



MEASURES THE FORCE REQUIRED TO MAKE A MOUSE OR A RAT RELEASE GRIP



GENERAL

This Grip Strength Meter measures forelimb grip-strength in rodents. The effects of drugs, toxins, muscle relaxants, disease, ageing or neural damage on muscle strength may be assessed.

The animal is placed over a base plate, in front of a grasping bar (either T-shaped or trapeze-shaped), whose height is adjustable. The bar is fitted to a force transducer connected to the Peak Amplifier 47105-001.

When pulled by the tail, the animal grasps at the bar; rodents instinctively grab anything they can to try to stop this involuntary backward movement, until the pulling force overcomes their grip strength.

After the animal loses its grip on the grasping bar, the peak preamplifier automatically stores the peak pull-force achieved by the forelimbs and shows it on a liquid crystal display.

47105 GRIP-STRENGTH METER FOR RAT

The instrument basically consists of:-

- a base plate of black sand-blasted Perspex, complete with upright and open-side boss-head
- a grasping-bar (a grasping trapeze is also supplied) fitted to
- a force transducer of adjustable height, provided with connection cable & connector to the peak amplifier
- a peak amplifier

47106 GRIP-STRENGTH METER FOR MOUSE

The 47106 is similar to the rat model, but the grasping trapeze is dimensioned for the mouse and the transducer sensitivity is adequate to the mouse.

PEAK PREAMPLIFIER

Either the Grip Strength Meter for Rat and the model for Mice may be connected to the same Peak Amplifier 47105-001. The display automatically shows the grip force expressed in grams and in gram decimals for operation with the rat and - respectively - the mouse.

The Peak Amplifier is lodged into a resilient cabinet: its front and back panel of anodised aluminium feature extremely durable engraved markings.

DATA ACQUISITION

The data supplied by the peak amplifier are available in digital and analog form. The waveform of the pull can be externally recorded, for example via our One-Channel Recorder Unirecord, or can be further processed via analog data acquisition systems (as PowerLab).

ORDERING INFORMATION

47105 **Grip Meter for Rat**, complete with following standard accessories:-

- 47105-001** Peak Amplifier, incorporating a digital display
- 47105-002** Force Transducer assembly for rat
- 47105-004** Pespex Plate with 10 mm diam. upright
- 4003** Open-side Boss Head
- 47105-301** Dust Cover for the electronic unit
- 47105-302** Instruction Manual
- 47105-321** Trapeze for Rat
- 47105-322** T-shaped bar for Rat
- 47105-323** Table Clamp
- E-WP008** Mains Cable
- Set of 2 fuses for either 230 or 115 V operation

47106 **Grip Meter for Mouse**, complete with following standard accessories:-

- 47105-001** Peak Amplifier, incorporating a digital display
- 47105-003** Force Transducer assembly for mouse
- 47105-004** Pespex Plate with 10mm diam. upright
- 4003** Open-side Boss Head
- 47105-302** Instruction Manual
- 47105-322** T-shaped bar
- 47105-324** Trapeze for Mouse
- E-WP008** Mains Cable
- Set of 2 fuses for either 230 or 115 V operation