![Ugo Basile logo - TRANSFORMING IDEAS INTO INSTRUMENTS]

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Hot / Cold Plate

ng

Cat. No. 35150

General

This new **Hot/Cold Plate NG** offers a wide temperature range, presetable in the range **-5°C to 65°C,** can be used as:

- A **conventional HOT PLATE**, to carry out a rapid precise screening of narcotic type analgesic drugs according to the well known Hot Plate Test devised by N.B. Eddy and D. Leinbach.

- As a **COLD PLATE**; the **Cold Plate Test** is useful in studying cold receptors and cold allodynia, a phenomenon very frequently observed in chronic pain on humans.

  The lid reduces humidity condensation on the plate at low temperatures.

Two working modes allow for testing at fixed temperature or at increasing/decreasing temperature (RAMP).

An optional **auxiliary Plate** (heat only) can be connected to the main unit and will be useful in the habituation phase.
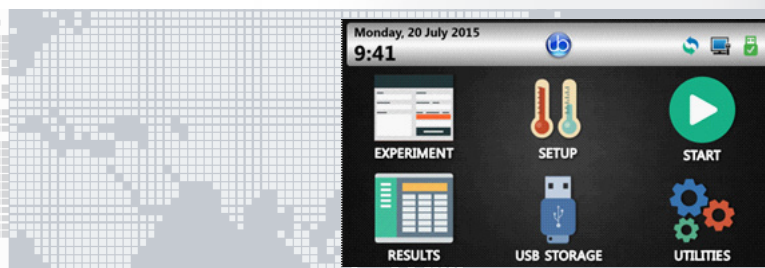
Brand new, user friendly software, to set up the experiment and manage the results.
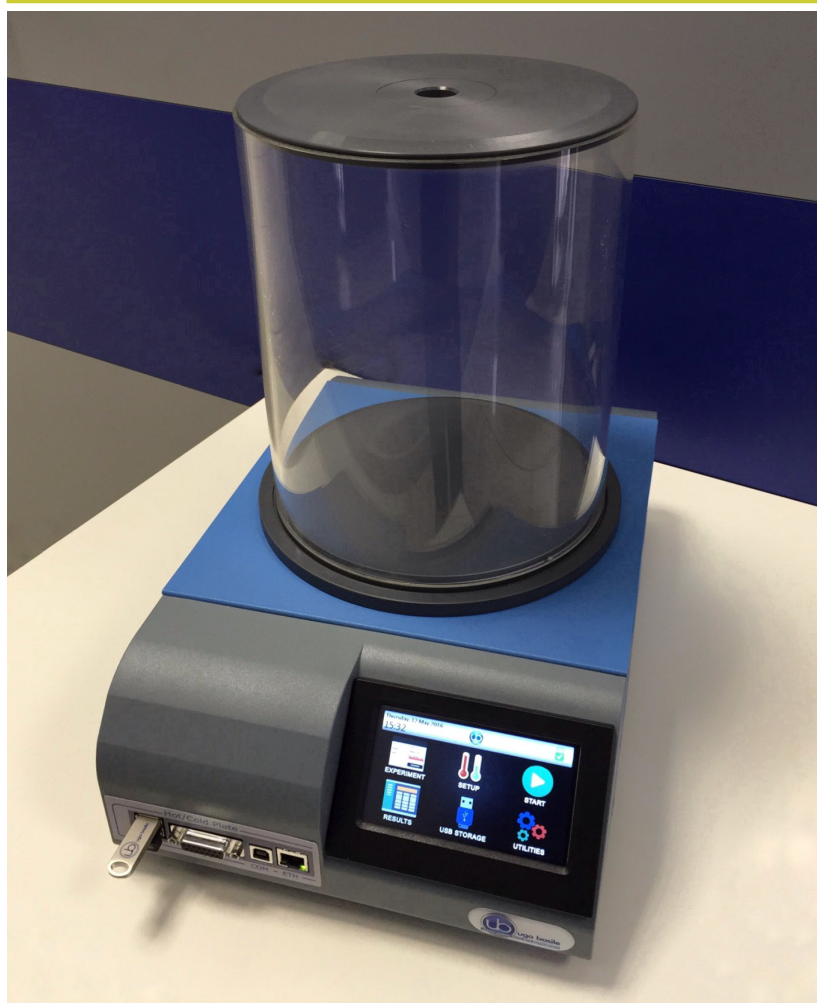
for Rats

for Mice

- **IT CAN BE USED AS HOT PLATE OR COLD PLATE**

- **NEXT GENERATION INSTRUMENT: SAME RELIABILITY, INNOVATIVE TECHNOLOGY!**

Main Features

- **OPERATING TEMPERATURE:** -5.0°C to 65.0°C in steps of 0.1°C (0.5°C precision

- **DETECTION:** by pedal switch

- **OPERATING MODES:** fixed or ramping temperature, for dynamic experiments

- **X-PAD SOFTWARE:** brand new, user friendly software included as standard, to set up the experiment and manage the results

- **CONTROLS:** 4"3 touch-screen to set and monitor the test

- **DATA PORTABILITY:** via the USB Memory-Key, included as standard

Ugo Basile: more than 10,000 citations

Instrument Description

The Ugo Basile Hot/Cold Plate NG features:

- a cabinet incorporating the **Heating/Cooling Plate** (20cm diam.) and the **4"3 touch-screen**
- a convenient **restrainer** (25cm tall, suitable to restrain either mice or rats), with anti-dew lid.

The plate temperature can be set in the range **-5.0 to 65.0°C**, with **0.1°C** increments (0.5°C precision). The extremes of this ample range can be reached, provided the room temperature remains in the interval 18-24°C.

Operating modes will allow to work with **constant** temperature or **ramp**, defining the initial and final temperature to set an upward or a downward ramp.

What's new

Physically similar to the previous versions, the new model features much quicker temperature changes and greater stability and uniformity.

Totally new is the **X-PAD** software included as standard, see below. Remote diagnosis and internet access are provided for.

Experimental Configuration

Via the **X-PAD** software, the operator can easily **organize** the experiment on her/his PC, and upload it to the Hot/Cold Plate via the USB key.

Treatments, protocols, stages, animals, and various test features (temperature, mode, etc.) can be quickly defined and saved for future use.
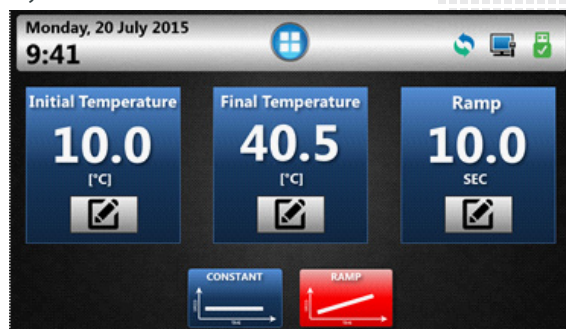

Data Collection and Management

A basic version of the collected data can be viewed on the touch-screen

when transferred to PC via USB drive, test results appear in full version.

The software automatically classifies the data, combining configuration settings with test results; the user can add information, before or after the test. Results appear in a tree-like structure, where columns can be dragged and dropped to customize the layout.
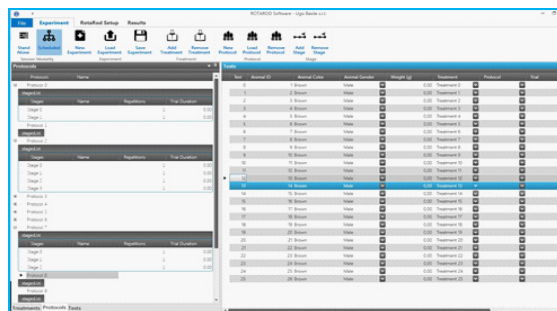
Configurations and data are exported as **Text**, **Excel** or **Pdf** reports and can be saved to cloud via **DropBox**, **OneDrive**, **GoogleDrive**.

Ordering Information

35150	**HOT / COLD PLATE**, standard package:
35150-001	Cabinet (controller/display and Plate assembly)
35100-286	Perspex Animal Restrainer, for Mice and Rats), 25cm height
35150-320	Restrainer Lid
35150-302	Instruction Manual (on USB key)
37215-303	Pedal Switch
X-PAD	Dedicated Software Package (on USB)
Mains Cord	

Optional

An "auxiliary" conventional Hot Plate 35150-002 is available as optional; this self-standing unit may be used for the habituation phase before the test, thus reducing the use of the main unit to the test proper.

35150-002	Auxiliary Hot Plate
35150-002	Combo Package 35150 & 35150-002

Physical

Universal input	85-264 VAC, 50-60Hz
Dimensions	25x37x47(h)cm with restrainer
Weight	8.0Kg
Shipping Weight	12Kg approx.
Packing	68x34x28cm

Bibliography

- C.V. Möser: "**TANK-Binding Kinase 1 (TBK1) Modulates Inflammatory Hyperalgesia by Regulating MAP Kinases and NF-κB Dependent Genes**" J. Neuroinflammation 12:100, *2015*

- W. Kallenborn-Gerhardt et alia: "**Nox2-dependent signaling between macrophages and sensory neurons contributes to neuropathic pain hypersensitivity**" Pain 55(19): 2161-2160, *2014*

- D. Piomelli et alia: "**Anandamide suppresses pain initiation through a peripheral endocannabinoid mechanism**" Nature NSC, *2010*