VERITY™
studios

Verity Studios Kedge

User Manual

Contents

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Regulatory and Legal Information

Copyright

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Trademarks

The Verity Studios logo is a trademark of Verity Studios AG.

Intended Use

This manual describes the setup and use of the Verity Studios Kedge. Use this product only for the purpose it was designed for.

FCC Compliance

This equipment has been tested and found to comply with the limits for a Class A 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

Canada - Industry Canada (IC) Compliance

This Class A digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

Important Notice

This equipment may only be operated indoors. Operation outdoors is in violation of 47 U.S.C. 301 and could subject the operator to serious legal penalties.

The Verity Studios Kedge will only operate (i.e. transmit UWB signals) when activated within an indoor Verity Studios network. This network needs to be professionally installed, and must be configured to cover only the volume indoors, preventing the Verity Studios Kedge from emitting UWB signals outdoors. Contact Verity Studios AG if you are unsure about the extent of coverage of your network system.

Changes or modifications made to this equipment not expressly approved by Verity Studios AG may void the FCC authorization to operate this equipment.

Safety Information

- Read and follow all instructions before using the Verity Studios Kedge.
- Never open the case of the Verity Studios Kedge. There are no user serviceable parts or replaceable parts inside the case.
- Do not use the Verity Studios Kedge if it has been damaged.

Introduction

This manual describes the installation of the Verity Studios Kedge, and provides important regulatory information concerning the use of the Verity Studios Kedge.

The Verity Studios Kedge is a wireless transceiver that is used to propagate sensory and timing information through an indoor mesh network. The Kedge provides internal sensing circuitry as well as I/O connections to capture external signals. The collected information is propagated through the mesh network and can thus be received by devices receiving wireless signals from the mesh network. High-precision timing information included in the wireless signals allow the network information to be fused with high accuracy by a receiving device.

Two wired communication interfaces allow the connection of external devices (typically PCs) that can receive the collected information from the mesh network and control the operation of the network.

Installation

Kedges must be installed within wireless reception range of each other. The number of Kedges required to collect and propagate the relevant sensory and timing information for an area of interest will be determined by Verity Studios in cooperation with the customer before installation. A detailed installation plan must be approved by Verity Studios prior to the installation of any Kedges. Kedges may only be operated indoors, and must be installed such that no signals are directed outside of the building.

Warning: The Kedge has a limited operating temperature range (see General Specifications below)!
The Kedge is not waterproof!
Condensating humidity can destroy the Kedge! Always allow the device to acclimatize before operation and do not expose the device to temperature changes during operation.

Follow the steps below to install and operate the Verity Studios Kedge.

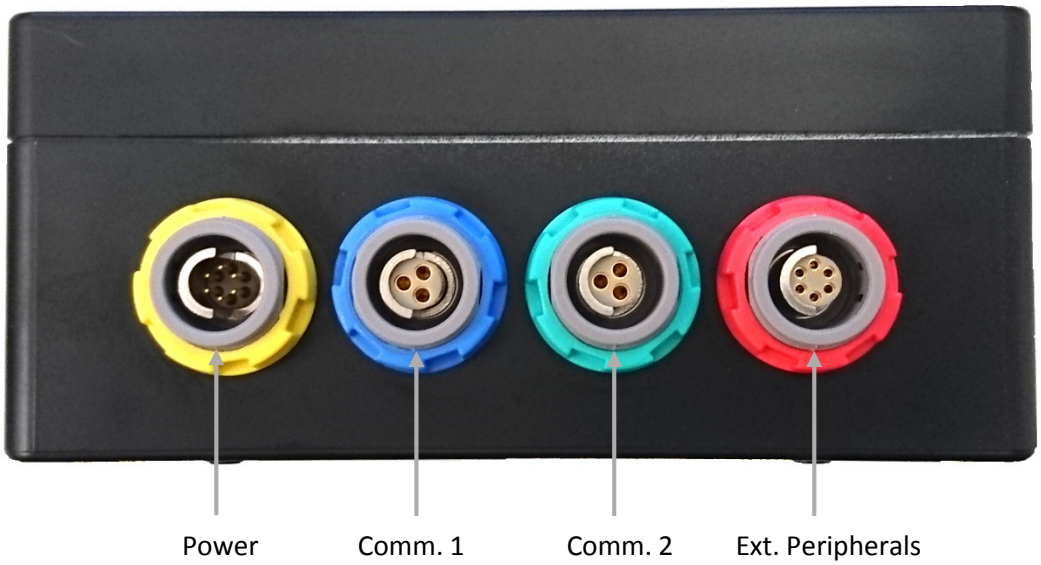

Fig. 1: Verity Studios Kedge Connector Overview

Step 1: Mount the Verity Studios Kedge to a solid support structure.

Step 2: Connect Communications and Peripherals to the appropriate connectors as shown in Fig. 1.

Step 3: Provide power to the Verity Studios Kedge by connecting the power cable to the yellow power connector shown in Fig. 1.

After Step 3 is completed, the Verity Studios Kedge is in operation and can transmit and receive radio-frequency signals.

In order to operate the sensing network, at least one of the Kedges must be connected to a controller PC through one of the communication interfaces.

Step 4: Use the Verity Studios control software on the controller PC to start and stop the network operation. After the network operation has been started from the PC the available information from the network will be displayed in the control software.

Troubleshooting

If you are unsure whether your Verity Studios Kedge is operating properly, contact Verity Studios AG. Under no circumstances should the case be opened for troubleshooting. There are no user-serviceable or user-repairable components inside the case.

Specifications

Electrical Specifications

Input voltage:	12 - 24 VDC
Max. power consumption:	5W

General Specifications

Dimensions (WxHxD):	124mm x 54.3mm x 130mm
Operational temperature range:	0°C to 50°C