DVI RS-232 Extender

USER MANUAL

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ASKING FOR ASSISTANCE

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Notice

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INTRODUCTION

The DVI RS-232 Extender sender unit sits next to your computer, DVD player or any set-top box with a DVI output. The cable supplied with the DVI RS-232 Extender connects your DVI source to the send unit. The DVI RS-232 Extender receiver unit sits next to your DVI display - up to 150 feet away. The display plugs into the back of the DVI RS-232 Extender receiver unit. Two CAT-5 cables connect the DVI RS-232 Extender-S and the DVI RS-232 Extender-R units to each other.

FEATURES

- Uses CAT-5 cable for DDC and control signals
- Extends any DVI (digital visual interface) compliant device up to 150 from the computer
- Saves space on your desktop and increases productivity
- Eliminates computer noise where you work
- Supports VESA Standard resolutions and HDTV resolution
- Supports DDWG standard for DVI compliant monitors
- Installs in minutes

CONTENTS

(1) DVI RS-232 Extender-S
(1) DVI RS-232 Extender-R
(1) 6 foot DVI M-M Cable
(1) 6 foot RS232 Cable
(2) 5V power supplies
(1) User's Manual

READ THESE NOTES BEFORE INSTALLING OR OPERATING THE DVI RS-232 EXTENDER

• The DVI RS-232 Extender is housed in a metal box for better RF shielding.

* In order to extend the full 150 feet you need a high quality CAT5e cable.

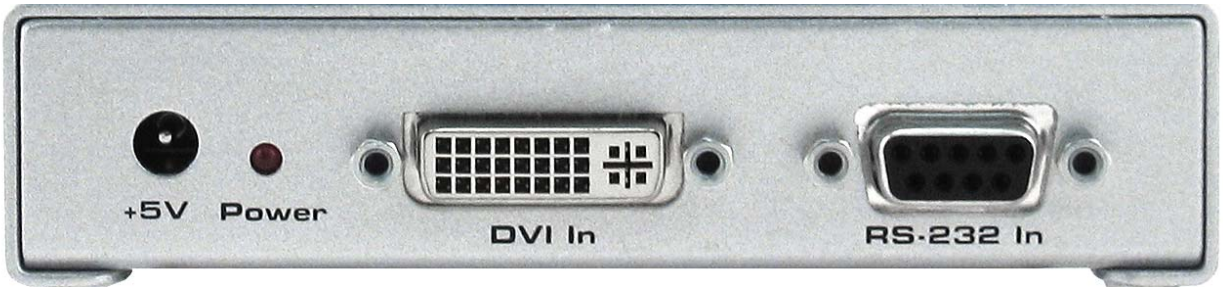
* We suggest a Belden Datatwist 1585A or 1700 series cable or similar.

* CAT6 cable is suitable for high resolutions at 150 feet.

* If using a ADC-DVI Adapter, the "5V to cable" jumper by the input connector on the sender unit needs to be enabled.

• If the source requires EDID present, you can use the Gefen DVI Detective to provide EDID information.

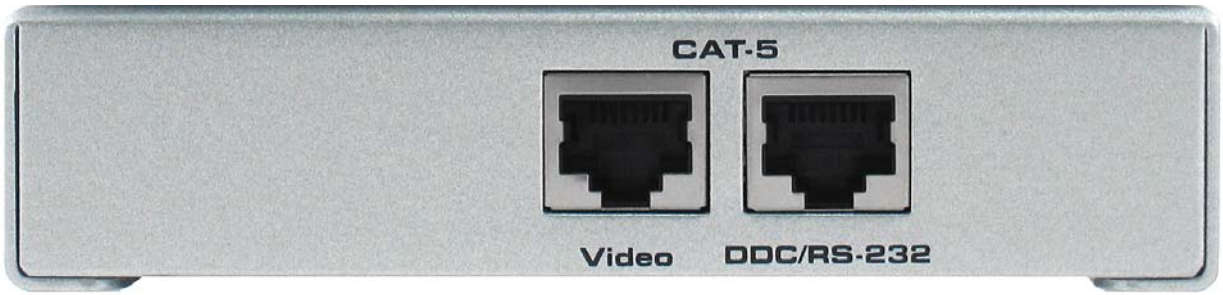
DVI RS-232 EXTENDER SENDER FRONT PANEL DESCRIPTIONS



Connects to 5 volt power supply

DVI input connects to DVI source

RS-232 input



CAT-5 carries TMDS signals

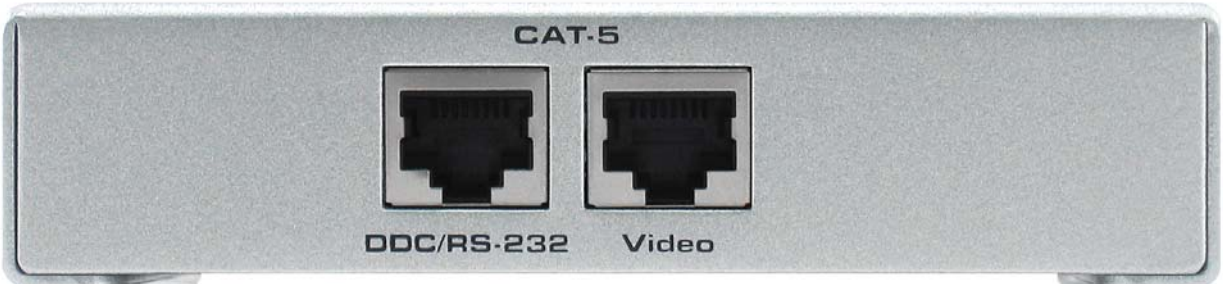
CAT-5 carries DDC/RS-232 signals

DVI RS-232 EXTENDER RECEIVER FRONT PANEL DESCRIPTIONS

Connects to RS-232 Device

Connects to DVI display

Connects to 5 volt power supply



CAT-5 carries DDC/RS-232 signals

CAT-5 carries TMDS signals

HOW TO CONNECT THE DVI RS-232 Extender

1. Connect your display to the DVI RS-232 Extender receiver unit.
2. Connect your RS-232 Device to the DVI RS-232 Extender receiver unit.
3. Connect your video source to the DVI RS-232 Extender sender unit
4. Connect your RS-232 source to the DVI RS-232 Extender sender unit
5. Connect your CAT-5 cables between the sender and the receiver
6. Plug the 5V power supplies into the DVI RS-232 Extender sender and receiver units
7. You should now have picture. If you do not see a picture, try unplugging and re-plugging the DVI input on the DVI Extender sender unit. Make sure your CAT-5 cables are not crossed. Recycle the power on the unit.

DIP SWITCH USAGE GUIDE

Gefen CAT5 Extenders (sender and receiver) both contain a pair of dip switches located on the board. These dip switches are used to select from a set of configurations that will equalize the signal to best match the conditions in your setup.

How to open the DVI RS-232 Extender:

1. Unscrew the four screws underneath the unit.
2. Unscrew the four hex nuts beside the RS-232 and DVI connectors.
3. Slide the top plate off the base to expose the circuit board.
4. The dip switches are located directly on the circuit board.

Sender Dip Switches

Option No.	Switch 1 Position	Switch 2 Position	Description
1	0 (OFF)	0 (OFF)	Medium Boost (Default)
2	1 (ON)	0 (OFF)	Strong Boost

Receiver Dip Switches

Option No.	Switch 1 Position	Switch 2 Position	Description
1	0 (OFF)	0 (OFF)	EQ 0 (Default)
2	1 (ON)	0 (OFF)	EQ 1
3	0 (OFF)	1 (ON)	EQ 2
4	1 (ON)	1 (ON)	EQ 3

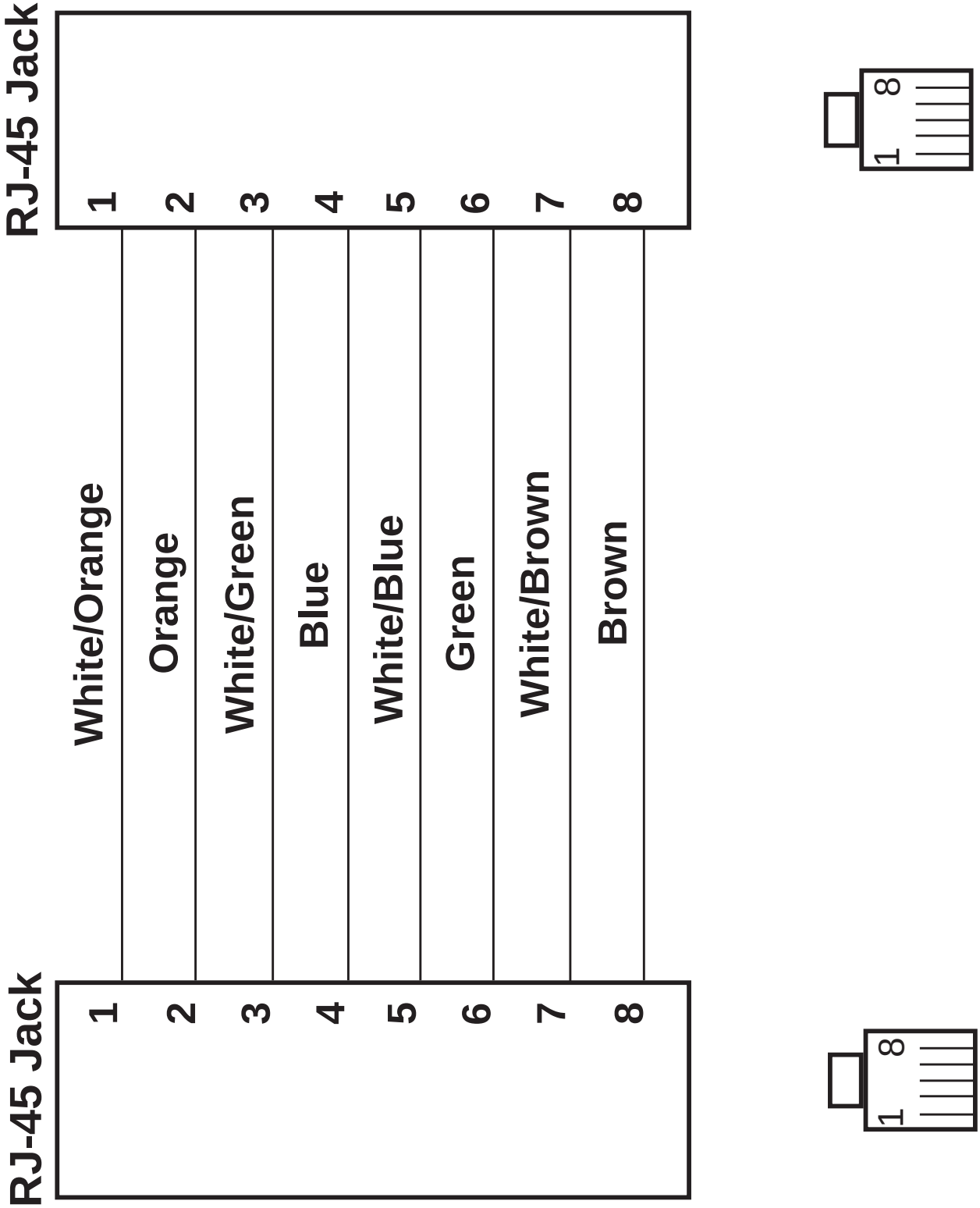
Adjustment Guidelines:

1) Higher EQ level is used to equalize poor/low quality CAT-5e cables

2) Stronger boost is used to drive signals through longer cables

3) It is an optimal balance of Boost and EQ that will result in the best possible

CAT5 LINK CABLE - WIRING DIAGRAM



SPECIFICATIONS

Video Amplifier Bandwidth ..... 1.65 GHz

Single Link Range ..... 1920 x 1200

Vertical Frequency Range ..... 60 Hz

Input Video Signal.....1.2 volts p-p

Input DDC Signal..... 5 volts p-p

DVI Input/Output Connector Type ..... DVI-I

Serial In .....9-Pin Female

Serial Out .....9-Pin Male

Link Connector RJ-45

Power Consumption ..... 20 Watts (max. per side)

Dimensions ..... 4.75”W x 1.125”H x 3.375”D

Shipping Weight ..... 3 Lbs

WARRANTY

Gefen Inc. warrants the equipment it manufactures to be free from defects in material and workmanship.

If equipment fails because of such defects and Gefen Inc. is notified within two (2) year from the date of shipment, Gefen Inc. will, at its option, repair or replace the equipment, provided that the equipment has not been subjected to mechanical, electrical, or other abuse or modifications.

Equipment that fails under conditions other than those covered will be repaired at the current price of parts and labor in effect at the time of repair. Such repairs are warranted for ninety (90) days from the day of reshipment to the Buyer.

This warranty is in lieu of all other warranties expressed or implied, including without limitation, any implied warranty or merchantability or fitness for any particular purpose, all of which are expressly disclaimed.

1. Proof of sale may be required in order to claim warranty.

2. Customers outside the US are responsible for shipping charges to and from Gefen.

3. Copper cables are limited to a 30 day warranty and cable must be free from any scratches, markings, and neatly coiled.

The information in this manual has been carefully checked and is believed to be accurate. However, Gefen Inc. assumes no responsibility for any inaccuracies that may be contained in this manual. In no event will Gefen Inc., be liable for direct, indirect, special, incidental, or consequential damages resulting from any defect or omission in this manual, even if advised of the possibility of such damages. The technical information contained herein regarding the DVI RS-232 Extender features and specifications is subject to change without notice.

Frequently Asked Questions

What kind of CAT-5e cable should I be using?
Solid core CAT-5e cable rated at 350 Mhz and terminated in 568a or 568b is the minimum requirement. For resolutions greater than 1280x1024 or 1080i, Gefen recommends solid CAT-6 cables.

I'm getting no video on the screens, what can I check?
First thing to check is make sure that the video CAT5 is linked to the other video CAT5 port and the same with the DDC ports. Try removing the power supply from the receiver side, if the power light turns off then you have your CAT-5 cables crossed. In some setups with grounding issues you will not get a picture with the receiver powered. Test to make sure the units are working with short CAT-5e cables 15-20 feet. You can also make sure you have the correct boost setting configured (refer to page 5).

Occasionally the picture blanks out, how do I fix this?
Flickering or a blinking image is the result of a loss of sync between the display and the source. Try lowering the resolution to see if that helps, if it does, the CAT-5 cables you are using are unable to handle the bandwidth of the higher resolution and thus you are losing sync. Try a shielded CAT-6 cable on the video line to reduce interference. You can also try adjusting the service switches. Usually this is caused by EMI and a shielded CAT-6 with metal RJ-45 connectors with the drain wire soldered to the connectors will resolve the issue. Please refer to the service switch guide on page 5 for the different combinations.

Why is there a green or pink tint to my picture?
A tint of green or pink in the picture is a result of incorrect colorspace being transmitted. This can be resolved by recycling power on your devices including the extender. If this does not help, the DDC data containing the colorspace is not being transmitted correctly due to loss in the CAT5 cable, try replacing the DDC cable.

I can't seem to get my RS-232 devices to detect and connect, what's wrong?
The DVI RS232 Extender only extends the Tx and Rx lines of RS232. If you need full RS232 extension of every line, you will need the standalone RS232 Extender units.

Can I run the CAT-5 cable through a patch bay?
No, the signal will not transmit reliably