KOPF®

STEREOTAXIC INSTRUMENTS ■ ANIMAL ADAPTORS ■ DRILLS
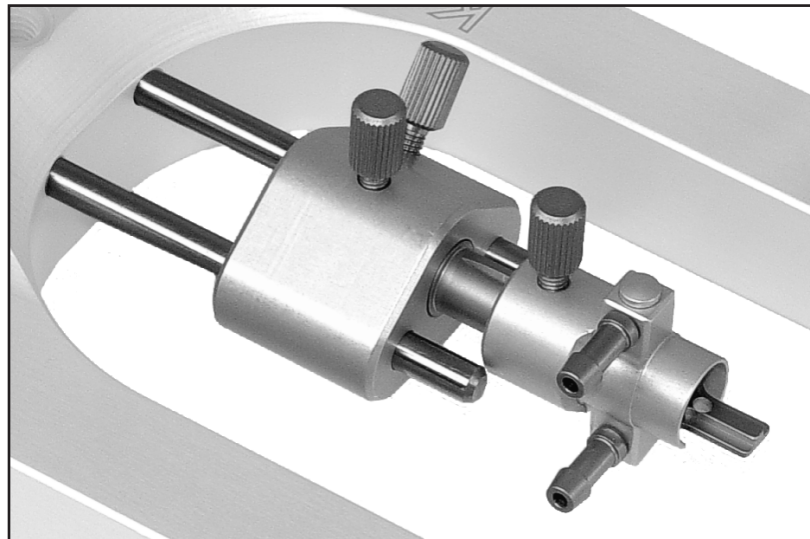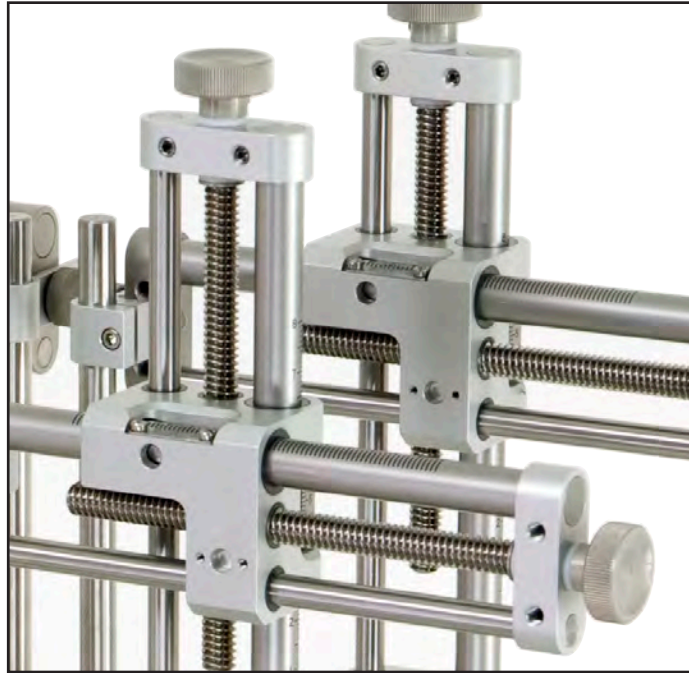
SPINAL INSTRUMENTS ■ MICROPOSITIONERS

www.kopfinstruments.com

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Ordering Information

Please contact KOPF for all of your laboratory research requirements. Our primary goal is to provide our customers with uncompromised quality, continuous technical support, as well as dependable customer service.

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1-818-352-3274

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1-818-352-3139

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sales@kopfinstruments.net

WEB SITE
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MAIL
7324 Elmo Street
Tujunga, CA 91042

David Kopf Instruments products are available on a worldwide basis through selected sales and service representatives. Contact our main office for your authorized factory representative.

David Kopf Instruments has compiled an easy to read condensed catalog to provide our customers with an outline of the various products we manufacture.

We encourage customers to contact our customer service for assistance in assembling a stereotaxic instrumentation package. Our knowledgeable staff will work with you to identify which stereotaxic frame set-up, animal adaptor(s) and surgical tools are needed to fulfill your research requirements.

For complete product information and specifications please visit **www.kopfinstruments.com**

How To Order – All orders should be addressed to our Tujunga office. Orders may be placed by telephone, fax or email. Formal purchase order and/or credit card is required to process order. Products for sale, delivery or use outside the United States must be purchased through an authorized David Kopf Instruments representative or direct through our Tujunga office.

Pricing – Prices are per the current price list and are subject to change without notice. Special items and low volume items will be quoted upon request.

Minimum Order – **$50 (Domestic) $75 (Foreign)**

Terms of Sale – **F.O.B. Tujunga, California USA**

Terms of Payment – Net to established institutions. We reserve the right to hold orders pending payment of overdue accounts or to require payment in advance.

Form of Payment – U.S. currency only. Check, Wire Transfer, Visa, MasterCard and American Express accepted.

Taxes – Quotations and invoices do not include local taxes or tariffs. David Kopf Instruments will not be responsible for their collection of payment except for non-exempt California sales.

Service – Complete service facilities are located at our factory in Tujunga, California. Repairs and modifications are available. Some items could be rendered obsolete by design changes. In this instance, replacement items can generally be substituted. All returned items must include proper documentation, including name, telephone number and address.

Contents

For complete Kopf product line including equipment specifications please refer to www.kopfinstruments.com

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Complete line of Kopf instrumentation is listed below. Product details and specifications are available at www.kopfinstruments.com.

Stereotaxic Alignment System

Model 1900 Stereotaxic Alignment Instrument
Model 1901 Adjustable Stage Platform
Model 1905 Alignment Indicator
Model 1910 Dial Test Indicator
Model 1911 Stereotaxic Drilling Unit
Model 1915 Centering Scope
Model 1923-B Mouse Gas Anesthesia Head Holder
Model 1924-B Neonatal Rat Gas Anesthesia Head Holder
Model 1925 15 Degree Angle Adapter
Model 1929-B Rat Gas Anesthesia Head Holder
Model 1940 Micro Manipulator Digital Display
Model 1950 Universal Off-Plane Adapter
Model 1966 Cannula Holder
Model 1970 Electrode Holder
Model 1971 Syringe Pump Adapter
Model 1972 Syringe Holder
Model 1973 Dual / Model 1974 Single Cannula Insertion Tool
Model 1975 Glass Pipette Holder

Small Animal Stereotaxic Instruments

Model 900 Small Animal Stereotaxic
Model 900LS Lazy Susan Small Animal Stereotaxic
Model 900SD Motorized Small Animal Stereotaxic
Model 902 Dual Small Animal Stereotaxic
Model 930 Small Animal Stereotaxic Frame Assembly
Model 932 Dual Small Animal Stereotaxic Frame Assembly
Model 940 Digital Small Animal Stereotaxic
Model 942 Dual Digital Small Animal Stereotaxic
Model 962 Dual Ultra Precise Small Animal Stereotaxic
Model 963 Ultra Precise Small Animal Stereotaxic
Model 963SD Motorized Ultra Precise Small Animal Stereotaxic

Large Animal Stereotaxic Instruments

Model 1404 Heavy-Duty Research Model Stereotaxic
Model 1430 Stereotaxic Frame Assembly
Model 1504 Heavy-Duty Research Model Stereotaxic
Model 1530 Stereotaxic Frame Assembly
Model 1730 Intracellular Frame Assembly

MRI Stereotaxic Instruments for Small & Large Animals

Model 324 Rat and Model 325 Mouse MRI Head Holder
Model 900M Small Animal MRI Stereotaxic
Model 923M Mouse Gas Anesthesia Head Holder
Model 1430M Large Animal MRI Stereotaxic
Model 1530M Large Animal MRI Stereotaxic
Model 1630M Large Animal MRI Stereotaxic

Animal Adaptors

Bird
Cat
Dog
Ferret, Mink
Guinea Pig
Monkey
Mouse
Prairie Vole
Rabbit
Rat
Siberian Hamster
Squirrel Monkey
Ear Bars
Optical and Semi Chronic Head Holding Devices
35 mm Offset Adaptors & Raised Eye Bars, Inverted Palate Clamp
Special Order Animal Adaptors

Stereotaxic Accessories

Adjustable Stage Platform
Alignment Tools
Anesthesia Masks
A/P Slide Attachment
Base Plates
Drills, Drill Press
Ear Bar Adaptor
Electrode Angle Calibrator, Calibrated A/P Zeroing Bar & Carrier Stand
Electrode Holders & Clamping Devices
Electrode & Micro Manipulators
Microinjection Unit
Removable Zero Point
Temperature Control System
45 Degree Adaptor Slide

Spinal Units

Model 980 Small Animal Spinal Unit
Model 1780 Large Animal Spinal Unit

Micropositioners

Model 608 X/Y Chronic Adapter
Model 2650 Hydraulic Micropositioner
Model 2660 Direct Drive High Speed Micropositioner
Model 2662 Direct Drive High Speed Micropositioner

Model 1900 Stereotaxic Alignment System provides the ability to manipulate and refine the position of the head in 3 dimensional space, prior to exploring inside the head and brain.

The stereotaxic alignment system was originally designed and developed by Joseph Saracione, Cartesian Research Inc. Our **patented** design offers the maximum stereotaxic adjustment available for positioning the animal's head; dorsal/ventral, dorsal tilt, coronal tilt, anterior/posterior and midline alignment (nose left/nose right) adjustments. This complete unit is mounted to 18˝x 18˝x 1˝ precision ground aluminum base plate. The overall mass and rigidity of this instrument provides ultimate stability.

The instrument is fitted with two large dovetail rails for mounting manipulators and additional accessories. The sagittal alignment plate is designed for use with and includes a centering height gauge. This gauge represents the position of the bregma landmark on the top of the skull of the research subject when mounted to the sagittal alignment plate.

Model 1923-B Gas Anesthesia Head Holder and **Model 1922** Non-Rupture 60° Tip Ear Bars for mice are included. Custom palate bar design will insure absolute stability of the head. We have incorporated a custom nose clamping device that can be utilized for delivering gas anesthesia via connection to the inlet/outlet port located on the anesthesia mask.

Patent number 6,258,103
Patent number 6,716,220

Offering a new level of precision and accuracy, **Model 1940** Micro Manipulator provides 1 micron resolution linear glass scales with digital display readout, proving this instrument to be the most advanced manual manipulator available today. Our quick change tool holder allows you to attach any stereotaxic alignment tool and maintain an exact common vertical centerline position tool-to-tool. This valuable feature will assist in reducing surgical time, increase hit rates and greatly reduce potential time consuming errors, which provides a repeatable platform for your research.

Model 1900 Standard Accessories
(supplied with Model 1900)

Model 1900-B Head Holder Assembly

Model 1900-C Base Plate and Slide Assembly

Model 1923-B Mouse Gas Anesthesia Head Holder

Model 1922 Non-Rupture 60° Tip Mouse Ear Bars

Model 1900-51 Centering Height Gauge

Recommended Accessories

Model 1905 Alignment Indicator provides dimensional feedback required for leveling the head.

Model 1910 Dial Test Indicator is necessary for calibrating the stereotaxic manipulator. Indicator will provide dimensional feedback required to verify manipulator alignment is perpendicular and square relative to the precision ground stereotaxic base plate.

Model 1911 Stereotaxic Drilling Unit

Model 1915 Centering Scope 40X magnification is used to assist with positioning the manipulator accurately over the centering height gauge (zero point of reference). This zero point is used to zero out the manipulator readout display and for setting the tool height for all tools to be used in the surgical procedure.

Model 1940 Micro Manipulator with Digital Display 1 micron resolution, 3-axis

***Additional tools may be necessary based on surgical requirements. Custom tools available and quoted upon request.

Stereotaxic Alignment Tools

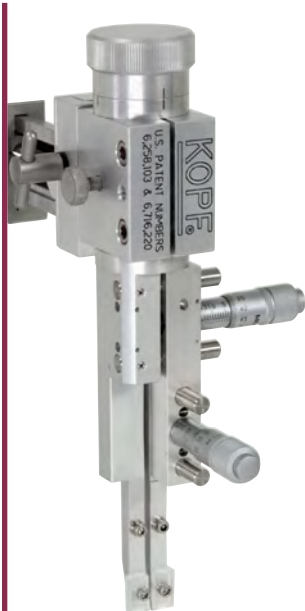**KOPF**®

Model 1905
Alignment Tool

Model 1910
Dial Test
Indicator

Model 1911
Drilling Unit

Model 1915
Centering
Scope 40x

Model 1975
Pipette Holder
(1 mm, 1.5 mm
or 2 mm)

Model 1973
Dual Cannula Holder
(26 guage)

Model 1974
Cannula Holder
(26 guage)

Model 1966
Cannula Holder
Alzet/Plastic One

Model 1972
Syringe Holder

Model 1970
Electrode Holder

Model 900 Single Manipulator 100 micron

Model 900LS Single Manipulator 100 micron

Model 963 Single Manipulator 10 micron

Model 940 Single Manipulator 10 micron
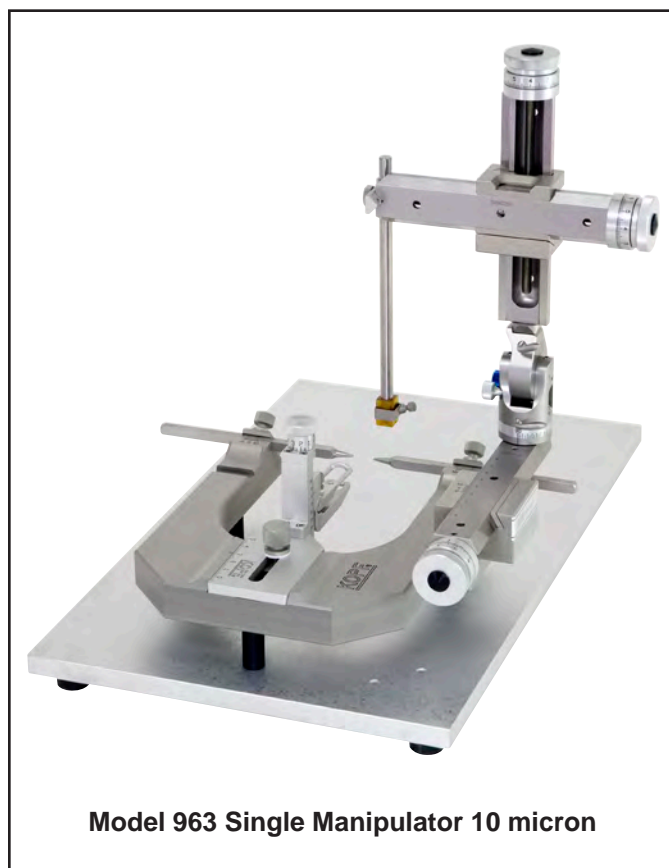
Kopf Small Animal Stereotaxic Instrument originally designed by David Kopf Instruments in 1963, is a versatile, easy-to-use instrument that facilitates proper alignment of small animals for the stereotaxic placement of electrodes, micropipettes, cannula and other devices.

The precise manner in which the instrument is built and assembled assures that the researcher will be able to make accurate and repeatable placements. Precise alignment of the slides assures smooth movements resulting in correct use of the atlases.

Kopf Small Animal Stereotaxic Frames

These instruments consist of a rugged "U" frame assembly to which is affixed a specified Kopf three-dimensional manipulator.

Manipulator X,Y,Z adjustment – Metric scale 80mm travel, 100 micron, 10 micron and 10 micron digital display, single or dual options available.

Angle adjustment – Fully universal joint calibrated on two planes for access from any angle. Vertical alignment pin can be removed for angled settings from 0°– 90° either side of vertical, 2° increments. New design includes a precision t-bolt locking mechanism to insure angles are held firm and rigid in place to provide positive angle presentations. (Photos do not display t-bolt design)

Rotation adjustment – Manipulator swivel base can be rotated up to 360°. Manipulator X/Z axis can be repositioned at 90° increments.

The stereotaxic frame is mounted to a 17″L x 10″W base plate and is elevated to bring ear bar height to 53 mm. Ear bar slots on the "U" frame have 0.1 mm verniers for ease in centering an animal. Ear bar zero to posterior end of base plate is 8.763″.

Model 1770 Electrode Holder with corner clamp and **Model 920** Rat Adaptor are standard accessories included. Standard accessories that are not required can be omitted.

Rat Adaptor features:
Dorsal/Ventral adjustment dial – Calibrated in 100 micron increments, 1 mm per revolution
Dorsal/Ventral adjustment – 30 mm
Dorsal – 10 mm above ear bar zero
Ventral – 20 mm below ear bar zero
Adaptor Plate A/P adjustment – 44 mm
Ear Bars – Model 957 18° Tip Rat Ear Bars
(6.3 mm square with 35 mm of calibration)

Kopf Small Animal Stereotaxic Frames with standard accessories

100 micron resolution
Model 900 Single/902 Dual Small Animal Frame
Stereotaxic "U" Frame Assembly
Model 960 Electrode Manipulator (0.1 mm res.)
(x2 for Model 902)
Model 1770 Electrode Holder with corner clamp
Model 920 Rat Adaptor including one set of
Model 957 18° Tip Rat Ear Bars
Model 900-C Base Plate (17″L x 10″W)

10 micron resolution
Model 963 Single/962 Dual Ultra Precise Small Animal Frame
Stereotaxic "U" Frame Assembly
Model 961 Micro Manipulator (0.01 mm res.)
(x2 for Model 962)
Model 1770 Electrode Holder with corner clamp
Model 920 Rat Adaptor including one set of
Model 957 18° Tip Rat Ear Bars
Model 900-C Base Plate (17″L x 10″W)

10 micron resolution digital
Model 940 Single/942 Dual Small Animal Frame with Digital Display Console
Stereotaxic "U" Frame Assembly
Model 940-B Linear Scale Assembly with Digital Display Readout Console (0.01 mm resolution)
(Model 942-B Dual Display for Model 942)
Model 960 Electrode Manipulator (0.1 mm res.)
(x2 for Model 942)
Model 1770 Electrode Holder with corner clamp
Model 920 Rat Adaptor including one set of
Model 957 18° Tip Rat Ear Bars
Model 900-C Base Plate (17″L x 10″W)

Model 930 Single/932 Dual Small Animal Frame
Model 930-B Stereotaxic Frame Assembly
(one AP Bar) with Base Plate (17″L x 10″W)
(Model 932-B Dual AP Bars)
Model 920 Rat Adaptor including one set of
Model 957 18° Tip Rat Ear Bars

Manipulators for use with Model 930 and 932 are sold separate (see page 12).

Model 902 Dual Manipulator 100 micron

Model 962 Dual Manipulator 10 micron

Model 942 Dual Manipulator 10 micron

**Model 930 Frame with
Model 1460 Electrode Manipulator**

Kopf provides a variety of frame upgrades options

Upgrading an existing **Small Animal Stereotaxic Instrument** is an affordable way to increase the accuracy of your stereotaxic set-up. Adding a second manipulator enables the use of additional tools during a surgerical procedure.

Add a second manipulator

100 micron resolution
Model 960-RIGHT Electrode Manipulator –
Metric scale 80 mm travel, calibrated 0.1 mm vernier scale (3.00 mm advance per revolution)

10 micron resolution
Model 961-RIGHT Micro Manipulator –
Metric scale 80 mm travel,
calibrated dial – 0.01 mm resolution
(1.0 mm advance per revolution)

Add digital display

10 micron resolution digital display
Model 940-B Digital Display upgrade –
Linear scales 10 micron resolution encoders with digital display console.

Model 940-B Digital Display upgrade is designed for use on Model 900 Small Animal Stereotaxic frame. **Model 942-B** Digital Display upgrade is designed for use on Model 902 Dual Small Animal Frame. The linear scales/encoders along with the easy-to-read digital display readout console will upgrade a 100 micron resolution set-up to an improved 10 micron resolution. The digital display control features allow "zero" reset at any position.

Kopf provides repair and calibration services

Due to extensive usage or in some cases negligent care Kopf offers repairs/reconditioning/calibration services. This service will insure that alignment and calibration of instruments are within our quality specifications. Any mechanical instrument regardless of how well it is made will require calibration and or repair. This service is critical to insuring the continued accuracy of the equipment and will prolong the life of your Kopf instrumentation for decades.
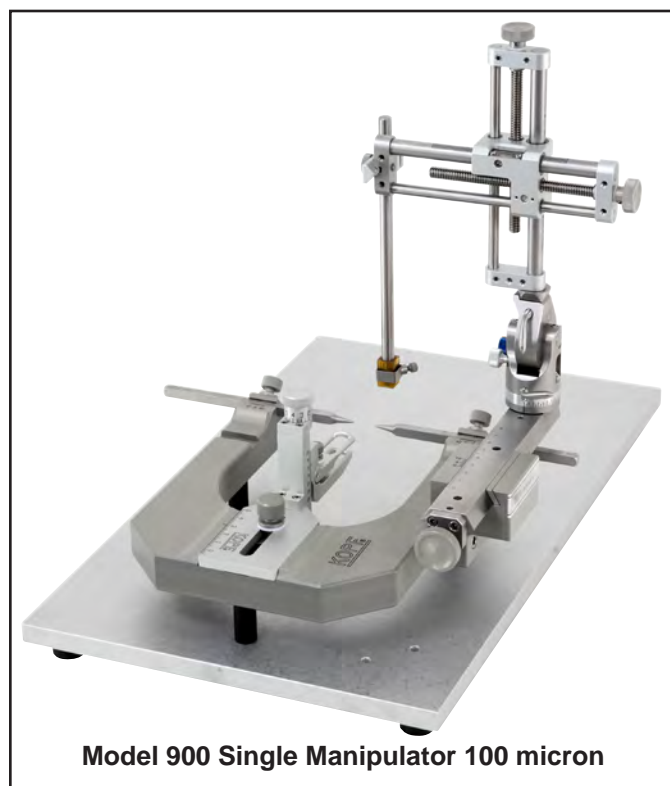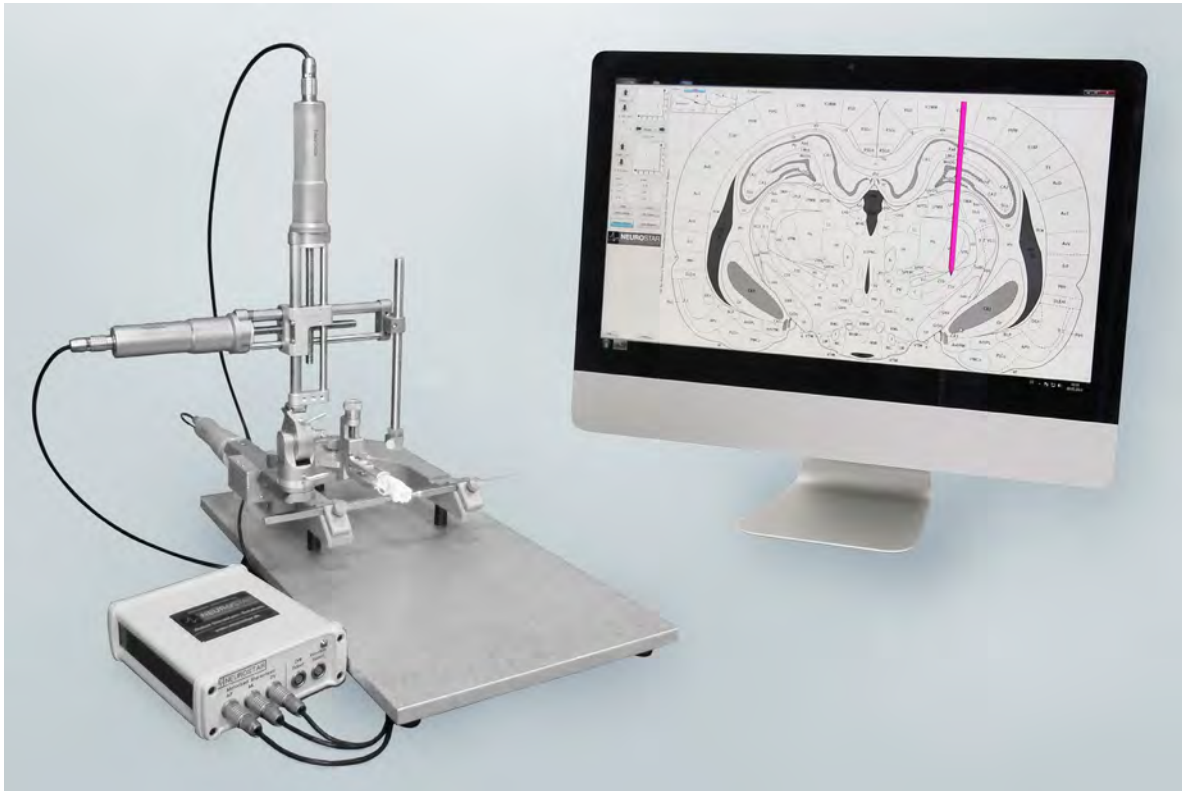

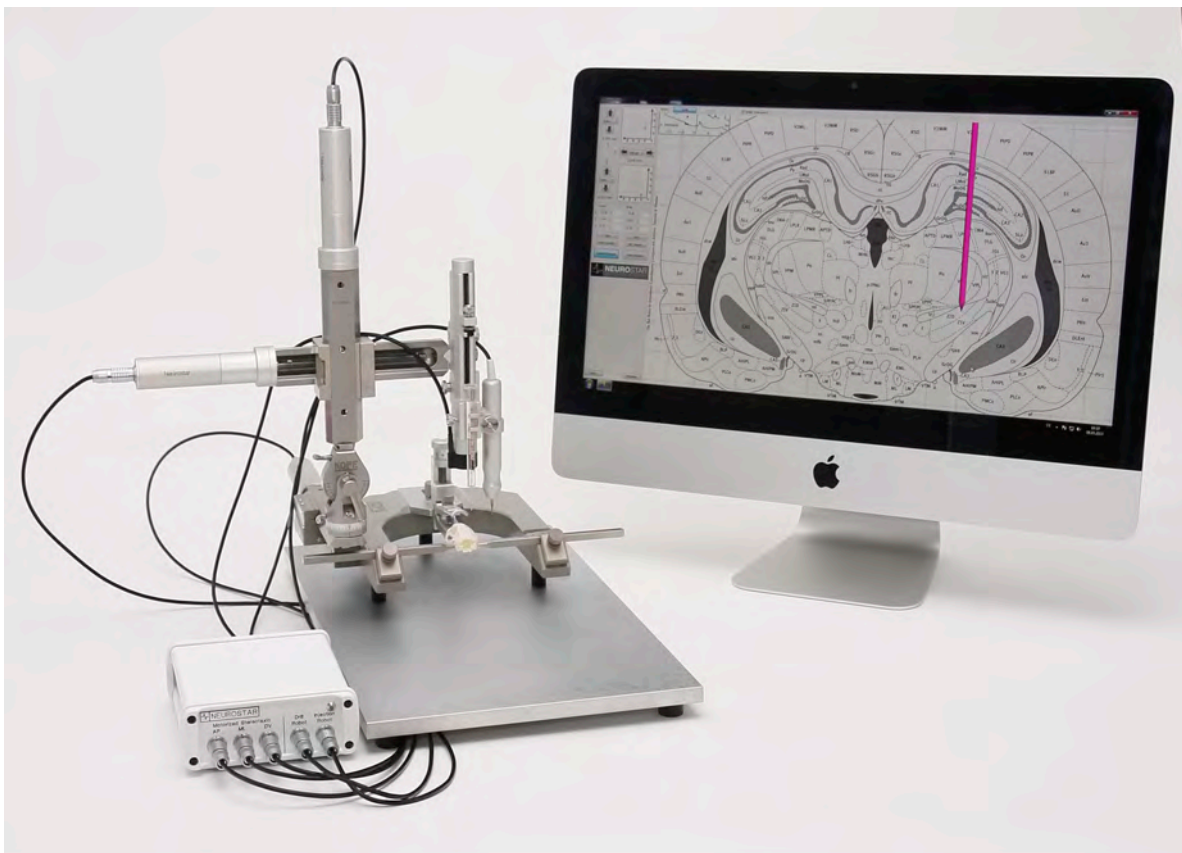**Model 900 Single Manipulator 100 micron**

**Model 940-B upgrade mounted to Model 900
= Model 940 Digital Small Animal Stereotaxic**

*All frame upgrades require factory installation and calibration.

Model 900SD Neurostar Motorized Small Animal Stereotaxic Instrument

Model 963SD Neurostar Ultra Precise Motorized Small Animal Stereotaxic Instrument

David Kopf Instruments is pleased to introduce our collaboration with Neurostar, Germany, the inventor of the Motorized Stereotaxic (www.neurostar.de). We now offer Kopf stereotaxic instruments and manipulators with robotic features including state-of-art software.

Kopf's area of expertise will continue to focus on the design, accuracy and mechanical functioning of the stereotaxic frame, mechanical manipulator and head holding devices. Kopf frames will be the mechanical foundation for the Neurostar Motorized Stereotaxic. Robotic features and software are integrated by Neurostar. The finished product will be supported by Neurostar.

Using the Motorized Stereotaxic you can focus on the experiment without having to manipulate the stereotaxic by hand. Neurostar's software allows you to control the motorized positioning of the probe in all three orthogonal axes by using the keyboard arrow keys, by clicking on the screen with the mouse or by using a joystick.

Neurostar's Atlas Integration and Intuitive Movement Control enable ultra precise and reproducible stereotaxic microinjections, probe positioning and highly accurate automated drilling, craniotomy and brain windowing. Automated atlas adjustment by smart software algorithms compensates for human errors, interindividual variations and alignment inaccuracies.

Neurostar's software facilitates experiment planning by atlas browsing, target definition, storage and retrieval. The optional usage of Robot Add-Ons such as Robot Drill, Robot Microinjection and Smart Bregma Finder saves time, increases experiment accuracy and reproducibility, enabling high-throughput stereotaxic procedures.

Features

♦ Computer Control

♦ Atlas Integration

♦ Head Tilt Correction

♦ Avoids Human Errors

♦ Experiment Planning

♦ Define/Store Targets

♦ Intuitive Navigation

♦ Angle Adjustments

♦ Bregma Setting

♦ Ultra Precise

♦ Time Saving

♦ High Throughput

Stereotaxic Frame Includes:

Stereotaxic "U" Frame Assembly
Model 1770 Electrode Holder with corner clamp
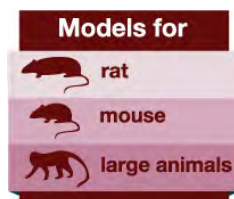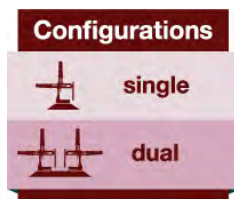**Model 920** Rat Adaptor including one set of
Model 957 18° Tip Rat Ear Bars
Model 900-C Base Plate (17″L x 10″W)

Any standard accessories that are not required can be omitted and the appropriate accessories quoted.

Kopf offers a wide range of animal adaptor, ear bars and stereotaxic holders.

Existing Kopf frames can be upgraded to incorporate any of these motorized options.
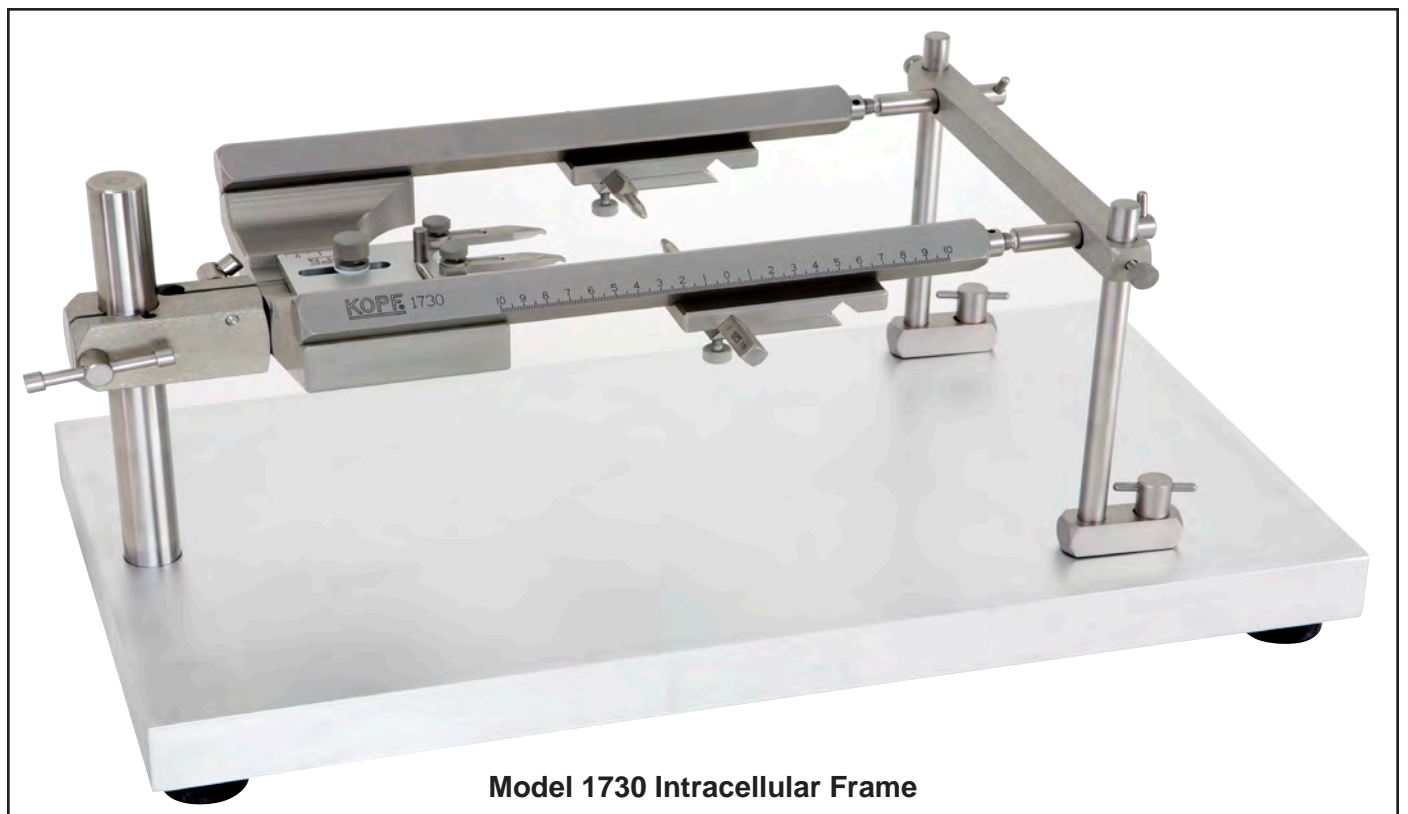
Configurations
single
dual

Models for
rat
mouse
large animals

Motor Speed
standard
high speed

Robot Add-Ons
Robot Drill
Robot Microinjection
Smart Bregma Finder

**Model 1404 Frame
with Model 1460 Manipulators**

**Model 1504 Frame
with Model 1460 Manipulators**

Model 1730 Intracellular Frame

Model 1404 Stereotaxic Instrument consists of Model 1430 Frame Assembly with four Model 1460 Electrode Manipulators. Manipulator resolution is 100 microns (0.1 mm) all axis. Frame is equipped for use with cat or monkey but can be easily adapted for other animals. Frame and manipulators can be quoted separately.

A/P Bar(s) – 18.70 mm square

A/P Bar length – 30.50 cm

A/P Bar calibration – 100 mm each side of zero (ear bar centerline)

Frame Bar centerline distance – 17.78 cm

A/P zero to posterior end of bar – 12.08 cm

Ear Bar Locator position – A/P zero

Model 1504 Stereotaxic Instrument consists of Model 1530 Frame Assembly with four Model 1460 Electrode Manipulators. Manipulator resolution is 100 microns (0.1 mm) all axis. Frame is equipped for use with dog or large monkey. Frame and manipulators can be quoted separately.

A/P Bar(s) – 18.70 mm square

A/P Bar length – 37.47 cm

A/P Bar calibration – 100 mm each side of zero (ear bar centerline)

Frame Bar centerline distance – 17.78 cm

A/P zero to posterior end of bar – 12.08 cm

Ear Bar Locator position – A/P zero and 5 cm anterior

Model 1730 Intracellular Frame Assembly is designed primarily for intracellular recording and stimulation where high inertia, precision and clear access to the head during surgery are paramount. Frame is equipped for use with cat or monkey but can be easily adapted for other animals. Designed for use with 1760 and 1460-LB series manipulators (shown on page 12).

A/P Bar(s) – 21.65 mm square

A/P Bar length – 30.50 cm

A/P Bar calibration – 100 mm each side of zero (ear bar centerline)

Frame Bar centerline distance – 17.78 cm

A/P zero to posterior end of bar – 12.08 cm

Ear Bar Locator position – A/P zero

Model 1404 Standard Accessories
(supplied with Model 1404)

Model 1430-B Stereotaxic Frame Assembly with one set of ear bar locators
Model 1210 Table Mount Base Plate 4¾″ x 3½″
Model 1225 Universal Swivel Stand
Model 1245 Cat / Monkey Adaptor including
Model 851 Standard Solid Ear Bars
Model 1460 Electrode Manipulator (Qty. 4)
Model 1770 Standard Electrode Holder

Model 1430 Stereotaxic Frame Assembly

Model 1504 Standard Accessories
(supplied with Model 1504)

Model 1530-B Stereotaxic Frame Assembly with one set of double ear bar locators
Model 1210 Table Mount Base Plate 4¾″ x 3½″
Model 1225 Universal Swivel Stand
Model 1535 Dog / Monkey Adaptor including
Model 851 Standard Solid Ear Bars
Model 1460 Electrode Manipulator (Qty. 4)
Model 1770 Standard Electrode Holder

Model 1730 Standard Accessories
(supplied with Model 1730)

Model 1730-B Intracellular Frame Assembly with one set of ear bar locators
Model 1711 Intracellular Base Plate
Dimensions: 22″L x 12″W x 1½″H
Model 1725 Universal Clamp and Stand Post
Model 1735 Vertical Outboard Posts and Tie Bar
Model 1745 Cat / Monkey Adaptor including
Model 1751 Standard Solid Ear Bars

1460-61

1460

1760-61

1760

Kopf Electrode Manipulators
100 micron resolution
Model 1460, 1460-61, 1460-LB, 1460-61-LB

Manipulator X, Z adjustment –
Metric scale 80 mm travel, calibrated 0.1 mm vernier scale (3.00 mm advance per revolution)
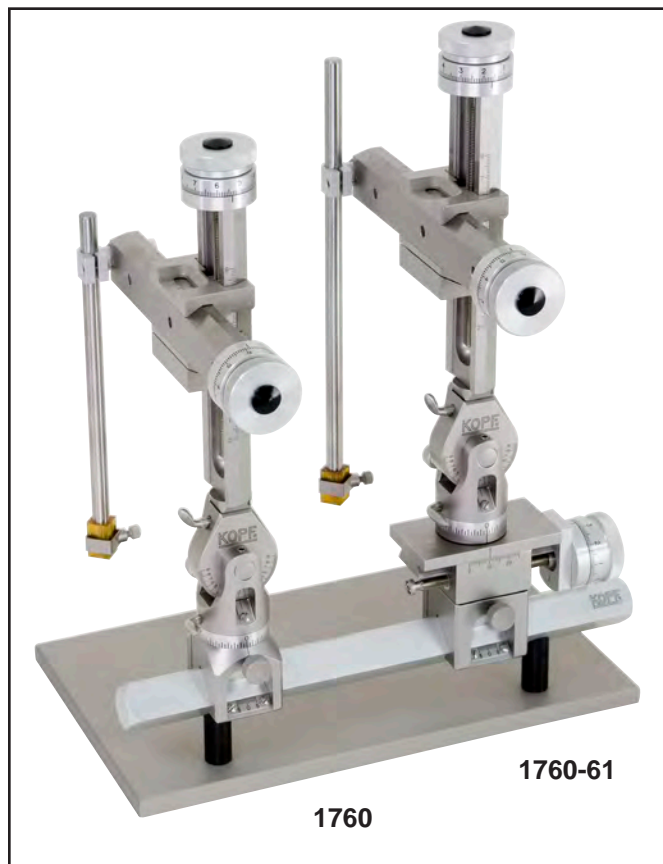
Manipulator Y adjustment –
Model 1460 – Manual adjustment 100 mm each side of zero (A/P bar) 0.1 mm vernier scale

Manipulator Y adjustment –
Model 1460-61 – Metric scale 25 mm travel, calibrated dial – 0.01 mm resolution
(1.0 mm advance per revolution)

Angle adjustment – Fully universal joint calibrated on two planes for access from any angle. Vertical alignment pin can be removed for angled settings from 0° – 90° either side of vertical, 2° increments. Manipulator swivel design includes a precision t-bolt locking mechanism to insure angles are held firm and rigid in place to provide positive angle presentations. (Photos do not display t-bolt design)

Rotation adjustment – Manipulator swivel base can be rotated up to 360°. Manipulator X/Z axis can be repositioned at 90° increments.

Kopf Micro Manipulators
10 micron resolution
Model 1760, 1760-61, 1760-SB, 1760-61-SB

Manipulator X, Z adjustment –
Metric scale 80 mm travel,
calibrated dial **–** 0.01 mm resolution
(1.0 mm of travel per revolution)

Manipulator Y adjustment –
Model 1760 – Manual adjustment 100 mm each side of zero (A/P bar) 0.1 mm vernier scale

Manipulator Y adjustment –
Model 1760-61 – Metric scale 25 mm travel, calibrated dial – 0.01 mm resolution
(1.0 mm advance per revolution)

Angle and Rotation adjustment –
Same specifications as noted for 1400 series manipulators above.

Models 1460, 1460-61, 1760-SB, 1760-61-SB compatible for use with 18.70 mm AP bar.

Models 1760, 1760-61, 1460-LB, 1460-61-LB compatible for use with 21.65 mm AP bar.

MRI STEREOTAXIC INSTRUMENTS

KOPF®
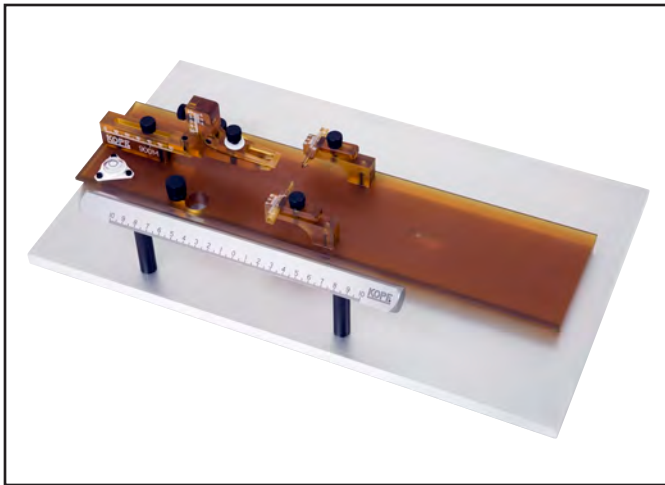
Model 900M Small Animal MRI Stereotaxic Instrument is designed to successfully stabilize small animals for stereotaxic surgery. **Model 900M-B** MRI Head Holder Assembly with **Model 920M** Rat Adaptor with ear bars provides easy access and removal from the stereotaxic base for insertion into MRI device. The removable MRI head holder is designed to fit into a MRI device 12 cm diameter (or larger).

A/P Bar – 18.70 mm square
A/P Bar length – 25.40 cm
A/P Bar calibration – 100 mm each side of zero (ear bar centerline)
A/P zero to posterior end of bar – 12.70 cm
Ear Bar Locator position – A/P zero

Model 900M-B MRI Head Holder Assembly

Dimensions:	*Material:*
16˝ (40.64 cm) length	ULTEM-1000,
3.964˝ (10.07 cm) width	Nylon 6-6, Delrin
3.430˝ (8.71 cm) height	
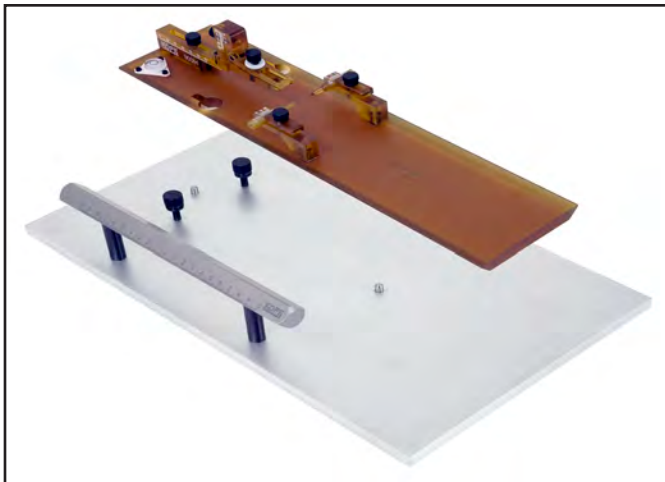
Model 1430M MRI Stereotaxic Instrument is designed to successfully stabilize a cat or monkey for stereotaxic surgery. Unit can be repositioned into a MRI device without generating electromagnetic interference. **Model 1245M** Cat / Monkey Adaptor with ear bars are included.

A/P Bar(s) – 18.70 mm square
A/P Bar length – 30.50 cm
A/P Bar calibration – 100 mm each side of zero (ear bar centerline)
Frame Bar centerline distance – 17.78 cm
A/P zero to posterior end of bar – 12.08 cm
Ear Bar Locator position – A/P zero

Dimensions:	*Material:*
16.500˝ (42 cm) length	ULTEM-1000,
7.937˝ (20.16 cm) width	Nylon 6-6, Delrin
8.857˝ (22.5 cm) height	
Weight: 7lbs. 12 oz	

Model 1530M MRI for Dog / Large Monkey
Frame A/P Bar Length **–** 37.46 cm
Frame Bar centerline distance **–** 17.78 cm

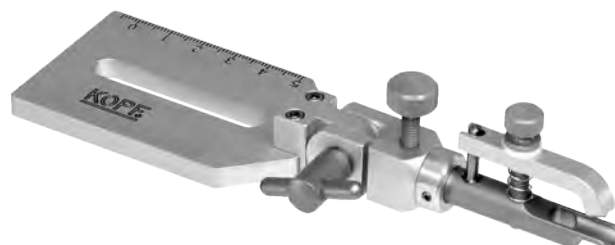**Model 1630M** MRI Special (larger frame width)
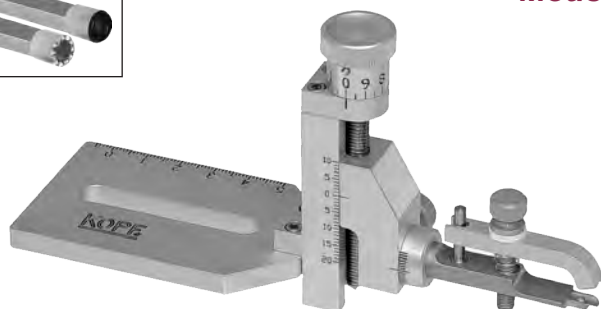Frame A/P Bar Length **–** 37.46 cm
Frame Bar centerline distance **–** 22.86 cm

Mouse
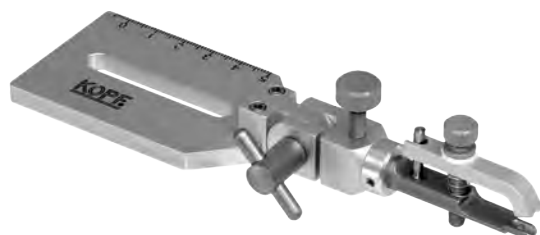
Model 921-E Low Profile

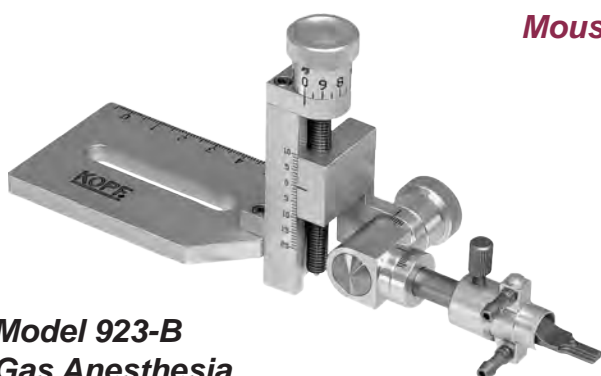
Rat

Model 920-E Low Profile

Mouse

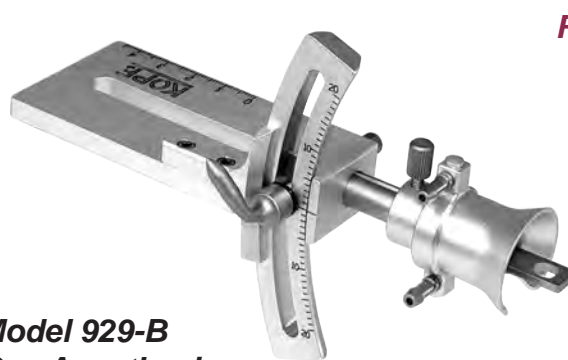**Model 926 Traditional**

Rat

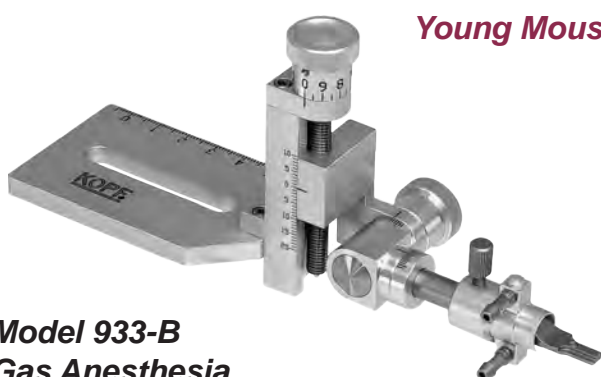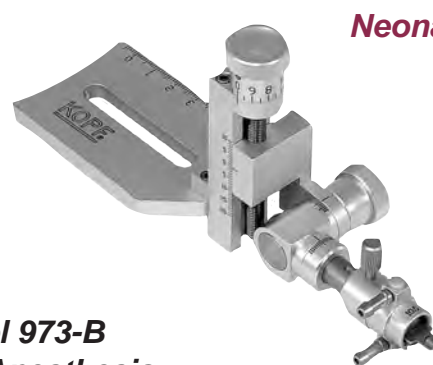**Model 920 Traditional**

Mouse

**Model 923-B
Gas Anesthesia**

Rat

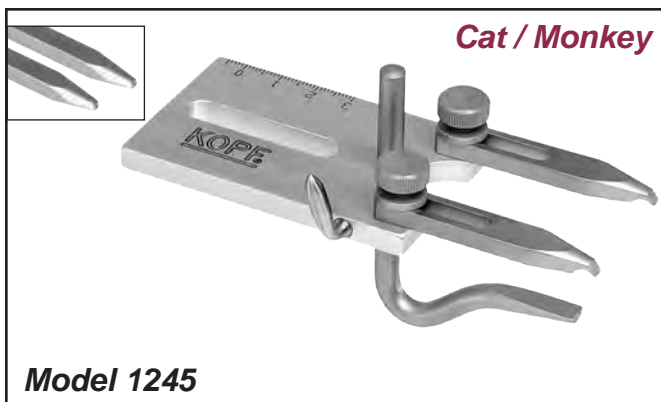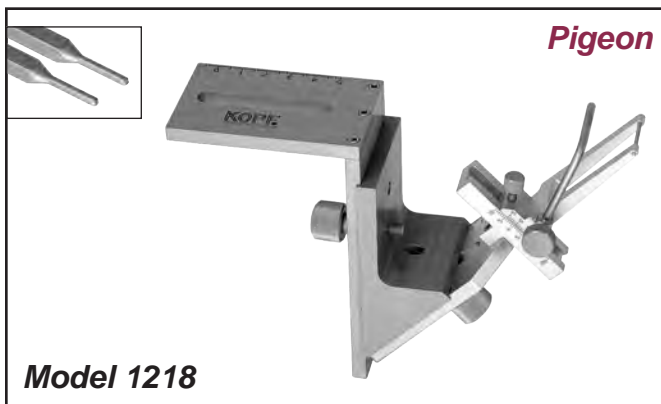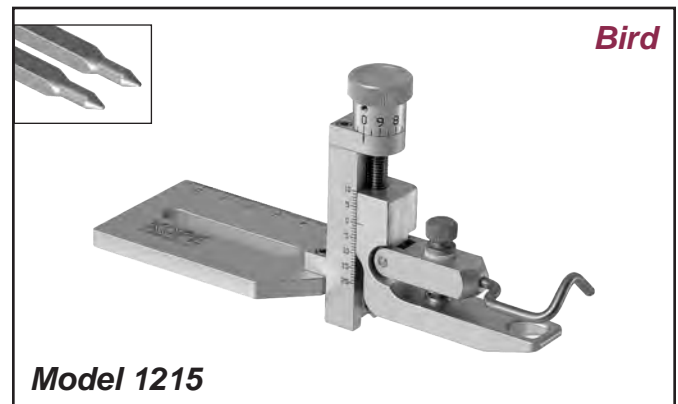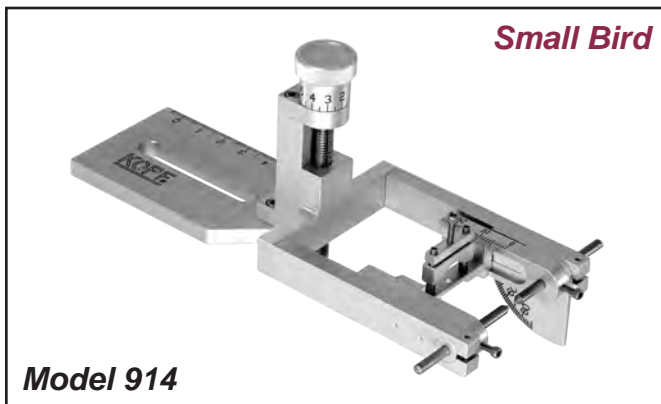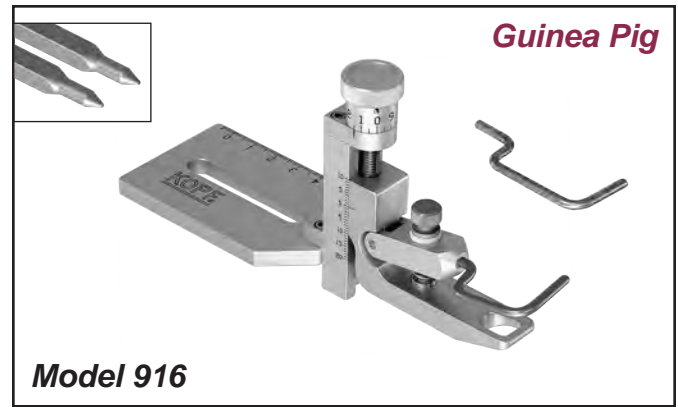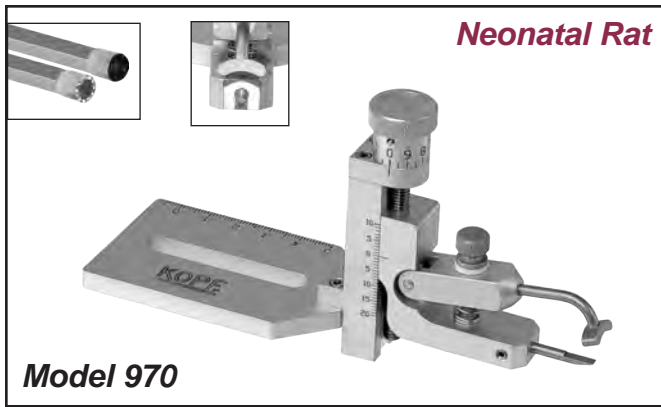**Model 929-B
Gas Anesthesia**

Young Mouse

**Model 933-B
Gas Anesthesia**

Neonatal Rat

**Model 973-B
Gas Anesthesia**

Animal Adaptors

Neonatal Rat

Model 970

Guinea Pig

Model 916

Small Bird

Model 914

Bird

Model 1215

Pigeon

Model 1218

Squirrel Monkey

Model 1248

Cat / Monkey

Model 1245

Dog / Monkey

Model 1535

Ferrett

Model 927

Rabbit

Model 1240

Rotational Rat

Model 924

Piglet

Model 1541

Neonatal Lamb

Model 1247

Prairie Vole

Model 928

Cat / Monkey

Model 865
35mm Offset Ear Bars & Riser Block

Cat / Monkey

Model 866
35mm Offset Ear Bars & Riser Block

Ear Bars

Set #	Model #	Name	Description	Tip Shape Shown
1	821 921 1721	Non-Rupture (Mouse, Neonatal Rat)	Zygoma ear cups (serrated and soft tissue)	
2	822 922 1722	Non-Rupture (Mouse, Siberian Hamster)	60° Non-Rupture tip *Hollow Ear Bars are also available*	
3	851 951 1751	Standard Solid (Cat / Monkey)	20° tapered tip with a 1.5 mm radius	
4	852 952 1752	Non-Rupture (Cat / Monkey)	20° tapered tip to a 4.8 mm shoulder with a 3 mm dia. by 2 mm long protrusion	
5	853 953 1753	Hollow (Cat / Monkey)	4 mm hole through for auditory stimulation	
6	855 955 1755	Non-Rupture (Bird, Guinea Pig, Prairie Vole, Rat, Squirrel Monkey)	45° Non-Rupture tip with a 0.8 mm radius *Hollow Ear Bars are also available*	
7	856 956 1756	(Pigeon)	3 mm dia. by 6 mm long tip with a full radius on end	
8	857 957 1757	(Rat)	18° tip with 0.8 mm radius *Hollow Ear Bars are also available*	

800 series ear bars have 50 mm calibration markings, 6.3 mm square for use on 1430 / 1530 frames.
900 series ear bars have 35 mm calibration markings, 6.3 mm square for use on 900 series frames.
1700 series ear bars have 50 mm calibration markings, 9.4 mm square for use on 1730 frame.

Anesthesia Mask

Model 906 Rat Anesthesia Mask compatible with Model 920, 1220, 1520 & 1720 Rat Adaptors. Design includes a dorsal adjustment screw which can be used to apply pressure down onto the nose for securing upper jaw onto adaptor tooth bar. A rubber seal insert lines the internal cavity of the rat anesthesia mask. Inlet and outlet ports are 5/16″ outside diameter.

Model 907 Mouse Anesthesia Mask compatible with Model 921-E, 926, 1226, 1526 & 1726 Mouse Adaptors. Inlet and outlet ports are 5/16″ outside diameter.

Electrode, Glass Pipette, Hypodermic Tubing

1770

1771

1769

1773

1774
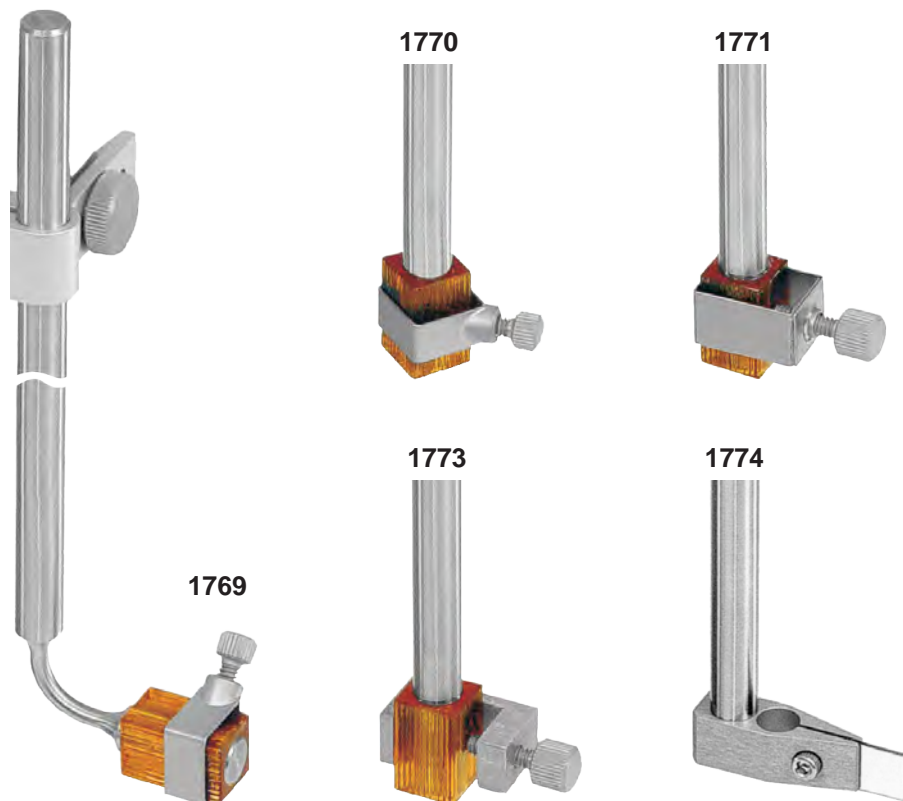
Model 1769 90° holds electrodes from 0.4 mm to 1.3 mm diameter.

Model 1770 with Corner Clamp holds electrodes from 0.4 mm to 1.3 mm diameter.

Model 1771 with Straight Clamp holds electrodes from 0.4 mm to 3.8 mm diameter.

Model 1771-A-Mod includes a clamp pad adhered to the inside of clamp for holding glass pipettes .092 mm to 2.325 mm.

Model 1773 with Removable Open Side Clamp holds electrodes from 0.4 mm to 3.6 mm diameter.

Model 1774 Wedge Holder with Removable Flag has a tapered profile for positioning numerous electrodes close together.

Cannula, Syringe

1766-AP

1772-F

1776-P2

1776-P1

1779
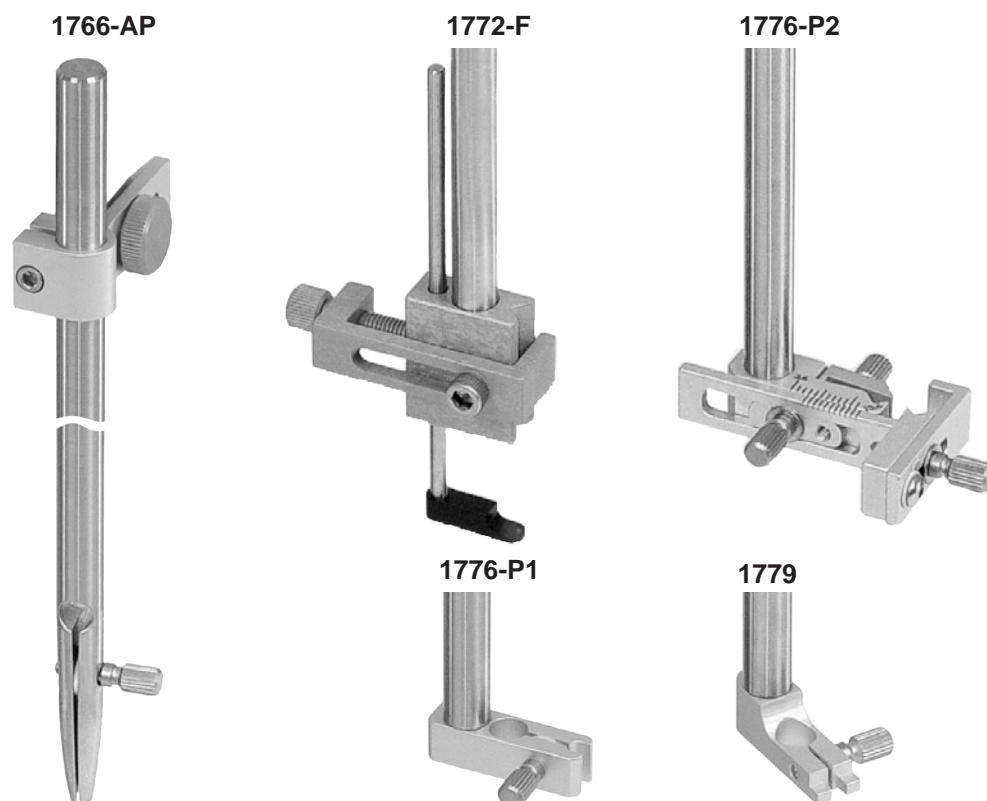
Model 1766-AP holds Alzet and Plastic One cannula 3.4 mm to 3.5 mm diameter pedestal.

Model 1772 Universal holds diameters from 2.8 mm to 11 mm diameter. **Model 1772-F** includes needle support foot designed to hold Hamilton syringes.

Model 1776 Custom drilled to hold specific diameter. Hole sizes available from 1.5 mm to 6 mm. *(Special Order)*

Model 1776-P2 Dual Adjustable Cannula holds (2) Alzet and Plastic One cannula 3.4 mm to 3.5 mm diameter pedestal.

Model 1776-P1 holds Alzet and Plastic One cannula 3.4 mm to 3.5 mm diameter pedestal.

Model 1779 Cannula holds a variety of guide cannula manufactured by CMA Microdialysis.

Stereotaxic Drills

Model 1474 High Speed Stereotaxic Drill can be run at a variable speed with dial or foot pedal control. Control speed range is 0–45,000 rpm. Both the micro motor and foot pedal control have forward and reverse operation. Steady constant speed can be achieved with proper flip of the switch from foot to manual control.

Additional design features includes a quick change rotary chuck handpiece with DC motor housed within. This handpiece is distinguished from flexible shaft machines by higher speed performance and added flexibility. Standard collet 1/8˝. The handpiece is vibration-free, quiet running and lightweight.

Model 1474 Handpiece
Collet 1/8˝
Size: 6˝ overall length
5/8˝ grip diameter
1˝ motor diameter
1.75 amps (110V)
.75 amps (220V)
Weight: 7.5 ounces
Model 1464 Handpiece Holder included.
(Drill bits sold separately)

Models 1470 and 1471 Stereotaxic Drills include the Foredom hanging motor with foot pedal. Speed control range from 0–14,000 rpm, 110–130 volts AC/DC.

Model 1470 Handpiece
Collet 3/32˝
Size: 3/4˝ diameter
Length: 10¾˝
Weight: 5 ounces (handpiece only)
Model 1466 Handpiece Holder included.
(Drill bits for 3/32" not provided)

Model 1471 Handpiece
Collet Jacobs chuck 0 to 3.9 mm diameter
Size: 1˝ diameter
Length: 5¼˝
Weight: 6 ounces (handpiece only)
Model 1469 Handpiece Holder included.
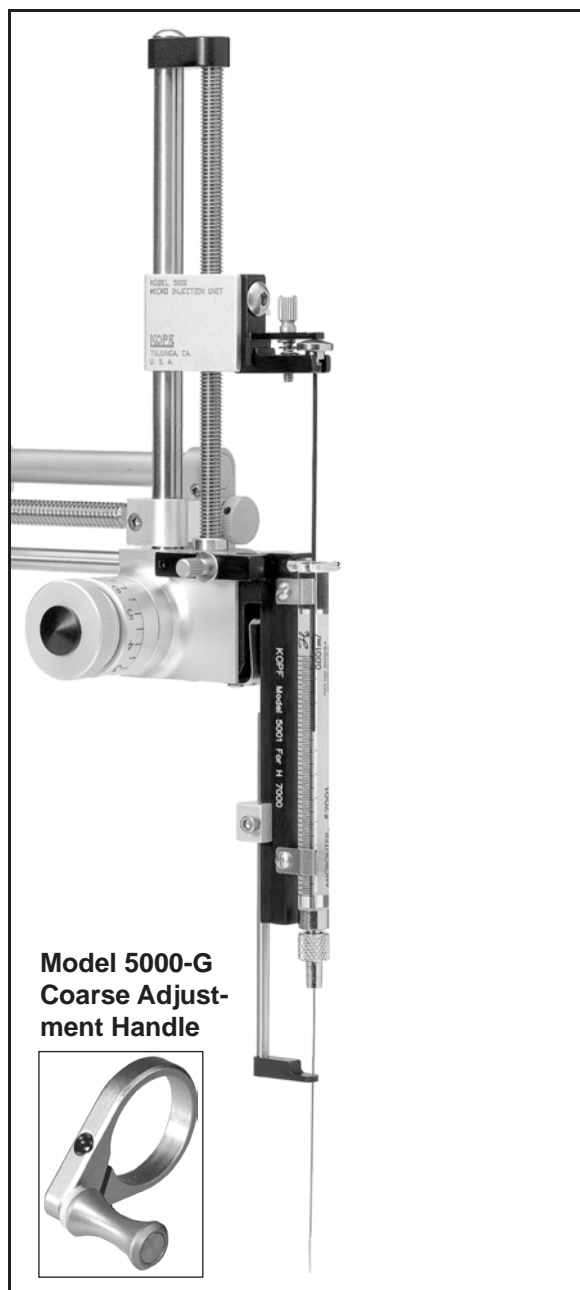*(Drill bits sold separately)*

1470

1471

KOPF®

Model 5000 Microinjection Unit

Model 5000 Microinjection Unit provides a simple and reliable method of standardizing the use of µL syringes for accurate, repeatable delivery of minute amounts of fluid. It consists of an inter-changeable syringe holder plunger drive mechanism, delivery control knob and adjustable foot support to stabilize the needle tip.

The syringe holder firmly holds the syringe in position while the plunger remains stationary until it is moved by the control knob. The finely calibrated control knob permits smooth, precise dispensing of increments smaller than .001 µL of fluid. The quick-release syringe holder allows syringes to be refilled and repositioned rapidly and accurately.

Model 5000 Standard Accessories
(supplied with Model 5000)

Model 5001 Syringe Holder
Hamilton syringes .305 barrel diameter (25 gauge)

Model 1770-C Upper Bracket Assembly
for attachment to Kopf manipulator.

Optional Accessories

Model 5002 Syringe Holder
Hamilton syringes .260 barrel diameter (26 gauge)

Model 5003 Micro Pipette Holder

Model 5004 Syringe Holder
Hamilton syringes .305 barrel diameter (22 gauge)

Model 5000-G Coarse Adjustment Handle is used to rotate control knob at a rapid pace.

Model 5000-G Coarse Adjustment Handle

Model TCAT-2LV Temperature Controller

Model TCAT-2LV Temperature Controller combined with **Model HP-1M** Heating Plate and appropriate animal rectal probe, **Model RET-2-ISO** (rat) or **Model RET-3-ISO** (mouse) is designed to monitor and maintain a specified body temperature of anesthetized animal during stereotaxic surgical procedures. (rectal probes not shown)

Model 980 Small Animal Spinal Unit
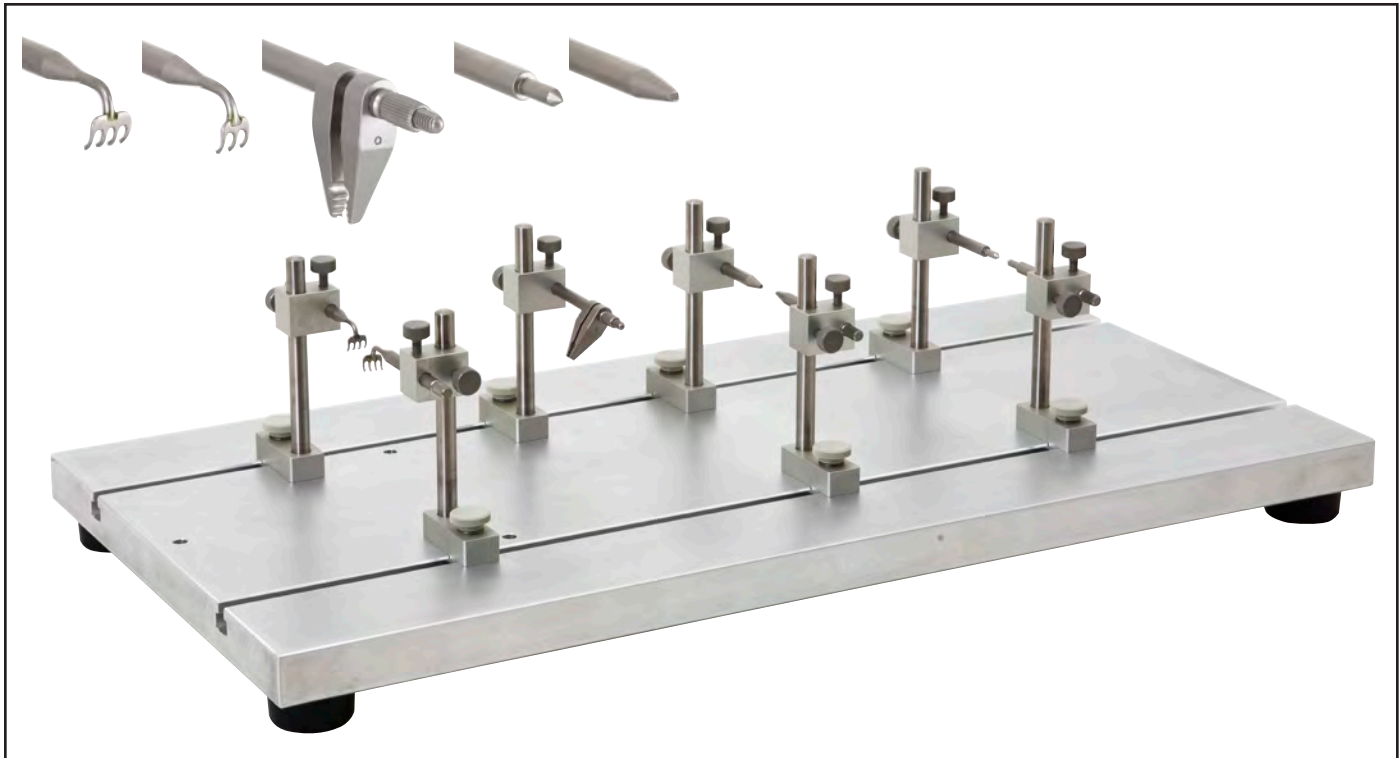
Model 980 Small Animal Spinal Unit is ideal for a variety of spinal procedures. A combination of spinal clamps are included, making this unit extremely versatile for research with various small animals. It is easily the most flexible spinal unit available to researchers today.

Model 912 Spinal Base Plate is precision machined and has two full length tee slots for rapid mounting and removal of components. The top is left natural to assure precise location of the various spinal accessories. Base plate design incorporates mounting holes for attaching a Kopf small animal stereotaxic frame if required.

Attached to the plate by way of tee slots are seven base mounts with vertical posts and clamps. The mounts are secured to the base plate by thumb screws and tee nuts for fast, rigid clamping. No wrenches are needed.

The posts have 3/8˝ shaft and have 4.5˝ of vertical adjustment. The upright assembly clamps are designed with thumb screws for fast and easy height adjustment. The design of the 980 assures ample lateral, A/P and vertical travel of all components.

Model 980 Standard Accessories
(supplied with Model 980)

Model 912 Spinal Base Plate
Dimensions: 22˝L x 12˝W x 1˝H
Weight: 27 lbs.

Model 981C Retractor (pair)

Model 982 Adjustable Base Mounts with Post and Clamp (Qty. 7)

Model 985 Hip Spikes (pair)

Model 986C Vertebrae Clamp

Model 987 "V" Notch Spikes (pair)

Model 1780 Large Animal Spinal Unit
(supplied with Model 1780, product not shown)

Model 1712 Spinal Base Plate
Dimensions: 36˝L x 12˝W x 2¼˝H
Weight: 77 lbs.

Model 1782 Base Mounts with Adjustable Vertical Posts (Qty. 4)

Model 1785 Adjustable Hip Spikes and Mounting Block (pair)

Model 1786 Vertebrae Clamp and Mounting Block (pair)

KOPF
Direct Drive and Hydraulic Micropositioners

(NOT FOR USE ON HUMANS)

Model 2660 Micropositioner

(NOT FOR USE ON HUMANS)

Model 2650 Micropositioner

Model 2660 and 2662

Direct Drive Micropositioners are an electronically controlled direct drive micro stepping positioner ideal for high penetration velocity with exact actual movement of the probe.

The probe drive assembly is designed to support linear movement with travel range of 25 mm (Model 2660) or 50 mm (Model 2662). The probe is motor driven and has zero creep and zero backlash. Probe design incorporates a pin for grounding the probe. Probe drive assembly incorporates a 15 foot cable for connecting to the electronic control assembly.

Model 2650

Hydraulic Micropositioners are an electronically controlled hydraulic drive micro stepping positioner.

The hydraulic assembly is designed to support linear movement with travel range of 25 mm (Model 2650).

Electronic control assembly is designed for travel speeds that can be pre-selected up to 10 pre-defined speed settings with ranges from 1 µm/sec. to 4 mm/sec. Direct Drive maximum resolution of 0.1 µm. Rapid single motion (Burst): from 0.1 µm to 99.9 µm. Hydraulic Drive – due to the performance characteristics of a hydraulic system, select speeds and distances of .5 µm or higher are recommended with maximum resolution of 0.5 µm.

Model 2650-Z Hand Control with 10 foot cable provides absolute control of the microdrive. A retract / advance rocker switch is utilized for directional positioning. Burst and run movement are controlled with individual pushbuttons. A reset button (recessed guard protection) is used for resetting the control panel display readout. We also offer **Model 2650-Z-T** Hand Control with spring loaded toggle run switch as an alternative to the standard pushbutton style run switch.

Standard unit is a bench top set-up, rack mount accessories are quoted upon request. A 6 foot power cord with applicable power plug is included.

All Kopf 2600 series Micropositioners are FCC, Part 15 and CE approved.

Warranty & Disclaimer

All product components manufactured by David Kopf Instruments are warranted to be free of defects in materials and workmanship for one year from date of shipment. Other manufacturer's products used are subject to their warranty.

There are no express warranties except as listed above. Additionally, such warranty becomes null and void because of abuse, disassembly or unauthorized repair of product. Refer to maintenance section located on www.kopfinstruments.com and/or instruction manual included with equipment.

All express and implied warranties, including warranties of merchantability and fitness for a particular purpose, are limited to the applicable warranty period set forth above.

Each and every product designed, manufactured and sold by David Kopf Instruments is intended exclusively for use in animal research and is not under any circumstances intended for use on humans or clinical practice on privately owned animals.

Because our products are intended exclusively for use in animal research, none of the products designed, manufactured or sold by David Kopf Instruments has been approved for use on humans by the Federal Drug Administration or any other federal or state agency. It has always been our position that our products are to be used exclusively in animal research. Any use of our products, except as provided in this paragraph, shall immediately terminate any warranty that might otherwise apply.

Warranties will be honored only on products purchased directly through our Tujunga office or authorized David Kopf Instruments representative.

KOPF®

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