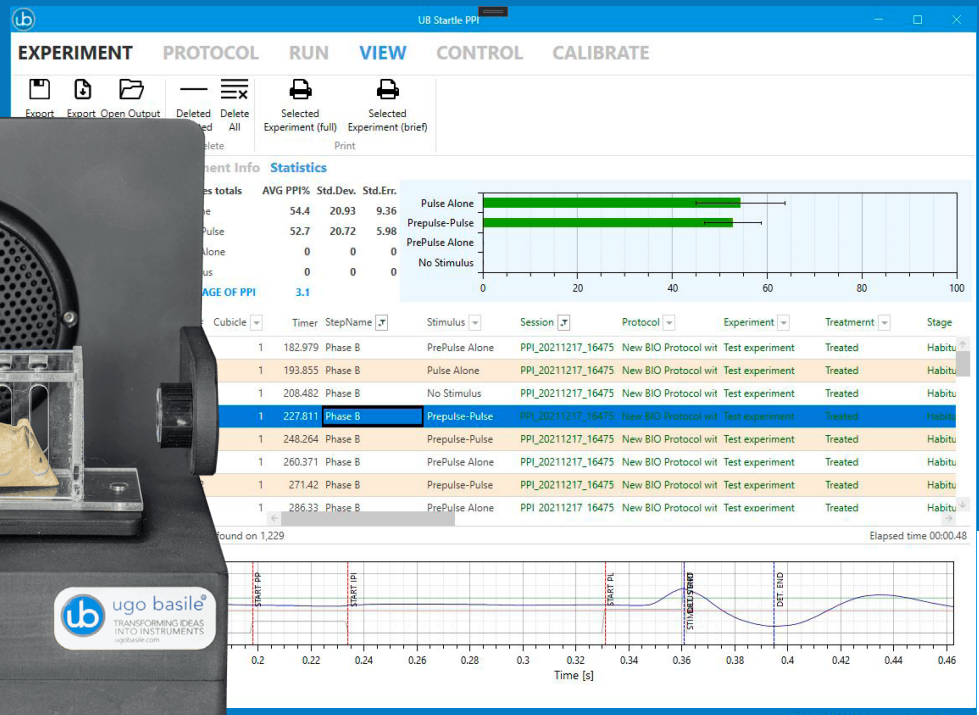


# STARTLE PPI SYSTEM

For psychosis, schizophrenia and sensorimotor studies.



Simple. Reliable. Flexible.

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ugo basile®  
TRANSFORMING IDEAS  
INTO INSTRUMENTS

# Startle, PPI and sensorimotor gating

Prepulse Inhibition of the Startle response is a neurological phenomenon in which a weaker prestimulus (prepulse) inhibits the reaction to a subsequent strong startling stimulus. The stimuli are usually acoustic, visual (light), or tactile, for example air puffs on the mouse skin.

Both rodents and humans show a startle response as a defensive reaction to sudden stimuli (sounds, light, airpuff), that serves to protect the animal and facilitate escaping.



Startle PPI Complete System



Animal holder with Light, Sound and Air Puff stimulator

Method Paper

Ugo Basile Example Paper

The Pre-Pulse Inhibition (PPI) of the Startle response reflects the ability of the nervous system to lower the reaction to a strong stimulus (e.g. a loud sound), when a preceding weaker stimulus is delivered to warn the organism.

Deficits of prepulse inhibition, manifest the inability to filter out from brain integration unnecessary information. This has been linked to abnormalities in sensorimotor gating, noted in psychoses, above all Schizophrenia, Alzheimer’s Disease, drug use, mutations and others.

## Complete and Ready to Go for ALL PPI experiments

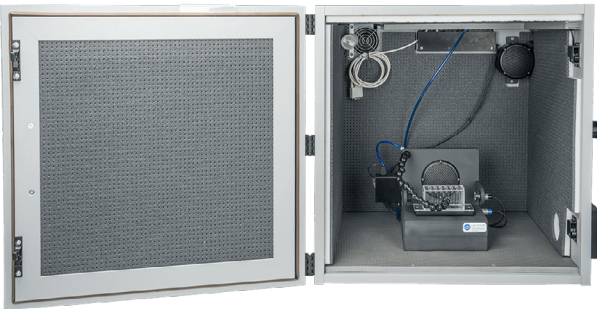
- Compact, Quick Set-Up, Flexible Protocol Options
- Ready-made tools for best experiment accuracy
- Automated analysis
- Raw and calculated data (e.g. %PPI, Startle, etc...)



## The Ugo Basile Startle PPI set-up: Complete and Ready to go

Compact, simple to program for dozens of experimental designs and stimulus patterns. (including Fear Conditioning options)

**It includes:** Isolation Cubicle, Animal Stimulating/Recording Holder, controller software and optional Air Puff stimulation.



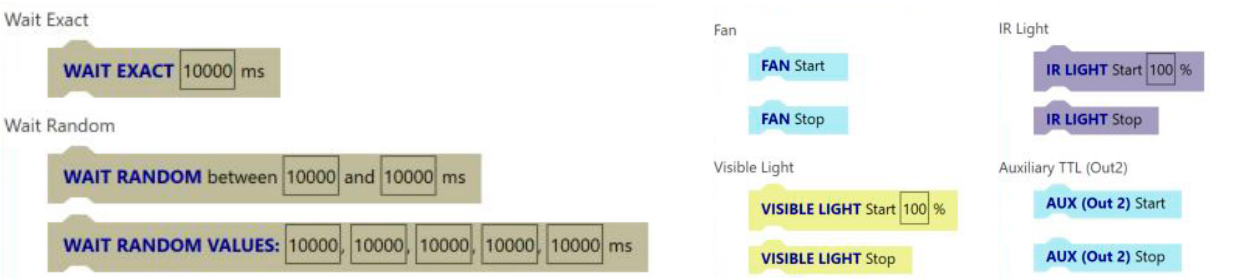
Ugo Basile Startle/PPI Complete System

## Key Points, Why should I use the Ugo Basile Startle/PPI System?

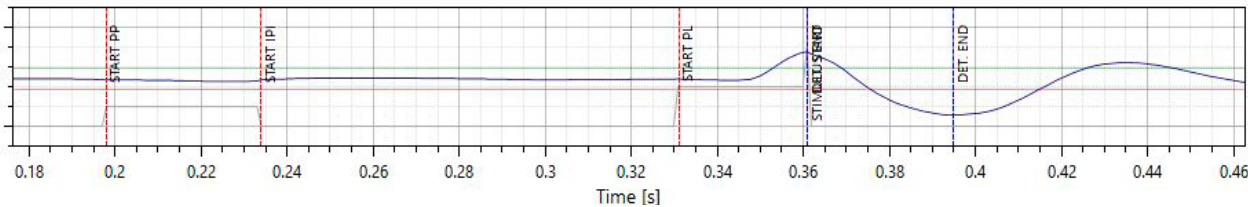
- High throughput and full automation
- Exceptional flexibility and intuitiveness in protocol building (for the best experimental flexibility)
- No environmental interference, thanks to the included highest quality sound and light isolation cubicles
- High capacity and high sensitivity sensors to work with different animal weights
- Robust and easy to clean

## Procedures and Data Analysis:

Experimental parameters can be adjusted, linked, spaced in time, etc, to virtually build in a seamless and user-friendly manner virtually any type of startle and startle/PPI **protocol variations**



**Results and data** are shown in a very intuitive way, as a summary data in the proprietary interface and as raw data (.csv), for those who wish to use their own analysis systems



Example of Istimulation and Startle/PPI animal response

## Hardware and Stimuli

- **Sampling:** can work up to 1 KHz to match the experiment typical time spent
- **Stimuli and Prestimuli:** can be freely configured (light, frequency sound, white noise, airpuff, auxiliary I/O)
- **Multiple animals** can be tested simultaneously and data quickly analyzed for high throughput

Experiments are normally designed through the following parameters:

Light. . . . . Visible and IR  
Sound Intensity + Whitenoise . . . . . From 65 dB to 120 dB  
Sound Frequency . . . . . White noise and adjustable frequencies from 0.1 to 16KHz  
Airpuff. . . . . Complete Add-on for air stimulation (optional)

# Startle, PPI and sensorimotor gating



Product code: **48000**

Automatic detection of the pre-pulse inhibition (PPI) of the startle reflex in mice, for neuroscience research.

**Customizable, yet complete set up, ready to go.**

**Includes:** Isolation Cubicle, Animal Stimulating/Recording Holder, controller software and optional Air Puff stimulation.

**2022 New feature:** Fully Customizable Protocols, brand new software and direct USB connection to PC.

## Specifications

### General

Power Requirements	Universal input 100-240 VAC, 50-60Hz, 60W
Background Noise (Ventilation)	< 60 dB
Operating environment	10°C to 40°C; 5% to 95% RH (non-condensing)

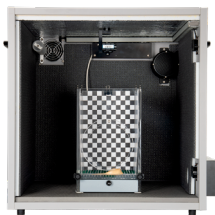
### Operation

Sound Range	From 65 dB to 120 dB
Pulse/pre pulse sound range	From 65 dB to 120 dB
Sound Frequency Range	From 100 Hz to 18 KHz
IR Light	0-100% (Environment)
Flash Light	0-100% (20K Lux) S/R Platform)
Data Export	.csv, .xlsx format
Number of Cages	Up to 4 using the standard <a href="#">48463</a> with additional extensions on request

### Warranty

Warranty	Startle PPI System is covered by a 12-months warranty + 12 months after product registration
Additional UB-Care	Additional UB-Care can be added for other 12 or 24 months

## Related Products



**Fear Conditioning**



**Operon System**  
Schizophrenia & Psychosis



**Orientable Airpuff**



**Live Videocamera**  
for videotracking

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