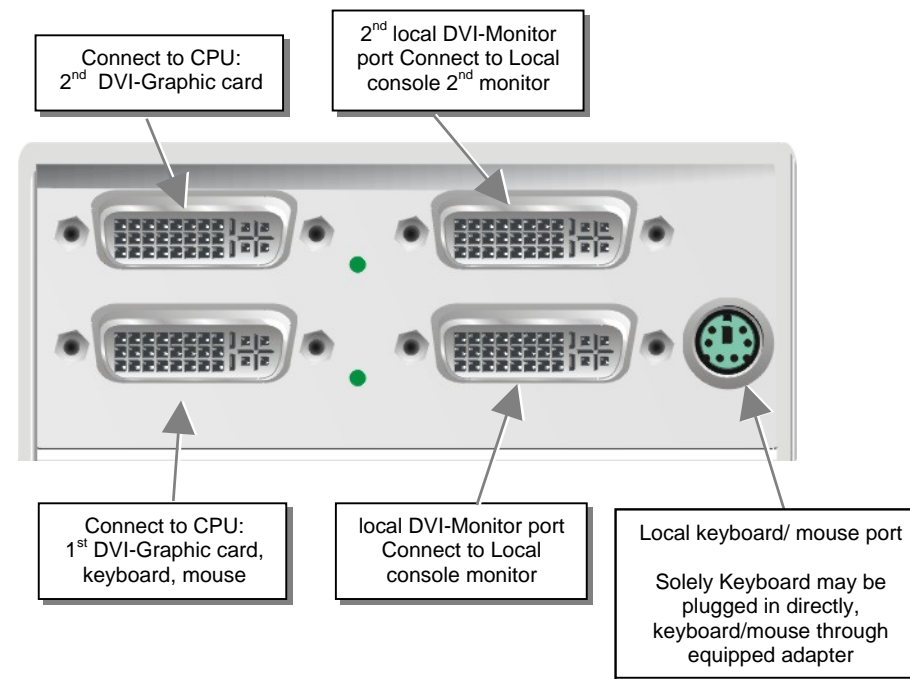


A point to point connection is required. Having one or more patch panels in the line is possible and allowed. Not allowed is a connection from the CATx link interface (RJ45) to any other products, especially telecommunications or network equipment.

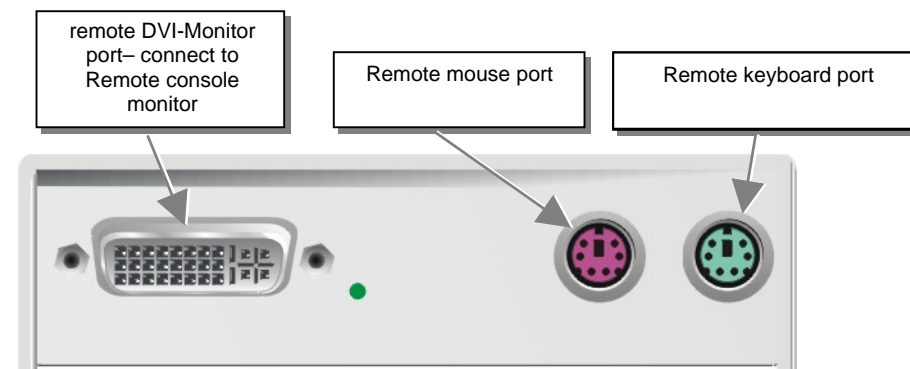
## 3 Device view (depending on device type)



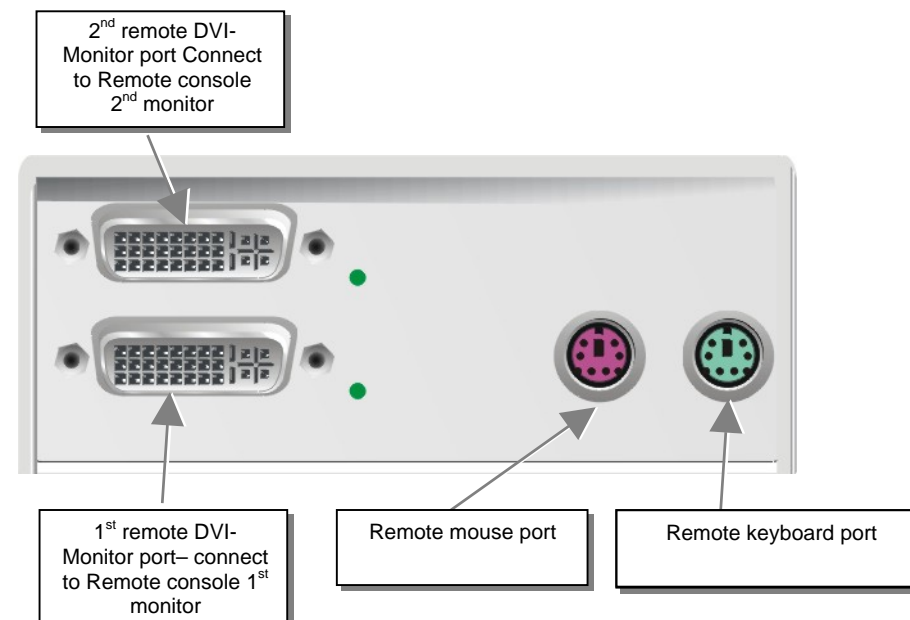
DVI-D KVM Extender KVM-Extender Type ACS1009A Local Unit



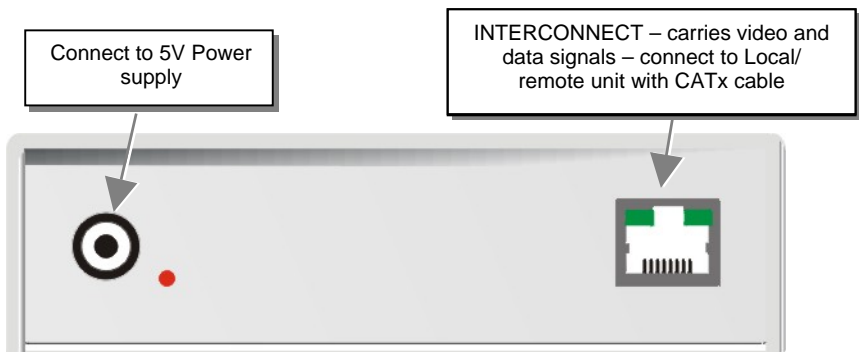
DVI-D KVM Extender KVM-Extender Type ACS2209A Local Unit



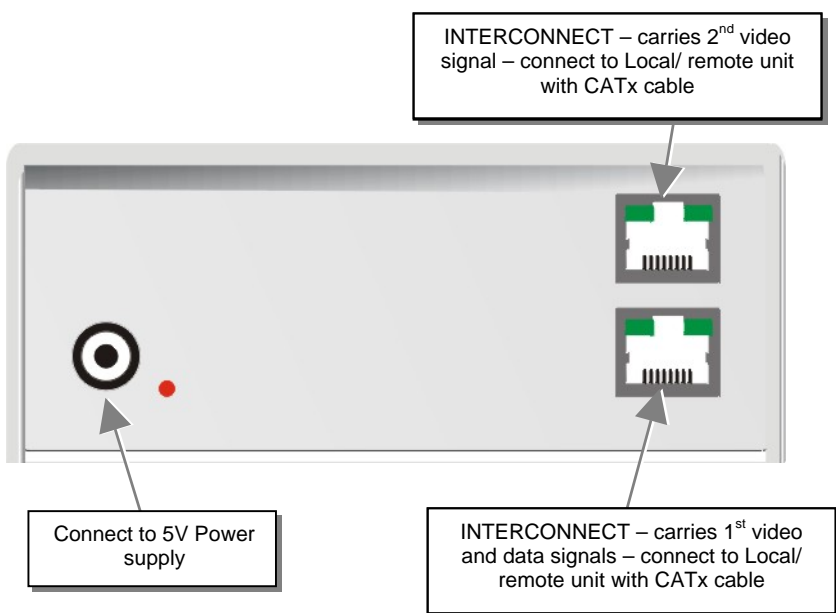
DVI-D KVM Extender KVM-Extender Type ACS1009A Remote Unit



DVI-D KVM Extender KVM-Extender Type ACS2209A Remote Unit



DVI-D KVM Extender KVM-Extender Type ACS1009A Local/ Remote Unit

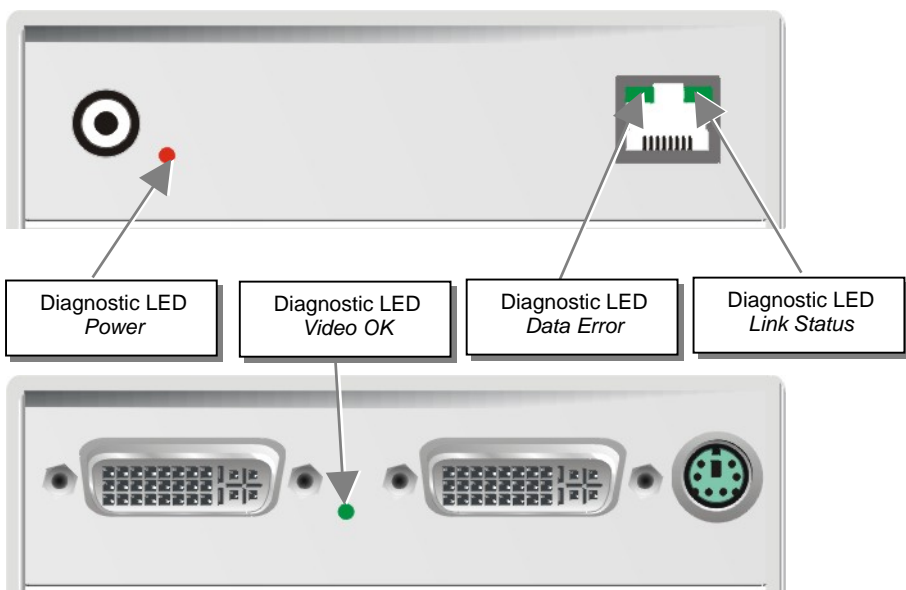


DVI-D KVM Extender KVM-Extender Type ACS2209A Local/ Remote Unit

**3.1 Diagnostic LEDs**

Each DVI-D KVM Extender KVM-Extender is fitted with four indicator LEDs: *Power*, *Video OK*, *Data Error*, *Link Status*. The *Power* LEDs are next to the Power socket.

The location of the LEDs is shown below:



Diagnostic - LEDs at DVI-D KVM Extender - Extender

LED	Appearance	Diagnostics
<b>Power LED</b> (Red LED)	Off On	Device not ready Device ready
<b>Video Okay</b> (Green LED)	Off On	No or invalid video signal detected Device ready
<b>Link Status</b> (Green LED)	blinking On	No CAT5 connection Device ready
<b>Data Error</b> (Green LED)	Off blinking / On	Device ready Errors through data transmission over CAT5 Cable (Cable too long, too high attenuation or too much EMI interferences )

**4 Troubleshooting**

*There isn't a picture.*

Check the power supply connection at the Local unit. Is the *Power* (Red LED) at the Local unit illuminated (see page 2)? If not, the internal power-supply may be damaged or there may be an internal error.

Check the power supply connection at the remote unit. Is the *Power* (Red LED) at the Remote unit illuminated (see page 2)? If not, the internal power-supply may be damaged or there may be an internal error.

Check that the Interconnection cable is connected at the Local Unit and the Remote Unit. Is the *Link Status* LED illuminated (see page 2)? If not, there may be a problem with the Interconnection cable:

Are there Errors through data transmission over CAT5 Cable (Cable too long, too high attenuation or too much EMI interferences )? Is the *Data Error* LED illuminated or blinking (see page 2)? If yes, check cable length and environment.

*Video Okay* LED is dark: CPU does not provide a video signal – Check settings of the graphic card. Try out, connecting a monitor to the local output, to see, whether there is a signal or not.

**Keyboard**

*The PC boots fine with no error messages but the keyboard does not work at all*

Wrong cable plugged in, keyboard and mouse cables reversed.

Try a different model of keyboard. If the new keyboard works then original one may be incompatible

Check that the Interconnection cable is connected at the Local Unit and the Remote Unit. Is the *Link Status* LED illuminated (see page 2)?

**PS2-Mouse**

*A mouse cursor appears on the screen, but the mouse does not work*

Wrong cable plugged in, keyboard and mouse cables reversed.

Try a different model of mouse

*The system does not detect a PS/2 mouse, or the application cannot find the mouse.*

Wrong cable plugged in, keyboard and mouse cables reversed.

Ensure that the Local Unit is connected to the PC keyboard port to provide power.



**DVI-D-CatX-KVM-Extender  
Single and DualHead**

**ACS1009A  
ACS2209A**

(Quick Setup)

<http://www.blackbox.com>

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