



## Conditioned Place Preference Box (CPP)

Cat. No. 42502 for Rat

Cat. No. 42503 for Mouse

### General

The new **Ugo Basile Conditioned Place Preference (CPP)** is a 2-compartment box to evaluate the abuse potential of substances and the motivational effects of drugs. The box includes the contextual cues required by the experimental paradigm.

The 2 compartments differ for the walls color and patterns and for the floor patterns and texture. The floors are interchangeable so that the tactile difference between the 2 compartments can be easily adjusted by the scientist.

The new CPP box has been designed and optimized for use with any video-tracking software or manual scoring.

Each CPP box includes 4 interchangeable floors with square and circular patterns.

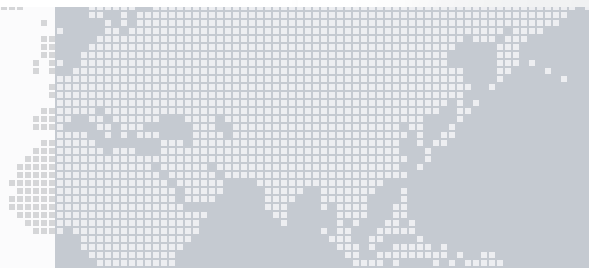


IDEAL TO STUDY

Drug Abuse

Addiction

Interchangeable floors for tactile stimulation



### Main Features

- Interchangeable patterned floors
- Striped and dark compartment
- Optimized for Video-tracking
- Specific models for rats or mice
- Designed for multiple-cages systems (up to 16 and more)

## Rat and Mouse Box

The box 42502 is designed for tests on rats. Its external dimensions are 60(w) x 30(d) x 30(h) cm. The box 42503 is similar to the 42502, but its dimension (32(w) x 15(d) x 16(h) cm) make it suitable for use with mice.

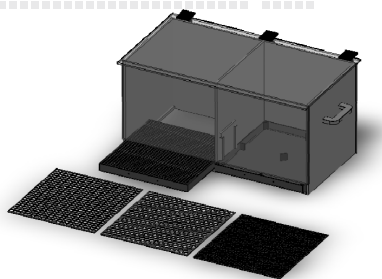
Both boxes have a patterned door in the central wall; its opening is 7.5x7.5cm in the rat, 4x6(h) cm in the mouse box.

## Tactile Stimulation: Patterned Floors

One of the major keys to the success of a CPP experiment resides in the design of the visual and tactile differences between the 2 compartments.

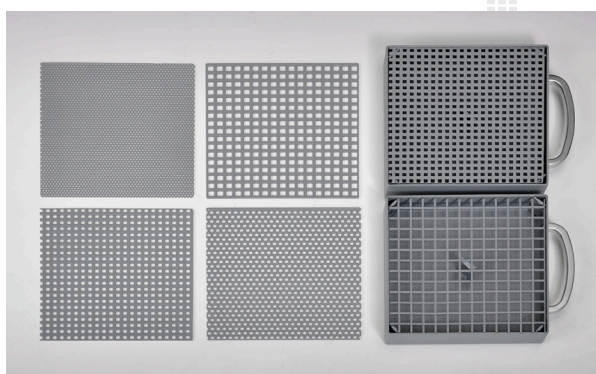
Ideally the 2 compartments should have clearly distinct contextual cues but should not determine any preference in unconditioned animals, while the design of commercially available CPP boxes has traditionally focused on the wall patterns and colors.

Given the importance of paw tactile sensitivity in rodents, the Ugo Basile CPP box includes 4 interchangeable floors with different shapes.



Four sets of floor grids are supplied with the rat box:

- 42502-011 R4T6 round 2mm holes, 6mm interax., 2 pcs.
- 42502-012 R12T16 round 12mm holes, 16mm interax., 2 pcs.
- 42502-014 C6U9 square 6x6mm holes, 9mm interax., 2 pcs.
- 42502-013 C10U12 square 10x10 holes, 12mm interax., 2 pcs



Four sets of floor grids are supplied with the mouse box:

- 42503-013 C4U7 square 4x4mm holes, 7mm interax., 2 pcs.
- 42503-012 R2T3 round 2mm holes, 3mm interax., 2 pcs.
- 42503-014 C6U9 square 6x6 holes, 9mm interax., 2 pcs.
- 42503-011 R4T6 round 4mm holes, 6mm interax., 2 pcs.

## Rationale and outline of the procedure

The CPP paradigm provides information on the rewarding or aversive effects of visible and tactile contextual

cues associated with drugs.

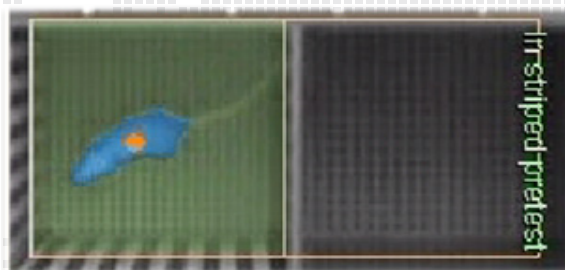
This technique has acquired great popularity in research studies involving addiction, thanks to its ease, especially if compared to drug self-administration procedures.

First, the animal is conditioned to identify one of the two compartments with the drug experience. Then the time spent in each of the two compartments is measured, from which the preference or aversion to the drug-paired compartment, hence the rewarding or aversive properties of drugs, can be easily deduced.

The CPP test only requires that the animals carry out a simple operation (i.e. move from one compartment to the other) to approach or avoid the drug-paired compartment.

The animal is expected to spend more time in the drug-paired compartment, if the drug experience produced a positive effect.

## Optimized For Video-Tracking



All floors are grey-colored, to optimize contrast and facilitate tracking of both dark and albino animals

## Acknowledgements & Bibliography

A special thank to **Prof. Paola Fadda** (Department of Pharmacology, University of Cagliari, Italy) for the initial design of the boxes: her valuable comments and suggestions allowed us to keep the focus on the users needs and opinions.

- L. Fattore et alia: "**Baclofen Prevents Drug-Induced Reinstatement of Extinguished Nicotine-Seeking Behaviour and Nicotine Place Preference in Rodents**" *Eur. European Neuropsychopharmacol.* (in press 2009)
- M. Scherma et alia: "**Inhibition of Anandamide Hydrolysis by Cyclohexyl Carbamic Acid 3'-Carbamoyl-3-yl Ester (URB597) Reverses Abuse-Related Behavioral and Neuro-chemical Effects of Nicotine in Rats**" *J.Pharmacol.and Ex-per. Therap.* 327:482-490, 2008

## Ordering Information

- 42502** Place Preference Box for Rat, including 4 interchangeable floors
- 42503** Place Preference Box for Mouse, including 4 interchangeable floors