med associates inc

instrumentation and software for research

ILLUMINATED NOSE POKE RESPONSE

WITH OLFACTORY PORTS

ENV-375-NPP

USER'S MANUAL

DOC-272
Rev. 1.0

Copyright ©2013
All Rights Reserved

Med Associates Inc.
P.O. Box 319
St. Albans, Vermont 05478

Phone: 802.527.2343
Fax: 802.527.5095
www.med-associates.com

notes

Table of Contents

CHAPTER 1 | INTRODUCTION

The ENV-375W-NPP and ENV-375A-NPP Illuminated Nose Poke Response with Olfactory Ports for Mouse uses an Infrared (IR) transmitter and receivers (photo beams) to detect the presence of an animal when it pokes its nose into the receptacle.

The receptacle is illuminated with a yellow LED. An output signal is sent to the device to turn the light on or off. The light is designed to be used as a cue for when a scent is detectable in the receptacle.

Olfactory ports are used to deliver and evacuate a scent stimulus.

Specifications

Dimensions

ENV-375A-NPP (fits the ENV-307A chamber)

Panel: 1.7" x 3.5" (4.318cm x 8.89cm)

ENV-375W-NPP (fits the ENV-307W chamber)

Panel: 2.4" x 3.5" (6.096cm x 8.89 cm)

Cable Length: 28"

Port diameter: 3/16" barbed (tubing not included)

Figure 1-1 ENV-375W-NPP for the wide chamber (ENV-307W)

DOC-272 Rev 1.0 Copyright © 2013
MED Associates, Inc.

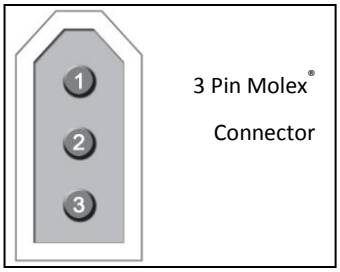
CHAPTER 2 | WIRING

IR Detection

Connect the 3-pin Molex connector with black, red, and white wires to any available **Input** port on a standard Med Associates Connection Panel (Smart Control or Passive). An input is generated when the IR beam is broken. The response connectors provide voltage for the light stimulus and therefore must be connected for the light to function.

Figure 2-1 – Nose Poke Input Connection

Molex Pin #	Function	Wire Color
1	28 Volt Ground	Black
2	Nose Poke Response	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

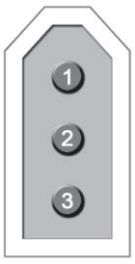
27 Volts @ 40 mA – beam unobstructed

Light Conductor Connector

Connect the 3-Pin Molex connector with green and orange wires to any available **Output** port on the Connection Panel (eg.SG-716B). When the Output is activated, the cue light will turn on.

Figure 2-2 – Nose Poke Output Connection

Molex Pin #	Function	Wire Color
1	N/A	N/A
2	Operate	Green
3	+28 Volts	Orange



DOC-272 Rev 1.0 Copyright © 2013
MED Associates, Inc.

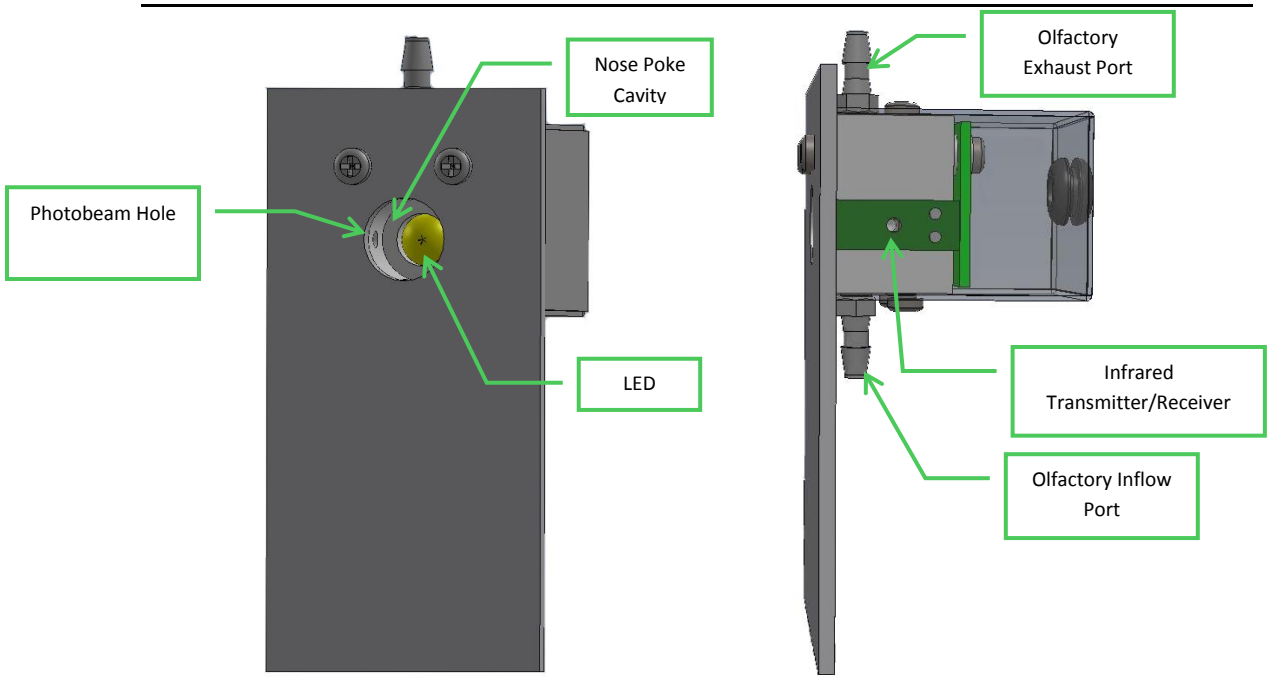
CHAPTER 3 | OPERATION

The Illuminated Nose Poke Response is designed for olfactory stimulation. The olfactory stimulus is supplied via a port in the bottom of the nose poke cavity and is removed from the nose poke cavity via an exhaust port located in the roof of the cavity.

Photo Beam Operation

The ENV-375-NPP Illuminated Nose Poke Response utilizes an infrared photo beam for monitoring when the animal's nose enters the receptacle. When this happens, 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. Bright lights can affect the performance of the photo beams.

Figure 3-1 - ENV-375-NPP full assembly and cut-away view of photo beam sensors



DOC-272 Rev 1.0 Copyright © 2013
MED Associates, Inc.

CHAPTER 4 | CLEANING

The nose poke receptacle should be wiped down periodically to keep it clear of debris. 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.

DOC-272 Rev 1.0 Copyright © 2013
MED Associates, Inc.