

DVI Galvanic Isolator

EXT-DVI-GI

User Manual

Release A2



Important Safety Instructions

GENERAL SAFETY INFORMATION

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this product near water.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install or place this product near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. To reduce the risk of electric shock and/or damage to this product, never handle or touch this unit or power cord if your hands are wet or damp. Do not expose this product to rain or moisture.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. Batteries that may be included with this product and/or accessories should never be exposed to open flame or excessive heat. Always dispose of used batteries according to the instructions.

Warranty Information

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

If equipment fails because of such defects and Gefen is notified within two (2) years from the date of shipment, Gefen 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 cables must be in their original condition.

The information in this manual has been carefully checked and is believed to be accurate. However, Gefen assumes no responsibility for any inaccuracies that may be contained in this manual. In no event will Gefen 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 features and specifications is subject to change without notice.

For the latest warranty coverage information, refer to the Warranty and Return Policy under the Support section of the Gefen Web site at www.gefen.com.

PRODUCT REGISTRATION

Please register your product online by visiting the Register Product page under the Support section of the Gefen Web site.

Contacting Gefen Technical Support

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Technical Support Hours: 8:00 AM to 5:00 PM Monday - Friday, Pacific Time

DVI Galvanic Isolator is a trademark of Gefen, LLC.

Important Notice

Gefen, LLC reserves the right to make changes in the hardware, packaging, and any accompanying documentation without prior written notice.

HDMI, the HDMI logo, and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing in the United States and other countries.

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Operating Notes

- Operation is subject to the following conditions:
 1. This device may not cause harmful interference.
 2. This device must accept any interference received including interference that may cause undesired operation.
- This product is not designed for marine use. Do not use this product near water or in a wet environment.
- Always connect a bonding wire between an approved safety ground and the grounding screw on the chassis.



IMPORTANT: The grounding stud must be permanently connected to protective ground by wiring not less than 16 AWG.

Features and Packing List

Features

- Provides up to 5kV full galvanic isolation between DVI components
- Supports resolutions up to 1920 x 1200 (WUXGA)
- HDCP pass-through
- EDID pass-through
- HPD pass-through
- Grounding terminal
- Isolation between the input and out DVI
- Locking power supply connector
- Grounding Terminal
- Compliant with Medical Standards EN60601-1 and EN60601-1-2, 3rd Edition

Packing List

The DVI Galvanic Isolator ships with the items listed below. If any of these items are not present in your box when you first open it, immediately contact your dealer or Gefen.

- (1) DVI Galvanic Isolator
- (1) 6 ft. Dual-Link DVI Cable
- (1) 5V DC Locking Power Supply
- (1) Quick-Start Guide

Table of Contents

01 Getting Started

Panel Layout	2
Installation	4
Connecting the DVI Galvanic Isolator	4
Sample Wiring Diagram	4
Sample Application	5

02 Appendix

Surface Mounting Instructions.....	8
Specifications	9

DVI Galvanic Isolator

01 Getting Started

Panel Layout	2
Installation	4
Connecting the DVI Galvanic Isolator	4
Sample Wiring Diagram	4
Sample Application	5

Panel Layout



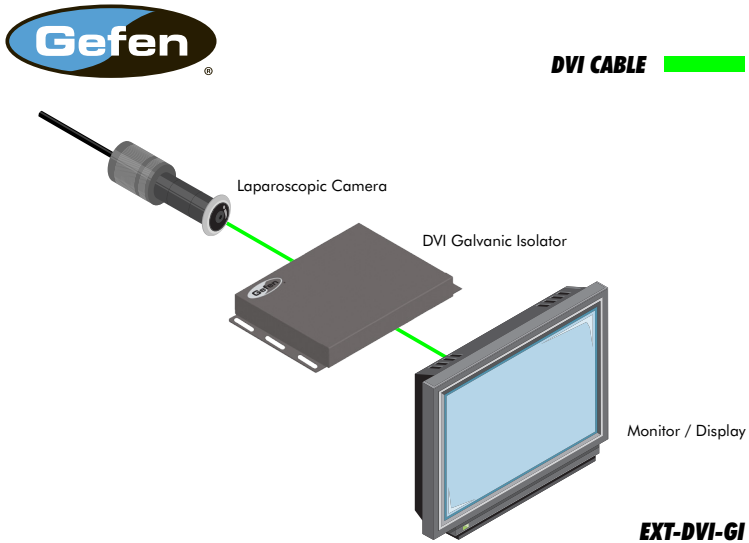
ID	Name	Description
1	DVI In	Connect the included DVI cable between the imaging source (e.g. Endoscopic camera) and the DVI In port.
2	5V DC	Connect the included 5V DC power supply to this locking power receptacle.
3	Power	This LED will glow bright blue once the included 5V DC power supply has been properly connected between the locking power receptacle and an available electrical outlet.
4	DVI Out	Connect a DVI cable between this port and a high-resolution display.
5	Grounding Terminal	The Grounding Terminal must be permanently connected to protective ground by wiring not less than 16 AWG.

Installation

Connecting the DVI Galvanic Isolator

1. Connect the included DVI cable from the imaging source (e.g. camera) to the **DVI In** port on the DVI Galvanic Isolator.
2. Connect a DVI cable from the **DVI Out** port on the DVI Galvanic Isolator to a video scaler or high-resolution display.
3. Connect a bonding wire from the Grounding Terminal to an approved safety ground.
4. Connect the included locking power supply to the DVI Galvanic Isolator and connect the AC power to an available electrical outlet. Do not over-tighten the locking power connector.

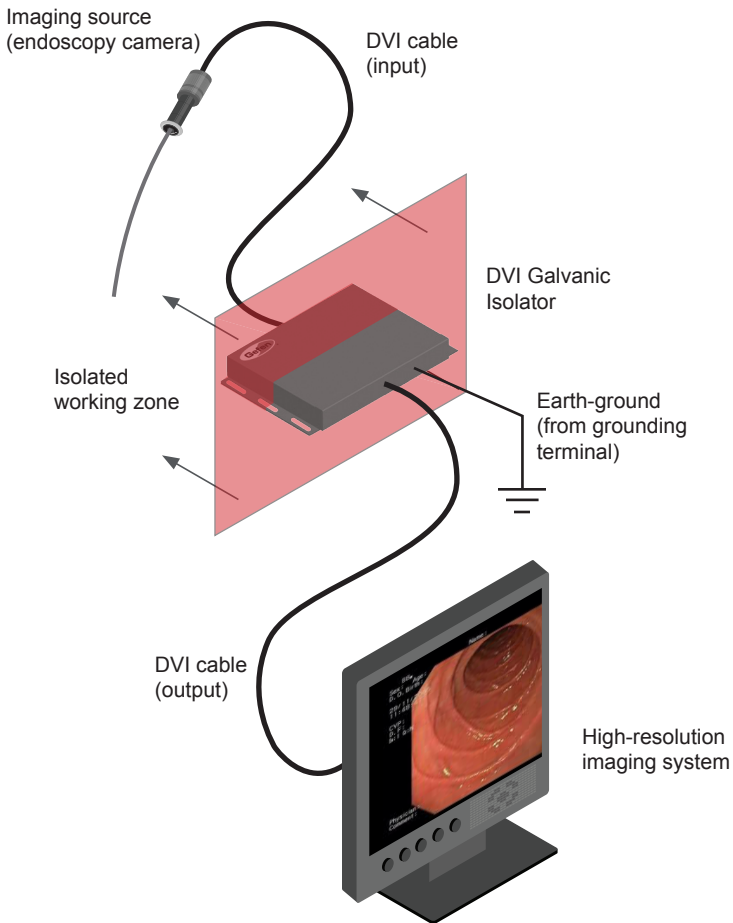
Sample Wiring Diagram



Sample Application

The illustration below depicts a medical application using a galvanic isolator. The DVI Galvanic Isolator provides an electrical barrier between low voltage electronics and an externally-exposed imaging system.

Unwanted contact with sources of high voltage can cause damage to the low voltage electronics within a camera (or other imaging source). The DVI Galvanic Isolator protects both the imaging source and patient from misdirected electrical voltages outside of the working zone, indicated by the red plane.



DVI Galvanic Isolator

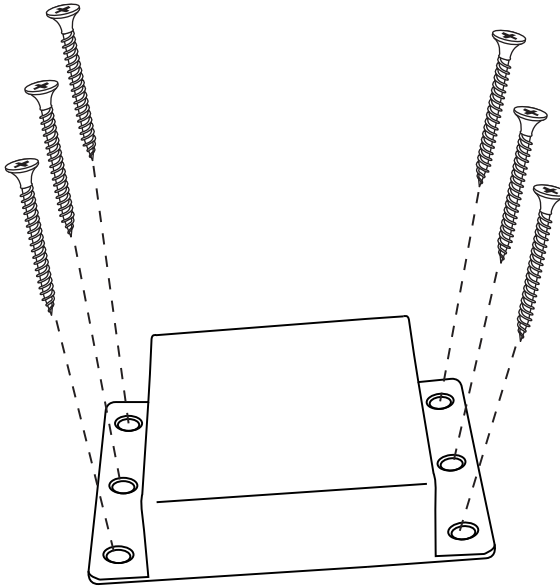
02 Appendix

Surface Mounting Instructions.....	8
Specifications	9

Surface Mounting Instructions

The Gefen DVI Galvanic Isolator can be mounted on any flat surface using wood / drywall screws as shown in the diagram above. There should be an inch or two of clearance between the edges of the unit and any walls or vertical surfaces to allow for enough clearance for connection and disconnection of DVI cables.

For installation on a drywall surface, use a #6 drywall screw. When installing, it is recommended to use the center hole on a stud.



Specifications

Electrical

Maximum Pixel Clock	• 165 MHz
Power Indicator	• 1 x LED, blue

Connectors

Video Input	• 1 x DVI 29-pin, female (digital only)
Video Output	• 1 x DVI 29-pin, female (digital only)
Power	• Locking-type

Operational

Storage Temperature	• -4 to +158 °F (-20 to +70 °C)
Operating Temperature	• +32 to +113 °F (0 to +45 °C)
Relative Humidity	• 10% to 90% (non-condensing)
Atmospheric Pressure	• 50 kPa to 106 kPa
Power Input	• 5V DC

Physical

Dimensions (W x H x D)	• 5.8" x 1.2" x 3.5" (146mm x 30mm x 85mm)
Unit Weight	• 0.4 lb (0.18 kg)



Stretch it, Switch it, Split it, Control it.
Gefen's got it. ®

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This product uses UL or CE listed power supplies.