

## Plantar Test (Hargreaves Method) & Tail Flick Meter in one unit

BLOOD PRESSURE

RESTRainers

CATHERETERS

ANALGESIA

BEHAVIORAL/ACTIVITY

ANIMAL RESPIRATORS

SYRINGE PUMPS

TEMPERATURE PROBES

The IITC plantar and tail flick combination system is the only commercially available system of its kind. No need to purchase two separate systems, our combination system enables researchers to perform both tests with this unique design. Testing the properties of narcotic and stronger non-narcotic drugs on unrestrained mice and rats in plantar mode. When using the system in plantar mode, tests are performed on the plantar surface of rodents by a focused, radiant heat light source from the test head. The test head is placed under a tempered glass surface and slides on top of the supplied base with Teflon balls to the desired position. The heat source is focused to the top of the glass, and creates a 4X6mm intense spot on the paw. Prior to testing there is a "guide" light to assist in directing the beam to the precise spot. An adjustable angled mirror is mounted on top of the test head to assist the operator to view proper alignment of the paw without constant bending.



In tail flick mode the test head is attached to the electronics and the heat source sits over a tail groove that has a sensor that detects when the animal flicks its tail. System records and displays time and temperature of test. A humane cutoff timer that can be set by user, will prevent tail tissue damage if test subject does not react within preset time.

Our system uses a visible light source which is superior to the infrared version; since a user may not always know exactly where a test will start, this will cause false starts and conditioning of animals as is the case with other systems on the market.

**IITC TRUE TAIL TEMPERATURE OPTION (T)**

Measurement of tail temperature at all times.

Trigger temperature is automatic at the start of every test.



### Features

- Tail Temperature optional (T)
- Precise Programmable digital control
- Humane cut-off feature, set by user
- Adjustable beam intensity in 1% increments
- Reaction is detected automatically (Tail Flick set-up)
- Manual override of all timer functions
- All Functions and parameters entered via key-pad
- Unrestrained animals
- Heated glass option only from IITC
- USB and RS232 Standard
- Printer output standard
- Footswitch standard
- Software for data collection (optional)
- Thermal printer (optional)



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This optional feature allows automatic preheating of the tail. To ensure experiment protocols to be precisely controlled and repeated. This feature allows the user to SET the tail temperature at start of each test is to be started at up to 75 degrees Celsius. Once that preset temperature is reached the test and the timer starts automatically and after the tail flicks the timer and light stop and the result is displayed. Readout will now show in repeatable sequence the start and end temperatures as well as test time.

We recommend animals be restrained with one of the IITC restrainers.

This unit solves the problem associated with "tail temperature prior to and at the end of testing."

See article: KJELL HOLE AND ARNE TJOLSEN: The Tail-Flick Formalin Test in Rodents: Changes in Skin Temperature as a Confounding Factor.

Pain 53 (1993) pages. 247-254 Elsevier).

The instrument has a built-in timer which displays the reaction time in .01 second increments. A pushbutton mounted into the handle of the test head allows the operator to stop the test cycle at anytime, preventing false reaction. In addition, start, stop and reset can be done on either the front panel of the electronics or the supplied footswitch.

Acrylic animal enclosures are supplied that are in groups of 2 rat/4 mice with a total of three supplied with the system allowing testing of up to 6 rats/12mice at one time. The enlclosures sitp on top of the glass. The height of the glass is adjustable allowing the focal point of the light to be adjusted to stimulate other body parts if needed. A Humane cutoff timer is standard. The unit can be preset for a cutoff period, at the end of which the heat source shuts off automatically if the animal has not responded, avoiding tissue damage. Our test head does not emit , clicking or whining noises that cause preconditioning of animals prior to test as with other systems on the market.

Our exclusive heated glass option eliminates the glass acting as a heat sink. This feature will eliminate the reaction time of the animals to be altered due to the fact that they are placed on cold glass allowing the possibility of delayed response time to the applied heat source. Built-in heating elements in the glass which are controlled via the base. Temmperature readout and adjustment from 30-40 degrees C. are on the front of the heated base.

Two year warranty

CE Certified

Power: 120/240 VAC Switchable

Part #	Description
336	Plantar Test (Gargreaves) and Tail Flick Analgesia Meter
336G	Plantar Test (Hargreaves) and Tail Flick Analgesia Meter with heated glass
336T	Plantar Test (Hargreaves) and Tail Flick Analgesia Meter with Tail Temperature
336TG	Plantar Test (Hargreaves) and Tail Flick Analgesia Meter with Heated Glass and Tail Temperature
???	Animal Enclosure
Series 8	Software