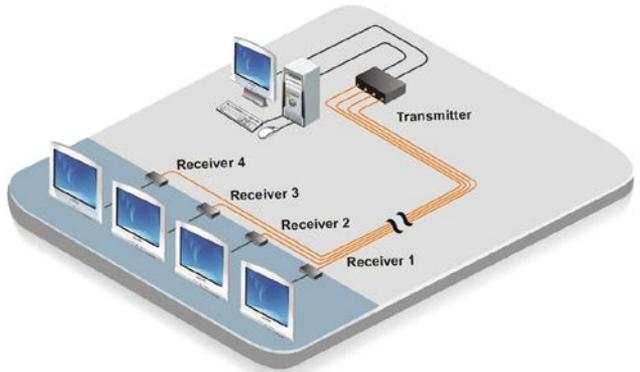


ROSE.COM

INSTALLATION AND OPERATIONS MANUAL



LIMITED WARRANTY

Rose Electronics warrants the CrystalView Multi to be in good working order for one year from the date of purchase from Rose Electronics or an authorized dealer. Should this product fail to be in good working order at any time during this one-year warranty period, Rose Electronics will, at its option, repair or replace the Unit as set forth below. Repair parts and replacement units will be either reconditioned or new. All replaced parts become the property of Rose Electronics. This limited warranty does not include service to repair damage to the Unit resulting from accident, disaster, abuse, or unauthorized modification of the Unit, including static discharge and power surges.

Limited Warranty service may be obtained by delivering this unit during the one-year warranty period to Rose Electronics or an authorized repair center providing a proof of purchase date. If this Unit is delivered by mail, you agree to insure the Unit or assume the risk of loss or damage in transit, to prepay shipping charges to the warranty service location, and to use the original shipping container or its equivalent. You must call for a return authorization number first. Under no circumstances will a unit be accepted without a return authorization number. Contact an authorized repair center or Rose Electronics for further information.

ALL EXPRESS AND IMPLIED WARRANTIES FOR THIS PRODUCT INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO A PERIOD OF ONE YEAR FROM THE DATE OF PURCHASE, AND NO WARRANTIES, WHETHER EXPRESS OR IMPLIED, WILL APPLY AFTER THIS PERIOD. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

IF THIS PRODUCT IS NOT IN GOOD WORKING ORDER AS WARRANTED ABOVE, YOUR SOLE REMEDY SHALL BE REPLACEMENT OR REPAIR AS PROVIDED ABOVE. IN NO EVENT WILL ROSE ELECTRONICS BE LIABLE TO YOU FOR ANY DAMAGES INCLUDING ANY LOST PROFITS, LOST SAVINGS OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OF OR THE INABILITY TO USE SUCH PRODUCT, EVEN IF ROSE ELECTRONICS OR AN AUTHORIZED DEALER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, OR FOR ANY CLAIM BY ANY OTHER PARTY.

SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR CONSUMER PRODUCTS, SO THE ABOVE MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH MAY VARY FROM STATE TO STATE.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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Rose Electronics Part # MAN-CRVDVIMUL
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Disclaimer

While every precaution has been taken in the preparation of this manual, the manufacturer assumes no responsibility for errors or omissions. Neither does the manufacturer assume any liability for damages resulting from the use of the information contained herein. The manufacturer reserves the right to change the specifications, functions, or circuitry of the product without notice.

The manufacturer cannot accept liability for damages due to misuse of the product or other circumstances outside the manufacturer's control. The manufacturer will not be responsible for any loss, damage, or injury arising directly or indirectly from the use of this product.

System Introduction

The CrystalView DVI Multi from Rose Electronics is the perfect addition to your video distribution system. Whether you are enhancing an existing system or designing a new video distribution system, the CrystalView DVI Multi can easily integrate into your system and provide perfect DVI video quality to all connected displays. If you need to extend a single video to a remote monitor, the CrystalView DVI Multi single model works perfectly for the task. If you have multiple monitors that you need to display information to, the x2, x4, and x8 models can handle the job. With all models, you can view locally what is being distributed to the remote monitors.

The remote displays can be extended up to 220 feet away from the controlling computer. This is ideal for many applications where the controlling computer needs to be remotely located in a secure area away from the DVI displays, especially in a retail environment.

All models offer a local DVI connection for viewing on a locally connected DVI monitor.

Features

- x1, x2, x4, and x8 models available
- Supports resolutions up to 1920 x 1200
- Splits and extends DVI-D single-link video signal up to 220 feet (67m)
- Image quality does not degrade over all resolutions
- Local DVI video connection
- Supports single-link DVI-D computers
- Status indicator shows power and loss of signal
- Automatic EDID learning feature for supporting any DVI monitor
- Mac and PC DVI-D support

Package Contents

- Transmitter unit as ordered
- Receiver units as ordered
- 5VDC power adapter
- Installation manual

Additional Items needed

- Computer with DVI-D output
- CAT6-STP cable(s)
- DVI-D mm cable
- Local DVI-D monitor (optional)

Rose Electronics web site

Visit our web site at www.rose.com for additional information on the CrystalView DVI Multi and other products offered by Rose Electronics that are designed for data center applications, classroom environments, digital wall / signage display systems, industrial and military systems, and many other access, switching, and extending applications.

Product Registration

Register your Rose Electronics products online at: www.rose.com/htm/online-registrationform.htm and take advantage of the following:

- Rose Electronics standard warranty *Plus*
- Free lifetime firmware updates
- Free lifetime technical support
- 30 day money back guarantee
- Priority “First-In-Line” status for technical support

Models

Front View



Connectors

RJ45 Link 1

Rear View



DVI In
DVI Out
Power (5VDC)

X1 Transmitter / Part Number CRV-DL1DLC

Front View



Connectors

RJ45 Link 1
RJ45 Link 2

Rear View



DVI In
DVI Out
Power (5VDC)

X2 Transmitter / Part Number CRV-DL2DLC

Front View



Connectors

RJ45 Link 1
RJ45 Link 2
RJ45 Link 3
RJ45 Link 4

Rear View



DVI In
DVI Out
Power (5VDC)

X4 Transmitter / Part Number CRV-DL4DLC

Front View



Connectors

RJ45 Link 1

Rear View



DVI Out
Power (5VDC)

Receiver for All Models / Part Number CRV-SRDLC

Product Installation

Figure 1 shows a typical installation of the CrystalView DVI Multi using the x2 model. All models install in the same manner. The x1 model uses 1 CAT6 cable from the transmitter to one receiver; the x2 model uses 2 CAT6 cables from the transmitter to two receivers; the x4 model uses 4 CAT6 cables from the transmitter to four receivers; the x8 model uses 8 CAT6 cables from the transmitter to eight receivers. Each CAT6 cable can be up to 220 feet in length. It is recommended that all monitors connected to the receiver unit(s) (1, 2, 4, or 8) be the same make, model, and type of monitor.

EDID Learning procedure

The CrystalView DVI Multi has its own built-in EDID table and uses these monitor specifications in place of the actual monitor's EDID specifications. The Transmitter unit can "Learn" the monitor's EDID specifications and provide these to the computer so the correct resolutions and refresh rates can be used.

To set-up the Transmitter to "Learn" the monitor's EDID specifications, connect the DVI monitor to the DVI-OUT connector on the transmitter and apply power to the Transmitter. On power-up the CrystalView DVI Multi will read and store the EDID specifications of any monitor connected to the DVI-OUT connector.

If no monitor is connected to the DVI OUT connector during power-up, the internal EDID information is not modified.

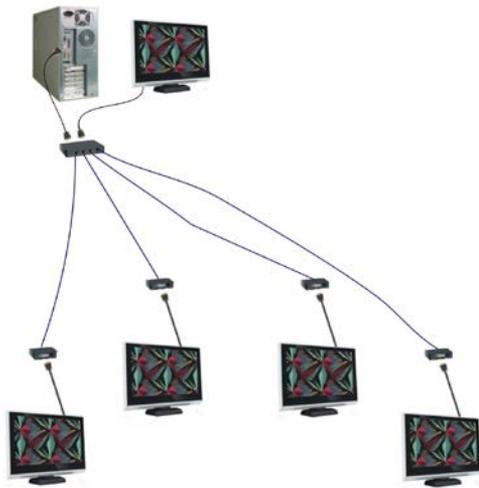


Figure 1. Typical connections

The following Installation steps should be used as a guideline to properly install the CrystalView DVI Multi transmitter and receiver units.

It is recommended that the same type of monitors be connected to all of the Receiver units. Refer to figure 5.

1. Remove power from the computer and all monitors
2. Connect a DVI-D mm cable from the computer DVI-D video out connector to the Transmitter's DVI IN connector
3. Connect a monitor to the DVI OUT connector on the Transmitter (See EDID Learning)
4. Apply power to the monitor
5. Connect the supplied power adapter to the Transmitter and a power source. Upon power-up the Transmitter will "Learn" the EDID specifications of the monitor connected to the DVI OUT connector.
6. Remove the monitor from the Transmitter and connect it to a Receiver units DVI-OUT connector.
7. Connect a shielded CAT6 or better cable from the RJ45 connector on the Transmitter to the RJ45 connector on the Receiver.
8. Connect the supplied power adapter to the Receiver and a power source.
9. Make sure power is applied to the Transmitter, Receiver(s), and all connected DVI monitors, then boot the computer.

You should see the boot-up sequence on all connected monitors.

NOTE: The CrystalView DVI Multi will automatically read, on power-up, the EDID information from any monitor connected to the Transmitter's DVI-OUT connector and save the information. If no monitor is connected the internal EDID data will not be modified.

Maintenance and Repair

This Unit does not contain any internal user-serviceable parts. In the event a Unit needs repair or maintenance, you must first obtain a Return Authorization (RA) number from Rose Electronics or an authorized repair center. This Return Authorization number must appear on the outside of the shipping container.

See Limited Warranty for more information.

When returning a Unit, it should be double-packed in the original container or equivalent, insured and shipped to:

Rose Electronics
Attn: RA _____
10707 Stancliff Road
Houston, Texas 77099 USA

Technical Support

If you are experiencing problems, or need assistance in setting up, configuring or operating your CrystalView DVI Multi, consult the appropriate sections of this manual. If, however, you require additional information or assistance, please contact the Rose Electronics Technical Support Department at:

Phone: (281) 933-7673
E-Mail: TechSupport@rose.com
Web: www.rose.com

Technical Support hours are from: 8:00 am to 6:00 pm CST (USA), Monday through Friday.

Please report any malfunctions in the operation of this Unit or any discrepancies in this manual to the Rose Electronics Technical Support Department.

Safety

The CrystalView DVI Multi video extender/splitter has been tested for conformance to safety regulations and requirements, and has been certified for international use. Like all electronic equipment, the CrystalView DVI Multi should be used with care. To protect yourself from possible injury and to minimize the risk of damage to the Unit, read and follow these safety instructions.

- Follow all instructions and warnings marked on this Unit.
- Except where explained in this manual, do not attempt to service this Unit yourself.
- Do not use this Unit near water.
- Assure that the placement of this Unit is on a stable surface or rack mounted.
- Provide proper ventilation and air circulation.
- Keep power cord and connection cables clear of obstructions that might cause damage to them.
- Use only power cords, power adapter and connection cables designed for this Unit.
- Use only a grounded (three-wire) electrical outlet.
- Use only the power adapter provided with the CrystalView DVI Multi.
- Keep objects that might damage this Unit and liquids that may spill, clear from this Unit. Liquids and foreign objects might come in contact with voltage points that could create a risk of fire or electrical shock.
- Operate this Unit only when the cover is in place.
- Do not use liquid or aerosol cleaners to clean this Unit. Always unplug this Unit from its electrical outlet before cleaning.
- Unplug this Unit from the electrical outlet and refer servicing to a qualified service center if any of the following conditions occur:
 - The power cord or connection cables are damaged or frayed.
 - The Unit has been exposed to any liquids.
 - The Unit does not operate normally when all operating instructions have been followed.
 - The Unit has been dropped or the case has been damaged.
 - The Unit exhibits a distinct change in performance, indicating a need for service.

Safety and EMC Regulatory Statements

Safety information



Documentation reference symbol. If the product is marked with this symbol, refer to the product documentation to get more information about the product.

WARNING A WARNING in the manual denotes a hazard that can cause injury or death.

CAUTION A CAUTION in the manual denotes a hazard that can damage equipment.

Do not proceed beyond a WARNING or CAUTION notice until you have understood the hazardous conditions and have taken appropriate steps.

Grounding

These are Safety Class I products. There must be an un-interruptible safety earth ground from the main power source to the product's input wiring terminals, power cord, or supplied power cord set. Whenever it is likely that the protection has been impaired, disconnect the power cord until the ground has been restored.

Servicing

There are no user-serviceable parts inside these products. Only service-trained personnel must perform any servicing, maintenance, or repair.

The user may adjust only items mentioned in this manual.

Appendix A – General Specifications

Resolution	Singlelink – 1920 x 1200 @ 60Hz			
Video compatibility	DVI-D			
Interconnect cable	CAT6 shielded			
Max cable length	220 feet (67 meters)			
Power	90 – 240 VAC input / +5VDC output			
Dimensions	Height (in/mm)	Width (in/mm)	Depth (in/mm)	Weight (lbs / kg)
x1	0.8 / 22.0	3.44 / 87.3	2.8 / 71.0	0.2 / 0.1
x2	1.6 / 42.0	5.30 / 135.0	2.9 / 75.0	1.0 / 0.45
x4	1.6 / 42.0	7.38 / 201.6	3.56 / 90.5	2.1 / 0.95
x8	1.75 / 44.5	9.8 / 249.0	5.0 / 127.0	2.4 / 1.22
Operating Temp	32 – 104 (0 – 40)			
Storage Temp	-4 – 122 (-20 – 50)			
Relative Humidity				
Approvals				

Appendix B – Part Numbers

Part Number	Description (Kits)
CRK-21DLC	1x Transmitter / 1x Receiver
CRK-22DLC	1x Transmitter / 2x Receiver
CRK-24DLC	1x Transmitter / 4x Receiver
CRK-28DLC	1x Transmitter / 8x Receiver

CRV-DL1DLC	Transmitter – 1 Port RJ45
CRV-DL2DLC	Transmitter – 2 Port RJ45
CRV-DL4DLC	Transmitter – 4 Port RJ45
CRV-DL8DLC	Transmitter – 8 Port RJ45

CRV-SRDLC	Receiver
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NOTES:



Server Management



Solutions

10707 Stancliff Road
Houston, Texas 77099

Phone: (281) 933-7673
WWW.ROSE.COM