med associates inc

instrumentation and software for research

LIQUID PIPE RECEPTACLE

ENV-303LP / ENV-303LPHD

PRODUCT MANUAL

DOC-252
Rev. 1.1

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notes

Table of Contents

CHAPTER 1 | INTRODUCTION

The ENV-303LP Liquid Pipe Receptacle for Mouse features a single 0.53 cc stainless steel cup with an 18 gauge inlet pipe. The Liquid Pipe Receptacle for Mouse with head entry detector (ENV-303LPHD) has photo beam head entry detection. The receptacles are mounted on a 1/4 size mouse modular panel.

Specifications

Dimensions

ENV-303LP and ENV-303LPHD

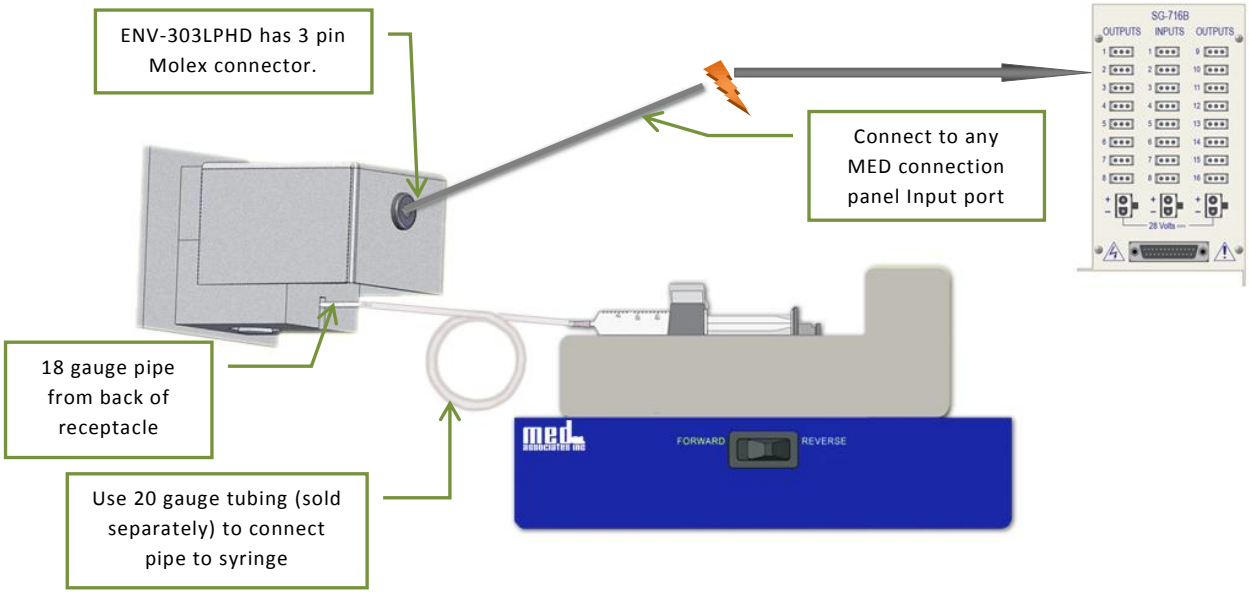
Panel: 1.5" W x 1.75" H (3.8 cm x 4.4 cm)

ENV-303LPHD-2 (2” tall version)

Panel: 1.5" W x 2" H (3.8 cm x 5.08 cm)

CHAPTER 2 | WIRING

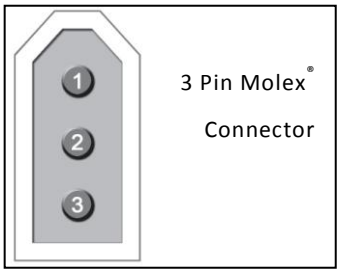
Figure 2-1 – Liquid Pipe Receptacle Connections



Wiring the ENV-303LPHD

The Liquid Receptacle for Mouse with Head Entry Detection is connected to any available input port on a standard MED connection panel, e.g. an SG-716B.

Molex Pin #	Function	Wire Color
1	28 Volt Ground	Black
2	Operate	White
3	+28 Volts	Red



Operating Specifications

Operating Voltage: 28 Volts DC

Operating Current: 15 ma – quiescent

Output (white lead): 0 Volts @ 50mA – beam broken

27 Volts @ 40 mA – beam connected

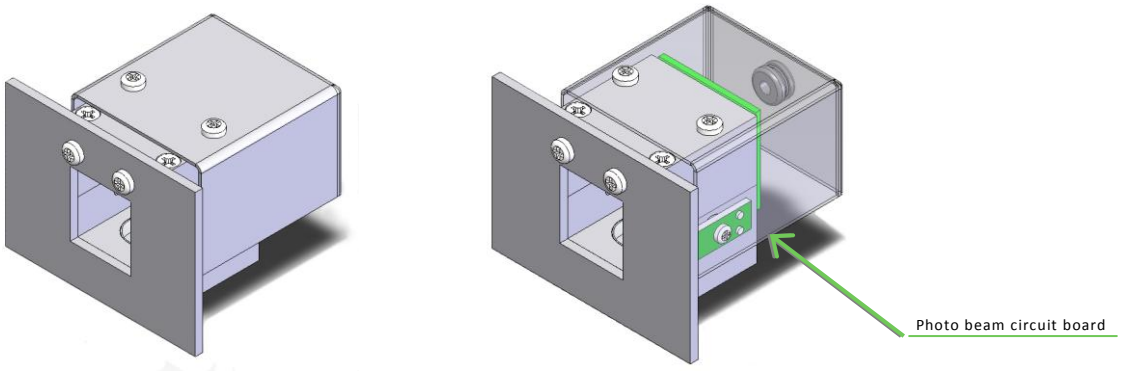
CHAPTER 3 | OPERATION

The Liquid Pipe Receptacle is designed for use with an infusion pump. All wetted parts are stainless steel and allow infusion of any low viscosity liquid that can pass through 20ga tubing.

Photo Beam Operation

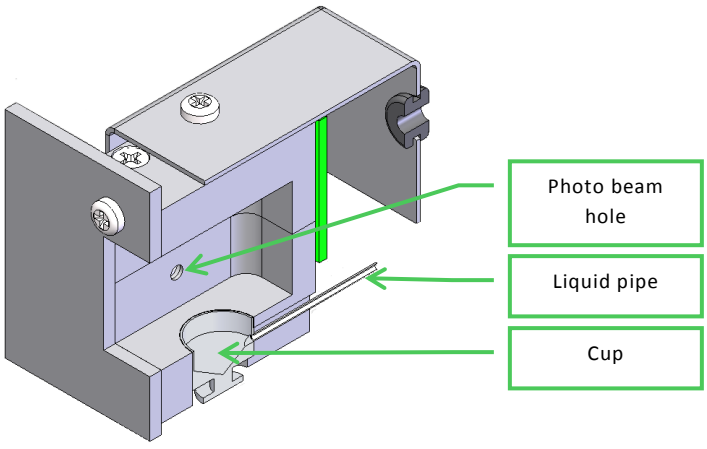
The ENV-303LPHD Liquid Pipe Receptacle for Mouse with head entry detector utilizes a photo beam for monitoring when the animal's head enters the receptacle.

Figure 3-1 - ENV-303LPHD full assembly and cut-away view of photo sensors



The photo beams used to detect animal head entry are located 1.157" (2.9cm) from the front of the Liquid Pipe Receptacle fascia, which is centered above the cup, and are .250" (0.6cm) from the floor of the receptacle.

Figure 3-2 - ENV-303LPHD cut-away view of photo sensors holes



When the animals head enters the receptacle, the beam is broken and a signal is sent to an input. It is important to keep the photo beam holes clear of debris so that there is no beam interference.

CHAPTER 4 | CLEANING

The liquid pipe receptacle should be wiped down and the tube should be flushed with water, then air to keep the device clean and avoid occlusions.

The photo beam holes should be cleaned with forced air.

Appendix A | Contact Information

Please contact MED Associates, Inc. for information regarding any of our products.

Visit our website at www.med-associates.com for contact information.

For technical questions, email support@med-associates.com.