



DVI Galvanic Isolator

EXT-DVI-GI

User Manual



www.gefen.com

ASKING FOR ASSISTANCE

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Notice

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

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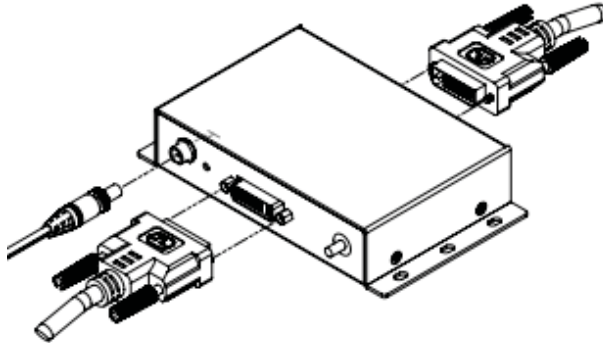
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CONTENTS

- 1 Important Safety Precautions
- 3 Introduction
- 4 Operational Notes
- 5 Features
- 6 Panel Layout
- 7 Panel Descriptions
- 8 Connecting the DVI Galvanic Isolator
 - 8 Wiring Diagram
- 9 Using the DVI Galvanic Isolator
 - 9 Sample Application
- 10 Surface Mounting Instructions
- 11 Specifications
- 12 Warranty

IMPORTANT SAFETY PRECAUTIONS

Wiring and Connections



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

Environmental Conditions for Transportation and Storage

Storage Temperature $-20^{\circ}\text{C} \sim 70^{\circ}\text{C}$

A relative humidity range of 10% to 90%, noncondensing

An atmospheric pressure range of 50 kPa to 106 kPa

Electromagnetic Interference

Operation is subject to the following two conditions:

1. This device may not cause harmful interference
2. This device must accept any interference received including interference that may cause undesired operation

The Gefen EXT-DVI-GI cannot be disposed of in the general trash. Please contact your solid waste local authority.

SAFETY PRECAUTIONS

Read this User Manual before operating the DVI Galvanic Isolator.

- **Cleaning**

Unplug this product from main DVI source and DVI sink before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.

- **Cables**

Use only cables supplied by Gefen.

- **Water and Moisture**

Do not use this product near water or in wet environment.

- **Heat**

The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products that generate heat.

- **Power Sources**

This product should be operated only from the type of power source indicated on the marking label.

- **Servicing**

Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel. The product must be used with AC/DC power adaptor supplied by manufacturer.

INTRODUCTION

Congratulations on your purchase of the DVI Galvanic Isolator. Your complete satisfaction is very important to us.

About Gefen

We specialize in total integration for your home theater, while also focusing on going above and beyond customer expectations to ensure you get the most from your hardware. We invite you to explore our distinct product line. Please visit <http://www.gefen.com> for the latest offerings in High-Definition signal solutions or call us between the hours of 8:00 am and 5:00 pm Monday-Friday, Pacific Standard Time for assistance with your A/V needs. We'll be happy to assist you.

The Gefen DVI Galvanic Isolator

The Gefen DVI Galvanic Isolator is used in mission-critical applications where galvanic isolation between the connected DVI (source and display) is required to eliminate the potential for ground loops and provide de-coupling between various devices used in a High-Definition video system. This is a safety requirement in applications such as medical imaging systems where certain components of the system (such as endoscopy cameras) come in direct contact with the patient and the medical operator.

How It Works

Using the included DVI cable, connect the imaging source, such as a camera, to the DVI input of the DVI Galvanic Isolator. Connect the output of the DVI Galvanic Isolator to the next DVI component in the system such as a video scaler or a high resolution display. Connect the supplied 5V DC power supply to the locking connector on the DVI Galvanic Isolator and to an available electrical outlet. Power up the systems after all the cables and power connections are made.

OPERATIONAL NOTES

READ THESE NOTES BEFORE INSTALLING OR OPERATING THE DVI GALVANIC ISOLATOR

- 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: This product cannot be disposed of in the general trash. Please contact your solid waste local authority.

FEATURES

Features

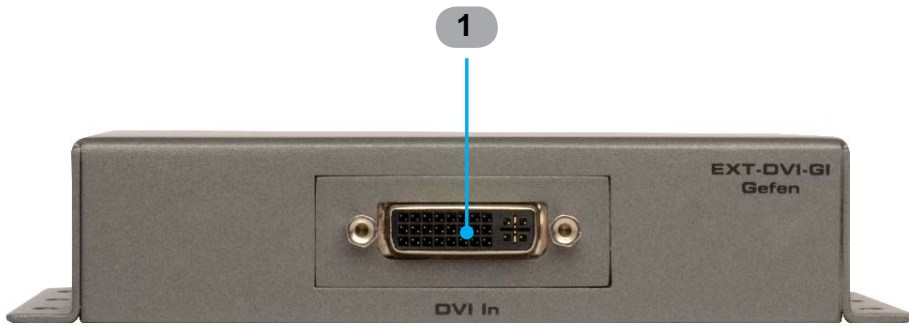
- Provides up to 5kV full galvanic isolation between DVI components
- Supports resolutions up to 1920 x 1200 (WUXGA)
- EDID pass-through
- HPD pass-through
- Isolation between the input and out DVI
- Grounding Terminal
- Locking power supply connector

Package Includes

- (1) DVI Galvanic Isolator
- (1) 6 ft. DVI cable (M-M)
- (1) 5V DC locking power supply
- (1) Set of Mounting Plates
- (1) Quick Start Guide

PANEL LAYOUT

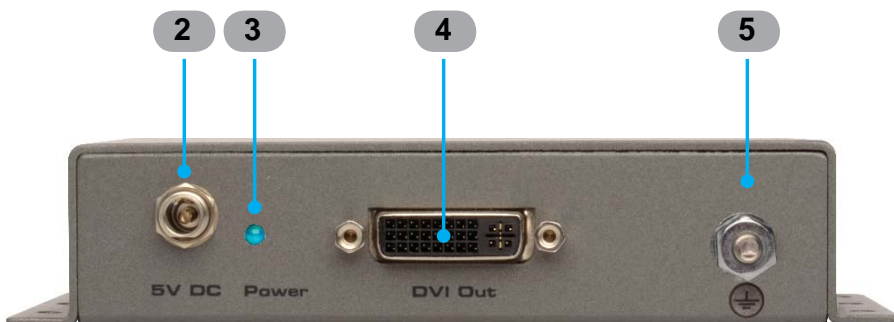
Front



Top



Back



PANEL DESCRIPTIONS

1 DVI In

Connect the included DVI cable between the imaging source (such as an endoscopy camera) and the DVI In port.

2 5V DC

Connect the included 5V DC power supply to this connector. Only use the power supply shipped with this unit.

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 video scaler or a high-resolution display.

5 Grounding Stud

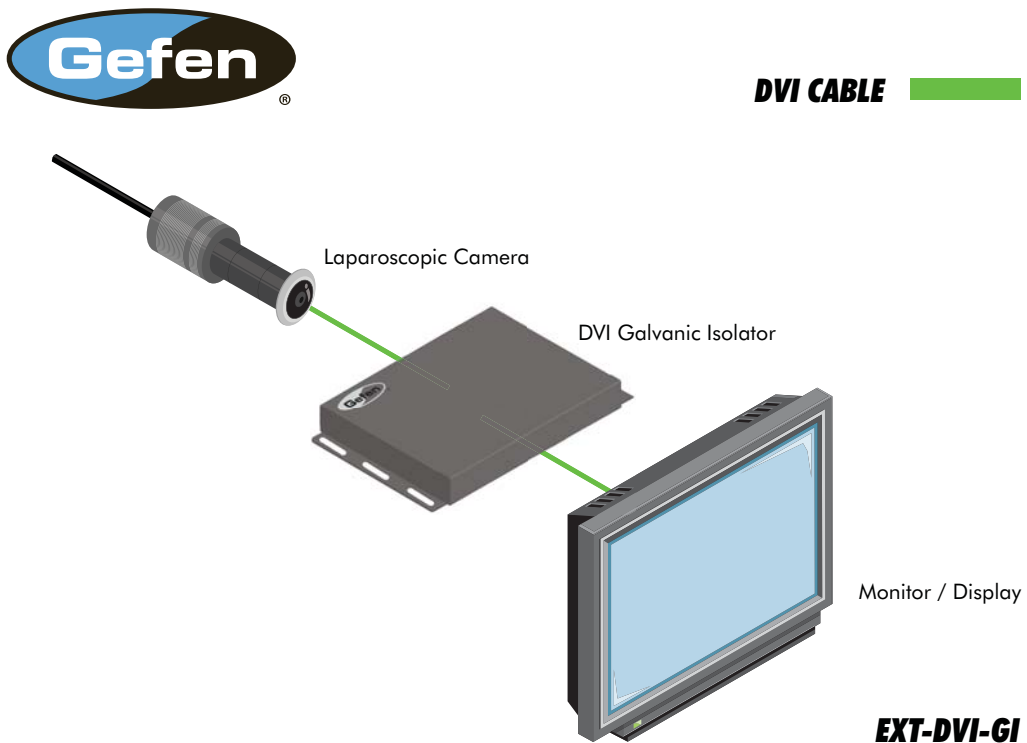
The Grounding Stud must be permanently connected to protective ground by wiring not less than 16 AWG.

CONNECTING THE DVI GALVANIC ISOLATOR

How to Connect 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.

Wiring Diagram for the DVI Galvanic Isolator

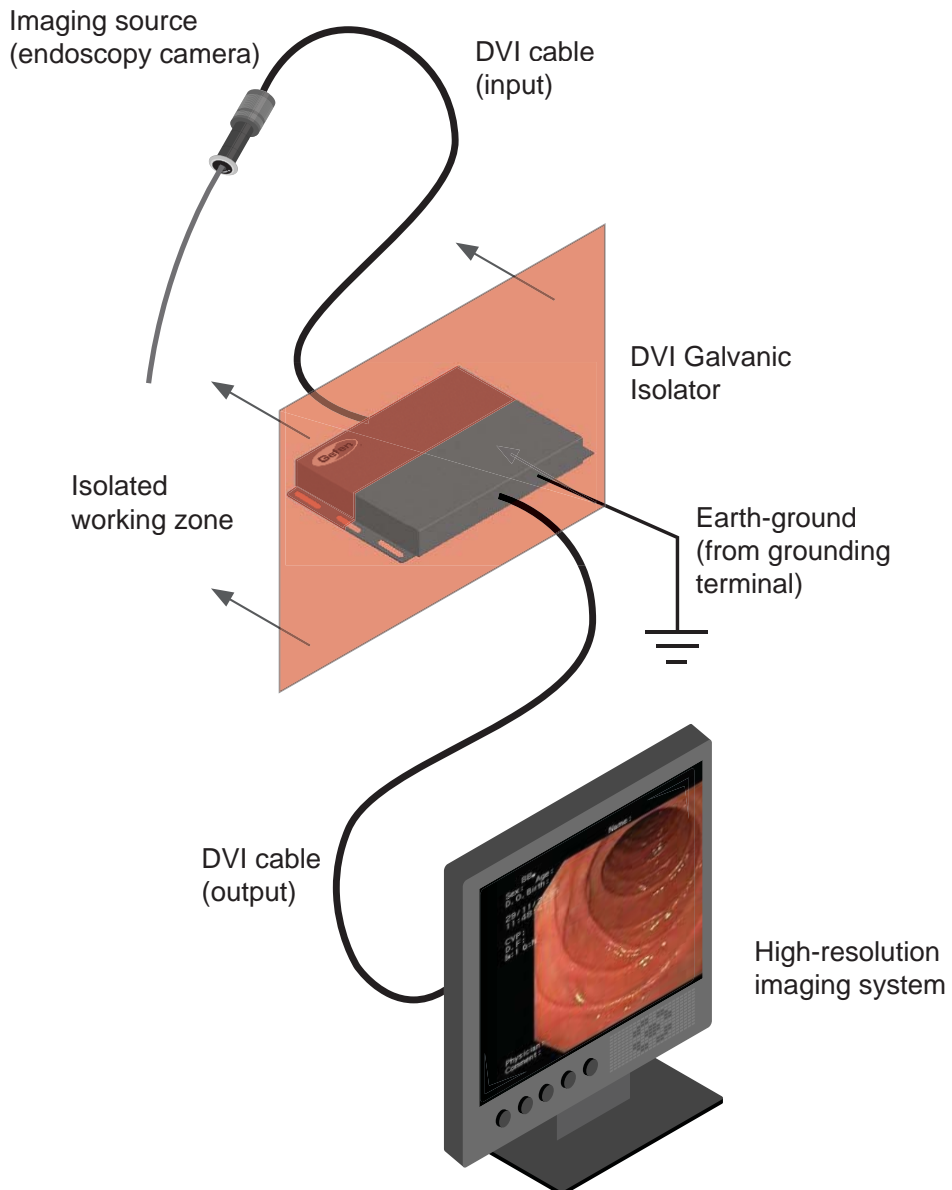


USING THE DVI GALVANIC ISOLATOR

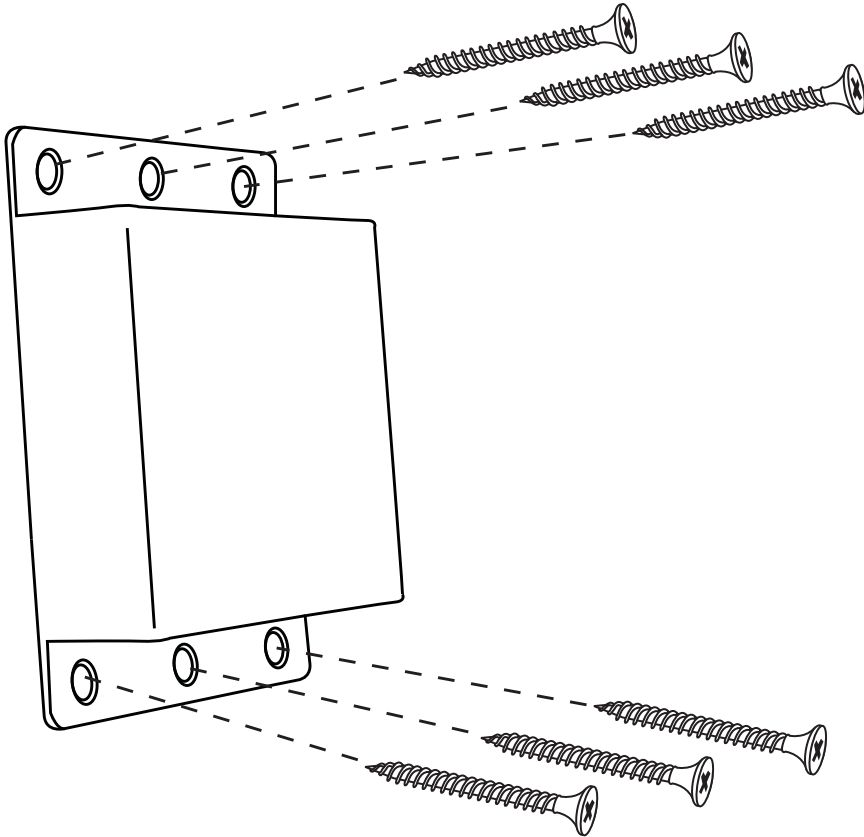
Sample Application

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.



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

Maximum Pixel Clock	165 MHz
Input Connector	(1) DVI 29-pin, female (digital only)
Output Connector	(1) DVI 29-pin, female (digital only)
Power Supply	(1) 5V DC, locking connector
Storage Temperature.....	-20°C to 70°C
Relative Humidity.....	10% to 90% (non-condensing)
Atmospheric Pressure.....	50 kPa to 106kPa
Dimensions (W x H x D)	5.8" x 1.2" x 3.5" (146mm x 30mm x 85mm)
Shipping Weight	2 lbs (0.9 kg)

WARRANTY

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.



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