Voyager 100

Installation guide

Specifications

Package Contents:
1 x Voyager 100 Local Unit
1 x Voyager 100 Remote Unit
1 x PC KVM Cable 1.8 m
1 x Regulated Power Adaptor

Optional Items:
1034-00A	19" Rack Mount Kit for Local or Remote Unit
2141-01U	PS/2 to USB Adaptor
9014-00A	Local Unit Regulated Power Adaptor

Specifications:
Video Bandwidth (-3dB)	Local Unit:	150 MHz
	Remote Unit:	200 MHz
Maximum Resolution	1600 x 1200 @ 85 Hz	
Video I/O	1.0V P-P	
Video Compatibility	VGA, SVGA, XGA	
Video Compensation	4 Stages in 4 Ranges	
Video Coupling	DC	
Sync H/V	Separated TTL Level	
Console Switch Time	< 1 second	
Input Power	Local Unit: From PC, or via optional 5V DC 500mA Regulated PSU.	
	Remote Unit: 5V DC 500mA Regulated PSU. Running > 130mA	
Interconnect Cable	CAT 5, CAT 5E & CAT 6, Solid UTP/STP Cable, EIA/TIA 568 Wiring, RJ45 Connectors.	

Physical Properties:
	Height	Width	Depth	Weight
Local Unit	2.4 cm	15.3 cm	6.4 cm	0.35 kg
Remote Unit	2.4 cm	15.3 cm	6.4 cm	0.35 kg

Operation and Storage parameters:
Operating Temperature:	0~40° C (32 to 104° F)
Humidity:	0~80% RH non-condensing
Storage Temperature:	-20~60° C (-4 to 140° F)

Compatibility:
Keyboard	PS/2
Mouse	Standard 2 button PS/2 mouse, Microsoft Intellimouse, Logitech PS/2 3 button mouse.
Computer	PS/2 and 100% compatible PC equipped with PS/2 ports

Revision 1.1

CE

Voyager 100

Introduction

Thank you for purchasing the Voyager 100 UTP Extender. This product will allow you to place your Monitor and PS/2 Keyboard and PS/2 Mouse up to 100 meters away from your computer.

Product Features

➢ Allows a user to control a PC from up to 100 meters (330 feet) away, using a single CAT5, 5e or CAT 6 cable.
➢ No additional software is required for operation.
➢ Adjustable Video Equalisation - Compensates for loss of image quality due to cable length in several steps with or without extra gain.
➢ Fully buffered signals to ensure consistent remote operation of your PC
➢ Dual Access allows for an additional keyboard, monitor and PS/2 mouse to be connected through the local unit.

Operation

The Voyager is simple to install, with no software is required. Just connect the units up as described in quick setup system guide and you're ready to work. Switch the computer off before wiring up the units.
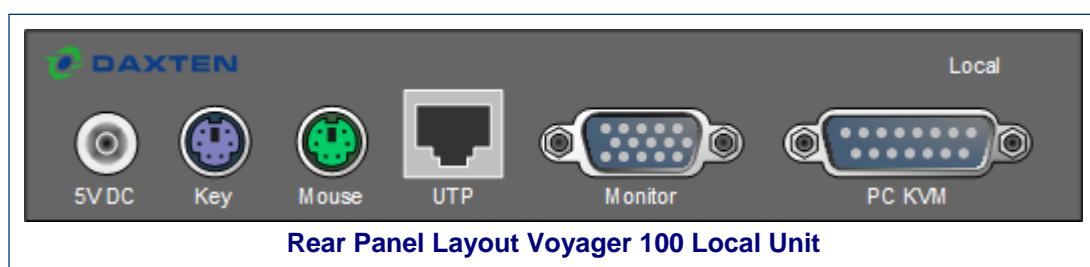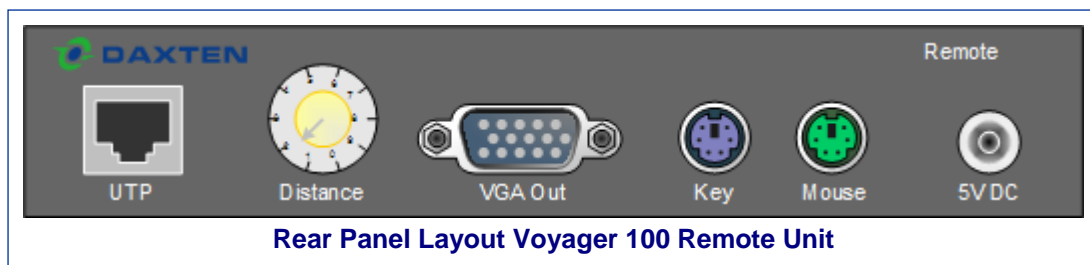
Hardware Installation

Before connecting your computer to the Voyager Local unit, please ensure that it is powered off. Connect your console devices to the Voyager remote unit. Note: the Voyager Remote requires power. If your computer does not have a PS/2 mouse or keyboard port, you can use a PS/2 to USB converter (2141-01U). This will allow you to connect the Voyager to your computer. The keyboard and mouse that you connect to the Voyager unit must be PS/2.

With the constant changes in computers keyboards and mice on the market, it is impossible to guarantee universal compatibility for the Voyager's keyboard/mouse emulation. The Voyager emulation is compatible with almost all standard PC (Intel/AMD based) BIOS systems.

The local unit is normally powered from the computer through the keyboard connector. Some computers do not supply enough power through the keyboard connector; this necessitates the use of a 5VDC mains adapter on the local unit. The Voyager 100 Local Unit is equipped with a DC jack for the use of an optional power supply. This jack is normally not used, since most computers supply enough power through the keyboard connector.

If you daisy chain the local with other equipment, please use a separate power supply (9014-00A) for the local unit.

Rear Panel Layout Voyager 100 Remote Unit

Rear Panel Layout Voyager 100 Local Unit

Cable Requirements

Cables to connect the Voyager Local unit to your PC's system unit are supplied in the package. Your keyboard, monitor and mouse will plug straight in to the Voyager Local and Voyager Remote Units. The Voyager 100 is a dual access unit, in that it allows for an access point next to your computer as well as access point up to 100m away.

The UTP / STP interconnect cable to connect the Voyager Local Unit to the Voyager Remote Unit is not supplied with the Voyager units. If you do not have suitable CAT 5, 5E or 6 UTP or STP cable fitted at you site, please consult your dealer.

The Local and Remote Units are connected by industry standard structured cabling (Category 5, 5E or 6 UTP/STP, 4-pair) terminated with RJ45 connectors.

The cable used should be solid trunk cable. Stranded patch cable will give poor results over longer distances.

> **The connector wiring must meet the EIA/TIA 568 standard.**

CAT5 Wiring Scheme

The Local-Remote interconnection cable is terminated in RJ45 connectors and should be wired according to the EIA/TIA 568 (Scheme B preferred) industry standard. The Voyager will function with other wiring schemes, but the video quality may be impaired.

Orientation: Looking into the RJ45 socket pin 1 is on the left and pin 8 on the right.

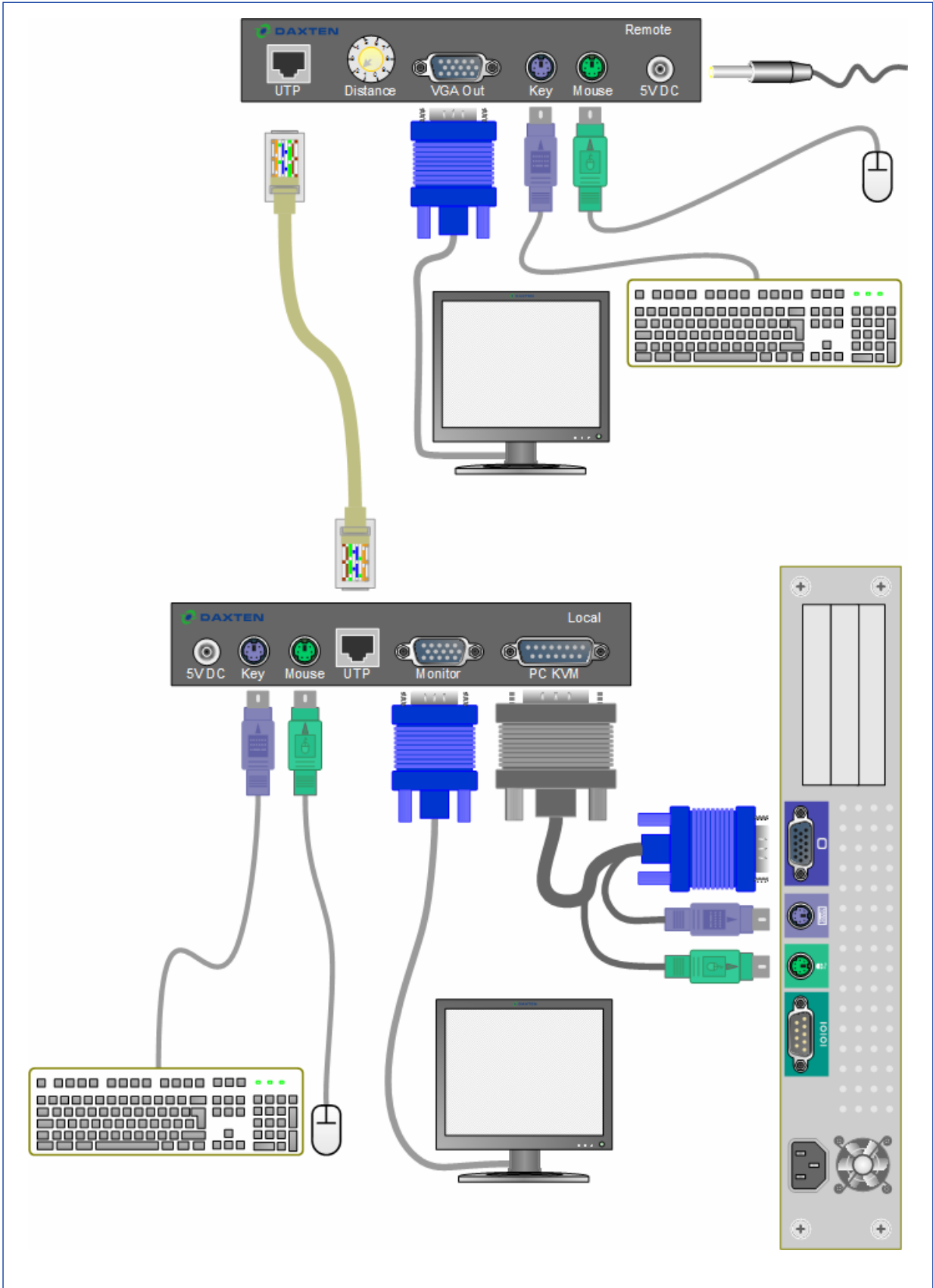| Pin	Wire Colour	Wire	Pair
1	White/Orange	T2	2
2	Orange/White	R2	2
3	White/Green	T3	3
4	Blue/White	R1	1
5	White/Blue	T1	1
6	Green/White	R3	3
7	White/Brown	T4	4
8	Brown/White	R4	4

The Voyager has been tested with all major makes of CAT 5 cable including BICC-VERO, Mohawk, and Brand-Rex. The Voyager has also been tested with most major makes of CAT 5E and CAT6 with good results.

> **Note:** That failure to wire the twisted pairs correctly will impair the video quality dramatically and / or prevent correct operation.

This Voyager 100 extender is designed for use up to a maximum cable length of 100m/330ft At this length the video quality should still be acceptable even at a screen resolution of 1280 x 1024 (85 Hz).

Although a single continuous length of interconnect cable is preferable, operation is possible through multiple Patch Panels. However, the more patch panels the cable is routed through, the greater the chance of video signal degradation.

Quick Setup System Guide

Connecting Up

1. Switch off your computer.
2. Connect the Voyager Local Unit to the PC KVM Cable
3. Plug in your Keyboard, Monitor and Mouse into the corresponding Keyboard, Monitor and Mouse ports on the Voyager Local Unit. (You can use the Voyager without having a Local Keyboard, Monitor and Mouse connected).
4. Connect your UTP cable to the Voyager Local Unit.
5. Connect the PC KVM cable to your computer's Keyboard Monitor and Mouse ports.
6. Connect the other end of your UTP cable to the Voyager Remote Unit.
7. Connect the power supply unit to the Voyager Remote unit.
8. Plug in your Keyboard, Monitor and Mouse into the corresponding Keyboard, Monitor and Mouse ports on the Voyager Remote Unit.
9. Power on your computer.
10. Check that the keyboard and mouse operate correctly.
11. Adjust the Video Equalisation if required on the Voyager Remote Unit which contains video equalisation circuitry that will compensate for the loss in image quality experienced when sending video over long cables.

To set the correct level of equalisation there is an adjustment wheel on the rear side of the Voyager Remote Unit. Select and adjust the range appropriate to the cable length (these only need to be set once.)

Switch Position	Cable Length	
0	0 – 30 m	0 – 100 ft
1	30 – 50 m	100 – 150 ft
2	50 – 70 m	150 – 230 ft
3	70 – 100 m	230 – 330 ft
4 - 9	70 – 100 m	230 – 330 ft

The remote unit (when installed in its final location) may be left permanently powered up.

Please note that for all practical purposes cable equalisation cannot be exact - the remote image will never be as sharp as the original. The Voyager's equalisation system is designed so that it produces very good results on short to medium length cables and an acceptable quality over longer cables.

> **Note:** If you are at the top end of a cable length range, say 45m, you may achieve a better quality video compensation by selecting the next cable length range, e.g. setting the switch to position 2 instead of position 1.

Service Information

Technical Support

If you cannot determine the nature of a problem, please call Daxten and ask for Technical Support. If possible, call from a phone located near the unit, as we may be able to solve your problem directly over the phone. If we cannot solve your problem, and determine that the fault is in the unit, we will issue a Return Material Authorisation (RMA) number that must appear on the outside of all returned products. The unit should be double-packed in the original container, insured, and shipped to the address given to you by our Technical Support representative. The Technical Support offices are found on the back of this manual.

Limited Warranty

Daxten warrants to the end user that this product is and will be free from defects in materials and workmanship for a period of 24 months from the date of purchase. If during the warranty period the product should fail, the purchaser must promptly call Daxten for a RETURN MATERIALS AUTHORIZATION (RMA) number. Make sure that the RMA number appears on the packing slip, proof of purchase, AND ON THE OUTSIDE OF EACH SHIPPING CARTON. Unauthorized returns or collect shipments will be refused.

Ship prepaid to the Daxten office (see back page) where you purchased your product. The above limited warranty is voided by occurrence of any of the following events, upon which the product is provided as is, with all faults, and with all disclaimers of warranty identified below:

1. If non-Daxten approved power supply or cabling is attached to the product.
2. If defect or malfunction was caused by abuse, mishandling, unauthorized repair, or use other than intended.
3. If unauthorized modifications were made to product.
4. If unreported damages occurred in any shipment of the product.
5. If damages were due to or caused by equipment or software not provided by Daxten.
6. If the product is used with non-grounded or incorrectly polarized AC power.
7. If the product is used in contradiction to any instruction provided by any User Guide or Instruction Sheet provided to you or with the product.

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Waste Electrical and Electronic Equipment (WEEE)

Within the European this symbol indicates that this product should not be disposed in household waste. It should be deposited at an appropriate facility to enable recovery and recycling. For information on how to recycle this product, please check with the reseller of the product that replaces this product "Take Back" or the original seller of this product.

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