Setting the Standard for Stereotaxic Surgery

Stoelting’s Lab Standard™ Stereotaxic Instrument is the choice of researchers in need of a versatile, reliable instrument for stereotaxic procedures with small animals. Lab Standard’s™ precision alignment ensures accurate placement of electrodes, micropipettes and other devices.

The time-proven ‘U’-Frame design concept, sturdy construction, and adaptability to almost all species make it the best choice for a stereotaxic instrument.

Easily-Read Scales

All scales are oriented to be easily read from the open end of the ‘U’ — the position from which most scientists prefer to work. The numerals on the scales are large, and easy to read. The scale lines are laser engraved, to allow the finest possible permanent marking of scales on all 3 axes. Precise alignment with facing vernier scales gives accurate resolution to 0.1mm.

Smooth, Consistent Movements

The Lab Standard’s™ exclusive, triple-lead screws allow the fastest positioning possible.
Versatile Positioning

The manipulator arm controls medio-lateral and vertical positioning via lead screws, and anterior-posterior movement via dovetail slide movement, with 80 mm of travel possible in each direction. A universal joint allows the researcher to change the angle of the probe up to 90° in either the antero-posterior or medio-lateral planes. The improved locking mechanism on the Lab Standard™ will hold any angle position without slipping. And of course, it also provides an absolute lock at 90° vertical.

A swing joint allows the researcher to conveniently swing the manipulator arm and probe out of the way for performing a procedure – then reliably return the probe to the same point.

Exclusive Accessories

Fit all Lab Standard™ and most other stereotaxic instruments

Stoelting Mouse and Neonatal Rat Adaptor
No. 51625 (See page 12)
Fits all Lab Standard and most other Stereotaxic Instruments.

Quintessential Stereotaxic Injector
No. 53311 (See page 10)
Capable of injecting/ withdrawing sub-microliter volumes directly into and from the brain.

Low-Cost Manual Stereotaxic Injector
No. 51639 (See page 9)
An economical means for any application requiring withdrawing/ injecting calibrated volumes with easy, manual control.

Gas Anesthesia Masks and Platform
No. 50264 (See page 13)
Enables gas anesthesia of rats or mice without exposing the researcher to the anesthetic. Use platform on Just for Mice™ Stereotaxic Mouse and Neonatal Rat Adaptor, or as a stand-alone anesthesia platform for general surgery.

Gas Scavenger
Isoflurane/Halothane/Sevoflurane
No. 50206 (See page 48)
Allows continuous anesthesia flow without exposing researcher to escaped gases.

ANY-MAZE VIDEO TRACKING SYSTEM

The world’s most advanced behavioral tracking system... at a fraction of the price of other systems!
Please see page 80-83

Dual Lab Standard™

The Dual Lab Standard™ Stereotaxic instrument has 3-dimensional manipulator arms on both sides, the second manipulator arm being properly reversed as to handedness. Dual manipulators are very useful in studies requiring double injections, bilateral cannulations, or simultaneous stimulation and recording. The Dual Lab Standard™ Stereotaxic is ideal for any stereotaxic applications that require 2 probes to be adjusted independently and/or simultaneously.

Convenient for Electrophysiology

Integral brass bushings in the manipulator arm allow grounding directly to the closest metal on the manipulator arm—even the probe holder.

Included Components

Both 51600 and 51603 include the U-frame Base, Manipulator Arm(s), 51631 Standard Probe Holder(s) with corner clamp and 51621 Rat Adaptor (nose clamp assembly and 18° taper Ear Bars). The 51650 and 51653 include non-puncture 45° Ear Bars instead of 18° Ear Bars.

Selection of Accessories

Species adaptors (see page 14-15) are available to fit rats, mice, neonatal rats, cats, monkeys, dogs, guinea pigs and small birds. Probe holders and species adaptors for ‘U’ frame stereotaxic instruments from other manufacturers are generally compatible with the Lab Standard™ frame.

51600 Lab Standard™ with 18° Ear Bars
51650 Lab Standard™ with 45° Ear Bars
51603 Dual Lab Standard™ with 18° Ear Bars
51653 Dual Lab Standard™ with 45° Ear Bars
51601 Lab Standard™ without manipulator arm
Digital Lab Standard™
Stereotaxic
For Small Animals
10 micron resolution in all three directions

Saves Time and Improves Accuracy
Stoelting introduces its latest innovation to our legendary Lab Standard™ Small Animal Stereotaxic Instruments. We have added a sealed electronic sensor, highly immune to outside interference and environmental conditions, to each axis of the manipulator arm. Measurements are accurate to 10 microns in all three directions. Movements are now monitored by a large, easy-to-read LED display module, with resolution as precise as 10 microns.

Zeroing Function Targets Specific Coordinates
A zeroing function makes setting a reference point for targeting specific coordinates on the animal’s skull as easy as 1-2-3.
1. Find reference point, e.g., Bregma
2. Reset zero on LED display
3. Adjust to the desired coordinates

...It’s that simple!
Versatility of Positioning
The universal joint allows the researcher to angle the probe in either the anterior-posterior or the lateral-medial planes. The improved locking mechanism on Lab Standard™ Stereotaxic Instruments holds any angled position without slippage. It also provides an absolute lock at the vertical position. The manipulator arm may be swiveled out of the way for convenience in installing the animal or performing a procedure, then reliably returned to the same point with the aid of the locking face block above the swivel joint.

Memory
Target coordinates can be programmed into the memory of 51900 and 51903 Digital Lab Standard™ Stereotaxics for consistent, accurate repeatability from animal to animal.

Dual Digital Lab Standard™ Stereotaxic Instrument
Dual manipulators are very useful in studies in which double injections, bilateral cannulations, or simultaneous stimulation and recording are necessary. In fact, the Dual Lab Standard™ Stereotaxic is ideal for any stereotaxic applications that require 2 probes to be adjusted independently and/or simultaneously. The digital stereotaxic is capable of precise 10 micron movements for multiple stimulation and recordings in the spinal cord and brain. Non-digital stereotaxic instruments are capable of 100 micron incremental movement.

Combine Digital and Non-Digital Arms
A digital manipulator arm and non-digital manipulator arm can be combined on a single Lab Standard™ U-frame. For example, if 10 micron movement is required for stimulation but not recording; then we suggest pairing a digital manipulator arm with a non-digital arm for maximum economy. The lower-cost Vernier model can be easily upgraded to...

Classic Lab Standard™ Design
The classic design and high quality of our conventional Lab Standard™ manipulators are exactly the same on the new Digital Stereotaxic, with smooth movements and no drift. The Digital Lab Standard™ keeps the custom triple-start lead screws to allow fast positioning, while maintaining consistently smooth movement. The thin cords from the sensors do not interfere with movements, allowing the arm to move freely and be set at any angle.

 Scientists and Inventors
We welcome your ideas for new products or improving existing products. Please contact us.

Accessories
All of the accessories for the Lab Standard™ Small Animal Stereotaxic Instrument fit the 51900 and 51903 series Digital Lab Standard™. Probe holders and species adapters for “U” frame stereotaxic instruments made by other manufacturers are generally compatible with the Lab Standard frame.

Included Components
The 51900 and 51903 Series Digital Lab Standard™ come complete with:

1. Standard probe holder with corner clamp (two included with 51903)
2. Rat adaptor
3. 18° taper ear bars
4. LED digital display (two with 51903)

The 51950 and 51953 include the non-puncture (45°) ear bars instead of the 18° ear bars. They are otherwise identical to the 51900 and 51903.

Your Choice of Three Options

Option 1
Complete New System

Option 2
New Digital Manipulator Arms and LED Display

Option 3
Factory Conversion of Existing Manipulator Arm

Neurostar for in vivo electrophysiology. Designed for use with any of our stereotaxic apparatuses. Page 105
Just For Mice™
Stereotaxic Instrument
Two Stereotaxics in One!

Saves Time
Waiting time can be virtually eliminated. For example, in applications that require drying time for cranial plaster, surgery can be performed on one mouse while the cranial cement is drying on the other mouse. Or, one person can perform surgery while another person installs another mouse or neonatal rat. A zeroing function allows the user to target specific coordinates in the brain for injection, implantation, etc. Calculation of distance measurements is thus no longer necessary... saving valuable time and improving accuracy.

Two Stereotaxics On a Single Base
Stoelting’s Just For Mice™ Stereotaxic Instrument was specially developed for the expanding growth of research being conducted using knock-out and transgenic mice. This innovative instrument allows the researcher to perform surgical procedures on two mice, or neonatal rats, at the same time.

Available in your choice of a Digital Model (10 micron resolution) with an easy-to-read LED display, or a Vernier Model (100 micron resolution) using laser etched vernier scales.

---

Easy-to-read digital display provides 10 micron resolution in all three axes.
A zeroing function for targeting specific coordinates
80 mm of vertical, lateral and anterior-posterior travel
Brass bushings permit electrical grounding
Suitable for either gas or injected anesthesia

Triple-head screws for fast positioning
Absolute lock at 90° vertical
80 mm of vertical, lateral and anterior-posterior travel
Brass bushings permit electrical grounding
Suitable for either gas or injected anesthesia

Dual workstations serviced by a single arm.

**Dual Units**
Stoelting has created two work stations on a single 10x13-1/2” base with independently adjustable ear and bite bars on both sides. A tooth bar and nose clamp secure the nose. A manipulator arm controls medio-lateral and vertical positioning via triple lead screws, and antero-posterior movement via dovetail slides, with 80mm of travel possible in each direction, thereby allowing access to both ear bar locations.

**“Triple Point” Securing of Heads**
Model organisms with soft skulls, such as mice or neonatal rats, are difficult to secure firmly in a traditional stereotaxic instrument. Stainless steel ear bars, used for adult rats, are too heavy to provide a secure hold without compressing the sides of the skull inward (which closes the airways and impedes blood flow). Further, the neonatal rat pup has no external opening of the auditory canal for inserting the ear bar points.

The Just for Mice™ Stereotaxic includes “triple point” options for securing the animal’s head: (1) lightweight Delrin ear bars with tapered points; (2) a specialized jaw cuff holder; and (3) non-invasive rubber tips. All are included.

Another unique feature of this instrument is that the ear bars may be independently adjusted in height to level the skull. Laser engraved scales show the vertical positions of the ear bars and provide consistent, accurate measurement animal after animal.

**Easy-to-Use Targeting of Specific Coordinates – Digital Model**
The display on each axis can be zeroed at any location, making operation simple and straightforward. To target a specific location, start at Bregma, and reset all coordinates to zero. Move the manipulator arm to the desired point and lower the electrode, probe, or micropipette into place.

**Memory-Digital Model**
Target coordinates can be programmed into the memory for repeated relocation from animal to animal.

**Swivel Mount**
Provides the ultimate flexibility and adjustability in vertical and rotational movements for Stoelting’s Lab Standard™, and most other brands of stereotaxics, when using it on large animals or birds. The frame can be raised up to 11 inches and rotated 360°.

51680 Swivel Mount

**Videomicroscope**
Stoelting’s low-cost Videomicroscope provides hands-free viewing of the surgical site. With a continuous magnification range of 1x through 50x, even the smallest surgical procedure is clearly visible and color accurate.

Direct line-of-sight viewing allows the researcher’s eyes and hands to work together. Positioning is easy and precise, one hand control for zoom in/zoom out.

50475 Videomicroscope

**Videomicroscope and Stereomicroscope Kit**
For use on 51600, 51725 and 51900 small animal series.
This kit enables a videomicroscope or stereomicroscope to be positioned above the animal without contacting the manipulator arm. Spacer blocks move the manipulator two inches laterally for clearance.

51608 Adaptor for Videomicroscope and Stereomicroscope

**Points**
**Tips**
**Cuffs**
Extraordinary Flexibility
Stoelting’s Parallel Rail Stereotaxic Instrument can be used on virtually any laboratory animal when combined with Stoelting’s unequaled selection of animal species adaptors.

Up to six manipulator arms can be conveniently positioned on the two parallel rails. Thus, several probes may be independently positioned in one animal, e.g., stimulus in one area and recording in another.

Further, when performing multiple procedures, some requiring 10 micron accuracy and others not, the instrument can be equipped with up to six digital manipulator arms with LED displays.

Versatility of Positioning
The manipulator arm controls medio-lateral and vertical positioning via exclusive triple-lead screws with 80mm travel. A Universal Joint allows the researcher to change the angle of the probe, up to 90°, in either the anterio-posterior or medio-lateral planes. The laser engraved scales provide exceptional repeatability. The locking mechanism holds any angle position without slippage and provides an absolute lock at 90° vertical.

In addition, a swing joint allows the researcher to conveniently swing the manipulator arm and probe out of the way for installing an animal or performing a procedure, then reliably return the probe to exactly the same point.
**Parallel Rail Assembly**
The “U” Frame parallel rails are mounted on a universal clamp and standard post that can be adjusted up and down to accommodate various sized animals. Includes a mounting plate, which can be mounted on the base plate or on a table.

**Smooth, Consistent Movements**
The Parallel Rail Stereotaxic instrument’s exclusive, triple lead screws provide fast, consistent positioning to any coordinate.

**Easily-Read Vernier Scales**
All scales are oriented to be easily read from the position most scientists prefer to work. The numerals on the scale are larger and easily read, with laser-engraved scale lines for the finest possible permanent marking. Precise alignment with the facing vernier scales gives accurate resolution to 0.1mm.

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**Digital Manipulator Option**
Digital Manipulators with LED displays, which improve accuracy and surgical speed, can be substituted for Vernier Manipulators for an additional charge equal to the difference in their cost. Contact Stoelting for specific pricing.

The Digital manipulators have the same custom triple-start lead screws for fast positioning and consistently smooth movement as the Lab Standard™. The thin cords from the sensors do not interfere with movements, allowing the arm to move freely and be set at any angle.

The manipulator arm controls the medio-lateral and ventro-dorsal vertical positioning with 80mm travel in each direction.

**Zeroing Function for Targeting Specific Coordinates.**
When ready to position the probe in its correct location, the display of each axis can be zeroed, making operations simple and straightforward.

**Memory**
Target coordinates can be easily programmed into the memory for future reference.

---

**Cat/Monkey Parallel Rail Stereotaxic**
(Catalog No. 51800) includes:
- Two 51804 Left Hand Manipulators
- Two 51806 Right Hand Manipulators
- One 51801 Parallel Frame — 12” Bars
- One 51680 Universal Swivel Stand with 4”x4” mounting support plate

*Base plate must be ordered separately.*

**Dog Parallel Rail Stereotaxic**
(Catalog No. 51850) includes:
- Two 51804 Left Hand Manipulators
- Two 51806 Right Hand Manipulators
- One 51851 Parallel Frame —14-3/4” Bars
- One 51852 Dog Head Holder with 18° Ear Bars
- One 51680 Universal Swivel Stand with 4”x4” mounting support plate

*Base plate must be ordered separately.*

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**Optional Microdrive**
The optional Anterior/Posterior (A/P) Microdrive provides fine movement control in the A/P dimension with 25mm range and 10 micron graduations. It mounts between the rail and the manipulator. Optional probe holders with longer shafts are available.

**Optional Base Plates**
The optional 51871 Base Plate (13”x17”) is a flat plate without slots. The optional 51872 Base Plate (12”x36”) has four, full length slots for mounting other instruments on the same base as either of the 51800 series stereotaxics.

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**Centering Stand**
The 51878 Centering Stand allows centering of probes to ear bar zero, before placing them on the 51801 or 51851 frames. It also provides storage for 51800 or 51600 series manipulator arms.

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<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
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<tr>
<td>51800</td>
<td>Cat/Monkey Stereotaxic Complete</td>
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<td>51801</td>
<td>Cat/Monkey Rail Assembly (without manipulators)</td>
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<td>51850</td>
<td>Dog Stereotaxic Complete</td>
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<tr>
<td>51851</td>
<td>Dog Parallel Rail Assembly (without manipulators)</td>
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<td>Manipulator, Vernier, Left Hand</td>
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<td>51825</td>
<td>Mouse and Neonatal Rat Adaptor</td>
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<td>51858</td>
<td>Microdrive, A/P</td>
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<tr>
<td>51878</td>
<td>Centering Stand</td>
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AnyAngle™ Stereotaxic
Easily Reach Any Point in the Brain From Any Angle Without Difficult Calculations!

A New Approach To Stereotaxic Surgery
Stoelting’s AnyAngle™ Stereotaxic Instrument simplifies difficult stereotaxic surgery on rodents. Accurate interpretation of the results of stereotaxic surgery frequently depends on the use of multiple angles of approach to the target structure. If a deep structure is always approached over the same path, electrode-induced damage to cortical tissue or chemical seepage along the implant path may contribute to the observed post-surgical changes.

Effortlessly Vary Angle of Approach
The unique design of the AnyAngle™ allows variation in the angle of approach, and without impairing the researcher’s accuracy. This is accomplished by rotation of the electrode carrier arm around the circumference of a sphere. The animal is moved, rather than the electrode carrier, until the desired target area in the brain is at the center location. The angle at which the pipette/electrode is implanted can be adjusted through 45° in each direction along the medio-lateral and antero-posterior planes.
**Easily-Read, Laser Engraved Scales**

Scales are located on one side of the instrument for convenient positioning of both animal and electrode carrier. Numerals on the scales are large and easy to read. Scale lines are laser engraved to allow the finest possible permanent marking of scales on angle adjustment. Precise alignment, using facing vernier scales, gives accurate resolution to 0.1 mm in vertical, antero-posterior, and medio-lateral directions.

**Smooth Movements**

AnyAngle™ is equipped with rack and pinion dovetail slides for effortless positioning of the animal, placement of electrode carrier, and quickly changing the angle of approach.

**Convenient Operation**

A removable pin, located on the column of the electrode carrier arm, allows the researcher to conveniently swing the electrode carrier arm out of the way during preparation, surgery, and drilling – with confidence that it will return to exactly the same point.

**Components**

The AnyAngle™ Stereotaxic Instrument comes complete with a Head Holder (suitable for most rodents), Ear Plugs, 18° Tapered Ear Bars and an Electrode Carrier with 4 collets (sizes 1/32”, 1/16”, 3/32”, 1/8”) for holding probes ranging from small wire to large glass pipettes.

<table>
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<td>Multiple Probe Carrier</td>
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<tr>
<td>50015</td>
<td>Ear Plugs</td>
<td>$45.00</td>
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**Hypophysectomy Instrument**

Used for rapid, efficient positioning of a hypodermic needle in the pituitary gland through calibrated, pivoting hollow ear bars.

The hypophysectomy instrument can be used to remove the pituitary or to inject substances into the pituitary gland.

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<td>51639</td>
<td>Manual Stereotaxic Injector</td>
<td>$975.00</td>
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**Stoelting Manual Stereotaxic Injector**

For Precisely Controlled Infusion/Withdrawal of Picoliter Volumes

Stoelting's new Stereotaxic Injector provides an economical means of injecting/withdrawing a calibrated volume with simple, precise manual control.

When mounted directly on a stereotaxic frame, it allows precise injection directly through the needle into the tissue. This avoids the compliance issues that arise when injections are forced through plastic tubing. **Volumes as small as 200 picoliters may be infused.**

The precise withdrawal mechanism makes it simple to pick up even one small sample! This results in minimal waste, preventing degradation of precious samples.

The injector has a universal adaptor for all Stoelting and Hamilton 700, 7000, or Gas-Tight Series syringes, ranging from 1 to 100 μl sizes and enables a wide range of volumes to be delivered - both infusion and withdrawal operation.

The manual Stereotaxic Injector is graduated in 0.01 mm increments. One complete revolution advances the plunger of the syringe 0.5 mm.

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<td>50015</td>
<td>Ear Plugs</td>
<td>$45.00</td>
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**NEW!**

Low-cost programmable Microsyringe Pumps,

Page 96
Quintessential Stereotaxic Injector (QSI)

Visual representation of injection/withdrawal progression enables researchers to precisely determine and control the status of the event.

For Infusion and Withdrawal of Pico and Nanoliter Volumes

Stoelting’s new QSI Injector establishes a new standard of versatility and control. Only the Quintessential Stereotaxic Injector enables the researcher to set volumes as small as 1 picoliter and flow rates from 0.05 nl/min to 520 μl/min. It works with syringes from 0.5μl up to 250 μl.

The stereotaxic injector allows the user to accurately control the volume and flow rate of injections without wasting precious fluids in excessively long tubing. The fluid goes directly through a needle on the syringe, mounted directly on the stereotaxic instrument, and all is pre-programmed.

Library of Syringes

The QSI contains a library of common syringes and plunger diameters, so the user may simply scroll the list to select the desired syringe. The syringe library can be customized and expanded.

To view instruction manual, please visit “Stereotaxic Equipment” on our website.

FEATURES

- Exclusive infusion and/or withdrawal of volumes as small as 1 picoliter
- Exclusive flow rates from 0.05 nl/min to 520μl/min
- Exclusive large easy-to-read digital touch screen to control all functions
- Exclusive help menu on digital touch screen
- Exclusive syringe range from 0.5 to 250 μl
- Exclusive free computer interface software enabling remote viewing and control
- Exclusive progressive visual monitoring of injection/withdrawal process
- Exclusive 220V adapter included

Because of the Quintessential Stereotaxic Injector’s unique design, it can be attached to any micromanipulator and accommodates practically any make of syringe.
Mircosyringes

All Stoelting microsyringes are shown in blue.

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Mircosyringes come with male Luer Lock connector, (except the 60 cc). Sterile, single syringe packages, (except the 140cc syringe). All Plastic disposable syringes, without needles, are supplied in sterile, single syringe packages, (except the 140cc syringe). All come with male Luer Lock connector, (except the 60 cc).

**Perfectum® Glass Syringes**

Precision fit glass syringes and plungers matching for high pressure syringe pump applications. Manufactured from high quality Borosilicate Resistance Glass. All Perfectum® syringes have Luer lock connectors made of chrome-plated brass. They are fitted to heavy glass bases to assure greater strength than glass luer tips. All luer needles lock into Needle Lock Tips with an easy twist.

**Stainless Steel Syringes**

Guaranteed leak-free up to 750 psi (5,175 kPa)

These stainless steel syringes are for high pressure applications or for dispensing aggressive chemicals. Both the barrel and the plunger are of stainless steel, with Viton "O" rings.

**Plastic Syringes**

Plastic disposable syringes, without needles, are supplied in sterile, single syringe packages, (except the 140cc syringe). All come with male Luer Lock connector, (except the 60 cc).

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Stoelting microsyringes are made by world renowned Swiss craftsmen. They are equal, or superior, to Hamilton microsyringes in every way, but cost up to 45% less. Their specific features are the same as Hamilton microsyringes and are interchangeable. Please see our website for more information.
Digital Calipers

Electronic digital calipers are a joy to work with. Readings in inches or metric at the touch of a button. Resolution of .001” or .025 mm. Floating zero feature allows scale to read plus or minus a set point without calculations. Stainless steel. Lockable.

58750 Digital Calipers

Electronic Timer

Use as a stopwatch, timer, for many lab purposes.

50286 Timer
Gas Anesthesia Platform
Precise and Secure Positioning During Surgery

The Gas Anesthesia Platform and Mouse Mask (No. 50264) provides for precise and secure positioning of an animal during anesthesia and surgery. It can be used with Stoelting’s Mouse and Neonatal Rat Adaptor (No. 51625), Just for Mice™ (51725) or as a stand-alone platform for dorsal surgery.

The animal’s teeth are placed over the incisor bar and the mouse mask slid forward until the cone is snug about the animal’s nose, so no nose clamp is needed. The platform is then lifted onto the Mouse Adaptor or Just For Mice Stereotaxic, providing positioning of the animal that is perfect, automatic and effortless!

50264 Anesthesia Platform/Mouse Mask
50267 Anesthesia Platform/Rat Mask

Gas Anesthesia Mask
For Mice or Rats in a Stereotaxic Instrument

Anesthesia Masks enable gas anesthesia of rats or mice in a Lab Standard or other stereotaxic instruments with minimal researcher exposure to anesthetic gases.

The Gas Anesthesia mask is installed over the incisor bar, with the cone opening toward the open “U”. The animal (rat or mouse) is installed by placing its teeth over the incisor bar, and sliding the adaptor forward until the cone is snug about the animal’s nose, thereby substituting for the nose clamp. The teeth and the cone provide a snug, stable hold.

Anesthetic gas flows in the tubing connector, past the animal’s nose, and out the other side. Spent gas may be routed to recycling, exhaust or gas analysis instruments. (See gas scavenger, page 48).

The Rat Gas Anesthesia Mask (51610) fits easily onto the 51621 Rat Adaptor (sold separately).

51610 Gas Anesthesia Mask, Rats
51609 Gas Anesthesia Mask, Mice
51621 Rat Adaptor

Stoelting Spinal Cord Surgery Adaptor
To Hold Mice or Rats for Spinal Surgery

The design of this instrument was inspired by the need for a practical, versatile, and economical instrument for stabilizing the spinal column. The Stoelting Spinal Adaptor is an accessory to be mounted on the 51600, 51900 or other brands of stereotaxic instruments, converting them for precise spinal surgery applications.

It utilizes the manipulator and base plate of the stereotaxic instrument, enabling precision spinal preparations. The spinal column is secured by up to four independent transverse process clamps, as well as a spinous process clamp. The transverse process clamps are designed to minimize trauma while providing motionless support.

The instrument is engineered for one-handed control of gross and fine adjustment of the surgical preparation in the AP, ML, and DV planes. Transverse process clamps are available to accommodate either the rat or the mouse. To work with both species, order one Spinal Adaptor and one set of transverse clamps for the other species.

51690 Mouse Spinal Adaptor
51695 Rat Spinal Adaptor
51691 Mouse Transverse Clamps, Set of 4
51692 Rat Transverse Clamps, Set of 4
STEREOTAXIC INSTRUMENTS

14 STOELTING CO.

620 Wheat Lane, Wood Dale, Illinois 60191 USA

Phone: (630) 860-9700
FAX: (630) 860-9775

STEREOTAXIC ACCESSORIES & SUPPLIES

Probe Holders
For Lab Standard™ Small Animal (51600 and 51900 Series), Just For Mice™ (51725 Series), Parallel Rail (51800 Series), and Other Brands of Stereotaxic Instruments.

Standard Probe Holders
Has 11 mm square acrylic block on the bottom with grooves spaced 1 mm apart. Grooves on three sides to facilitate loading of probes. The corner clamp holds shafts from 0.2 to 2.0 mm. The side clamp holds probes from 0.2 to 4.5 mm, as does “C” clamp, which is useful to release implanted probes.

The 51631 is included with each Lab Standard™.

<table>
<thead>
<tr>
<th>Code</th>
<th>Item Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>51631</td>
<td>Holder w/corner clamp</td>
<td>$210.00</td>
</tr>
<tr>
<td>51632</td>
<td>Holder w/side clamp</td>
<td>$210.00</td>
</tr>
<tr>
<td>51634</td>
<td>Holder w/”C” clamp</td>
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For Small Animal Series

<table>
<thead>
<tr>
<th>Code</th>
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<td>51611</td>
<td>Ear Bars, Rat, 18°</td>
<td>$160.00</td>
</tr>
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<td>51612</td>
<td>Ear Bars, Rat, 45°</td>
<td>$160.00</td>
</tr>
<tr>
<td>51613</td>
<td>Ear Bars, Cat, 18°</td>
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</tr>
<tr>
<td>51614</td>
<td>Ear Bars, Cat, 45°</td>
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For Parallel Rail Series

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</table>

Large and Extra Large Probe Holder
Large Probe Holder is for shafts with diameters from 6.5-13 mm (0.5 inch). This will hold Hamilton™ Micro-syringes or Stereotaxic Drills. The Extra Large Probe Holder is for 51449 Micrometer Drill (p. 18) and other probes with 13-26 mm (one inch) shafts.

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<tr>
<td>51630</td>
<td>Extra Large Probe Holder</td>
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<td>51633</td>
<td>Large Probe Holder</td>
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Microdialysis Probe Holder
Customized at Stoelting to fit a specific size of probe. The hole may be drilled to fit probes from 1.5 to 6.0 mm. Default size is 1.5 mm.

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<thead>
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</tr>
</thead>
<tbody>
<tr>
<td>51637</td>
<td>Microdialysis Probe Holder</td>
<td>$310.00</td>
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</table>

Cannula Holder
Holds 3.4 mm cannula heads, as manufactured by Plastics One™, for cannula sets, and DURECT for ALZET® Osmotic Pumps. Non-intrusive for cementing cannulas in place.

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<tbody>
<tr>
<td>51636</td>
<td>Cannula Holder, 3.4 mm</td>
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Double Head Large Probe Holder
Probe Holder has a large “C” gripping component at each end, with the “V” clamp attachment. Dual heads allow a secure hold for two different components. Clamps 1/4” - 1/2” diameter.

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<tr>
<td>51638</td>
<td>Large Probe Holder</td>
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Lab Standard™ Ear Bars
Lab Standard™ Ear Bars have laser engraved scales and are 6.2 mm square. Ear bars for the 51600 and 51900 series of stereotaxic instruments have a different zero point than do those for the 51800 series. 18° Earbars taper at the tip to penetrate far into the ear canal for a more secure hold. Non-puncture ear bars have a 45° taper, and do not puncture the tympanic membrane.

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**Animal Adaptors for Stereotaxic Instruments**

For Lab Standard™ Small Animal (51600 and 51900 Series), Just For Mice™ (51725 Series), Parallel Rail (51800 Series), and Other Brands of Stereotaxic Instruments.

### Rat Adaptor

The 51621 Rat Adaptor is included with the 51600, 51603, and 51900 Lab Standard™ Stereotaxic instruments. It has 30 mm of vertical travel along dovetail slide and 0.1 mm vernier scales. 50 mm of A-P travel possible. The nose clamp assembly and either standard 18° ear bars or non-puncture 45° ear bars are included.

<table>
<thead>
<tr>
<th>Adaptor</th>
<th>Small Animal Series</th>
<th>Parallel Rail Series</th>
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<tbody>
<tr>
<td>51621</td>
<td>Rat Adaptor, 18°</td>
<td>Rat Adaptor, 45°</td>
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<tr>
<td>51620</td>
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</table>

### Cat/Monkey Adaptor

The optional Cat/Monkey Adaptor for the 51600, and 51900 includes spacers and bolts (to raise the “U” frame 2.5 inches above the base plate), the eye socket/palate holder and 18° ear bars. The Cat/Monkey Adaptor is available with either standard or non-puncture 45° ear bars.

<table>
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<tr>
<th>Adaptor</th>
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<tr>
<td>51626</td>
<td>Cat/Monkey Adaptor</td>
<td>Cat Adaptor, 45°</td>
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<tr>
<td>51627</td>
<td></td>
<td>Non-puncture</td>
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</table>

### Dog/Monkey Adaptor

The Dog/Monkey Adaptor is available only for the 51800 series stereotaxic instruments. To fit any size dog, it should be used with 51850/51851 instruments, which have two sets of ear bar holders at different spacings from the front, to accommodate a wide size range of dogs. Includes one set of 18° ear bars.

<table>
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<tr>
<td>51821</td>
<td>Rat Adaptor, 18°</td>
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<td>51820</td>
<td>Rat Adaptor, 45°</td>
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</tbody>
</table>

### Mouse Adaptor

The 51624 Mouse Adaptor holds the mouse head by means of a palate bar and nose clamp, without ear bars. (Ear bars can cause breathing difficulties and bleeding in mice.) Head angle may be adjusted to achieve skull flat or other approach angles. Fits 51600, 51800, and 51900 series stereotaxic instruments.

<table>
<thead>
<tr>
<th>Adaptor</th>
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<tbody>
<tr>
<td>51624</td>
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### Guinea Pig Adaptor

The 51622/51822 Guinea Pig Adaptor includes the 45° ear bars required for guinea pigs. Also, the nose clamp reaches further back behind the incisors than on the rat adaptors. Capable of both vertical and A-P travel. It is available for the 51600, 51800, and 51900 series of stereotaxis.

<table>
<thead>
<tr>
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<th>Parallel Rail Series</th>
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<tbody>
<tr>
<td>51622</td>
<td>Guinea Pig Adaptor</td>
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<tr>
<td>51822</td>
<td></td>
<td>Guinea Pig Adaptor</td>
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### Small Bird Adaptor

The 51623/51823 Small Bird Adaptors include the 45° ear bars required for birds. The Small Bird Adaptor uses a beak support and “V” shaped beak clamp to hold the beak down and centered, in place of the incisor bar/nose clamp arrangement used for rats.

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>51623</td>
<td>Small Bird Adaptor</td>
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STEREOTAXIC INSTRUMENTS

A Stoelting Exclusive!

Stereotaxic Surgery in the Rat: A Photographic Series
Illustrated Step-by-Step Guide
Cooley and Vanderwolf
Each step of stereotaxic surgery, from anesthetizing the animal to suturing, is clearly described and illustrated, with full page 8-1/2 x 11 photomicrographs. The photos employ the “U”-Frame type stereotaxic instrument (Lab Standard™ 51600) and utilize the skull flat and bregma zero point coordinate system. All aspects of the instrument and the technique are clearly described and illustrated. 100 pages.

45015 Stereotaxic Surgery; Rat .................................................. $75.00

The Rat Brain in Stereotaxic Coordinates
Paxinos & Watson
5th Edition
The preceding editions made The Rat Brain in Stereotaxic Coordinates the second most cited book in science.

In this edition, for the first time since the first edition, delineations have been drawn entirely anew (on the basis of a new set of sections). Eighteen hitherto unknown nuclei are identified.

45024 Rat Brain Atlas, 5th Ed

Brain Maps: Structure of the Rat Brain
3rd Edition
Larry W. Swanson
A detailed atlas of the rat brain is essential for any laboratory to have. This updated edition of Brain Maps: Structure of the Rat Brain provides atlas maps aligned in 3-dimensional space and created used color photomicrographs of histological sections based on a single rat brain, which allows for true 3-D reconstruction. The atlas employs color coding of the major parts of the brain and extends this coding system to the atlas levels, flatmaps, and nomenclature tables for easier reference.

45019 Brain Maps with CD

Atlas of Prenatal Rat Brain Development
Altman and Bayer
Ten embryonic ages are presented with 20-35 plates each. Only the highest quality micrographs are used. Plates represent the brain of each age in sagittal and coronal planes. A unique 3-D reconstruction of the brain is presented for each of the ten ages. Computer aided illustrations of brain regions add to the utility of this atlas. A detailed and logical classification of the germinal matrix at early stages is included. 664 pages.

45036 Prenatal Rat Brain Atlas

The Mouse Brain in Stereotaxic Coordinates: Compact 2nd Edition
Paxinos and Franklin
The Mouse Brain in Stereotaxic Coordinates, Second Edition has been the acknowledged reference in the field since the publication of the first edition, and is now available in a Compact Edition. This will provide a more affordable option for students, as well as researchers needing an additional lab atlas. This version includes the coronal diagrams delineating the entire brain as well as the introductory text from the Deluxe edition.

45038 Mouse Brain - Compact

A Stereotaxic Atlas of the Golden Hamster Brain
Morin and Wood
The first golden hamster brain atlas. It provides Nissl and histochemical illustrations and known data about the structure and function of the brain, with labeling of major areas. A CD containing the same illustrations and text is included. Spiral bound.

45012 Golden Hamster Brain Atlas +CD

Atlas of Early Zebrafish Brain Development
T. Mueller and M. F. Wullimann
The first neuroanatomical expression atlas of important genetic and immunohistochemical markers of a vertebrate model system, this book provides comparative context to other model systems and includes many explanatory schematics in uniform style and color coding.

45039 Atlas of Early Zebrafish Brain Development

The Sheep Brain: A Photographic Series
Vanderwolf and Cooley
An advanced laboratory guide for the study of neuroanatomy using the sheep brain as dissection material. Appendices illustrate histology, function, and brains of common laboratory animals. 8 1/2 x 11 inch paperback, 108 pages.

45035 The Sheep Brain

The Mouse Brain in Stereotaxic Coordinates
Paxinos and Franklin
The only stereotaxic atlas in print to depict the mouse brain. The same painstaking histology procedures as used in The Rat Brain in Stereotaxic Coordinates, by Paxinos and Watson, guarantee high quality and accurate coronal sections. Includes 93 high-quality and accurate coronal sections and full page pictures, with diagrams illustrating detail and nomenclature. This is a package of the Mouse Brain Atlas plus a CD-ROM.

45006 Mouse Brain Atlas
Stereotaxic Atlas of the Grey Lesser Mouse Lemur Brain

This new stereotaxic atlas is the definitive brain reference for Microcebus murinus, the grey lesser mouse lemur. The book contains a thorough presentation of the mouse lemur brain using histological (Nissl-stained) plates accompanied by complimentary line drawings, 27 transverse sections from 5 mm anterior, every 0.25 mm, and 53 sagittal sections every 0.2 mm. 173 pages.

45008 Mouse Lemur Brain Atlas

Chemoarchitectonic Atlas of the Rat Brainstem

This is the most comprehensive atlas of the rat brainstem ever published, featuring 243 fully labeled large photographs of the brainstem. It identifies brain structure not only on the conventional Nissl-stained sections, but also on an additional six stains of interest to neuroscientists.

45022 Rat Brainstem Atlas

Photographic Atlas of the Rat Brain

Kruger, Saporta & Swanson
A photographic guide to the cell and fiber architecture of the rat brain illustrated in three planes with stereotaxic coordinates. This volume contains 128 photographic micrographs of excellent sections of the rat brain. Each plate has matching cell and fiber stains. Coronal sections at 0.3 mm intervals. With annotations and labeling of structures.

45025 Atlas of Rat Brain

The Rat Nervous System, 3rd Edition

George Paxinos, 2004
Provides the latest information in research on the rodent brain, spinal cord, and peripheral nervous system. The structure, connections, and function are explained in exquisite detail, making this an essential book for any graduate student or scientists working on the rat or mouse nervous system. All chapters have been extensively updated, and new chapters added covering early segmentations, growth factors, and glia. Physiological data, functional concepts, and correlates to human anatomy and function found out the new edition.

45032 Rat Nervous System

The Laboratory Rat

Sharp and LaRegina
The premier reference for regulatory compliance, research, facility management, and technical procedures. Features include normative values, anesthesia methods, blood sampling methods, age-related lesions, colony health surveillance, and necropsy techniques. Includes husbandry tips, resource lists, and experimental methodologies. It is the most recent comprehensive rat reference book. 214 pages.

45040 The Laboratory Rat

Systematic Approach to Evaluation of Mouse Mutations

Sundberg and Boggess, eds.
Includes the fundamental elements in creating and maintaining colonies of mutant strains of mice, written by renowned experts at the Jackson Laboratory. Other chapters focus on the popular and definitive biochemical and behavioral methods for phenotypic characterization of mutations. 199 pages.

45050 Mouse Mutations Book