

# Dynamic Plantar Aesthesiometer

Allodynia and Sensitivity tests, fully automated

The Dynamic Plantar Aesthesiometer has been designed to assess allodynia and “touch sensitivity” on the plantar surface of rodents.

The Ugo Basile device ensures fast and accurate experiments versus Von Frey methods thanks to the automatic force delivery, automatic detection and up to 12 mice that can be assessed at the time (or 6 rats)

Light mechanical stimulation has a long history of effective clinical use to diagnose pathologies, pre-clinical drug development, phenotyping, lesions, and many other applications in laboratory animals experimental methods.



- Automatic force stimulation and paw withdrawal detection
- NEW: maximum force 100g
- Seamless USB data export
- NEW: user adjustable touch force and touch pause
- NEW: manual scoring in addition to the automatic one



## Features and Benefits

### • The only truly automated complement to Von Frey Hairs

Since its invention a couple of decades ago, the Dynamic Plantar by Ugo Basile has revolutionized the way allodynia and somatosensitivity is measured in rodents.

No more human variability in the application of the force to the plantar surface.

No more scoring errors, because the device measures the latency time for paw withdrawal and the force it took to elicit it.

Richer data and more experimental outcomes, thanks to the control of the force rate, in addition to the maximum force applied.

### • NEW: up to 100g maximum force

*You asked, we listened.*

Although the complex mechanism which drives the force probe made this a real engineering challenge, at Ugo Basile we strive for providing scientists with what their science needs. So, the maximum amount of force that can be applied to the animal paw has now been doubled, from the former 50g to 100g, opening a whole new world of molecules, animal models, protocols, which required an extra force.

### • NEW: multiple scoring modes

The beauty of the Dynamic Plantar is its automaticity. However, in some cases the experimenter wants to be in control and score manually the paw reflex, especially when it is showing unusual characteristics, which only the human eye can appreciate. In these cases, the start button on the Touch Stimulator is pressed once to start the force application and it is pressed again to stop it and score the result. All will then be saved in the electronic unit and in the USB key for data export.

### • NEW: more sophisticated force approach profiles

Two additional parameters are now under full control of the experimenter:

- Touch Force: this is the amount of minimal force that will be applied to the paw before the real force application rate starts.
- Touch Pause: this parameter sets the duration of the baseline (i.e. the duration of the touch force)



The beauty of these settings is that, if not modified, the instrument works as always, as with the previous versions, but for those that want to make the stimulation "softer" or more "abrupt", stimulating different fibers and circuits with different speeds, this is now possible.

### • State of the art electronics drives the best science

The 4.3" touch screen, bright and with user friendly and intuitive menus and icons are the result of a strong effort toward helping scientist working with no effort with this Ugo Basile device.

The new electronic board, now embeds its hard disk, and the front panel includes with two USB ports for data saving and export into csv files for MS Excel, seamlessly.

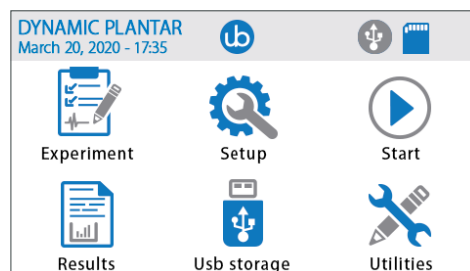
A TTL I/O port completes the interface features for a full integration and top usability of the new Dynamic Plantar.

## Specifications

Command input & read out	4.3" touch-screen (resistive)
Data export	.csv format, from USB key (provided)
Force Range	From 0.3 to 100 grams in 0.1g steps
Force increasing rate (ramp)	Adjustable in the interval from 0 to 50 seconds, in 1 s steps
Latency time	Displayed on the graphic display, in 0.1s steps
Designed for	Mice and Rats.
Start experiment	By Start button, push buttons or TTL input
Stop experiment	By Stop button, push buttons, cut-off or TTL input
TTL I/O	Input and output TTL signal
Sound Level	< 45dB(A)
Measurement mode	Manual or Automatic
Power Requirements	Universal input 100-240 VAC, 50-60Hz, 30W
Required space on table (all parts)	135cm(w) x 40cm(d) x 50cm(h)
Packaging dimension:	98cm(w) x 49cm(d) x 47cm(h)
Weight	10 Kg (shipping weight 13 kg)



*USB key to export csv data to PC*



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