

RWD

In Vivo Imaging Solutions



Animal Surgery and Modeling Solutions



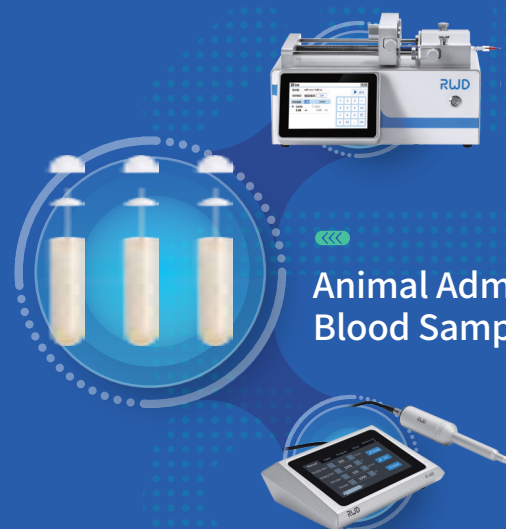
Neural Signal Research Solutions



Pathological Section Solutions



Animal Administration and Blood Sampling Solutions



Behavioral Experiment Solutions



Cellular and Molecular Biology Research Solutions



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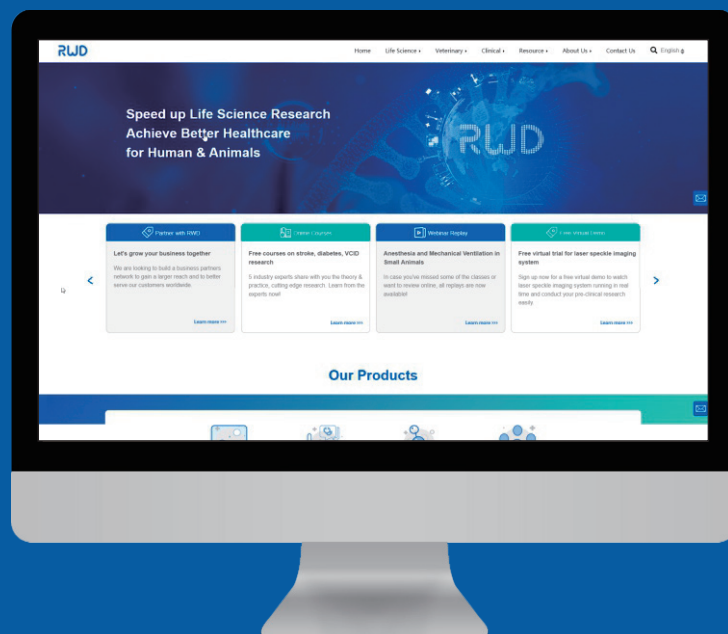
PRODUCT CATALOGUE

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Speed up Life Science Research Achieve Better Healthcare for Human & Animals



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Introduction

Established in 2002, RWD Life Science has been dedicated to being a leading manufacturer in research and veterinary equipments worldwide. We specialize in anesthesia, physiological and surgical equipments, which are used by pre-clinical researchers and veterinarians. Our mission is to provide high quality products and integrated solutions to our customers with prompt and professional support.

For more information about our products, such as Laser Speckle Perfusion Imager, Anesthesia Machine, Ventilator, Stereotaxic Instrument, Syringe Pump, Cannula System and Surgical tools etc., please check our website: www.rwdstco.com

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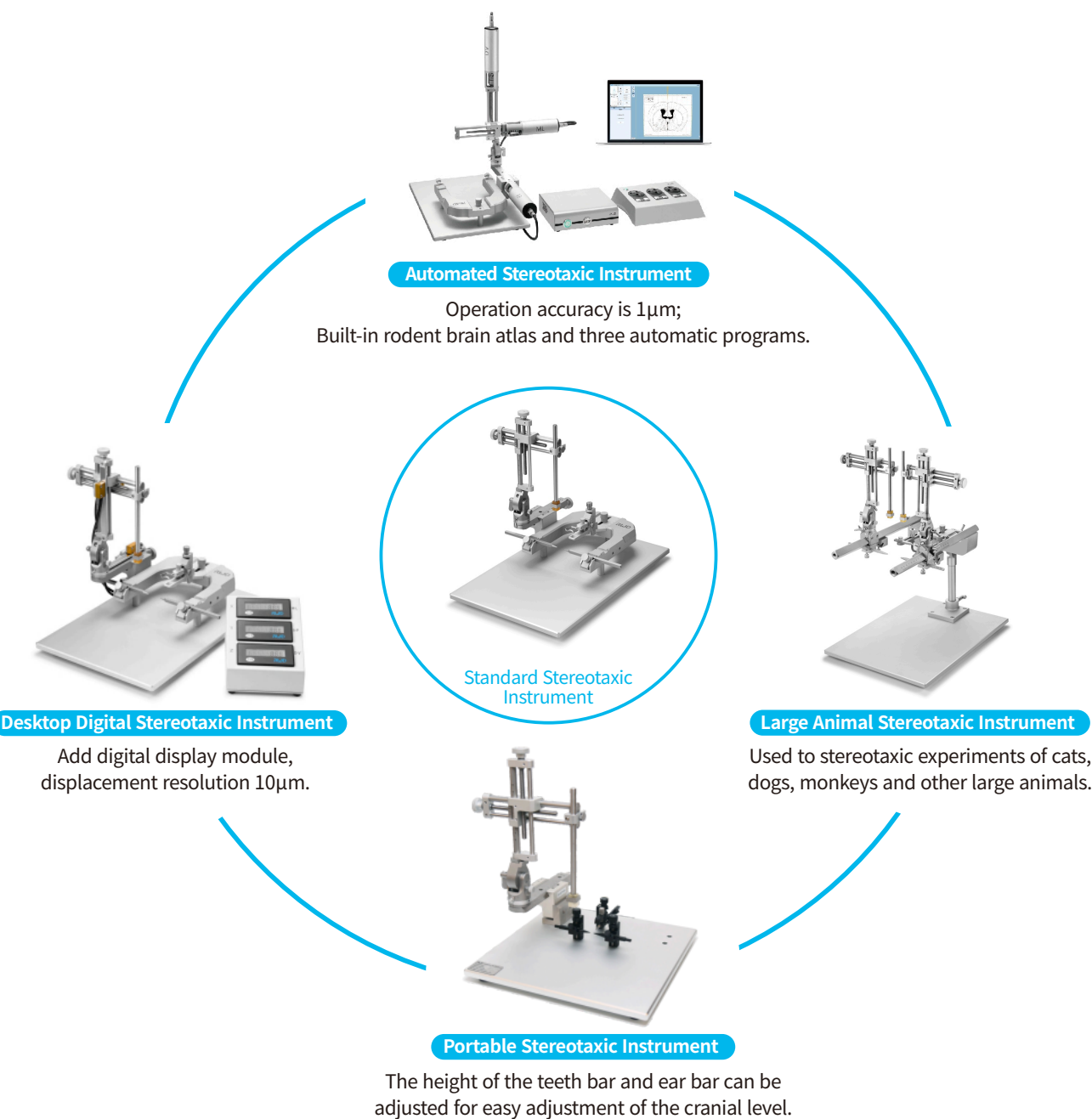
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Animal Surgery and Modeling Solutions

Stereotaxic instrument is an important research equipment widely used in many fields such as neuroanatomy, neurophysiology, neuropharmacology and neurosurgery. Up to now, RWD's stereotaxic instrument has helped global neuroscience researchers to publish more than 3000 articles in Cell, Nature, Science and other academic journals, and has been widely recognized in the industry.

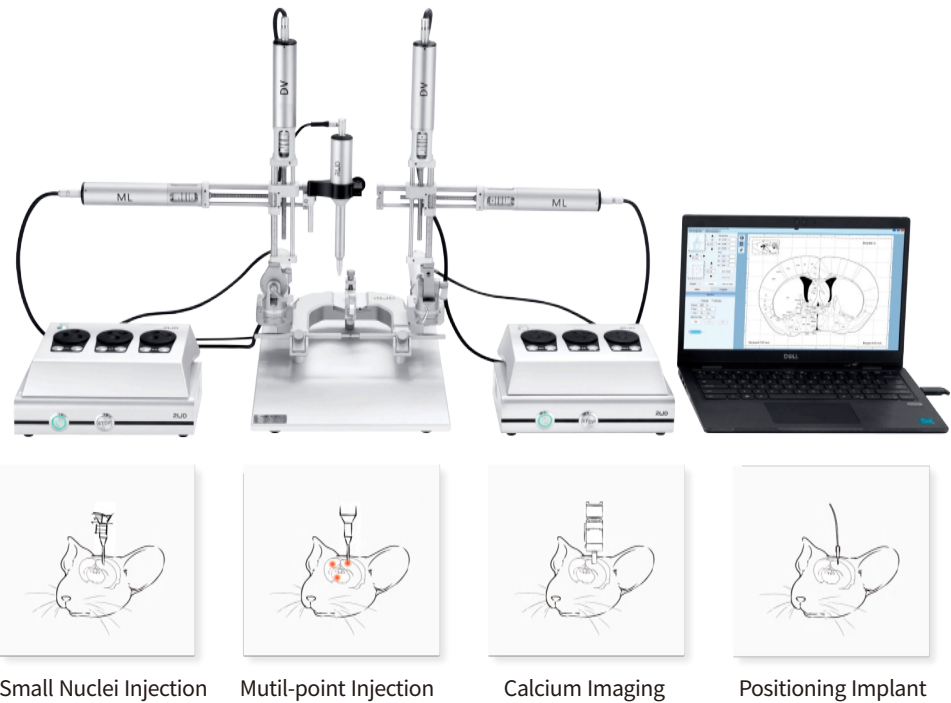
- Meet the needs of rats, mice, guinea pigs, tree shrews, cats, rabbits, dogs, monkeys and other different animal experiments.
- Three kinds of accuracy 100μm, 10μm, 1μm are available.
- Except for the automated model, other models can be upgraded to digital or dual manipulator models.



Small Animal Stereotaxic Instruments

Automated Stereotaxic Instrument

This is an automatical and intelligent stereotaxic instrument, with high precision (1 μm). The software has built-in rat and mouse brain atlas and automatic procedures (skull window, tissue removal and automated injection procedure), which can be observing the position of the probe relative to the brain area is convenient and efficient, and the operation is easy to use, greatly reducing the errors and damage caused by manual operation. In addition, it has an anti-collision function to prevent animal damage caused by wrong movement, which is safer.



Features:

Precision

- 1 Micron resolution.
- Motor instead of manual, precise control of displacement.

Tissue Removal

- For tissue removal prior to calcium imaging experiments.

Precise Positioning Without Leveling

- Atlas Calibration Function.

Efficient

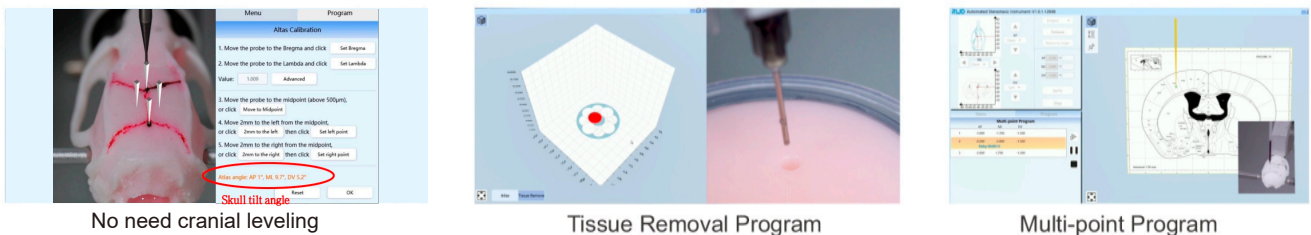
- Two-arm operation, Time-Saving.
- Reduce experimental errors and increase experimental.

Automated Injection

- Single point, multi-point and tilted injections are possible.

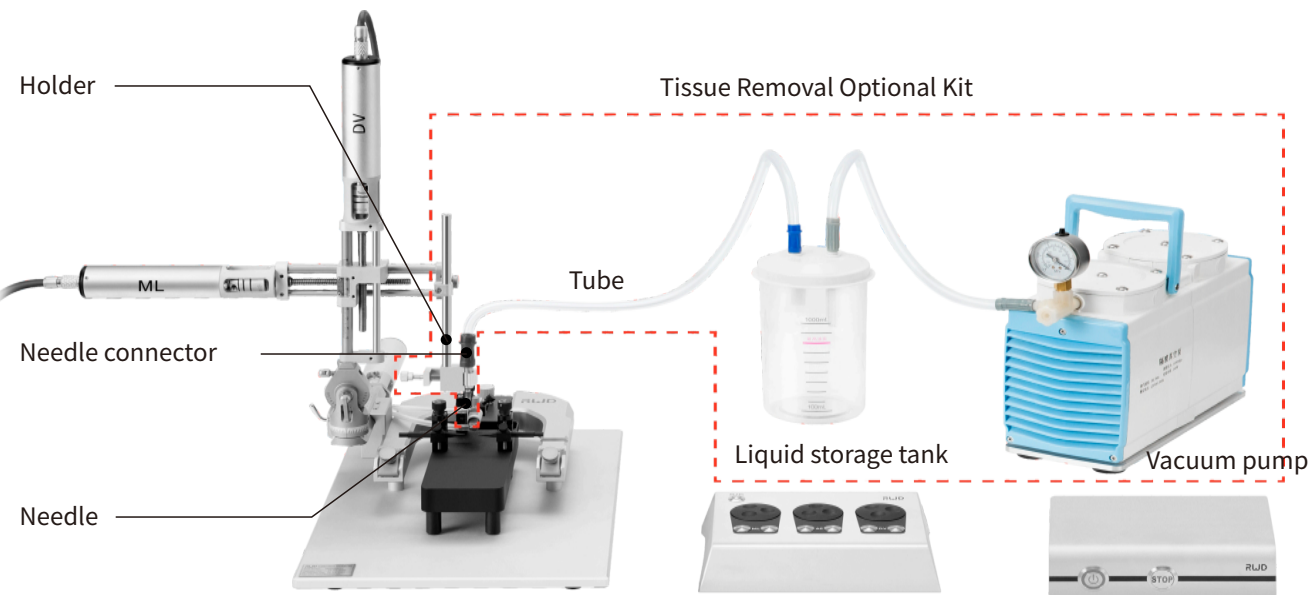
Brain Atlas Integration

- Visualization of probe displacement.



Tissue Removal Optional Kit

Tissue removal Optional kit is used for tissue aspiration before implanting Lens in calcium imaging experiments. The kit includes a vacuum pump, reservoir, holder, needle connector, needle and tubing. Used together with the automated stereotaxic instrument, it can ensure that the end surface of the wound is smooth and reduce the damage caused by manual operation.

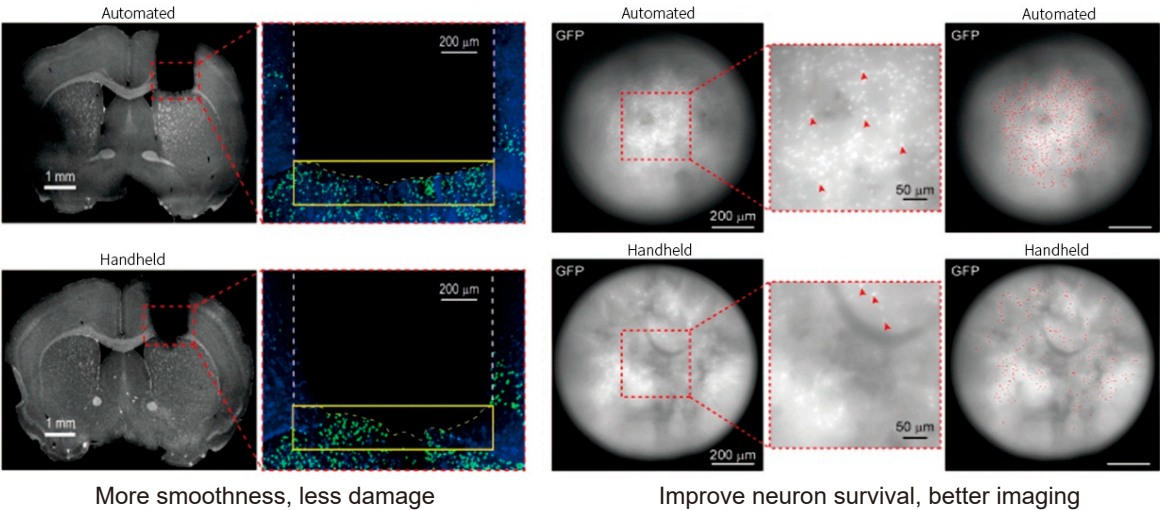


Features:

- Set the suction window size, shape, layer number and depth of each layer through the automatic software, and automatically and accurately remove brain tissue;
- The software can set the depth and speed of lens implantation, one-click implantation;
- Ensure the flatness of the wound end surface and reduce damage;
- Improve the survival of neurons per unit area and enhance the imaging effect;
- Reduce errors caused by traditional manual operations and improve experimental repeatability.

Auto ▶

Manual ▶



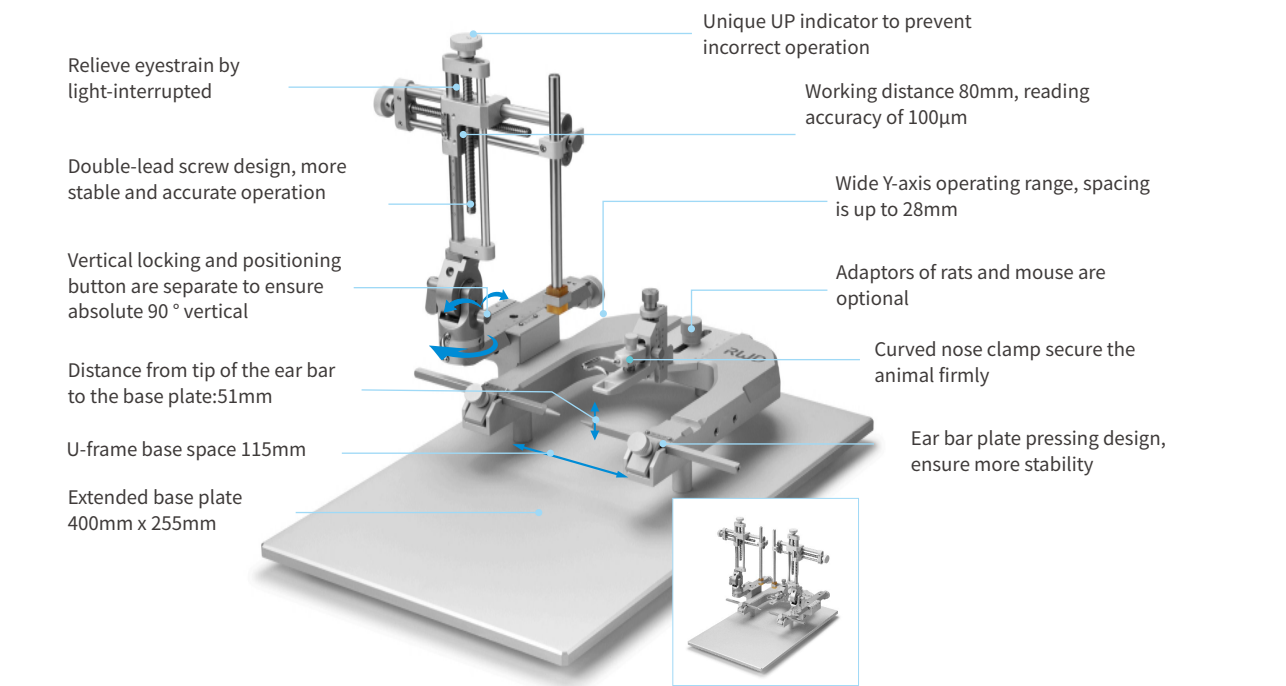
Order Information:

Model	Product Description	Remarks	Category
71001-S/ RS-SI*	Automated Stereotaxic Instrument, SGL.M, Automatic Injection	Left manipulator and nanoliter injection pump included, without adaptor, ear bars, holder and mask	Stereotaxic host (without accessories)
71000-S/ RS-S*	Automated Stereotaxic Instrument, SGL.M	Left manipulator, without adaptor, ear bars, holder and mask	
71001-D/ RS-DI*	Automated Stereotaxic Instrument, Dual.M, Automatic Injection	Two manipulators and one nanoliter injection pump included, without laptop, adaptor, ear bars, holder and mask	
71000-D/ RS-D*	Automated Stereotaxic Instrument, Dual.M	Two manipulators, without adaptor, ear bars, holder and mask	
68055	Mouse Adaptor	More details on accessories can be found on page 12	Required accessories (optional)*
68030	Mouse/Neonatal Rat Adaptor		
68057	Mouse Anesthesia Adaptor		
68021	Rat Adaptor		
68053	Rat Anesthesia Adaptor		
68301	Rat 18° Ear Bars		
68306	Mouse 60° Ear Bars		
68201	Standard Probe Holder-Corner		
TRA-220	Tissue Removal Optional Kit (220V)	Optional when using tissue removal procedure, including needle connector, holder (68202), vacuum pump-GM-0.5 II -220V-50HZ, liquid storage tank, connecting tube, needle.	
TRA-110	Tissue Removal Optional Kit (110V)	Optional when using tissue removal procedure, including needle connector, holder (68202), vacuum pump-GM-0.5 II -110V-50HZ, liquid storage tank, connecting tube, needle.	
71000-LT	Laptop for Automated Stereotaxic Instrument (software included)	I5-13420H/16G/512G/WIN11/IGPU/14"	

*Indicates that other specifications can be selected, which can be viewed from the product catalog of RWD.

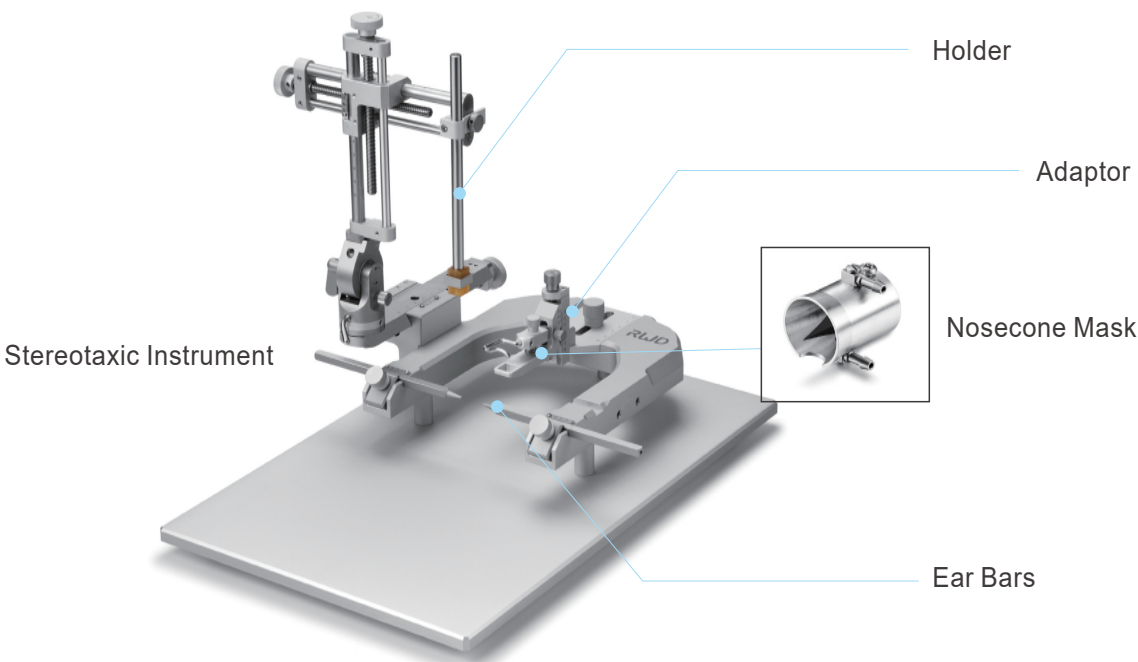
Standard Stereotaxic Instrument

Classical U-type base design, professional services in the laboratory for 20 years!
The displacement accuracy of the standard stereotaxic instrument is 100 μm, and the classic U-shaped frame can perform stereotaxic surgery on different types of small animals by replacing the adaptor and ear bars.



► Product configuration

A complete set of configurations consists of a standard stereotaxic instrument, adaptor (page 13), ear bars (page 14), holder (page 12), and nosecone mask (optional for gas anesthesia, page 15). The single manipulator type can be changed into a dual manipulator type by adding the right manipulator (68402), and you can also contact us to upgrade to a digital display type (accuracy is 10μm).

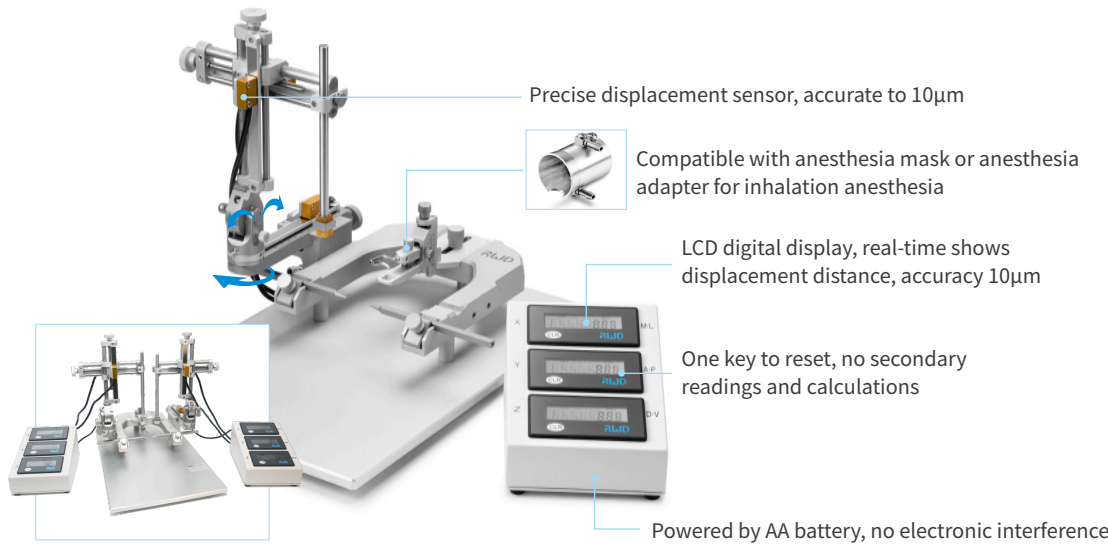


Complete Configuration = Stereotaxic Instrument + Adaptor + Ear Bars + Holder + Nosecone Mask (optional for gas anesthesia)

► Order Information:

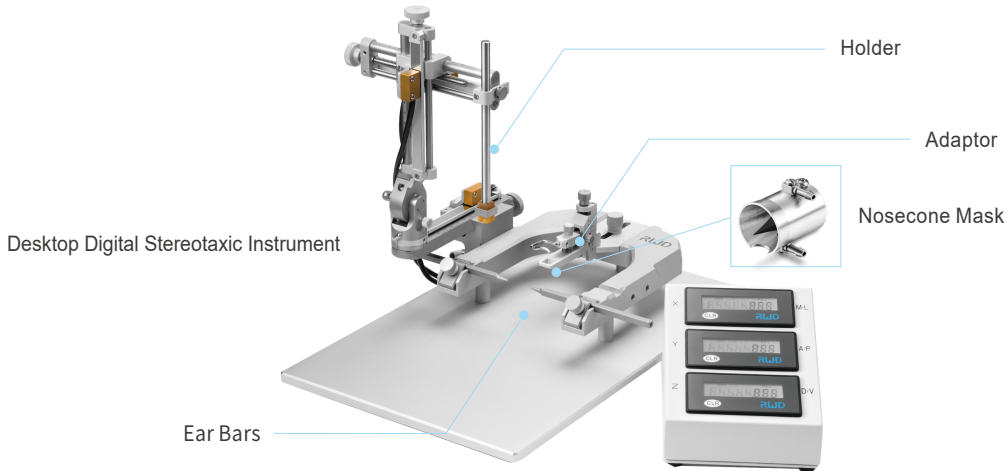
Model	Product Description	Remarks
68801	Standard Stereotaxic Instrument, SGL M	Standard configuration, contains 68861N base, 68401 3-axis manipulator-left, without adaptor, ear bars, holder and mask.
68802	Standard Stereotaxic Instrument, Dual M	Standard configuration, contains 68861N base, 68401 3-axis manipulator-left and 68402 3-axis manipulator-right, without adaptor, ear bars, holder and mask.
68861N	Stereotaxic Base Plate, Standard	68801, 68802 include.
68401	3-Axis Manipulator-Left	68801, 68802 include.
68402	3-Axis Manipulator-Right	68802 include.

► Desktop Digital Stereotaxic Instrument



► Product configuration

A complete set of configurations consists of a desktop digital stereotaxic instrument, adaptor (page 13), ear bars (page 14), holder (page 12) and anesthesia nosecone mask (optional for gas anesthesia, page 15). Single manipulator models can add the manipulator-right (68410) to become dual manipulator models.



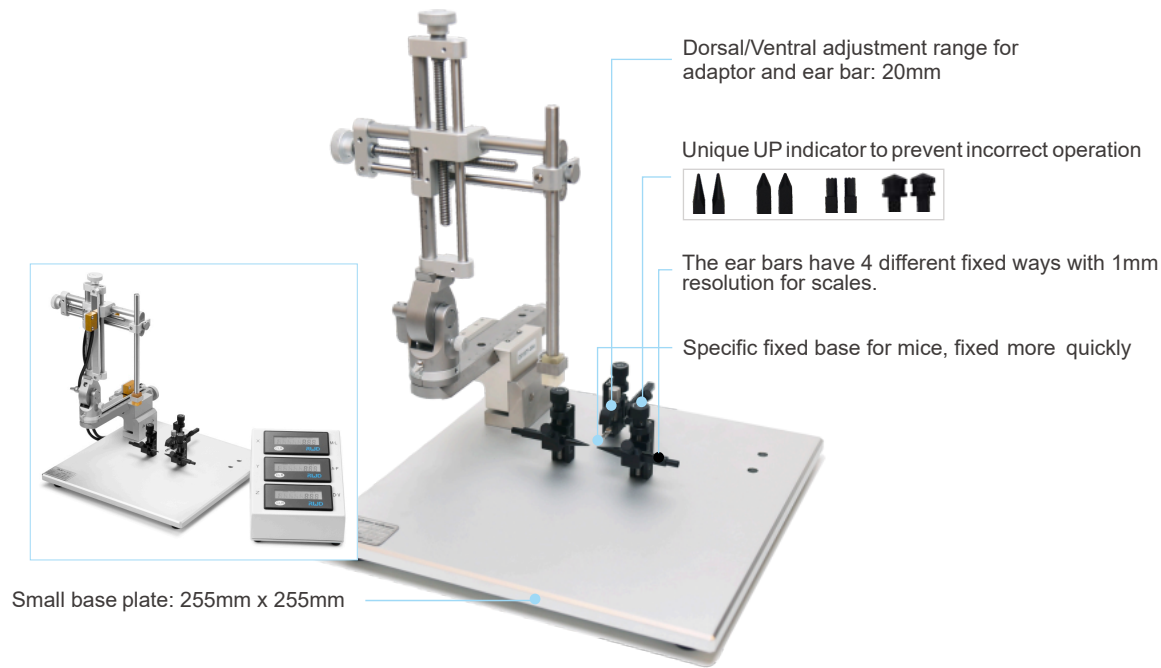
Complete Configuration = Stereotaxic Instrument + Adaptor + Ear Bars + Holder + Nosecone Mask (optional for gas anesthesia)

► Order Information:

Model	Product Description	Remarks
68803	Desktop digital stereotaxic instrument, SGL M	Standard configuration, contains 68861N base, 68409 3-axis digital manipulator-left, without adaptor, ear bars, holder and mask.
68804	Desktop digital stereotaxic instrument, Dual M	Standard configuration, contains 68861N base, 68409 3-axis digital manipulator-left and 68410 3-axis digital manipulator-right, without adaptor, ear bars, holder and mask.
68861N	Stereotaxic Base Plate, Standard	68803, 68804 include.
68409	3-Axis Digital Manipulator-Left	68803, 68804 include.
68410	3-Axis Digital Manipulator-Right	68804 include.

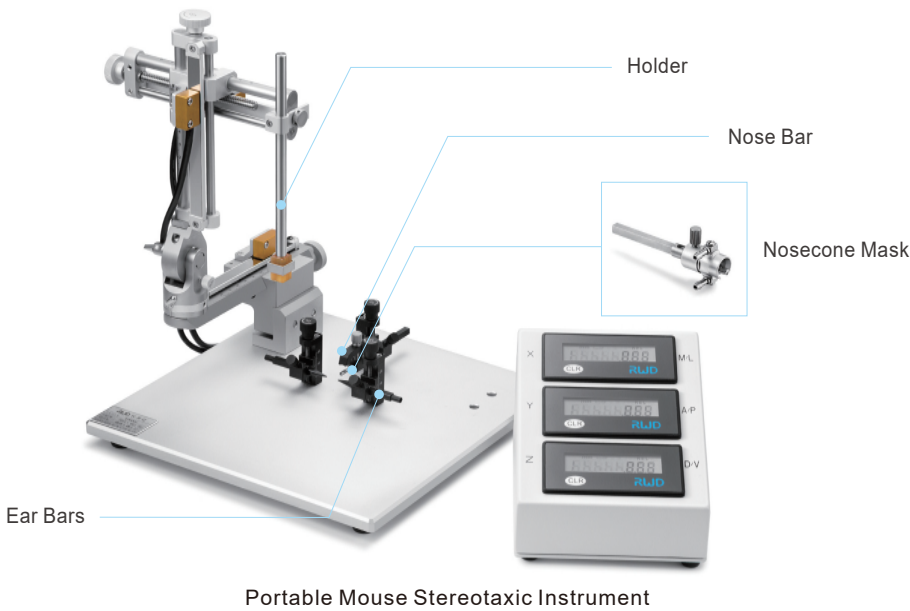
► Portable Mouse Stereotaxic Instrument

- The portable stereotaxic instrument cancels the traditional U-shaped frame, and the operation space is larger;
- This type is specially designed for mouse. The height of the nose bar and ear bars can be adjusted from 0-20mm, which is convenient for adjusting the level of the skull;
- The accuracy of non-digital models is 100 μm, and the accuracy of digital models is 10 μm.



► Product configuration

A complete set of configurations consists of a portable mouse stereotaxic instrument, nose bar, ear bars, holder (page 12) and anesthesia nosecone mask (optional for gas anesthesia, page 15). The single manipulator model cannot simply increase the right manipulator to become a dual manipulator model. If you already have a single manipulator model and need another manipulator, please contact us for an upgrade.



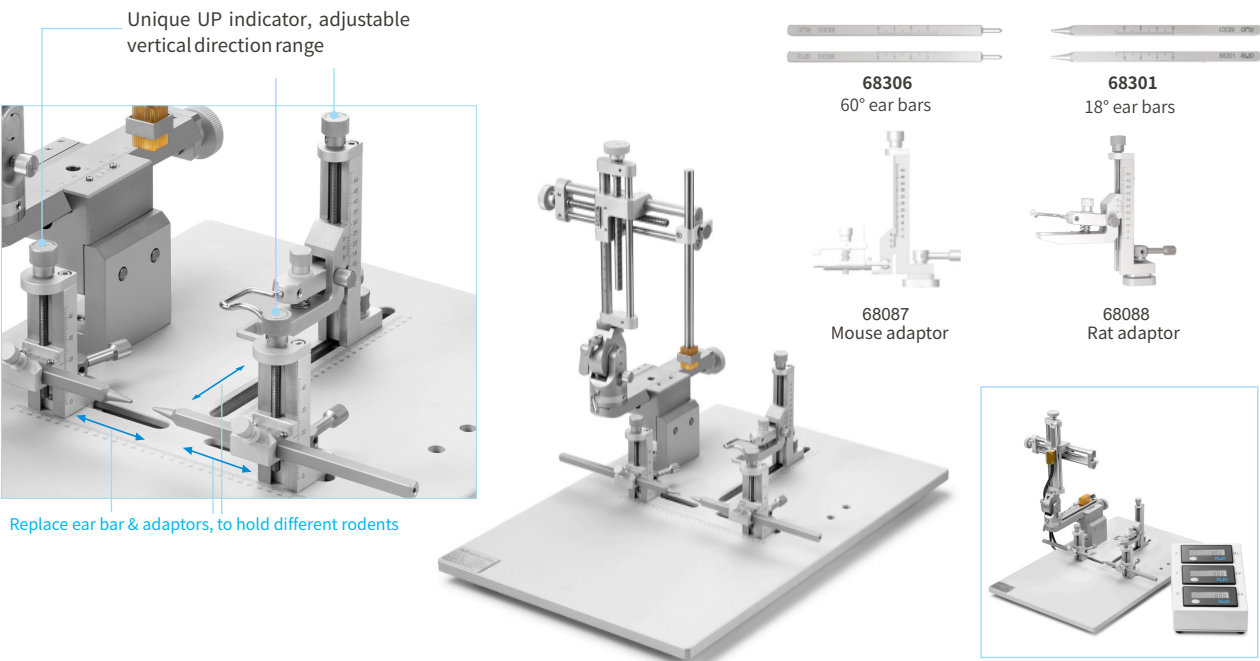
Complete Configuration=Stereotaxic Instrument+ Nose Bar + Ear Bars + Holder + Nosecone Mask(optional for gas anesthesia)

► Order Information:

Model	Product Description	Remarks
68805	Portable Mouse Stereotaxic Instrument, SGL M	Standard configuration, non-digital model (accuracy is 100μm), including 68863S base, 68401 3-axis manipulator-left, without nose bar, ear bars, holder and mask.
68806	Portable Mouse Stereotaxic Instrument, Dual M	Standard configuration, non-digital model (accuracy is 100μm), including 68863D base, 68401 3-axis manipulator-left, 68402 3-axis manipulator-right, without nose bar, ear bars, holder and mask.
68807	Portable Mouse Stereotaxic Instrument, SGL M, Digital	Standard configuration, digital model (accuracy is 10μm), including 68863S base, 68409 3-axis digital manipulator-left, without nose bar, ear bars, holder and mask.
68808	Portable Mouse Stereotaxic Instrument, Dual M, Digital	Standard configuration, digital model (accuracy is 10μm), including 68863D base, 68409 3-axis digital manipulator-left, 68410 3-axis digital manipulator-right, without nose bar, ear bars, holder and mask.
68033	Nose Bar For 68030 Mouse Adaptor	Optional, the cross-sectional size of the nose bar is 5* 5mm.
68313	45°Ear Bars For 68030 Mouse Adaptor	Optional, including two tips of 45° and rubber, the cross-sectional size of the ear bars is 5*5mm.
68034	18°Ear Bars For 68030 Mouse Adaptor	Optional, including two tips of 18° and serrated, the cross-sectional size of the ear bars is 5*5mm.

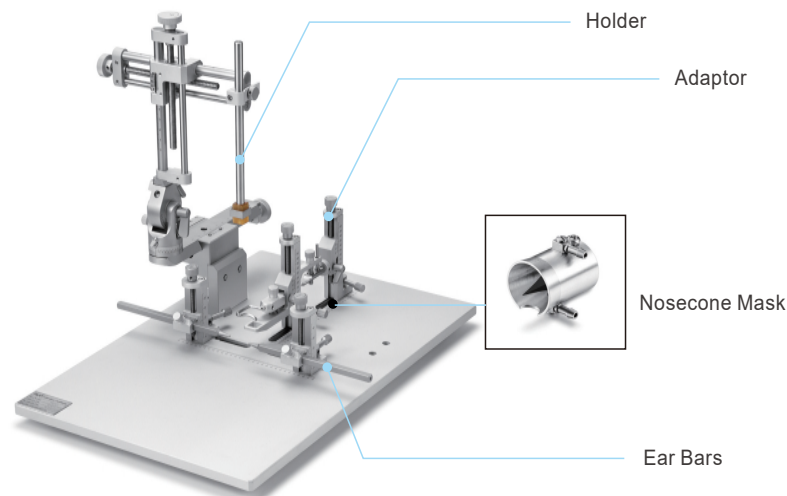
► Portable Rat and Mouse Stereotaxic Instrument

- The portable stereotaxic instrument cancels the traditional U-shaped frame, and the operation space is larger;
- The adaptor and ear bars are removable for rodents of different weights;
- The height of the adaptor is adjustable from 0-55mm, and the height of the ear bars is adjustable from 0-45mm, which is convenient for adjusting the level of the skull;
- The accuracy of non-digital models is 100 μm, and the accuracy of digital display models is 10 μm.



► Product configuration

A complete set of configurations consists of a portable rat and mouse stereotaxic instrument, adaptor, ear bars (page 14), holder (page 12) and anesthesia nosecone mask (optional for gas anesthesia, page 15) composition. The single manipulator model cannot simply increase the right manipulator to become a dual manipulator model. If you already have a single manipulator model and need another manipulator, please contact us for an upgrade.



Portable Rat and Mouse Stereotaxic Instrument

Complete Configuration=Stereotaxic Instrument+ Adaptor + Ear Bars + Holder + Nosecone Mask(optional for gas anesthesia)

► Order Information:

Model	Product Description	Remarks
68809	Portable Rat and Mouse Stereotaxic Instrument, SGL M	Standard configuration, non-digital model (accuracy is 100μm), including 68867S base, 68401 3-axis manipulator-left, without adaptor, ear bars, holder and mask.
68810	Portable Rat and Mouse Stereotaxic Instrument, Dual M	Standard configuration, non-digital model (accuracy is 100μm), including 68867D base, 684013-axis manipulator-left, 68402 3-axis manipulator-right, without adaptor, ear bars, holder and mask.
68811	Portable Rat and Mouse Stereotaxic Instrument, SGL M, Digital	Standard configuration, digital model (accuracy is 10μm), including 68867S base, 68409 3-axis digital manipulator-left, without adaptor, ear bars, holder and mask.
68812	Portable Rat and Mouse Stereotaxic Instrument, Dual M, Digital	Standard configuration, digital model (accuracy is 10μm), including 68867D base, 68409 3-axis digital manipulator-left, 684103-axis digital manipulator-right, without adaptor, ear bars, holder and mask.
68087	Mouse Adaptor	Only used for portable rat and mouse stereotaxic instrument.
68088	Rat Adaptor	Only used for portable rat and mouse stereotaxic instrument.

► Large Animal Stereotaxic Instrument

- Large animal stereotaxic instrument is suitable for cats, dogs, monkeys, pigs, etc.;
- It contains a two-dimensional manipulator (X, Z axis). The accuracy of the non-digital model is 100 μm, and the accuracy of the digital model is 10 μm;
- Two kinds of adaptors are optional, the 68081 monkey adaptor is generally suitable for large animals of 10-30kg, and the 68041 is generally suitable for large animals below 10kg.

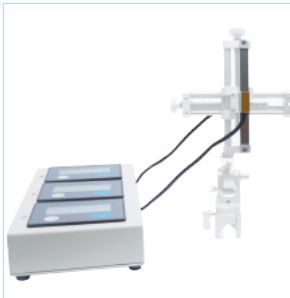
Adaptors are available for dogs, monkeys, pigs, and other large animals.

Unique jaw plate design better stabilizes the heads of large animals of varying weights.

Y-axis rail design, longer moving range: ± 100mm, 1mm resolution

Combined with microdriver, the resolution of vertical reading can be promoted to 50μm

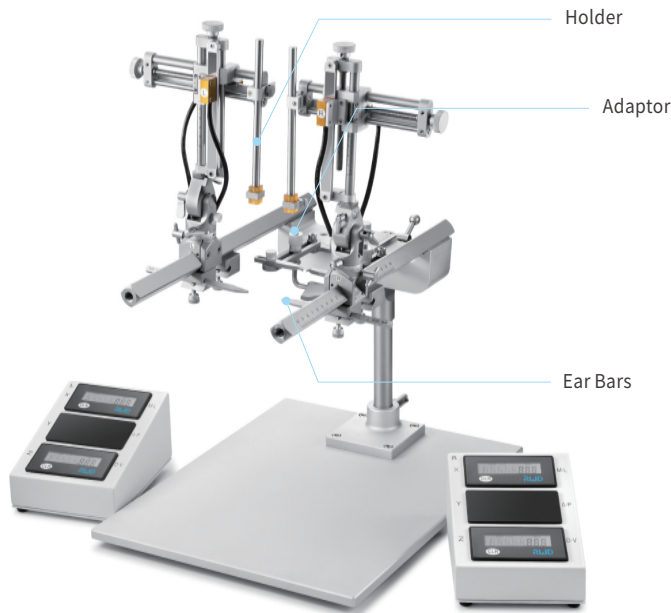
Holds up to six manipulator arms



68942

► Product configuration

A complete set of configurations consists of a large animal stereotaxic instrument, an adaptor (page 13), ear bars (page 14), holder (page 12). A single manipulator model can add the right manipulator to become a dual manipulator model.



Large Animal Stereotaxic Instrument

Complete Configuration=Stereotaxic Instrument+ Adaptor + Ear Bars + Holder

► Order Information:

Model	Product Description	Remarks
68813	Stereotaxic for Large Animals, SGL M.	Standard configuration, non-digital display model (accuracy 100μm), including 68868N base, 689412-axis manipulator-left, without adaptor, ear bars, holder.
68814	Stereotaxic for Large Animals, SGL M.	Standard configuration, non-digital display model (accuracy 100μm), including 68868N base, 689412-axis manipulator-left, 68942 2-axis manipulator-right, without adaptor, ear bars and holder.
68815	Stereotaxic for Large Animals, SGL M, Digital	Standard configuration, digital display model (accuracy 10μm), including 68868N base, 68944 2-axis digital manipulator-left, without adaptor, ear bars, holder.
68816	Stereotaxic for Large Animals, Dual M, Digital	Standard configuration, digital display model (accuracy 10μm), including 68868N base, 68944 2-axis digital manipulator-left, 68945 2-axis digital manipulator-right, without adaptor, ear bars and holder.
68941	2-axis Manip for Dog/Monkey Stereotaxic, Left	68813, 68814 include.
68942	2-axis Manip for Dog/Monkey Stereotaxic, Right	68814 includes.
68944	2-axis Digital Manip for Dog/Monkey Stereotaxic, Left	68815, 68816 include.
68945	2-axis Digital Manip for Dog/Monkey Stereotaxic, Right	68816 includes.

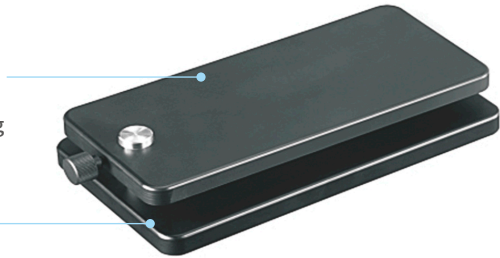
Stereotaxic Instruments Accessories

Height-Adjustable Platform

Balance the animal’ s body and head to ensure unobstructed respiration during surgery

Non-metallic platform with polished anti-slip finishReduces body heat loss and allows easy cleaning

Metal base plateSturdy and reliable



Model No. 68607

Physical Dimensions:
Upper platform: 198mm(L) × 93mm(W) × 12mm(H)
Base plate: 198mm(L) × 113mm(W) × 12mm(H)
Adjustable lifting range: 50mm

Electrode Holders

68201 Standard Probe HolderCorner

Widely used for clamping injection needles or electrodes,clamping range: 0.3-1.5mm.

68213 Standard Probe HolderSide

The design structure is similar to the 68201 standard holder, but it is applicable to a wider range of electrodes or micro-injection needles, with a clamping range of 0.4-4.0mm.

68210/68211 Electrode Holder

The clamping range of 68210 is 0.7-2.5mm, and the clamping range of 68211 is 2.1-5.0mm. Using two 68210 or two 68211 (dual manipulators) can make the cannula or electrode close to 0.3mm.

68216 Electrode Holder

The clamping range is 0.4-1.5mm. Using two 68216 (dual manipulators) can make the cannula or electrode close to 0.2mm.

Cannula Holders

68217 Cannula Holder

The clamping part is made of plastic, suitable for clamping single or double cannulas with an external diameter (E value) of 3.5mm (fixed value) of the cylindrical plastic base.

68205 Cannula Holder

The clamping part is made of metal, suitable for clamping single or double cannulas with an external diameter (E value) of 3.5mm (fixed value) of the cylindrical plastic base.

68214/68215 Ceramic Ferrule Holder

Designed for optogenetic experiments, compatible with ceramic ferrules and metal ferrules, can be easily removed after implantation, 68214 is suitable for cannula or ceramic ferrule with a diameter of 1.25mm, 68215 is suitable for cannula or ceramic ferrule with a diameter of 2.5mm ferrule. Note that the clamping diameter is a fixed value.

68221 Cannula Holder

Suitable for clamping single or double cannulas with an external diameter (E value) of 3.5mm (fixed value) of the cylindrical plastic base.

Multi-function Holders

68202/68206 General Probe Holder

Using lateral fixation, it can hold micro-syringe barrels, large-diameter electrodes and microdrill handles, etc. The clamping range of 68202 is 6mm-12mm, and the clamping range of 68206 is 3mm-12mm.

68218 Syringe Holder

It is mainly used for micro injection drug administration experiments. It can fix the syringe barrel and needle at the same time. The syringe clamping is more stable. The syringe barrel clamping range is 6mm-12mm, and the syringe needle clamping range is 0.3mm-1.5mm.

68605 Microdrill Holder

The microdrill holder fixes the microdrill (78001) to the manipulator of the stereotaxic instrument, and controls the drilling depth through the lifting of the stereotaxic. The operation is convenient and precise, and avoids damage to the animal brain tissue. The clamping diameter is 14.5mm (Fixed value).

68606 Manual Syringe Pump

Precise control of micro-injection and withdrawal, compatible with 1-1000μL syringes of different specifications, the recommended displacement accuracy is 10μm, and the displacement distance is 25mm. The clamping range of the syringe barrel is 6mm-12mm, and the clamping range of the syringe needle is 0.3mm-1.5mm.

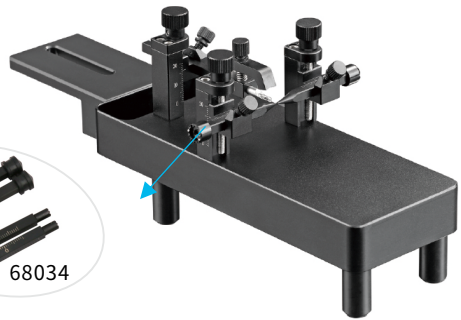
68232 Electrode Array Holder

It is mainly used for the implantation and clamping of multi-channel electrodes (microwire arrays, silicon electrodes, etc.) and single-channel electrodes prior to in vivo electrophysiological recording in neuroscience research.Clamping range: 0.1–7 mm.

Adaptors ▶

Mouse Adaptors

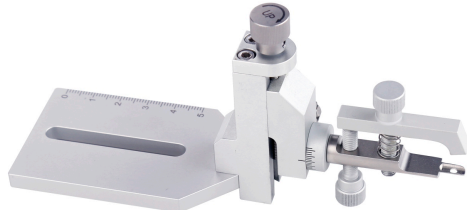
68030 Mouse/Neonatal Rat Adaptor
(with 18° ear bars 68034 and 45° ear bars 68313)



68313
68034

This adaptor can not only fix the mouse and neonatal rat head, but also avoid damage to the skull. Four kinds of earstick tips are available, the height of the earstick and earstick are adjustable, and the adjustment range is 20mm.

68055 Mouse Adaptor

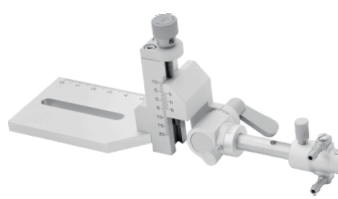


It holds the mouse head by a palate and incisor, and offers vertical regulation to make the head level or at certain angle. The Vertical adjustable range from +10mm to -20mm, with 100µm resolution; Horizontal adjustable range of 43.5mm; Horizontal rotatable range of 35°.

68057 Mouse Anesthesia Adaptor

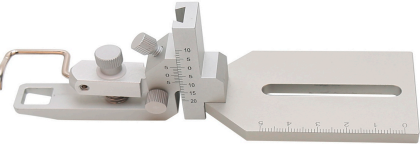
This model offers maximal adjustment for positioning the head. The adaptor can rotate the head to multi angle with out blocking the anesthetic gas delivery. 68057 is for 20-30g mouse.

- Vertical adjustable range: 30mm (+10mm~-20mm), with 100µm accuracy.
- Vertical rotatable range: 70° (-35°~+35°), with 5° accuracy.
- Horizontal rotatable range: 70° (-35°~+35°), with 5° accuracy.
- Horizontal adjustable range: 43.5mm
- Diameter of inlet/outlet of the mask: 2mm



Rat Adaptors

68021 Rat Adaptor



It holds rat head firmly through incisor, nose clip and ear bars. This adaptor can be adjusted 30 mm vertically along dovetail slide with 100µm resolution and 50mm horizontally, which makes it applicable for rats of different weight.

68053 Rat Anesthesia Adaptor



This adaptor integrates the gas anesthesia mask function while hold the rat head firmly. The adaptor can rotate the head to multi angle without blocking the anesthetic gas delivery.

- Vertical adjustment range is 30mm (-20mm~+10mm), with 100µm accuracy.
- Vertically rotatable range is 70°(-35°~+35°), with 5° accuracy.
- Horizontal rotatable range is 70° (-35°~+35°), with 5° accuracy.
- Horizontal adjustment range is 43.5mm.

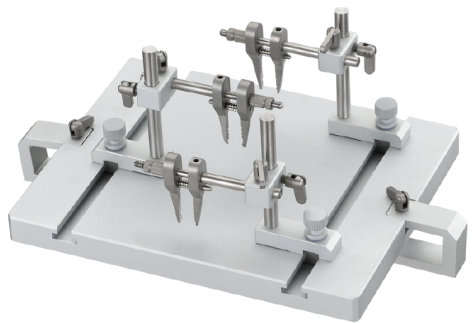
Spinal Cord Adaptor

68091 Spinal Cord Adaptor for Rat & Mouse

The adaptor is ideal for spinal securing of rat and mouse. The base plate is 210mm(L) x 165mm(W) x 15mm(H), which can be attached to RWD 68000 series small animal stereotaxic instruments. There are 3 vertical bars and locking blocks. which can be easily disassembled through the T slots without wrench. The adjustment range of vertical bar is 56mm. The height of locking block can be easily adjusted by screw. This adaptor can be adjusted in Vertical/Lateral, Anterior/Posterior and Ventral/Dorsal directions. Standard accessories contain: Base plate, 3 vertical bars and locking blocks and spinal cord clamp (3 pairs).

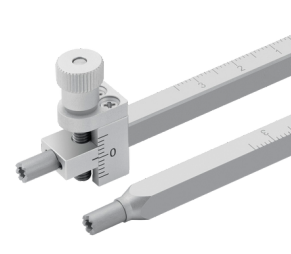
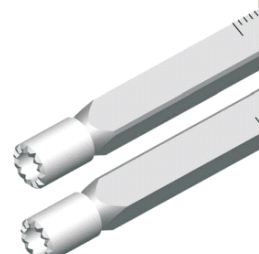
Specifications:

- Accurate and reliable positioning.
- Wide various components and accessories can be used in module.
- Simple, fast and effective clamping and locking.
- Compatible with small animal stereotaxic instruments.



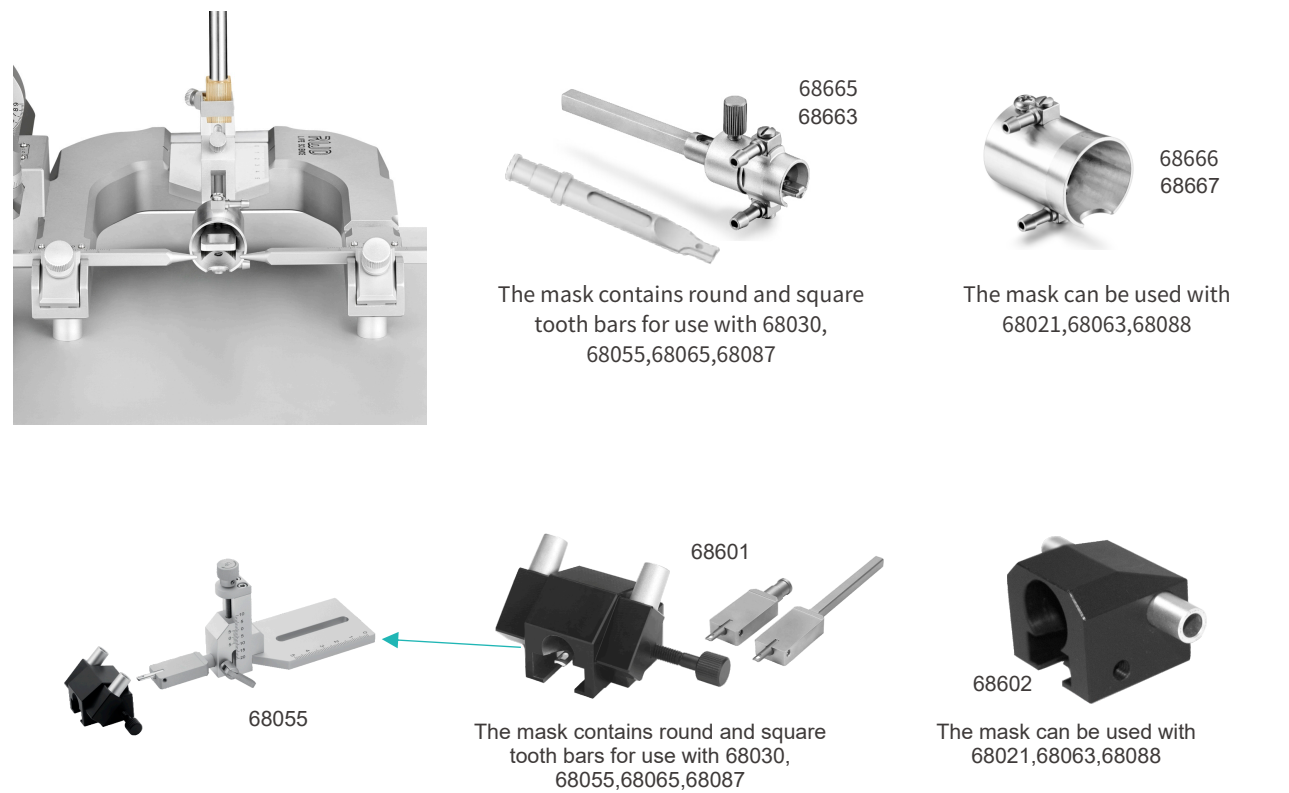
Ear Bars

RWD ear bar with the scale of 35mm, 1mm resolution, square 6.15mm

68301  Ear Bars, Rat, 18 Deg. (0.8mm radius tip)	68302  Ear Bars, Rat, 45 Deg (for guinea pigs, prairie rats, birds, squirrel monkeys 0.8mm tip).	68306  Ear Bars, Mouse, 60 Deg.	68314  Mouse Ear Bars - height adjustable (tooth tip range: -5mm ~ +5mm).
68307  Ear Bars, Mouse, Non-Rupture, Cuff (suitable for neonatal rats)	68308  Ear Bars, Mouse, Non-Rupture, Rubber (suitable for neonatal rats)	68303  Ear Bars, Cat/Monkey, 18 Deg	68304  Ear Bars, Cat/Monkey, 45 Deg

Stereotaxic Frame Nosecone Masks

- This type of anesthetic masks are specifically designed to fit most stereotaxic frame and deliver anesthetic gases with minimal exposure during surgery. They are locked onto the adaptor with the cone opening toward the open “U” . The animal’ s teeth is placed over the incisor bar.
- Two kinds of Stereotaxic Frame Nosecone Masks are available: one is “passive” mask with collinear inlet and outlet, and the other one is “active” mask with separate (non-collinear) inlet and outlet on both sides. the “passive” mask is used with charcoal canister only, and the “active” mask can be used with evacuation apparatus.



Order Information:

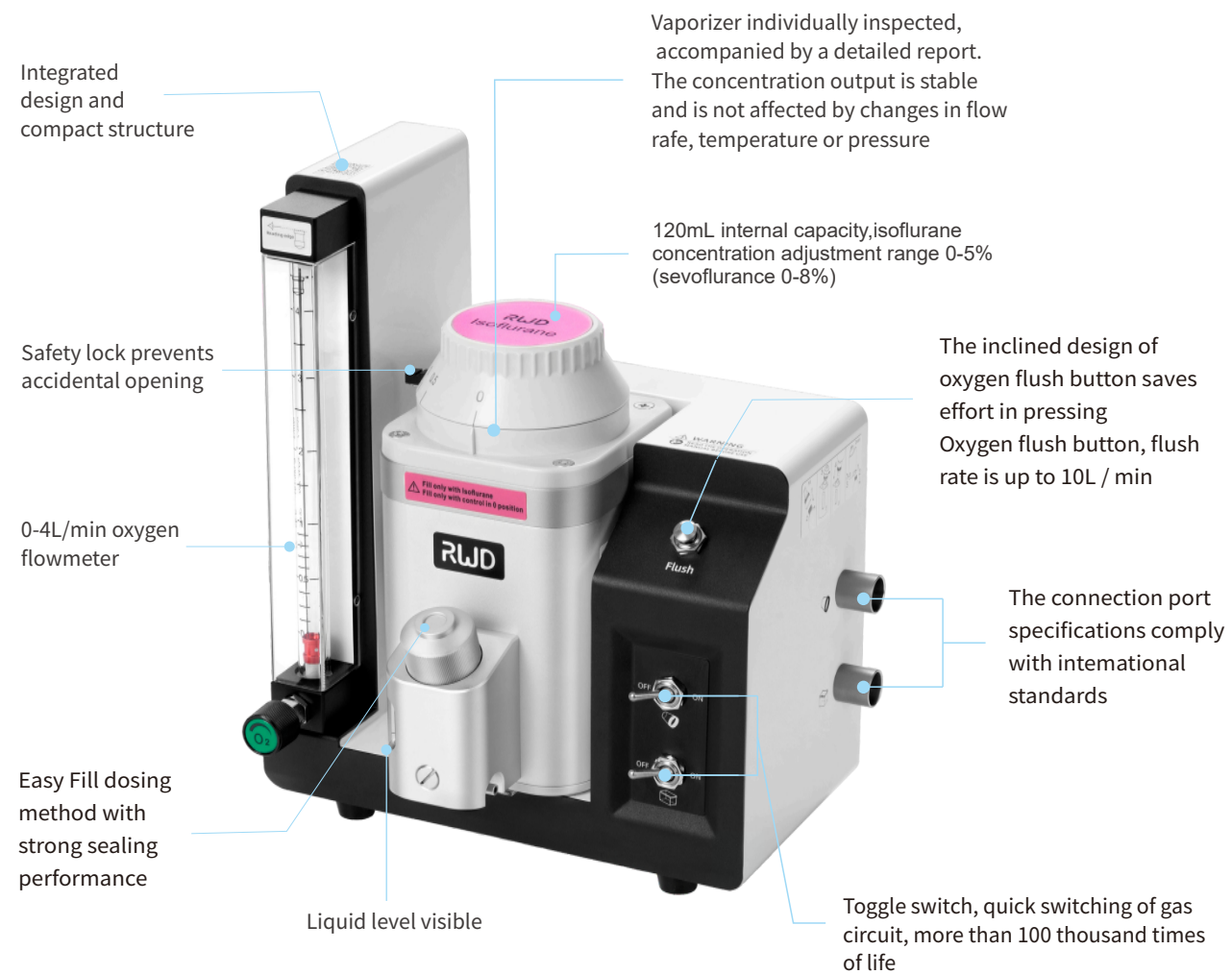
Model	Product Description	Remarks
68601	Stereotaxic Anesthesia Mask Kit -mice or neonatal rats (<70g, Canister & Tubing included)	For Passive Scavenging
68602	Stereotaxic Anesthesia Mask Kit - rats (<300g, Canister & Tubing included)	
68663	Stereotaxic Anesthesia/Evacuation mask- mice or neonatal rats (<30g)	For Active Scavenging
68665	Stereotaxic Anesthesia/Evacuation mask- mice or neonatal rats (30~70g)	
68666	Stereotaxic Anesthesia/Evacuation mask- rats (<300g)	
68667	Stereotaxic Anesthesia/Evacuation mask- rats (>300g)	

Animal Anesthesia Machine

Small Animal Anesthesia Machines ▶

Suitable for rats, mice, hamsters, guinea pigs, rabbits, cats and other animals within 7kg. Different air supply, induction chambers,small animal masks, filter canisters and gas evacuation apparatuses can be selected for anesthesia recovery of different animals.

TAIJI Small Anesthesia Machine



Note:
Oxygen flush is commonly used to flush out anesthetic gas to the filter canister before opening the induction chamber to prevent the operators from anesthetic gas.

► Order Information:

Model	Product Description	Product Image	Remarks
TAIJI-IP	Compact Small Animal Anesthesia Machine, Isoflurane, Pour Fill, 0-4L		One channel: The chamber and mask channels can be switched quickly.
TAIJI-IE	Compact Small Animal Anesthesia Machine, Isoflurane, Easy Fill, 0-4L		Dual-channel:Independent switches for the mask and chamber channels to improve experimental efficiency
TAIJI-SE	Compact Small Animal Anesthesia Machine, Sevoflurane, Easy Fill,0-4L		Dual-channel: Independent switches for the mask and chamber channels to improve experimental efficiency

R550 Multi-output Anesthesia Machine

Regular assembly (R550-A), vaporizer (R580), Inlet/Outlet End Caps (R580-IO) and tube accessory kit are included in the R550 anesthesia machine. Different air supply, induction chambers, small animal masks, filter canisters and gas evacuation apparatuses can be selected to form the experimental platform for anesthesia recovery of different animals.

With the latest design, it can be applies to simultaneous anesthesia of multiple mice, rats, cats, rabbits and other animals (1-5 small animals), and every channel can be controlled independently.

0-4L/min oxygen flowmeter, reserved additional flowmeter mounting hole, can be expanded into dual flowmeter

Stable concentration output, unaffected by flow, temperature and pressure

Can be upgraded into portable anesthesia machine to save space and facilitate movement



Aluminum alloy material, the whole weight less than 7.5kg

Gas flow of induction chamber can be adjusted independently, ranging from 0 to 2.5 L/min

Toggle switch, quick switching of gas circuit, 100 thousand times of life

► Order Information:

Model	Product Description	Remarks
R550IE	Enhanced Small Animal Anesthesia Device-Isoflurane, Easy Fill, 0-4L	Contains connection tubing for mask & induction chamber
R510-S	Product Description: Portable Stand for R510 Series Anesthesia Machine	Optional, upgraded to mobile

Mobile Trolley



- Integrating gas supply, anesthesia induction, and waste gas recovery, convenient loading and unloading, saving space
- Universal belt lock casters for convenient mobile operation

► Order Information:

Model	Product Description
R510-T	Compact Small Animal Anesthesia MachineTrolley

Anesthesia Machine ▶

R650 Veterinary Anesthesia Machine

R650 is committed to leading a new experience in animal anesthesia. It's applicable to clinical anesthesia of dogs,cats, pigs, monkeys, rodents, reptiles, birds etc.



R650-Plus
(Dual flowmeter)



Highlight pressure guage



Circuit switch



APL valve

- High accuracy vaporizer.
- APL valve for quick-occlusion which makes it quicker to ventilate the patient manually and prevents the user from forgetting to re-open it.
- APL valve with 30cm H₂O overpressure protection during quick occlusion to avoid excessive pressure damage to the alveoli.
- Highlight safety pressure warning with green, yellow and red signs that make it easier to identify excessive system pressure for both circuits.
- One switch to shift between rebreathing and non-rebreathing circuits.
- Compact installation of monitor, ventilator, oxygen concentrator, etc.
- Good waste gas scavenging system.
- Concealed pipeline arrangement, minimizing exposure and leakage risks.

▶ Order Information:

Model	Product Discription
R650	Veterinary Anesthesia Machine (Single flowmeter)
R650-Plus	Veterinary Anesthesia Machine (Dual flowmeter)

▶ Included:

Cat No.	Description
/	Veterinary Anesthesia Machine Host
R583-0	Adapter-Easy Fill
R409-AH-80	O ₂ Hose, Blue, 2*9/16 Connector, 2m
R510-31	Gas Filter Canister, Large
R600-ET	Cuffed Endotracheal Tubes (1 set)
R600-NL-0.5L	Reusable Non Latex Breathing Bag, 0.5L
R600-NL-1L	Reusable Non Latex Breathing Bag, 1L
R600-NL-2L	Reusable Non Latex Breathing Bag, 2L
R-BC-DL	Breathing Circuit Duo-limb, 22mm(M)/15mm(F), 1.5m
R-NBC-F(JR)	Mapleson F Non-rebreathing Circuit (Jackson-Rees)
R-CT-18	Corrugated Tube - ID 22.0mm, L1.2m

Complete Anesthesia and Respiration Solutions ▶

Multi-function Anesthesia Solutions



The experimental system is equipped with a gas recovery system to provide a safe experimental environment to maximize the protection of the operator; by replacing different types of anesthesia machines and masks to meet the needs of animal experiments, such as cerebral ischemia and myocardial ischemia model, osteoporosis model, tail vein injection, abdominal aorta blood sampling, heart blood sampling, ventricular injection, tissue / organ removal and other animal surgery experiments.

Stereotaxic Anesthesia Solutions



By changing the different types of stereotaxic instruments and adaptors to meet the needs of different animal experiments, such as the neurological disease models (such as Parkinson, Alzheimer's disease, craniocerebral injury, spinal cord injury, etc.), brain drug injection, Cannula Implantation (long term repeated administration), physiology experiment (such as nerve stimulation, signal recording, wireless telemetry, etc.), microdialysis experiments (probe implantation and short-term dialysis) and other experiments.

Combination Solutions of Ventilator to Anesthesia System

Small animals



This program is the combination of anesthesia machine and ventilator. While keeping the animal under anesthesia, it provides a certain volume (tidal volume) of oxygen and respiratory rate to support the normal breathing of animals.

It can meet the requirements of long surgeries or surgeries on animals suffering from certain diseases (such as cardiovascular and cerebrovascular diseases, hypertension, cerebral infarction, thrombosis), it's suitable for mice, rats, rabbits, cats and other animals within 1kg.

Large animals



This program is suitable for the anesthesia and auxiliary respiration of animals within 100kg, such as pigs, monkeys, dogs and cats.

Anesthesia Machine Accessories ▶

(Anesthesia Machine) Vaporizer

Adopted advanced design, R580 series vaporizer can be perfectly collaborated with small animal anesthesia machine and large animal anesthesia machine to make sure accurate transmission of anesthetic gas. RWD offers Pour Fill, Easy Fill and Key Fill.



- Two kinds of vaporizers
- Three dosing methods

► Features:

- The built-in temperature compensator ensures the stable concentration of anesthetic gas at different temperatures and flow rates, the flow range is 0.2-10L/min.
- Mixed anesthetic gas output pressure range $\Delta P \leq 2.5\text{kPa}$.
- Applicable temperature range: 10-35 °C.
- Good tightness, internal 50kPa pressure can be maintained, zero leakage, safe and reliable.
- Internal capacity is not less than 120ml, and the range of isoflurane vaporizer concentration is 0-5% (Sevoflurane: 0-8%).
- Anti-accident open lock structure and closed state security protection structure to ensure safety.
- The average filling rate is greater than 2ml/s, and the dosing adapter can withstand the pressure of 0.1mpa without leakage (Key

Gas Evacuation Apparatus

The gas evacuation apparatus (GEA) was designed to safely and actively remove waste gas associated with everyday inhalation anesthesia. The waste gas from cone mask, concentric tubing mask and stereotaxic frame nosecone masks can be pulled through activated charcoal canister so that the air can be re-circulated into the room. The GEA will accommodate waste gas supply from at least 5 masks. The new one has been upgraded with a wider range of exhaust flow, Low noise, and Exquisite exterior design.

► Features:

- New design make it more exquisite and easy to carry.
- A wide range of flow rate-8~60LPM, real-time display through LED screen.
- Small size 232mm (W)*200mm (D)*184mm (H).
- Noise reduction system within 50dB. One click set mute to prevent noise.
- Two level overweight alarm: 990g and 1010g.
- Power: 100-240V, 50/60Hz.
- Automatic temperature compensation system can help stably run even in 5°C-40°C.
- Integrated negative pressure recovery system and weighing alarm functions, can weigh and display the weight of the gas filter tank at anytime to confirm whether the adsorption is saturated.



► Order Information:

Model	Product Description
R546Pro	Gas Evacuation Apparatus with Weight Monitoring, 110-240V

Gas Filter Canister



Used to absorb isoflurane, sevoflurane and enflurane and other gases, disposable, large and small size are available, large canister (net weight: 800g) absorb 200-240g gas; small canister (net weight: 250g) absorb 50g gas.

Order Information:

Model	Product Description
R510-31-6	Gas Filter Canister, Large, pkg of 6pcs
R510-31S-6	Gas Filter Canister, Small, pkg of 6pcs

Induction Chambers

The anesthetic gas is inducted into the chamber, and exhausted to the connected charcoal canister. With following features:

- Transparent plexiglass material, durable, easy to clean, convenient to observe the anesthetic state of animals.
- Positive pressure gaskets at lids.
- Both ports on one side to reduce tubing in procedure area.

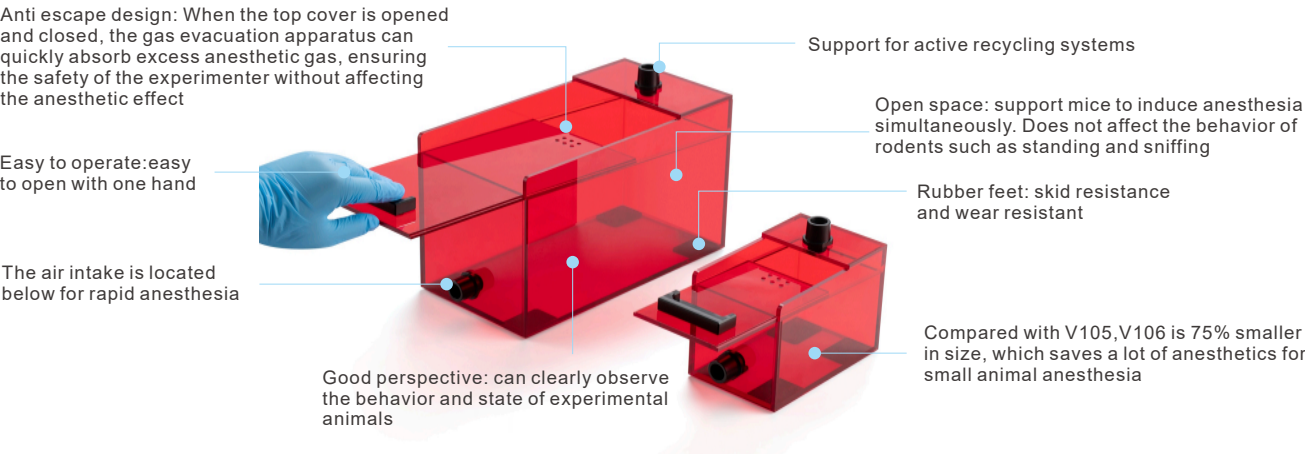


Order Information:

Model	Product Description	Remarks
V100	Induction Chamber-mouse (15cm*10cm*10cm)	Contains 1 plexiglass box, 1m bellows and 1 gas filter canister (R510-31S)
V101	Induction Chamber-rat (24cm*12cm*18cm)	
V102	Induction Chamber-rabbit/cat (40cm*18.5cm*25cm)	

Low Stress Anesthesia Induction Chamber

Low stress: Rodents lack cone cells that sense red light and are insensitive to red light. The red transparent appearance is convenient for the experimenter to observe the state of the animal while reducing the stress response of the animal and reducing the impact on the biological rhythm of the animal. Comply with animal welfare.



Order Information:

Model	Product Description	Remarks
V105	Low Stress Anesthesia Induction Chamber, Mice and Rats (29cm*15cm*17cm)	The pipeline connecting the Gas Evacuation Apparatus is already included
V106	Low Stress Anesthesia Induction Chamber, Mice (16cm*10cm*11cm)	

Small Animal Anesthesia Mask

Concentric Tubing Masks

- Using Concentric Tubing design, sturdy and durable; Compatibility between rat and mouse can be achieved by changing the mask core.
- The entire mask (including tubing) is made of non-metallic material suitable for MRI environments.
- It can be used with the Gas Filter Canister (R510-31-6) and the Gas Evacuation Apparatus (R546Pro) for waste gas recovery to protect the experimental operators and the experimental environment.
- Optional fixing Mounting Bracket (68625) can be used to fix the mask, and the height can be adjusted up and down, or it can be fixed on the Anesthesia Operation Platform-Concentric Tubing type (R510-PGL).

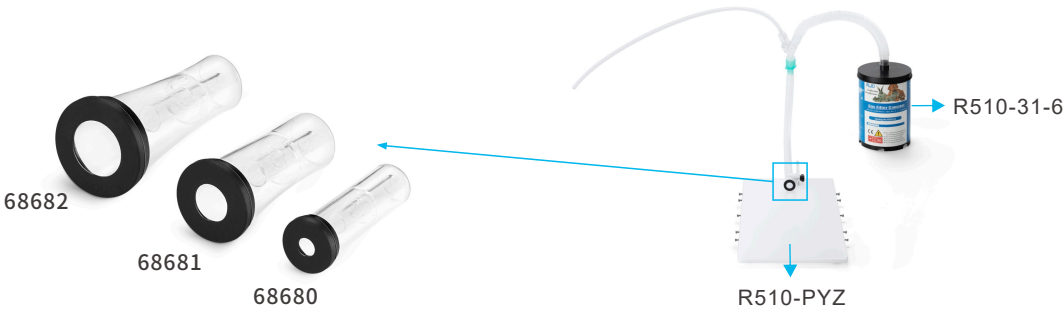


Order Information:

Model	Product Description	Remarks
R510-M	Concentric Tubing Mask for rat and mouse - including pipe	/
R510-PGL	Anesthesia Operation Platform- Concentric Tubing type	300*210*10mm
R510-5CH	Tubing Anesthesia Mask-One Divides Into 5ch	Contains 5 tubing masks for rat and mouse, 5 tubings for mask, 5 plugs, 1 bellow for gas filter canister

Cone Masks

- Small size, without interfering with head, ophthalmology and other related experimental operations.
- The exhaust gas will hardly leak from the mask to protect the experimental operators and the experimental environment. The exhaust gas can be recovered with the Gas Filter Canister (R510-31-6).
- The Anesthesia Operation Platform-Cone type (R510-PYZ) is optional for animal limb fixation.



Order Information:

Model	Product Description	O.D. (size)	I.D.(size)	D(size)
68680	Cone Mask with Tubing for Neonatal Mouse(<15g)	13mm	5mm	24mm
68681	Cone Mask with Tubing for Mouse or Neonatal Rat(15-40g)	20mm	10mm	28.5mm
68682	Cone Mask with Tubing for Rat(200-350g)	25mm	15mm	38mm

Model	Product Description	Size
R510-PYZ	Anesthesia Operation Platform-Cone type	300*210*10mm

Animal Ventilator

VentStar II Small Animal Ventilator

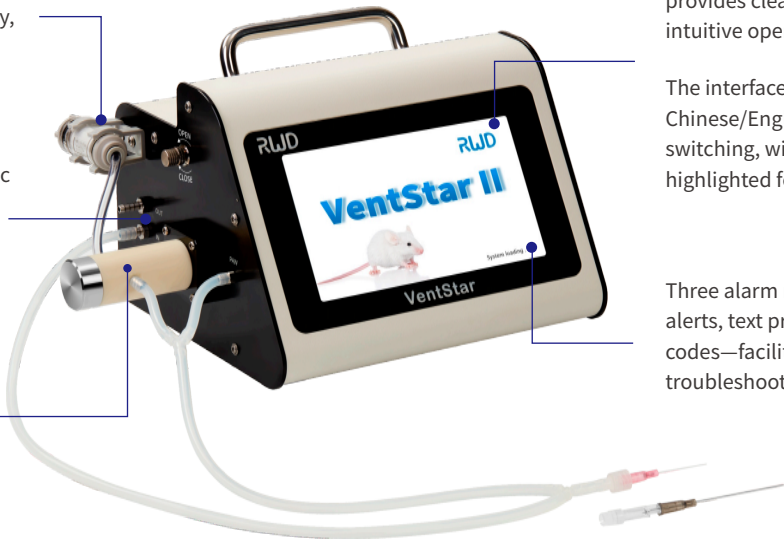
RWD VentStar II Small Animal Ventilator supports 10g-1kg animals for procedures including myocardial ischemia modeling and thoracotomy.

Its cylinder-piston driven IPPV system offers adjustable tidal volume, respiratory rate, and I:E ratio, with combined PIP/PEEP/sigh/inspiratory hold/expiratory hold settings, plus airway pressure monitoring and PIP protection. With endotracheal tube, it provides continuous respiratory support to maintain lung ventilation for surgical and cardiopulmonary pharmacology studies.

An integrated filter removes contaminants from the gas supply, ensuring respiratory safety.

By adopting low-flow principles and an advanced electromagnetic valve, the device achieves a simple structure with high accuracy.

The precision cylinder mechanism stably maintains preset parameters to ensure smooth experimental progress.



The 7-inch color touchscreen provides clear display and intuitive operation.

The interface supports Chinese/English one-click switching, with key information highlighted for easy monitoring.

Three alarm methods—audible alerts, text prompts, and error codes—facilitate rapid troubleshooting.

PC mode features "VT maintenance" for simplified operation by novice users.

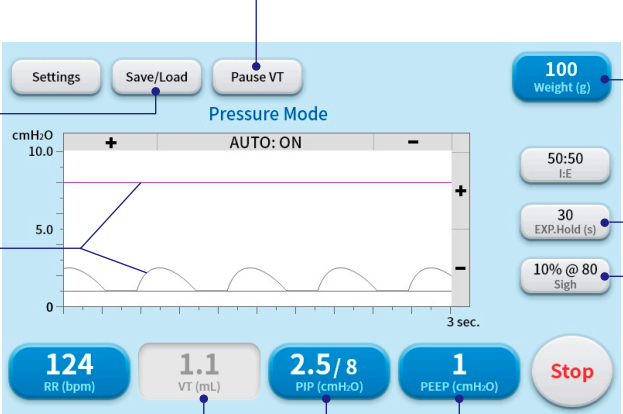
For laboratory animals weighing 10–500g, the device intelligently recommends ventilation parameters based on entered body weight.

It stores up to 10 sets of ventilation parameters for one-touch recall and rapid operation.

In both VC and PC modes, the system displays real-time pressure-time curves and peak inspiratory pressure (PIP) to facilitate assessment of animal status.

0.050–5.000 ml (0.001 ml increments).

Peak inspiratory pressure (PIP) range: 1–50 cmH₂O (1 cmH₂O increments).



Allows inspiratory/expiratory hold during ventilation; duration: 0-60s, resolution: 1s.

The sigh function can be automatically set every 10–999 breaths or manually triggered to prevent lung injury from prolonged mechanical ventilation.

PEEP is adjustable from 0–10 cmH₂O in 1 cmH₂O increments, enhancing animal-ventilator synchrony.

Product Parameters:

Dimensions	320×210×180mm
Display Screen	7-inch LCD touchscreen
Net Weight	About 5.1 kg
Recommended Weight Range	10-1000g
Species	Mice, rats, guinea pigs, and other small lab animals
Ventilation Mode	Volume-Control /Pressure-Control
Volume Range	0.050-5.000ml
Peak Inspiratory Pressure	1-50cmH ₂ O
PEEP	0-10cmH ₂ O
Respiratory Rate	10-300bpm
I:E Ratio	20%-80%(in some cases 30%-70% or 40%-60%)
Sigh volume	Frequency: Once every 10 to 999 breaths or manually controlled Volume: 0-20% of tidal volume
Safety Alarms	High/low airway pressure, occlusion, high/low PEEP and others

Order Information:

Model	Product Description	Remarks
R416	VentStar II Small Animal Ventilator	Includes main unit, power cord & adapter, filter and attached tubing(2 sets), airway tubing, inhalation anesthesia accessory kit, and trachea cannula (2 each: 14G, 16G, 18G, 20G).

RE20 Animal Endotracheal Intubation Kit

Noninvasive endotracheal intubation kit for animals guided by cordless optic fiber to support mouse, rat and other similar small rodents in a stable and comfortable position for experimenters to perform endotracheal intubation, drug infusion and other operations, effectively reducing animal damage, and enhancing the experimental efficiency and precision of the experiment results.



Features:

- PU material, moderate soft and hard, comfortable and not harmful to animals;
- The cordless portable optic fiber lighting system, which has been patented for an invention, improves the visibility of the airway and facilitates users to quickly and accurately finish endotracheal intubation;
- The stand angle can be adjusted, including: 45°, 60°, 90°, to meet the requirements of users with different operation habits;
- An endotracheal magnifier with auxiliary positioning function and a tracheoscope mirror that helps to confirm intubation result are more user-friendly.

Order Information:

Model	Product Description
RE20-R	Endotracheal intubation tube for rat (length 50mm)
RE20-M	Endotracheal intubation tube for mouse (length 25mm)

R420 Veterinary Electric Turbo Ventilator

With high-performance turbine drive, R420 ventilator no drive gas needed! It's more cost-effective and more convenient. In addition, its easy-to-use working modes and comprehensive monitoring of animal ventilation state can ensure safe ventilation. There are 3 modes of operation, including VCV, PCV and APNEA.

► Features:

- Precise ventilation: Minimum tidal volume down to 4 mL.
- Multiple alarms: Multiple alarms and clear handling prompts.
- PEEP function: Help veterinarians solve low SpO2 problems during surgery.
- Auto system leak test: Graphical guidance for quick start.
- Guard "breathing" safety: Accurate and continuous monitoring of respiratory status, such as airway pressure - time chart, minute volume, EtCO₂, and etc.



► Order Information:

Model	Product Description
R420	Veterinary Electric Turbo Ventilator
R420-Plus	Veterinary Electric Turbo Ventilator ,Including EtCO ₂
R420-Pro	Veterinary Electric Turbo Ventilator ,Including EtCO ₂ , Wireless Hold

Microscope

77001S Desktop Binocular Stereo Microscope equips with universal support; researchers can observe in high resolution and three-dimension.



► Features:

NO.	Products Name	Products Detail
1	Eyeiece	10X Eyeieces, View field diameterφ22mm
2	Objective Lens	0.67X-4.5X Objective lens ratio 1:6.7
3	Binocular Drawtube	Pupil Distance 55-77mm Diopter adjustment±5 ,Diopter 45°Incline 360°Spin
4	View field Range	31.2 mm -5.1mm
5	Total Magnification	6.7X-45X(10X Eyeiece),3.35X-22.5X(10X Eyeiece +0.5X Assist lens)
6	Working Distance	Working distance 105mm(10X Eyeiece),Working distance 177mm (10X Eyeiece +0.5X Assist lens)
7	Focusing Mechanism	Focusing hand wheel is adjustable
8	Universal Support	360°Spin, Retractable
9	Lighting	TY-B-2 Ring LED Illumination

On the basis of the binocular microscope, 77008S Trinocular Zoom Stereo microscope increase the interface, so that the camera, video camera can be installed in the microscope to achieve real time observing of the objects.



77002 Vertical Animal Operating Microscope

The vertical animal operating microscope is a simple operating microscope with single person and binocular coaxial illumination. The body is small and light with high flexibility, which can meet the requirements of general animal microsurgery.

► Features:

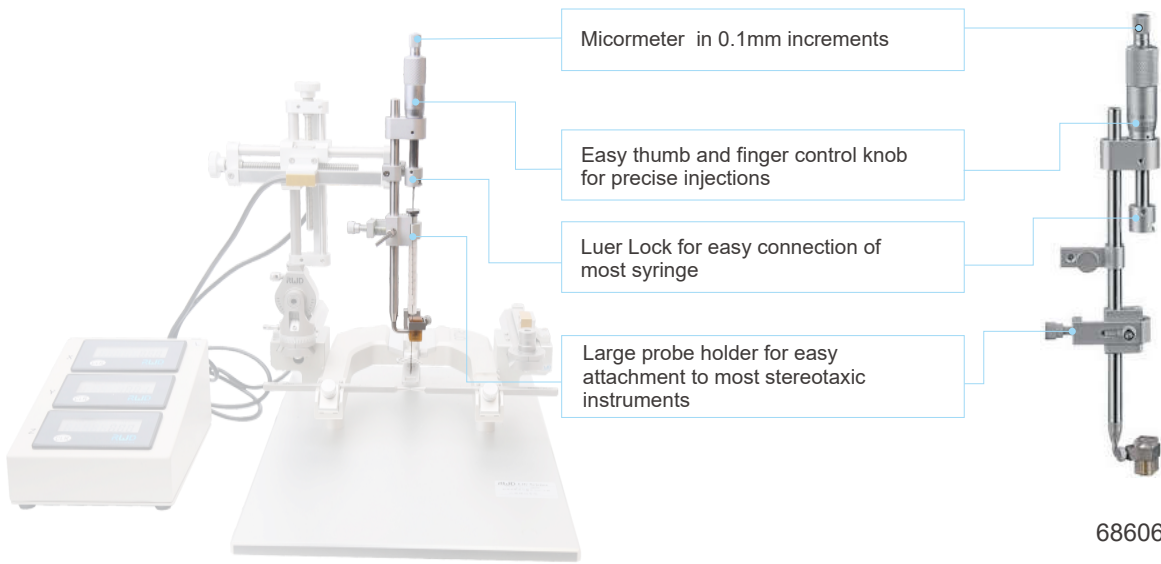
- Eyepiece magnification: 12.5x, objective lens focal length: 200 mm.
- Working distance: 190mm, main mirror magnification: 5.3x, 8x, 12x.
- Field of view diameter: 38mm, 25mm, 17mm.
- The adjustment range of diopter: $\pm 5D$, the adjustment range of pupil distance: 50mm-70mm.
- Lighting source: 12V / 100W, cold reflection medical halogen bulb.
- Lighting type: $6^{\circ} + 0^{\circ}$ cold source coaxial lighting.
- Illumination of coaxial lighting surface: ≥ 20000 LX, transverse arm extension radius: 870 mm.
- Vertical adjustment range (ground to large objective): 700mm-1100mm, fine focus stroke: 30mm.
- Voltage: AC220 V $\pm 10\%$, 50 Hz ± 1 Hz, power: 120 VA.
- Fuse: AC250V T1.25A weight: 41kg.



77002

Manual Syringe Pumps(68606)

Compatible with RWD stereotaxic instruments, simple installation, with 10 μ m displacement accuracy and up to 25mm distance, it is an economical and practical microinjection pump!



68606

► Features:

- Precisely-controlled infusion/withdrawal of picoliter volume.
- Provides an economical means of injecting or withdrawing a calibrated volume with simple, precise manual control.
- The injector has a universal adaptor for all RWD and Hamilton 700,7000 or Gas-Tight Series syringers, ranging from 1 to 100 μ l sizes and enables a wide range of volumes to be delivered-both infusion and withdrawal operation.
- The Manual Stereotaxic injector is graduated in 0.01mm increments. One complete revolution advances the plunger of the syringe 0.5mm.

Microdrill

It takes only one second to drill the skull, easy to operate and control. It can also be used for grinding the skull.



► Features:

- Speed up to 35,000rpm.
- Forward or reverse available.
- Controlled manually or by foot pedal.
- Can be installed onto the stereotaxic instrument by the microdrill holder (Model: 68605) and controlled by the manipulator.
- Various drill bits available, diameter from 0.5-2.3mm.

► Order Information:

Cat No.	Product Description
78001	Microdrill (bits not included)
78040	Drill Bits HM1005 0.5mm, Round Tip, pkg of 5
78041	Drill Bits HM1006 0.6mm, Round Tip, pkg of 5
78042	Drill Bits HM1008 0.8mm, Round Tip, pkg of 5
78043	Drill Bits HM1010 1.0mm, Round Tip, pkg of 5
78060	Drill Bits HM31008 0.8mm, Flat Tip, pkg of 5
68605	Microdrill Holder

LED Fiber Optic Illuminator

- This product uses 20W LED light source. High luminous efficiency, high illumination.
- It's mainly composed of light source, heat release part, power and case.
- It is small and light-weight, easy to carry.
- The heat can release quickly and efficiently as strong heat release design of fan series and chassis heat release.
- It adopts wide voltage input, low voltage output. The performance is safe and stable.
- It's can be used with Y-type fiber or single hard fiber for microscope lighting and industrial electronic testing. If with annular fiber, it can be used for stereoscopic microscope lighting.



► Technical parameters

- Voltage: AC: 100-240V 50/60Hz
 - Linear continuous dimming, no stroboscopic effect
 - Input power: 30W
 - Bulb power: LED 20W; High-power LED white light, with a light intensity of less than 80Lm
 - Cooling method: Low-noise fan
- Overall noise level: <55db
 - Fuse: F3AL 250V
 - C.T. : 5000-6000K; color rendering index >80%
 - LED lifespan: 20,000 hours
 - Image plane illumination: ≥21,600,000 Lux
 - Security type: class 1

► Order Information:

Model	Product Description	Remarks
76316	LED Fiber Optic Illuminator, 20W, 100-240V	Includes a main unit and dual optical fibers

ThermoStar Homeothermic Monitoring System

During the process of animal surgery or acute anesthetized animal experiment, maintaining animals' body temperature is very important for the accuracy and reliability of results, furthermore, it is an important way to reduce the mortality of the animals, in order to fulfill this need, RWD launched a new generation of homeothermic monitoring system "Thermostar", the control unit acquired a 4.3 inch color LCD touch screen allows users to clearly view the subject's real-time body temperature, set the target temperature, view the heating state and set audible alarms when subject's body temperature turns abnormal. A specific control separate circuit for heating pad and rectal probe. respectively to ensure the stability and safety of the system.



► Features:

- Real-time display of the working status of the heating pad, and monitor the working state of every channel, show: IDLE, WARNING, STANDBY, and WORKING.
- Heating range: 20-45°C, 0.1°C resolution, Degrees Celsius and Fahrenheit can be switched.
- Power supply: 100-240V, 50/60Hz.
- Control unit size: L205 x W148 x H80 mm.
- Control unit weight: 1.3kg.

► Order Information:

Type	Model	Product Description	Remarks
Complete system	69020	ThermoStar Temperature Controller, 69023 pad incl.	A heating pad (69023) and a temperature probe (69022) incl.
	69026	ThermoStar Temperature Controller, 69024 pad incl.	A heating pad (69024) and a temperature probe (69022) incl.
	69027	ThermoStar Temperature Controller, 69025 pad incl.	A heating pad (69025) and a temperature probe (69022) incl.
Temperature probe	69022	Temperature Probe	1.5mm diameter, 30mm rod length, the length of the probe is 200cm.
Heating pad	69023	Heating Pad-12.0*20.5cm	the length of heating pad is 150cm.
	69024	Heating Pad-9.0*17.0cm	
	69025	Heating Pad-7.0*10.0cm	

RLT-24 Veterinary Laser Therapy

RLT-24 Veterinary Laser Therapy is non-invasive, deep penetrating, painless and without side effects. It can be used in the treatment or study of diverse diseases such as recalcitrant wounds, chronic diabetic ulcers, neurological injuries etc. Furthermore, the machine supports to expansion of the laser surgery function by being equipped with a surgical accessory kit.



► Features:

- **Intelligence Solutions:** With more than 1,300 recommended treatments built-in, it can be adjusted according to the specific experiment.
- **Multiple modes:** support three laser emission modes: CW mode, Pulse mode and ISP mode. The combination of multiple modes can improve the treatment efficiency, reduce thermal burns, and intensify laser treatment.
- **Laser surgery:** The surgery fiber diameter is tiny to 400 μm, which can effectively focus energy to realize precise cutting and less bleeding.
- **High power:** The laser power is up to 24W, with remarkable treatment effect, stable light, safe and fast.
- **Four wavelengths:** The arbitrary combination of four wavelength lasers of 650nm, 810nm, 915nm and 980nm, different wavelengths of laser can be selected for various experiments.
- **User-friendly design:** LCD touch screen; the rear-mounted large optical fiber winding disk, which is convenient for storage and protects the optical fiber and prolongs its service life.
- **Easy to start:** built-in video tutorial module, "hands-on" teaching, and no difficulty to start operation; automatic storage of treatment records for easy information traceability.

► Order Information:

Cat No.	Description
RLT-24	Veterinary Laser Therapy
RLT-24SK	Laser surgical accessory kit

► Included:

Description	Amount	Function	Remarks
Veterinary Laser Therapy	1	Laser therapy	Included
Optical fiber handpiece	1	Laser transmission and control	
Lens	5	Change the beam size to realize optimal treatment and diversity	
Protective goggles	6	3 for staff and 3 for animals for eyes protection	
Interlock	1	The interlock should be connected to the device to prevent any personnel entering the room and being exposed to the laser irradiation	
Power adaptor	1	Device power input	
Toolkit	1	Store lens and optical fiber handpiece	Optional
Laser surgical accessory kit	1	For laser surgery, containing a surgical fiber, a surgical handle, a fiber stripper, a fiber cutter, fiber needles, and a foot switch.	

R-CU520 Animal ICU

RWD Animal ICU can accurately control the temperature and humidity, provide efficient oxygen therapy, and control the CO2 concentration in the chamber. According to the needs of animal clinical application, the comprehensive care function was designed to provide a more comfortable and professional medical rehabilitation environment for animals. To provide a more efficient and convenient use experience for researchers. Suitable for primates, rodents, small mammals, birds, reptiles, amphibians experimental animals.



► Features:

High-concentration Oxygen Control:

Maintain high-concentration oxygen, providing an oxygen-enriched environment for animals

Balanced Temperature Control:

Unique air duct circulation design and balanced temperature control, with air circulating through the upper and lower air outlets.

Smart Pre-set Parameters:

Parameters setting automatically matching animal species-age-dis-ease.

Self-cleaning & Mildewproof Drying Functions:

Cooling system with deep self-cleaning, efficient mold prevention and sterilization for long-lasting cleanliness and breathing protection.

Alarms& Handling Tips:

Alarms with specific handling tips to indicate how to deal with.

Air Duct UV Disinfection:

Effectively kill bacteria, viruses and other microorganisms in the air to avoid cross-infection.

Large Cabin Space:

Can meet the needs of animals of larger sizes.

Infrared Physiotherapy Function:

Promote metabolism and blood circulation, and accelerate wound healing with high-efficiency.

Item	Specification
Materials	Inner cabin: stainless steel; Door: acrylic
Air Temperature Control Method	AC system + PTC ceramic heater
Floor Temperature Control Method	TEC semiconductor thermostat
Temperature Control Range	15~40°C
Humidity Control Range	30%~70%RH
O ₂ Concentration Control Range	20%~80%
CO ₂ Concentration Control Range	500~4000PPM
Infrared Physiotherapy	1~30 minutes
UV Disinfection	Manual disinfection for 1~30 minutes adjustable, automatic disinfection for 30 minutes/every 8 hours
LED Lamp	Level 1 ~ Level 3
Inspection Lamp	Level 1 ~ Level 3
Anion	≥3.6*10 ⁶ PCS/cm ³ (Anion Jet Port: 30cm)
Power Supply Voltage	100~120 VAC, 60 Hz; 220~230 VAC, 50 Hz
Display	7-inch touchscreen
Weight	≤110KG
Size	External (with wheel base): 1155×885×935mm Internal: 800×600×630mm

► Order Information:

Cat No.	Configuration
R-CU520	Air conditioning cooling/TEC floor cold compress/PTC air duct heating/Humidity control/Oxygen concentration control/CO ₂ automatic removal, etc.

Surgical Instruments & Matrix

RWD surgical instruments and Matrices products cover more than 10 types of instruments and consumables such as surgical scissors, clamps, forceps, auxiliary instruments, sterilizers, molds, sutures. There are thousands of specifications as well offer well-equipped surgical kits which could satisfied with all kind of animal modeling experiment. More details please refer to the catalog from page 66 to 81, or visit our web: www.rwdstco.com.

The surgical kits included:

Surgical instrument kit for MCAO, spinal cord injury, universal dissecting, cardio-cerebral perfusion surgery, brain micro injection surgery and micro dialysis surgery etc. which could satisfied with the whole experiment operation for rodents from skin dissection to sutured.



Surgical scissors included:

Micro spring scissors, delicate scissors, surgical scissors, dissecting scissors, boon cutters and ophthalmic scissors etc. which could satisfied with different experiment requirement of tissues dissecting, cutting, and separate.



Surgical forceps included:

Tissue forceps, hemostatic forceps, needle holder and bone rongeurs etc. which could satisfied with the requirement of tissues clamping, fixation, hemostasis, stitich and bone trimming and cutting.



Surgical forceps included:

Micro forceps, tissue forceps and dressing forceps and ophthalmic forceps etc. it is mainly used for the clamping and separation of soft tissues such as blood vessels, nerves, organs, skin etc.



Auxiliary instruments such as:

Scalpel, retractors, hooks, blood vessel clamps, sutures <with needle>, sterilization box and marking instrument etc. to meet the requirement of skin dissection.



The matrices included:

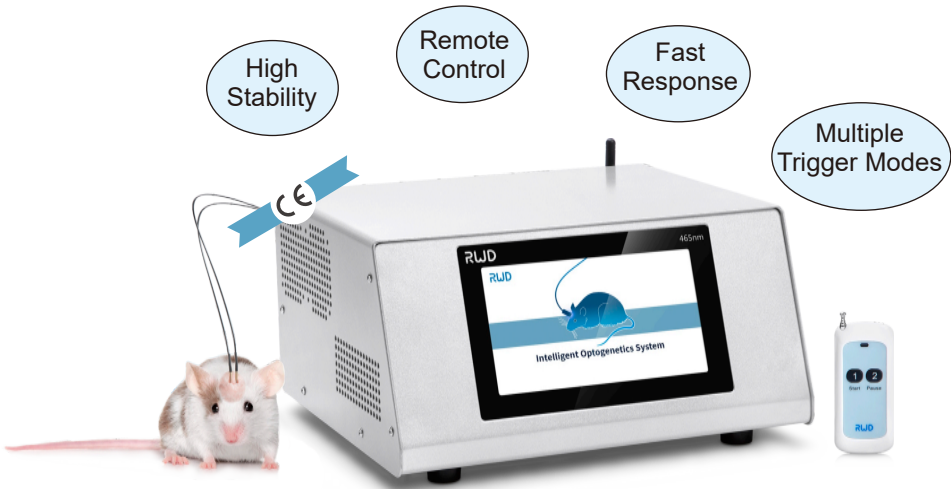
Brain and hear matrix, stainless material offered solid and durable quality which could be heated, cooled, autoclaved and scrubbed for long time using. Sterilizer mainly used for Instruments' high temperature sterilization with high efficiency. MCAO sutures made of Silica gel wrapped nylon thread material which could easily enter the common carotid artery and embolize the middle cerebral artery without puncturing the inner wall of the vessel, which greatly improves the success rate and repeatability of the modeling.



Neural Signal Research Solutions

Optogenetics System

Optogenetics uses light-responsive proteins to control biological processes. The unmatched spatiotemporal precision, high tunability, reversibility, and few side effects of light makes optogenetics a powerful strategy to study neuroscience and complex biological systems. RWD new intelligent optogenetics system, on the basis of the last generation machines (laser and waveform generator integrated into one), has made another leap in the performance.



Features:

- Built-in CW(continuous wave)mode, one-button power test.
- The test/experiment mode can be switched with one key, and the test power value can be directly written into the experiment program.
- Equipped with a remote control, which can control multiple optogenetics devices simultaneously within a range of ten meters.
- Three external trigger modes: Edge/Real-time/Gate, to meet more experimental requirements.

Edge mode1:

If the trigger voltage is higher than or equal to the set value of trigger voltage, the program will run; the trigger is only featured by the "on" function and the program's duration depends on its set duration.

Real-time mode2:

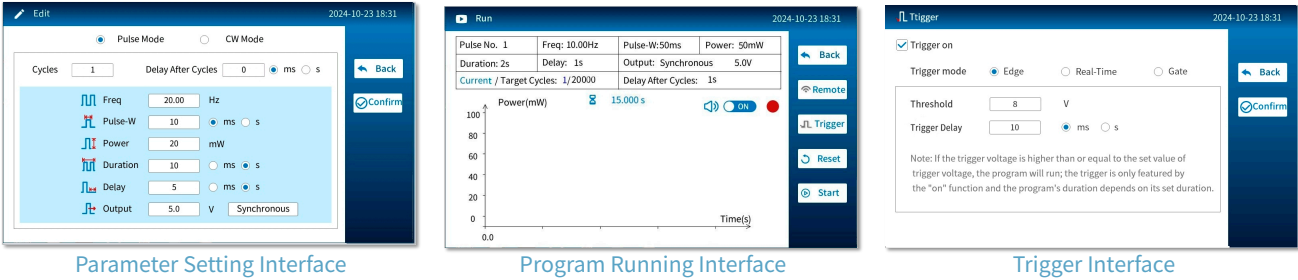
If the trigger voltage is higher than or equal to the set value of the trigger voltage, the program will run; if it is lower than that value, the program will stop; the trigger is characterized by the "on/off " function. The duration of the program depends on the duration of the trigger.

Gate mode3:

The running power relies on the first subprogram selected and other parameters are defined by the external device, and only response to the square wave with frequencies $\leq 500\text{Hz}$.

- High resolution signal processing, external signal delay $<1\text{ms}$.
- High stability, long-term operation power fluctuation is less than 1%.
- Support program group custom editing, import and export, experimental programs and records can be exported externally to review.
- With signal input/output interface, it can be compatible with electrophysiology, fiber photometry system, behavioral instruments and other equipment.
- Can be connected to multi-channel fiber ptotometry system. Enables stimulation and signal acquisition at the same site.

► Software Interface:



► Technical Parameters:

Parameter item	Specification
Power	1-100mW(IOS-635 is 1-60mW adjustable), 1mW resolution
Operation mode	Remote control/touch screen/external trigger
Input	2V-10V
Output	0-5V
Safety	Password; High temperature alarm; Program run prompt
Storage	Internal memory/USB flash disk

► Order Information:

Model	Product Description
IOS-465	Intelligent Optogenetics System(465nm)
IOS-589	Intelligent Optogenetics System(589nm)
IOS-635	Intelligent Optogenetics System(635nm)

Fiber Optic Rotary Joint

Applicable to long time stimulation and observation experiments on awake and free moving animals, avoids twining of the fiber optic.



► Order Information:

Model	Product Description
R-FC-1x1	FC-FC Optic Fiber Commutator

Patchcord and Optical Fiber

- Low insertion loss • Good repeatability • High return loss • Stable temperature • Low auto-fluorescence
- Good mutual insertion performance • Optional fiber • Applicable wavelength: 400nm-1100nm
- Numerical aperture: 0.22, 0.39, 0.50 • Default length is 1m, other length:1-5m, step 0.5m (customized)
- Core diameter: 100μm, 200μm, 300μm, 400μm

► Order Information:

Model	Product Description
R-FC-PC-N2-100-L1	FC/PC Optical Fiber Patch Cables(m) - 100μm,0.22NA,1m
R-FC-PC-N2-200-L1	FC/PC Optical Fiber Patch Cables(m) - 200μm,0.22NA,1m
R-FC-PC-N2-300-L1	FC/PC Optical Fiber Patch Cables(m) - 300μm,0.22NA,1m
R-FC-PC-N2-400-L1	FC/PC Optical Fiber Patch Cables(m) - 400μm,0.22NA,1m
R-FC-PC-N3-200-L1	FC/PC Optical Fiber Patch Cables(m) - 200μm,0.39NA,1m
R-FC-PC-N3-300-L1	FC/PC Optical Fiber Patch Cables(m) - 300μm,0.39NA,1m
R-FC-PC-N3-400-L1	FC/PC Optical Fiber Patch Cables(m) - 400μm,0.39NA,1m
R-FC-PC-N5-200-L1	FC/PC Optical Fiber Patch Cables(m) - 200μm,0.50NA,1m
R-FC-PC-N5-400-L1	FC/PC Optical Fiber Patch Cables(m) - 400μm,0.50NA,1m



Patchcord

► Order Information:

Model	Product Description
R-FC-L-N2-100-L1	Optic Fiber(m), FC/PC Adapter with Φ1.25 mm Ceramic Ferrule, 100μm Core,0.22NA,1m
R-FC-L-N2-200-L1	Optic Fiber(m), FC/PC Adapter with Φ1.25 mm Ceramic Ferrule, 200μm Core,0.22NA,1m
R-FC-L-N2-300-L1	Optic Fiber(m), FC/PC Adapter with Φ1.25 mm Ceramic Ferrule, 300μm Core,0.22NA,1m
R-FC-L-N2-400-L1	Optic Fiber(m), FC/PC Adapter with Φ1.25 mm Ceramic Ferrule, 400μm Core,0.22NA,1m
R-FC-P-N2-100-L1	Optic Fiber(m), FC/PC Adapter with Φ2.5 mm Ceramic Ferrule, 100μm Core,0.22NA,1m
R-FC-P-N2-200-L1	Optic Fiber(m), FC/PC Adapter with Φ2.5 mm Ceramic Ferrule, 200μm Core,0.22NA,1m
R-FC-P-N2-300-L1	Optic Fiber(m), FC/PC Adapter with Φ2.5 mm Ceramic Ferrule, 300μm Core,0.22NA,1m
R-FC-P-N2-400-L1	Optic Fiber(m), FC/PC Adapter with Φ2.5 mm Ceramic Ferrule, 400μm Core,0.22NA,1m
R-FC-L-N3-200-L1	Optic Fiber(m), FC/PC Adapter with Φ1.25 mm Ceramic Ferrule, 200μm Core,0.39NA,1m
R-FC-L-N3-300-L1	Optic Fiber(m), FC/PC Adapter with Φ1.25 mm Ceramic Ferrule, 300μm Core,0.39NA,1m
R-FC-L-N3-400-L1	Optic Fiber(m), FC/PC Adapter with Φ1.25 mm Ceramic Ferrule, 400μm Core,0.39NA,1m
R-FC-P-N3-200-L1	Optic Fiber(m), FC/PC Adapter with Φ2.5 mm Ceramic Ferrule, 200μm Core,0.39NA,1m
R-FC-P-N3-300-L1	Optic Fiber(m), FC/PC Adapter with Φ2.5 mm Ceramic Ferrule, 300μm Core,0.39NA,1m
R-FC-P-N3-400-L1	Optic Fiber(m), FC/PC Adapter with Φ2.5 mm Ceramic Ferrule, 400μm Core,0.39NA,1m
R-FC-L-N5-200-L1	Optic Fiber(m), FC/PC Adapter with Φ1.25 mm Ceramic Ferrule, 200μm Core,0.50NA,1m
R-FC-L-N5-400-L1	Optic Fiber(m), FC/PC Adapter with Φ1.25 mm Ceramic Ferrule, 400μm Core,0.50NA,1m
R-FC-P-N5-200-L1	Optic Fiber(m), FC/PC Adapter with Φ2.5 mm Ceramic Ferrule, 200μm Core,0.50NA,1m
R-FC-P-N5-400-L1	Optic Fiber(m), FC/PC Adapter with Φ2.5 mm Ceramic Ferrule, 400μm Core,0.50NA,1m
MFP_200/220/900-0.37_2m_FCM_MF1.25_LAF	Doric Mono Fiberoptic Patchcord-Low AutoFluorescence, FC/PC Adapter with Φ1.25mm Ferrule, 200μm Core, 0.37NA, 2m
MFP_200/220/900-0.37_2m_FCM_MF2.5_LAF	Doric Mono Fiberoptic Patchcord-Low AutoFluorescence, FC/PC Adapter with Φ2.5mm Ferrule, 200μm Core, 0.37NA, 2m

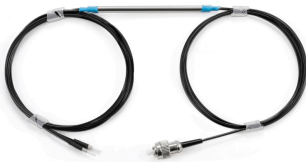


Optical Fiber

Model	Product Description
BBP(2)_200/220/900-0.37_2m_FCM-2xMF1.25_LAFF	Photometry-Doric 2 Branches Low Autofluorescence Optical Fiber, FC/PC Adapter with Φ1.25mm Ferrule, 200μm Core, 0.37NA, 2m
BBP(2)_200/220/900-0.37_2m_FCM-2xMF2.5_LAFF	Photometry-Doric 2 Branches Low Autofluorescence Optical Fiber, FC/PC Adapter with Φ2.5mm Ferrule, 200μm Core, 0.37NA, 2m
RWDF-1*2-2.0-N0.37-C200-FC(Φ1.25B)	Photometry-2 Branches Low Autofluorescence Optical Fiber, FC/PC Adapter with Φ1.25mm Ferrule, 200μm Core, 0.37NA, 2m
RWDF-1*2-2.0-N0.37-C400-FC(Φ1.25B)	Photometry-2 Branches Low Autofluorescence Optical Fiber, FC/PC Adapter with Φ1.25mm Ferrule, 400μm Core, 0.37NA, 2m
BFP(4)_200/220/900-0.37_2m_FCM*-4xMF1.25	Photometry-Doric 4 Branches Low Autofluorescence Optical Fiber, FC/PC Adapter with Φ1.25mm Ferrule, 200μm Core, 0.37NA, 2m
YXOY-1*4-3.0-FC(Φ1.25black)	Photometry-4 Branches Low Autofluorescence Optical Fiber, FC/PC Adapter with Φ1.25mm Ferrule, 200μm Core, 0.37NA, 3m
BBP(7)_200/220/900_0.37_2m_FCM-7×MF1.25	Photometry-Doric 7 Branches Low Autofluorescence Optical Fiber, FC/PC Adapter with Φ1.25mm Ferrule, 200μm Core, 0.37NA, 2m
RWDF-1*2-473-2.0-FC(Φ1.25)(100/100cm)	Optogenetics-2 Branches Optical fiber, FC/PC Adapter with Φ1.25mm Ferrule, 200μm Core, 0.37NA, Combining section 1m; Splitting section 1m



Photometry-2 Branches Low Autofluorescence Optical Fiber



Optogenetics-2 Branches Optical Fiber

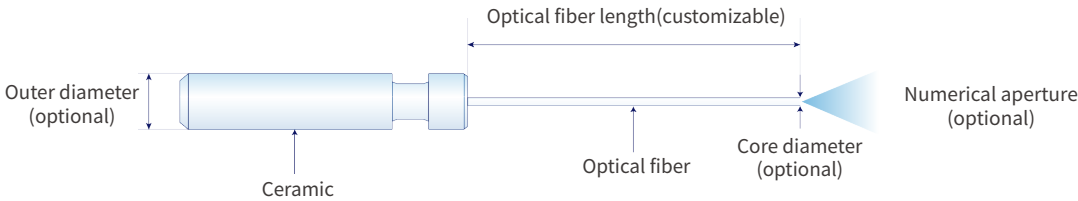
Model	Product Description
YSOS-1*2-200S-5:5-150/50-1.25FC	Fusion fiber-200μm, NA0.22, FC/PC Adapter with Ø1.25 mm Ceramic Ferrule, bundle end-1.5m, beam splitting end-0.5m
YSOS-1*2-200S-5:5-200/100-1.25FC	Fusion fiber-200μm, NA0.22, FC/PC Adapter with Ø1.25 mm Ceramic Ferrule, bundle end-2m, beam splitting end-1m
YXOS-1*2-473-200/220-2.0-Φ2.5(FC) (150/50cm)	Fusion fiber-200μm, NA0.22, FC/PC Adapter with Ø2.5 mm Ceramic Ferrule, bundle end -1.5m, beam splitting end-0.5m
YXOS-1*2-473-200/220-3.0-Φ2.5(FC) (200/100cm)	Fusion fiber-200μm, NA0.22, FC/PC Adapter with Ø2.5 mm Ceramic Ferrule, bundle end-2m, beam splitting end-1m
YSOS-1*2-200-5:5-150/50-1.25FC	Fusion fiber-200μm, NA0.37, FC/PC Adapter with Ø1.25 mm Ceramic Ferrule, bundle end-1.5m, beam splitting end-0.5m
YSOS-1*2-200-5:5-200/100-1.25FC	Fusion fiber-200μm, NA0.37, FC/PC Adapter with Ø1.25 mm Ceramic Ferrule, bundle end-2m, beam splitting end-1m
YXOS-1*2-473-2.0-Φ2.5 (FC) (150/50cm)	Fusion fiber-200μm, NA0.37, FC/PC Adapter with Ø2.5 mm Ceramic Ferrule, bundle end-1.5m, beam splitting end-0.5m
YXOS-1*2-473-3.0-Φ2.5 (FC) (200/100cm)	Fusion fiber-200μm, NA0.37, FC/PC Adapter with Ø2.5 mm Ceramic Ferrule, bundle end-2m, beam splitting end-1m



Fiber Optic Cannulae

Features:

- Material: Ceramic, Optical fiber
- Type: White Series/Black Series
- Applicable wavelength: 400-2200nm
- Core diameter: 100μm, 200μm, 300μm, 400μm
- Numerical aperture: 0.22, 0.39, 0.50
- Outer diameter: 1.25mm (6.4mm long), 2.5mm (10.5mm long)
- Optical fiber length: 1mm-20mm, step 0.5mm (Other lengths can be customized)
- Low auto-fluorescence



Order Information:

No.	Model	Product Description
1	R-FOC-L200C-39NA	Fiber Optic Cannulae with Φ1.25 mm Ceramic Ferrule, 200um Core, 0.39NA, 20/pkg
2	R-FOC-L300C-39NA	Fiber Optic Cannulae with Φ1.25 mm Ceramic Ferrule, 300um Core, 0.39NA, 20/pkg
3	R-FOC-L400C-39NA	Fiber Optic Cannulae with Φ1.25 mm Ceramic Ferrule, 400um Core, 0.39NA, 20/pkg
4	R-FOC-F200C-39NA	Fiber Optic Cannulae with Φ2.5 mm Ceramic Ferrule, 200um Core, 0.39NA, 20/pkg
5	R-FOC-F300C-39NA	Fiber Optic Cannulae with Φ2.5 mm Ceramic Ferrule, 300um Core, 0.39NA, 20/pkg
6	R-FOC-F400C-39NA	Fiber Optic Cannulae with Φ2.5 mm Ceramic Ferrule, 400um Core, 0.39NA, 20/pkg
7	R-FOC-L200C-22NA	Fiber Optic Cannulae with Φ1.25 mm Ceramic Ferrule, 200um Core, 0.22NA, 20/pkg
8	R-FOC-L300C-22NA	Fiber Optic Cannulae with Φ1.25 mm Ceramic Ferrule, 300um Core, 0.22NA, 20/pkg
9	R-FOC-L400C-22NA	Fiber Optic Cannulae with Φ1.25 mm Ceramic Ferrule, 400um Core, 0.22NA, 20/pkg
10	R-FOC-F200C-22NA	Fiber Optic Cannulae with Φ2.5 mm Ceramic Ferrule, 200um Core, 0.22NA, 20/pkg
11	R-FOC-F300C-22NA	Fiber Optic Cannulae with Φ2.5 mm Ceramic Ferrule, 300um Core, 0.22NA, 20/pkg
12	R-FOC-F400C-22NA	Fiber Optic Cannulae with Φ2.5 mm Ceramic Ferrule, 400um Core, 0.22NA, 20/pkg
13	R-FOC-L200C-50NA	Fiber Optic Cannulae with Φ1.25 mm Ceramic Ferrule, 200um Core, 0.50NA, 20/pkg
14	R-FOC-F200C-50NA	Fiber Optic Cannulae with Φ2.5 mm Ceramic Ferrule, 200um Core, 0.50NA, 20/pkg
15	R-FOC-L400C-50NA	Fiber Optic Cannulae with Φ1.25 mm Ceramic Ferrule, 400um Core, 0.50NA, 20/pkg
16	R-FOC-F400C-50NA	Fiber Optic Cannulae with Φ2.5 mm Ceramic Ferrule, 400um Core, 0.50NA, 20/pkg
17	R-FOC-BL200C-39NA	Fiber Optic Cannulae(Black) with Φ1.25 mm Ceramic Ferrule, 200um Core, 0.39NA, 20/pkg
18	R-FOC-BL300C-39NA	Fiber Optic Cannulae(Black) with Φ1.25 mm Ceramic Ferrule, 300um Core, 0.39NA, 20/pkg
19	R-FOC-BL400C-39NA	Fiber Optic Cannulae (Black)with Φ1.25 mm Ceramic Ferrule, 400um Core, 0.39NA, 20/pkg
20	R-FOC-BF200C-39NA	Fiber Optic Cannulae (Black)with Φ2.5 mm Ceramic Ferrule, 200um Core, 0.39NA, 20/pkg
21	R-FOC-BF300C-39NA	Fiber Optic Cannulae (Black)with Φ2.5 mm Ceramic Ferrule, 300um Core, 0.39NA, 20/pkg
22	R-FOC-BF400C-39NA	Fiber Optic Cannulae (Black)with Φ2.5 mm Ceramic Ferrule, 400um Core, 0.39NA, 20/pkg
23	R-FOC-BL100C-22NA	Fiber Optic Cannulae (Black, yellow nylon coating)with Φ1.25 mm Ceramic Ferrule, 100um Core, 0.22NA, 20/pkg
24	R-FOC-BL200C-22NA	Fiber Optic Cannulae (Black, yellow nylon coating)with Φ1.25 mm Ceramic Ferrule, 200um Core, 0.22NA, 20/pkg
25	R-FOC-BL300C-22NA	Fiber Optic Cannulae (Black, yellow nylon coating)with Φ1.25 mm Ceramic Ferrule, 300um Core, 0.22NA, 20/pkg
26	R-FOC-BL400C-22NA	Fiber Optic Cannulae (Black, yellow nylon coating)with Φ1.25 mm Ceramic Ferrule, 400um Core, 0.22NA, 20/pkg
27	R-FOC-BF100C-22NA	Fiber Optic Cannulae (Black, yellow nylon coating)with Φ2.5 mm Ceramic Ferrule, 100um Core, 0.22NA, 20/pkg
28	R-FOC-BF200C-22NA	Fiber Optic Cannulae (Black, yellow nylon coating)with Φ2.5 mm Ceramic Ferrule, 200um Core, 0.22NA, 20/pkg
29	R-FOC-BF300C-22NA	Fiber Optic Cannulae (Black, yellow nylon coating)with Φ2.5 mm Ceramic Ferrule, 300um Core, 0.22NA, 20/pkg
30	R-FOC-BF400C-22NA	Fiber Optic Cannulae (Black, yellow nylon coating)with Φ2.5 mm Ceramic Ferrule, 400um Core, 0.22NA, 20/pkg
31	R-FOC-BL200C-50NA	Fiber Optic Cannulae (Black)with Φ1.25 mm Ceramic Ferrule, 200um Core, 0.50NA, 20/pkg
32	R-FOC-BF200C-50NA	Fiber Optic Cannulae (Black)with Φ2.5 mm Ceramic Ferrule, 200um Core, 0.50NA, 20/pkg
33	R-FOC-BL400C-50NA	Fiber Optic Cannulae (Black)with Φ1.25 mm Ceramic Ferrule, 400um Core, 0.50NA, 20/pkg
34	R-FOC-BF400C-50NA	Fiber Optic Cannulae (Black)with Φ2.5 mm Ceramic Ferrule, 400um Core, 0.50NA, 20/pkg

Notes: The above white series specifications can be customized to black.

Ceramic Sleeves & Ceramic Ferrules Protective Caps



Ceramic Cannula



Ceramic Ferrules Protective Cap

Order Information:

Model	Product Description
R-MS-1.25	Ceramic Sleeves, Φ1.25mm (20pcs/ pkg)
R-MS-2.5	Ceramic Sleeves, Φ2.5mm (20pcs/ pkg)
R-BMS-1.25	Black Ceramic Sleeves, Φ1.25mm (20pcs/ pkg)
R-BMS-2.5	Black Ceramic Sleeves, Φ2.5mm (20pcs/ pkg)
R-DC-2.5	Ceramic Ferrules Protective Cap- Φ2.50mm (200pcs/pkg)
R-DC-1.25	Ceramic Ferrules Protective Cap- Φ1.25mm (200pcs/pkg)

Fiber Photometry System

The fiber photometry system records changes in the intensity of fluorescence of neurons in specific brain regions to characterize changes in the activity of neuronal populations. The fiber photometry system can detect population neurons in free-moving animals for long periods of time, which is helpful to explore the correlation between neuron activity and animal behavior. RWD Multichannel Fiber Photometry System has four wavelengths, 410nm, 470nm 560nm and 640nm, of which 410 is used to acquire reference signal and eliminate noise. The system can record signals of green fluorescence indicators like GCaMP and dLigh, red fluorescence indicators like RCaMP and jrGECOLa , far-red fluorescence indicators like HaloDA1.0. The system supports optogenetics stimulation and signal recording at the same site.

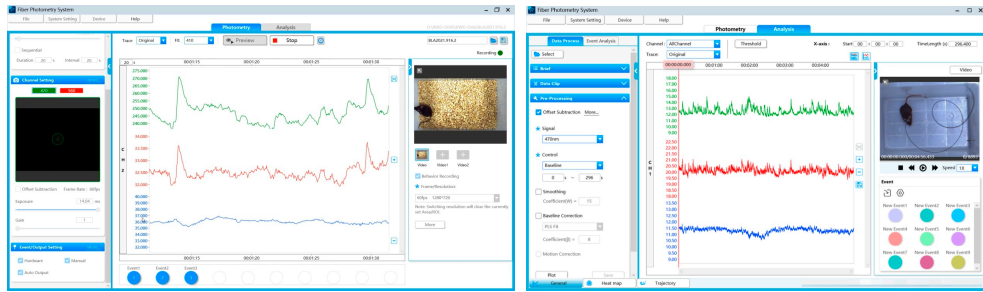


Features:

- Four kinds of excitation light sources, that is 410nm, 470nm, 560nm and 640nm, are respectively used for excitation of reference, green fluorescence, red fluorescence and far-red fluorescence;
- Support up to 9 channels, suitable for simultaneous experiment of multiple animals or multiple brain locations;
- Dual highly sensitive detectors enabling independent and sequential detection to avoid interference of fluorescence excitation and detection, acquiring more accurate signal;
- Professional acquisition and analysis softwares are flexible and easy to operate with data processing functions available. No matlab programming is required;
- Supports multiple acquisition modes including continuous acquisition, interval acquisition, acquisition upon trigger, delayed acquisition and timing acquisition;
- Live display of DeltaF/F acquisition to check scale of signal changes during acquisition. Supports simultaneous video acquisition of behaviors with multiple cameras;
- Customized adjustment of output signal parameter, easily trigger and control external excitation equipment to achieve closed-cycle control of excitation and recording;
- Compatible with optogenetics for recording and stimulation at the same site.

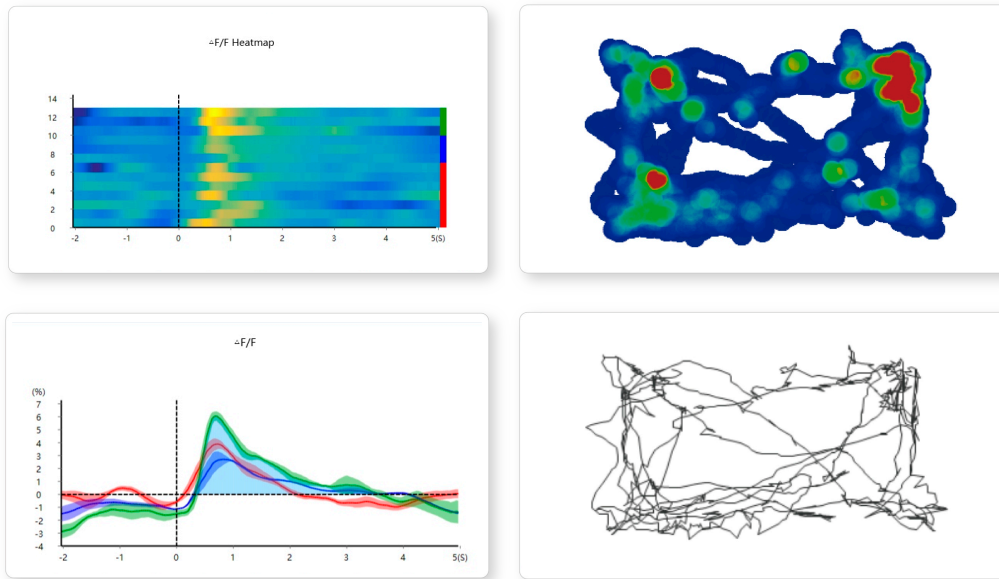
Software functions

Professional acquisition and analysis softwares



Professional acquisition and analysis software enable stable data acquisition and easy processing. Data analysis includes data clip, baseline correction, smoothing, motion correction, event heat map, peak statistics, area under curve, behavior trajectory heat map and fluorescence-place heat map.

Rapid generation of heat map



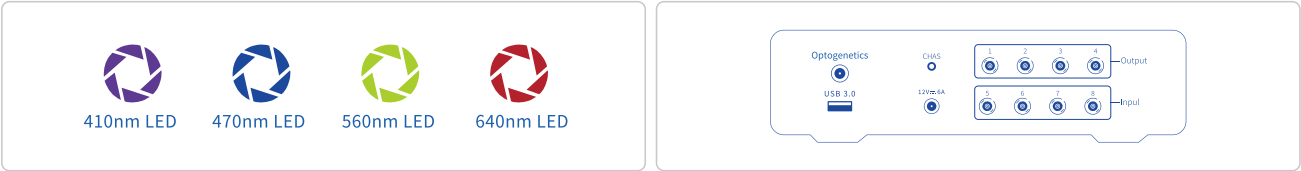
Generation of Peri-event heat map with one click. Supports comparison of data groups. Freely choose and handle events of interest, and flexibly add or remove events. The results can be easily saved and exported to DeltaF/F, Z-score, Peri-event, peak statistics and AUC. Information in the image can be freely edited by saving the image as editable SVG format.

Hardware functions



Supports up to 9 channels enabling high throughput acquisition and simultaneous detection of multiple downstream and upstream brain locations; optical fiber of low fluorescence can effectively reduce interference by background fluorescence

Dual highly sensitive detectors with green fluorescence, red fluorescence and far-red fluorescence entering corresponding detector; independent and sequential detection to avoid interference of fluorescence excitation, acquiring more accurate signal



Stable LED light source and 4 types of excitation light sources to enable free combination of modes and support excitation of reference signal, green fluorescence, red fluorescence and far-red fluorescence

Digital I/O ports, supporting various external TTL signal triggers and markers; capable of outputting TTL signals to trigger external devices, with customizable output parameters to meet closed-loop control requirements

► Technical parameters:

Parameter item	Specification
Wavelength of excitation light	R811: 410nm 470nm R812: 410nm 560nm; R821: 410nm 470nm 560nm R830: 410nm 470nm 560nm 640nm
Power	Min 0μW, Max≥200μW, adjustable with an accuracy of 0.1μW
Number of channels	9
Frame rate of fluorescent sampling	Max 250fps
Digital signal interface	8 Digital I/O ports
Signal output	Output frequency 0-500Hz, adjustable output pulse width and duration
Marker	Manual marker (10), Automatic marking(8), ROI marker (9)
Behavior camera	1920*1080(30fps) 1280*720(60fps) Switchable among multiple frame rates of resolution
Optogenetics compatibility	465/589/635 nm
Electrophysiological grounding interface	Yes
Pre-installed software	Yes

Micropipette Puller

MP-500 Micropipette Puller

RWD MP-500 micropipette puller is developed to solve the microelectrode problems in microinjection experiments. It has avant-garde intelligent operation interface, Scale indicator design for heating filament mounting position and other user-friendly design. MP-500 integrates stability, intelligence and humanization, which can meet the requirements of microelectrode-related experiments and enhance user experience at the same time. In summary, MP-500 is an excellent choice for microelectrode related experiments.

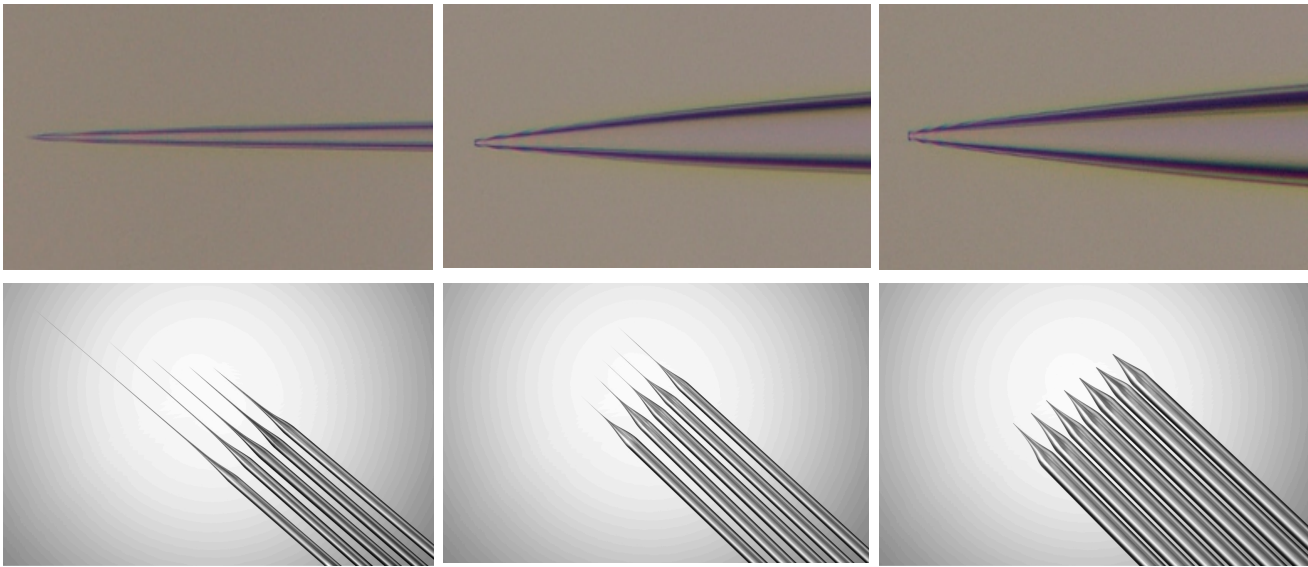


► Four Highlights:

- Scale indicator design for heating filament mounting position
- The integrated plug-in humidity control chamber
- Full-color capacitor operation interface
- The pulling of micropipettes is stable and efficient

► Features:

- Scale indicator design for heating filament mounting position makes it easier to replace various models of filaments.
- The user interface adopts capacitive color touch screen (1024*600px) with high sensitivity.
- The integrated plug-in humidity control chamber is easy to disassemble, which can keep the air around the filament and the capillary glass dry during the pulling process to avoid the adverse effect of humid air on the pulling result.
- Two microelectrodes with symmetrical tips are stably produced every time. Minimum tip diameter down to 0.06 μm, the taper length 3~15 mm, with high repeatability.
- According to the type of the capillary glass tube and the kinds of glass microelectrodes to be pulled, the corresponding pull protocols are provided as a reference and can be modified according to special requirements.
- The device can store up to 150 pulling programs.
- The system diagnostic function can be used to manually check whether all the components of the puller are in normal working condition.
- The preheat mode can reduce the influence of the accumulation of jaw heat on the consistency of the pulling results during continuous pulling.
- The safe heat mode can avoid the damage of the filament from high temperature.
- The front panel cover adopts a roller design, which is convenient for users to open easily.



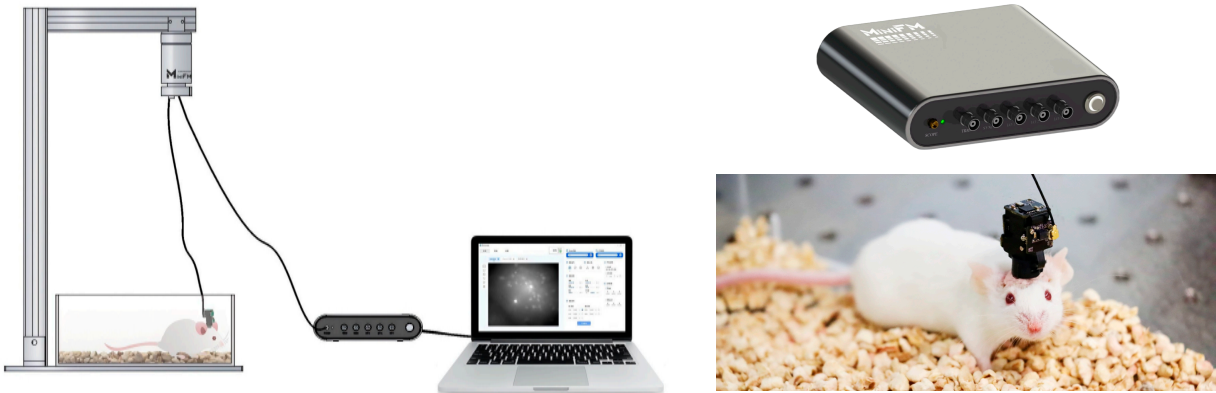
► Order Information:

Model of micropipette puller	Product Description
MP-500(HF2545B)	
Model of heating filament	Platinum-iridium alloy(platinum90%, iridium10%)W×L of square box; HF=Heating Filament, B=Box
HF-2545B	4.5×2.5mm
Model of borosilicate glass with filament	Borosilicate glass with filament (O.D.×I.D. ×L)B=Borosilicate, F = Filament, Qty: 200
B-10050-10F	1.0×0.5×100mm
B-10078-10F	1.0×0.78×100mm
B-12069-10F	1.2×0.69×100mm
B-12094-10F	1.2×0.94×100mm
B-15086-10F	1.5×0.86×100mm
B-150110-10F	1.5×1.1×100mm
B-15086-8.5F	1.5×0.86×85mm
B-150110-8.5F	1.5×1.1×85mm

In Vivo Calcium Imaging

MiniFM Calcium Imaging Microscope

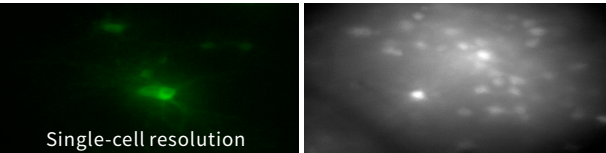
Designed for freely moving animals, the MiniFM series microscope can be worn on the animal's head (targeting the brain region) to record brain neuronal activity in real time with high resolution. This capability enables researchers to acquire high-quality data, which supports basic neuroscience research in key areas—including emotion, memory, behavior, and mental disorders—effectively meeting the core demands of brain science studies.



Features

Ultra-high resolution at the single-cell level

Observe dendritic spines, synapses, and other fine structures, and track the nerve signal transmission process.

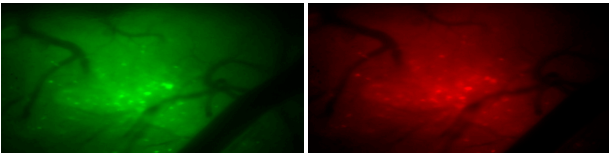


Accurate Real-time Reality

Overcame the challenge of simultaneously achieving miniaturization, high resolution, and high speed in existing equipment.

Multi-plane synchronous imaging

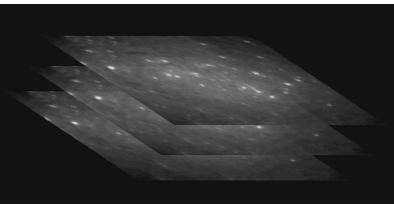
A wide range of electronically controlled zoom functions to meet the needs of multi-plane synchronous imaging.



Ca²⁺ kinetics in multiple brain regions

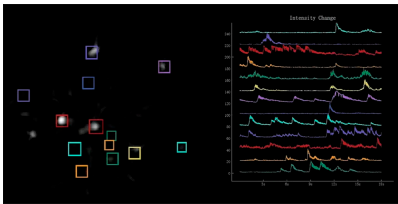
It can study free-moving animals, and can be combined with behavioral analysis and research.

Software functions



Multi-plane imaging mode

By rapid automatic switching of up to three imaging focuses, the plane realizes synchronous calcium signal imaging of nerve cells at different depths to improve the data acquisition of a single field of view.



Real-time analysis function

The ROI region selection and identification. The tracking of the signal changes of the ROI.

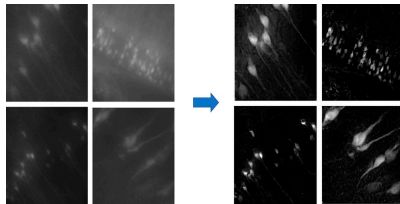
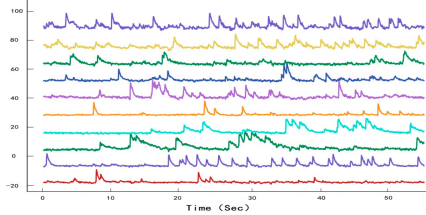
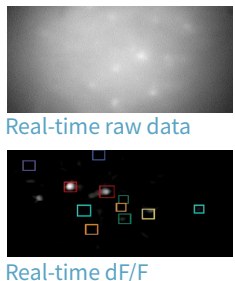
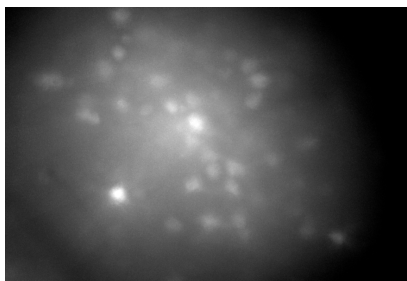


Image enhancement algorithm based on deep learning.

Help to get more clarity, with more details of the Raw Data.

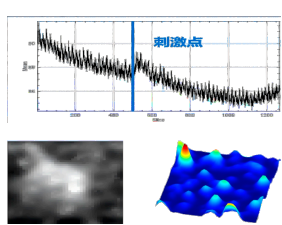
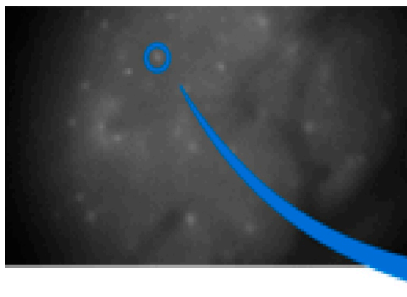
Software functions

1 Neuronal imaging in the motor cortex



Analysis of real-time calcium imaging signals in neurons

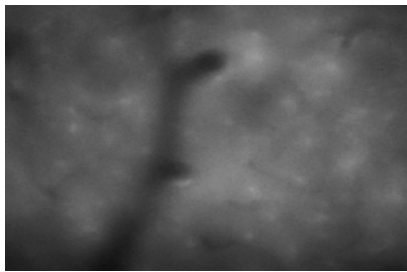
2 iAChSnFR, Labeling the neurotransmitter release



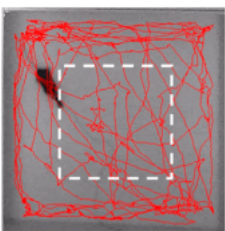
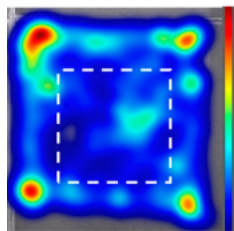
Distribution of transmitters within the neural cell cell

This experiment used 10V, 16 Hz, 200μs pulse-width electrical signals to stimulate the labeled neural cells, while MiniFM was used to observe the distribution and dynamics of their neurotransmitter release.

3 Imaging of astrocytes



4 Device Integration with a Mouse Behavior Camera for Motion Tracking and Thermodynamic Analysis



Technical Parameters

	MiniFM1-R	MiniFM-D-R
Weight	2.9 g	3.3 g
Size	11×17×24mm	11×17×24mm
Objective N.A.	0.55	0.55
CMOS resolution	1280×1080 pixels	1280×1080 pixels
Imaging field	1250μm×1050μm	1250μm×1050μm
Pixel size	2.7×2.7μm	2.7×2.7μm
Working distance	~1000μm	~1000μm
Imaging speed	60 fps	60 fps
Zoom range	400μm	400μm
Focal accuracy	<0.5μm	<0.5μm
Imaging mode	Multiplane synchronous imaging	Multiplane synchronous imaging
Excitation wavelength	470 ± 20nm	Green fluorescence: 470 ± 20nm; Red fluorescence: 560 ± 20nm
Emission wavelength	535 ± 25nm	Green fluorescence: 525 ± 20nm; Red fluorescence: 600 ± 30nm

Motorized Micromanipulator

MM-500 Motorized Micromanipulator

Motorized micromanipulators are mostly used to manipulate recording electrodes and stimulate the movement of electrodes in electrophysiological experiments.

The MM-500 was designed to meet a wide variety needs for the scientific community, and is suitable for patch clamp experiments, microinjection, extracellular recording, intra-cellular recording and precision robotic positioning applications.



- **Features:**
- Small and light size, humanized bilingual operation interface, flexible program debugging.
 - The TFT screen shows the position and moving speed of the activated manipulator as well as X, Y and Z.
 - High-resolution stepper motor meets four-axis drive, the maximum distance of X, Y, Z and diagonal movement is 25mm, with good stability and small drift.
 - A rotary photoelectric encoder can control two manipulators and switch freely. Origin/working position function can meet the requirement of rapid return of electrode to original working position.
 - Compatible with mainstream micromanipulation platform, can be used with any microscope, can hold a variety of probes and microsyringes.

► **Technical parameters:**

Parameter item	Specification
Travel	25 mm on all four axes
Maximum Speed	2.9mm/s
Resolution	0.132μm/0.033μm
Long Term Stability	10nm/h at 24°C.
Repeated positioning accuracy	Single axis ≤1μm, three axis ≤2μm

► **Order Information:**

Model of micropipette puller	Product Description	
MM-500-2	Motorized micromanipulators(Double-handed setup)	
MM-500-L	Motorized micromanipulators(Left-handed setup)	
MM-500-R	Motorized micromanipulators(Right-handed setup)	
MM-500L	Left-handed mechanical manipulator	
MM-500R	Right-handed mechanical manipulator	
MT-75/MT-150	Supporting column/Chamber column	
MT-500	XY control moving platform	Contains 3 supporting columns, 1 XY mobile platform, 1 microscope mounting bracket, 1 XY mobile platform mounting bracket
MT-800	Microscope moving platform	Contain 1 XY mobile platform, 1microscope mounting bracket, 1XY mobile platform mounting bracket

Wireless In Vivo Electrophysiological Telemetry System

The wireless in vivo small animal electrophysiological recording system is suitable for collecting various electrophysiological signals (ECG, EEG, EMG, field potential) and animal videos from freely moving experimental animals. It can be used for research in areas such as epilepsy, sleep, anesthesia, and pain.



- **Features:**
- Improves experimental efficiency and reduces labor costs**
- Simultaneously records electrophysiological signals from multiple animals
 - Supports scheduled data collection
 - Remotely monitors data from multiple animals in real time
 - Recorder with replaceable battery for continuous EEG recording
- Safe, effective, and cost-effective**
- No risk of cable breakage
 - High data quality, meeting experimental data analysis needs
 - Lower cost per animal than imported equipment
- Reduces burden on animals**
- Compact size and light weight (can be used with mice as young as 3 weeks old)
 - Free movement of experimental animals without burden



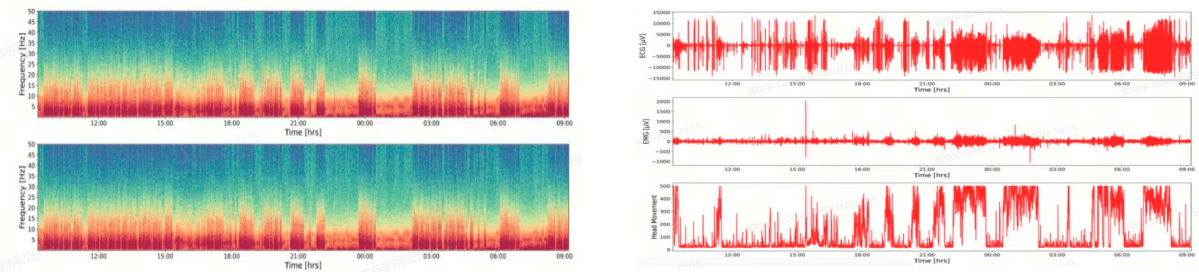
► **Performance Parameters:**

Parameter item	Specification
Recordable electrophysiological signal types	EEG, EMG, ECG, LFP, and peripheral nerve signals
Electrophysiological signal channels	4 channels-2-channel EEG/1-channel EMG/1-channel ECG (selectable) or 4-channel LFP
Electrophysiological signal sampling rate	500 Hz/channel
Motion signal and sampling rate	3-axis (X, Y, and Z) acceleration data, 50 Hz sampling rate each
Communication method	Between recorder and receiver: Bluetooth 5.0
Common mode rejection ratio (CMRR)	≥80dB/60Hz
Signal Noise	<1.2μV RMS @100Hz
Input Range	+10mV
Sampling Accuracy	16-bit
Power Supply and Battery Life	Recorder: Powered by a replaceable coin cell battery Single-battery life for the standard version is ≥120 hours; for the lightweight version, it is >20 hours. Receiver: 110-220V
Weight	Standard version <2.7g (including coin cell battery) lightweight version <1.5g (including coin cell battery) receiver: <150g
Data Storage	The receiver has a built-in SD card with automatic data backup and storage for enhanced data security. It can store up to 2000 hours of data. The receiver also features Wi-Fi for real-time data upload to a cloud database
Data Format	EDF, compatible with third-party software such as Matlab

Product Applications

Synchronous EEG, EMG, and ECG Acquisition and Recording Solution

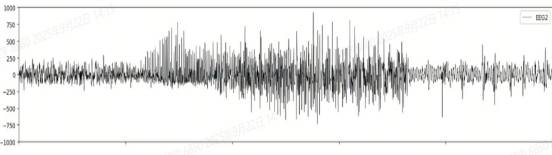
The single device is compact and can be placed next to the mouse cage. Data is transmitted wirelessly, allowing remote download and analysis in the lab without the need for on-site monitoring. This solution is suitable for large-scale, long-term EEG, EMG, and EMG monitoring.



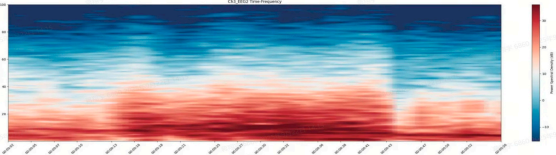
Epilepsy Monitoring Solution

The wireless recorder, combined with a video monitoring system, enables long-term epilepsy monitoring during complete freedom of movement, fully recording every epileptic seizure video and electrophysiological data.

Epileptic Seizure EEG Raw Waveform

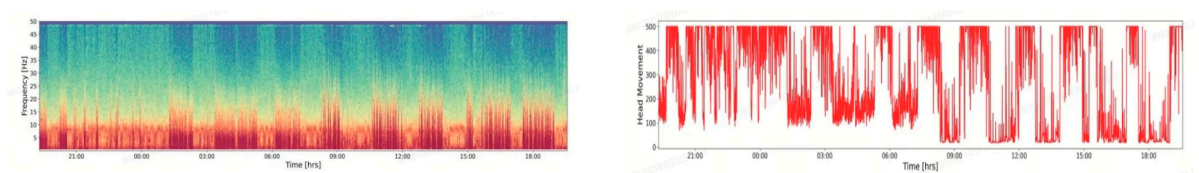


Epileptic Seizure EEG Spectrum



Sleep Monitoring and Deprivation Solutions

The wireless recorder, combined with a sleep deprivation system, enables sleep intervention in completely free-range animals, ensuring a more consistent rhythm with the animal's physiological state without the risk of tangling.



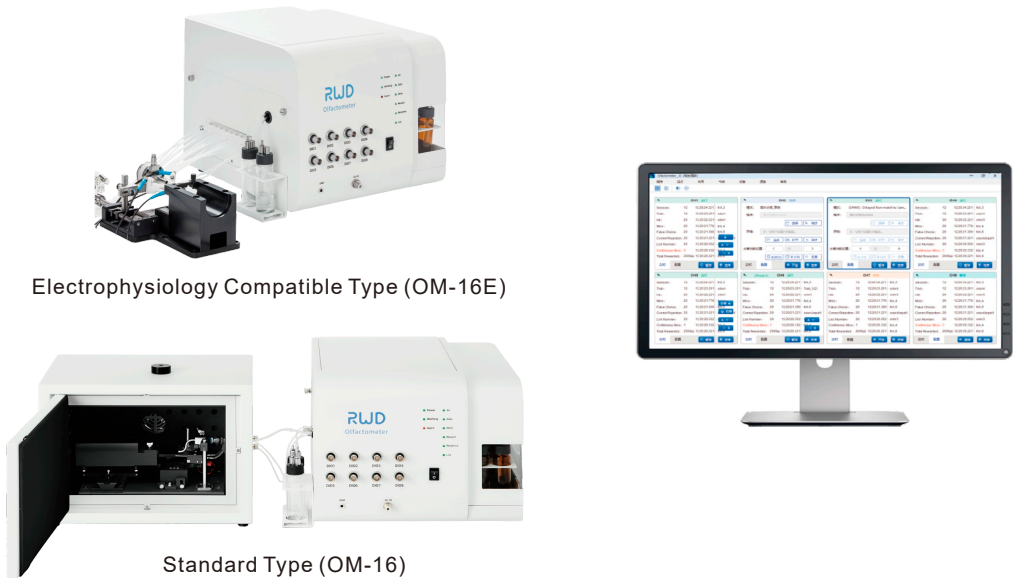
Order Information:

Model of micropipette puller	Product Description
AR4-M1	Radio Physiological Telemetry System (1-to-1)
AR4-M4	Radio Physiological Telemetry System (1-to-4)
AR4-M8	Radio Physiological Telemetry System (1-to-8)

Behavioral Experiment Solutions

Olfactometer

RWD Olfactometer is based on odor stimuli associated with water reward feedback, and builds a learning task to quickly help users carry out mice cognitive assessment experiments. The Olfactometer supports multiple mice training with multiple odors, including mouse head-fixation, water reward, odor control, TTL signal transmission, IR camera, sound cubicle and desktop software. The Olfactometer can carry out experimental tasks such as odor stimulation, olfactory discrimination, and cognitive training, helping researchers to conduct research on the mechanisms of olfactory function, learning and memory cognition, neurological diseases, etc., and greatly improving the efficiency of scientific research work.

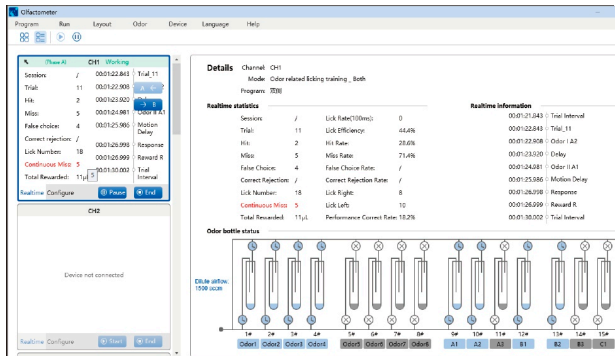


Features:

- Odor control module associated with licking water reward module, integrated behavioral training system.
- High-throughput training for 8 mice can be configured with 8 or 16 odor vials for maximum flexibility.
- Configure with IR camera recording real-time images of mouse licking behavior.
- Quickly odor pulse switchover, accurate lick counting module.
- System software includes Go/No-Go, DNMS, DPA working memory paradigm, and userdefined paradigm.
- Digital input/output module, TTL signals transmission, compatible with optogenetics, fiber photometry, electrophysiology, etc.



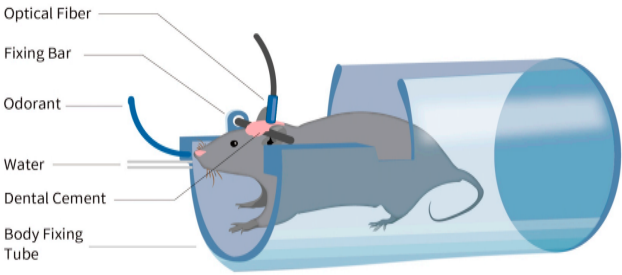
Support multi-channel independent and synchronous operation, and the interface displays the trial parameters in real time.



Channel details interface displays key result parameters such as Hit, Miss, False Choice, Correct Rejection, Lick Number, Performance, Correct Rate, and displays the gas cylinder status in real time.

► Technical parameters:

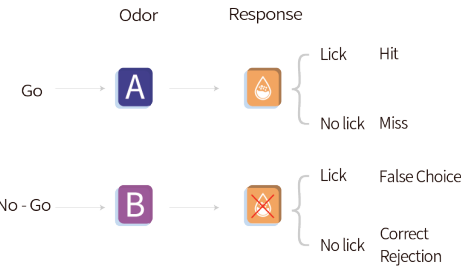
Parameter item	Specification
Channels	1/4/8
Odor vials	8/16
Odor rise time	<100 ms
Odor elimination time	<100 ms
Odor flow range	0-0.5 L/min
Air flow range	0-2 L/min
Liquid reward flow range	0-20 μ L
IR camera	600*480 pixels, 60 fps



► Software internal Learning Task:

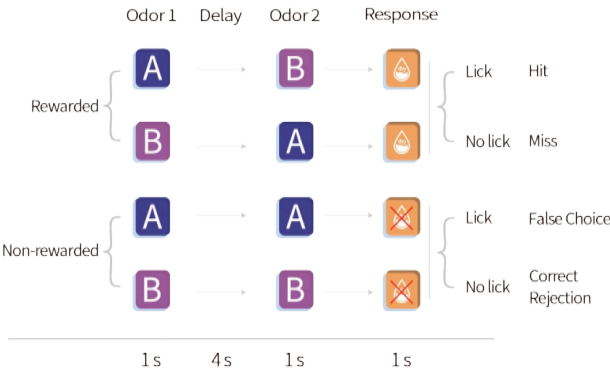
Go/No-Go task

The task trains mice to discriminate between two odors (A&B). Choosing the correct odor stimuli (S+) will be rewarded with liquid. Choosing the incorrect odor stimuli (S-) will not be rewarded.



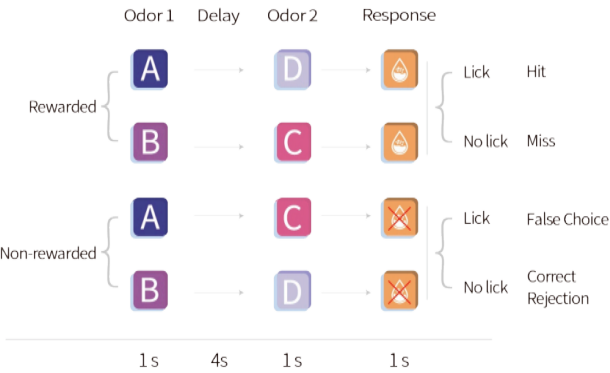
DNMS (Delayed Non-Matching to sample task)

The task trains mice to respond correctly based on the non-matching odor to obtain drinking rewards. Give the mice two odors one after another. If the two odors are different, choose licking the water tube will be rewarded with liquid. If the two odors are the same, choose licking the water tube will not be rewarded.



DPA (Delayed Paired Association task)

The task trains mice to respond correctly based on the pair-coupling relationship of odors to obtain drinking rewards. Give the mice two odors one after another. If the two odors are fixed combination (such as odor A&D, B&C), choose licking the water tube will be rewarded with liquid. In addition, odor combination (such as odor A&C, B&D), choose licking the water tube will not be rewarded.



► In Vivo Imaging Solutions ◀

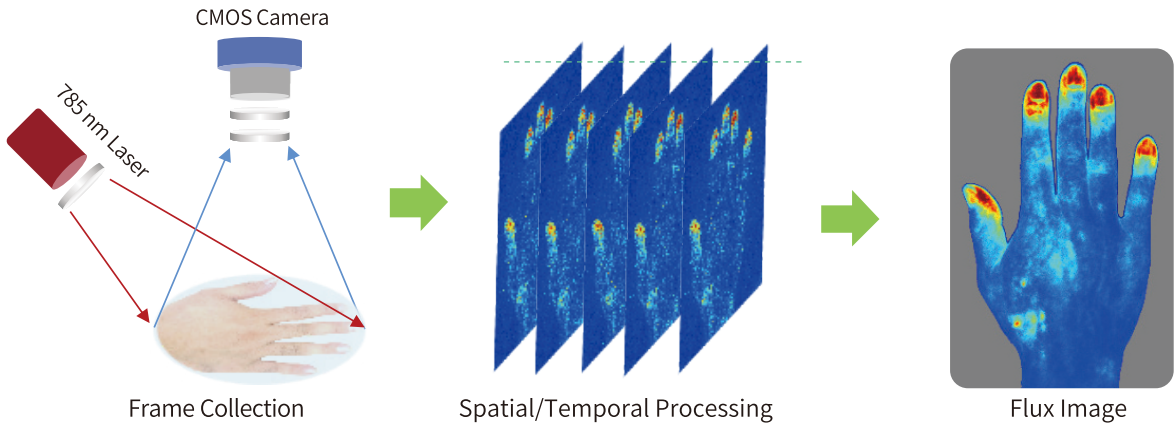
Laser Speckle Imaging System

RWD laser speckle imaging system is an even better tool for microcirculation research based on laser speckle contrast imaging technology (LSCI). In a non-contact way, reliable quantified data and high definition images can be obtained for various pre-clinical researches. It can be used to record the microcirculation of any exposed organ. With the advanced optical design and improved image processing algorithm, it shows greater performance in imaging field size, image quality, full-field frame rate and optical resolution, and provides a powerful and efficient means for tissue microcirculation measurement.



► Operating Principle:

When an object is illuminated by laser light, the back scattered light will form an interference pattern consisting of dark and bright areas. This pattern is called a speckle pattern. When there is movement in the object, such as red blood cells in a tissue, the speckle pattern will change over time.



► Features:

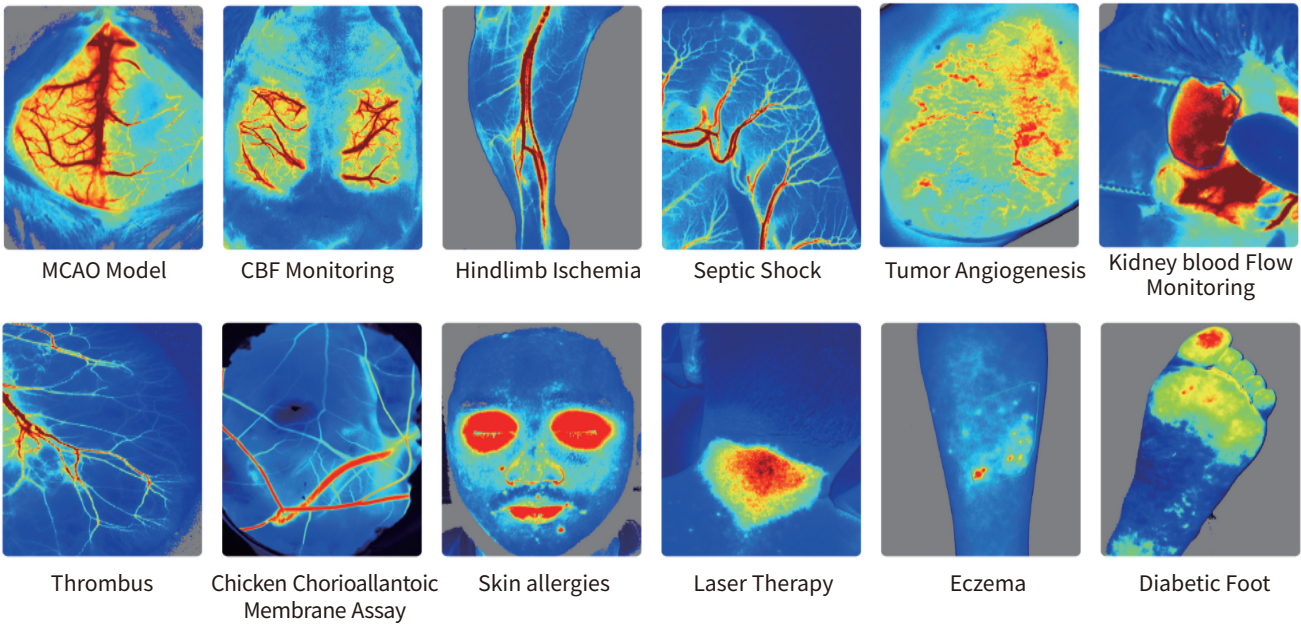
- Non-contact, non-contrast agent depending measurement
- Best optical resolution of 3.9 μm/pixel, providing more detailed tissue structures.
- Max frame rate (full field) up to 100 fps, acquiring real-time changes in larger areas.
- Laser stability hardware for the ultimate in reliable and consistent measurement over minutes, hours and days.
- Calibration with calibration box. Self-calibration is possible at any time to keep the equipment in optimal working condition.

► Order Information:

Product Model	RFLSI ZW	LSCI ZW*	RFLSI HR
Image Size	5.7mm×7.5mm-22.5cm×30cm		5.7mm×7.5mm - 3.8cm×5cm
Working Distance	10-40 cm, continuous		10-25 cm, continuous
Max Frame Rate	100 fps		50 fps
Zoom	10×		3×
Imaging Algorithms	Two Spatial Algorithm modes and one Temporal Algorithm mode		Two Spatial Algorithm modes
Resolution	Max Camera Resolution : 2064x1544 pixels Best Resolution : 3.9 μm/pixel		Max Camera Resolution : 2064x1544 pixels Best Resolution : 3.9 μm/pixel
Image	Flux/Gray/Intensity/Color/Overlay		Flux/Gray/Intensity/Color/Overlay
Measurement Laser	785 nm		785 nm
Indicating Laser	650 nm×2		650 nm×2
Focus	Auto/Manual (fine focus)		Auto/Manual (fine focus)
Trigger	BNC×2		BNC×2
System Calibration	Calibration Box		Calibration Box
Software	Acquisition Software and Analysis Software		Acquisition Software and Analysis Software

* Designated for U.S. market only

► Case show:



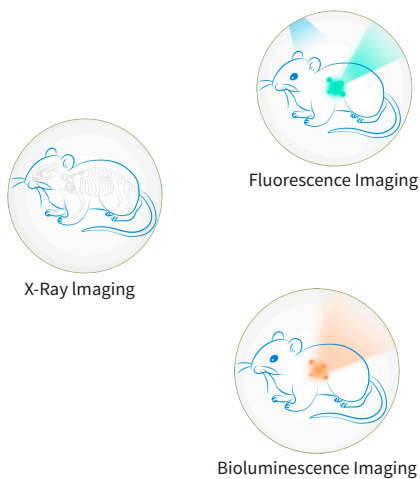
MOIS-HT Small Animal *In Vivo* Imaging System

The MOIS series is a highly sensitive, multimodal in vivo imaging platform designed for small animal research, supporting bioluminescence imaging, fluorescence imaging, spectral imaging, and upconversion fluorescence imaging. Selected models can be expanded with an integrated X-ray module, enabling broad application in research areas such as tumorigenesis, stem cell and immune cell tracking, and pharmacokinetics.

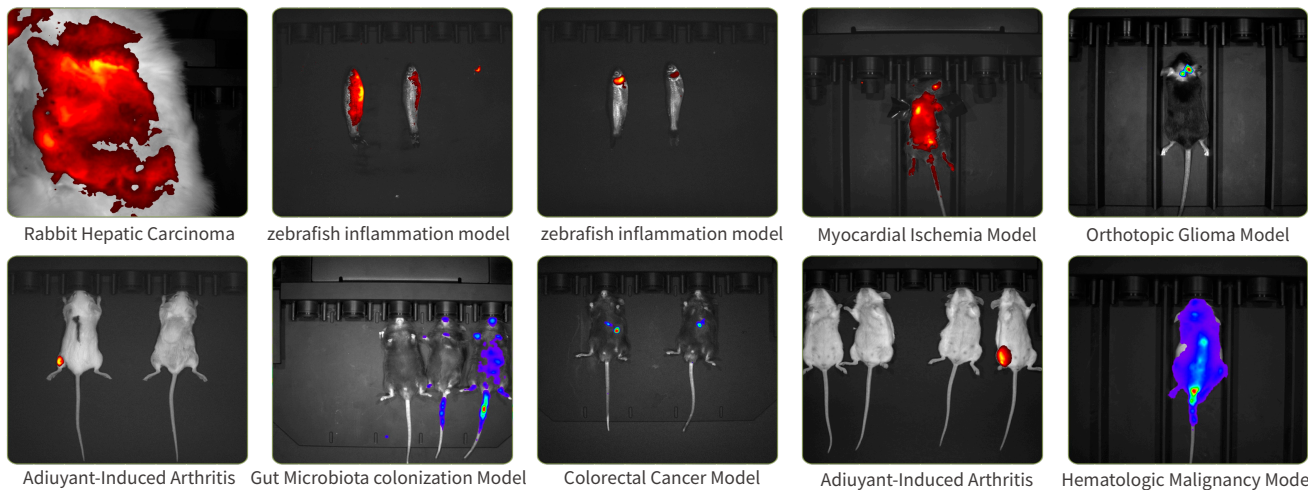
The system is equipped as standard with a back-illuminated CCD detector featuring high quantum efficiency (>90%) and deep cooling capability down to -90 °C, providing exceptional performance for low-signal detection. The fluorescence imaging module supports up to 26 narrow-band filters and, when combined with advanced spectral unmixing algorithms, covers the wavelength ranges of mainstream fluorescent probes while significantly enhancing imaging accuracy and quantitative reliability.

The MOIS series enables multi-scale imaging with selectable fields of view ranging from 5.0 cm × 5.0 cm to 25 cm × 25 cm, allowing flexible applications from precise single-site localization to whole-body dynamic observation. This makes the system well suited for longitudinal and continuous tracking studies across multiple tissues and time points.

To ensure high image quality and reproducibility, the entire series incorporates comprehensive image optimization technologies, including camera bias correction, flat-field correction, cosmic ray removal, and background suppression, delivering improved uniformity, accuracy, and consistency in imaging results.



► Case show:



► Features:

- Back-illuminated CCD camera with deep cooling to -90°C , effectively reducing dark current and background noise for ultra-low-light imaging.
- Quantum efficiency exceeding 90%, enabled by specialized chip coating technology, ensuring high sensitivity in the 500–700 nm wavelength range.
- Ultra-fast optics with F-stop < 0.95 , allowing the lens to collect more photons per unit time, resulting in improved signal-to-noise ratio and enhanced image detail.
- Broad spectral coverage from 400 to 900 nm, compatible with a wide range of commonly used fluorescent dyes and probes in scientific research.
- Integrated filter system including 19 excitation filters and 7 narrow-band emission filters, ensuring high spectral purity, minimizing crosstalk, and enabling accurate fluorescence detection.
- NIST-calibrated light source for absolute bioluminescence quantification, providing consistent and comparable results across different imaging parameters and experiments.
- High excitation light uniformity across the entire field of view, improving the reliability and reproducibility of fluorescence data acquisition.
- Large field of view (FOV) up to $25\text{ cm} \times 25\text{ cm}$, enabling simultaneous imaging of at least five small animals.
- Integrated 5-channel anesthesia tray with active gas scavenging masks, effectively preventing anesthetic gas leakage and ensuring operator safety.

► Technical parameters:

Module	Parameters	MOIS HTP	MOIS HT	MOIS HTX
Imaging Modules	Fluorescence Imaging Module	√	√	√
	Bioluminescence Imaging Module	√	√	√
	Spectral High-Resolution Imaging	√	√	√
	X-Ray Module	×	×	√
	Upconversion Fluorescence Imaging (UCFI) Module	Expandable & Upgradeable		
Detector	Camera Type	Back-illuminated sensor, Scientific-grade CCD		
	Operating Temperature	-70°C	-90°C	-90°C
	Pixel Count	1024×1024		
	Aperture (F-Stop)	≤ 0.95		
	Minimum FOV (Field of View)	$5.0\text{cm} \times 5.0\text{cm}(\text{optional})$		
	Maximum FOV	$25\text{cm} \times 25\text{cm}$		
	Quantum Efficiency	$\geq 90\%$ (500–700nm)		
Laser System	Broadband Light Source	150W Halogen-tungsten broadband		
	Guide Laser	Real-time FOV center display for positioning		
Filters	Excitation Filters	19		
	Emission Filters	7		
Software	Real-time Acquisition System	Supports real-time image acquisition with light prompts, time series module, communication connection, and bioluminescence/fluorescence multi-mode imaging switching. Synchronous acquisition module supported.		
	Offline Analysis Workstation	Support image analysis, time spectrum analysis module, need to be authorized by molecular software quantitative module		
Environmental Control	Multi-Animal Imaging Chamber	5 channels		
	Temperature Module	Temperature control range: $20\text{--}40^{\circ}\text{C}$, accuracy: $\pm 0.1^{\circ}\text{C}$		
	Anesthesia System	Anesthesia gas control: isoflurane, concentration: 0.5%-5% adjustable		

High Frequency Small Animal Ultrasound Imaging System

RevoSilex is a high-frequency ultrasound imaging system for assessing cardiac function in small animals, like mice and rabbits. It provides real-time imaging of heart structure, function, and blood flow, supporting research in cardiac diseases, drug development, and biomedical studies. The system is also suitable for zebrafish, a model for heart disease research. RevoSilex enables non-invasive measurement of heart rate, contraction, and relaxation, helping researchers study disease markers, genetic mutations, and the effects of new drugs on cardiovascular health.



► Features:

- Powered by advanced semiconductor & AFE tech, our ultrasound system offers outstanding imaging.
- Boasting a frequency range from 70 MHz to 8 MHz and color Doppler capabilities, it helps researchers acquire high - quality images for various animal models, from cardiovascular and oncology to drug discovery.
- With a user-friendly workstation and platform, researchers gain an integrated solution that simplifies operations and boosts data analysis capabilities, enabling in-depth, independent research and uncovering insights that advance science.
- Scanning and analysis separately mass data import and export save experiments time.

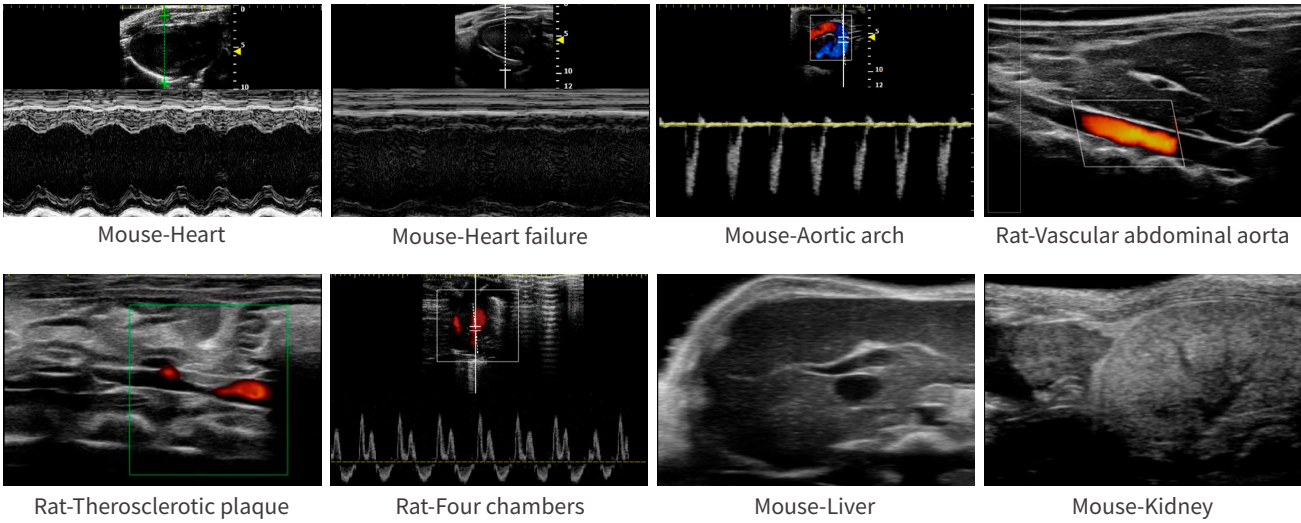
► Order information:

Product Model	RevoSilex F60	RevoSilex F30
Imaging Mode(B\M\C\Power\PW\TV\TVD)	√	√
Auto One-key Optimization	√	×
3D Flow	√	√
Biopsy	√	√
Small Animal Ultrasound Operating Platform	√	√
SmallAnimal Ultrasound Zebrafish Probe	√	×
Small Animal Ultrasound Mouse Probe	√	√
SmallAnimal Ultrasound Offline Analysis Workstation	√	√

► Order information:

Transducer	Animals	Applications
L62-38K3 Center Frequency 50 MHZ	 	Cardiovascular, Vascular, Tumors, Superficial Tissue, Ophthalmology
L38-22K3 Center Frequency 30MHz	 	Vascular, Embryology, Superficial Tissue, Abdominal, Reproductive, Tumors, Rabbit Eyeball, Tumors, Cardiovascular
L22-8K3 Center Frequency 15MHz	 	Vascular, Abdominal, Cardiovascular

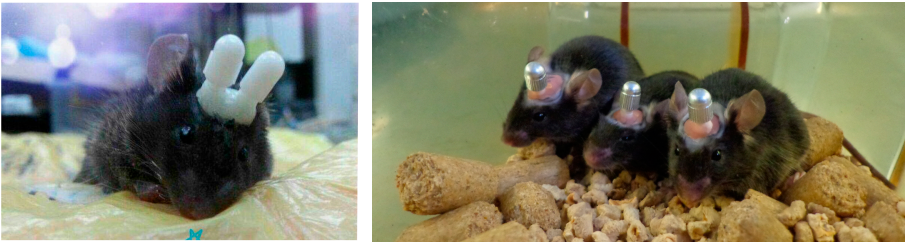
► Case show:



➤ Animal Administration and Blood Sampling Solutions ◀

Drug Delivery Cannula

Cannula implantation is the international general method for acute and chronic intracranial drug administration in animal experiments. RWD offers customized services for users, the users can customize according to specific experimental requirements.



Single Cannula

► Components:

Guide cannula



Guide cannula consists of a threaded cylindrical plastic pedestal and a stainless steel tube. It has to be preimplanted into brain and fixed with dental cement. Both dummy cannula and internal cannula can be inserted into guide cannula individually.

Dummy cannula



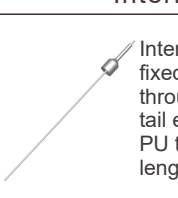
Stainless steel wire and threaded plastic cap make a dummy cannula. It can be inserted into guide cannula and fixed by screw to seal the guide cannula and prevent outflow of tissue fluid after injection. The length of the stainless steel wire can be customized.

Metal Cannula



The metal materials avoid biting after the cannula implantation.

Internal cannula



Internal cannula can be fixed into guide cannula through fixing screw and its tail end is connected with PU tube for injections. The length can be customized.

Fixing screw



Fixing screw fixes internal cannula to guide cannula.

PU Tube



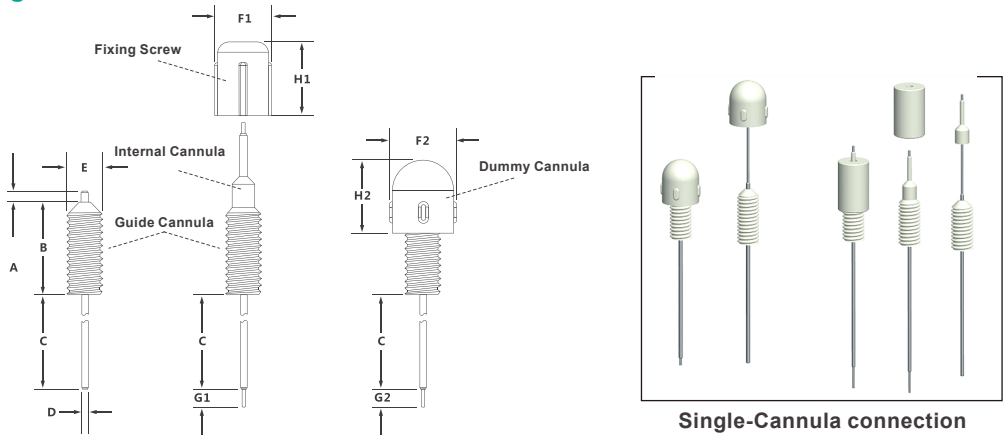
Connect the internal cannula and syringe for drug injection.

Pharmport



It is used to connect PU tube with syringes of different specifications.

►Cording Diagram:

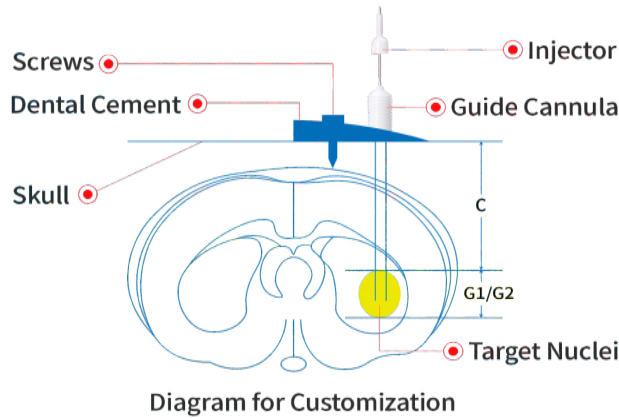


►Diagrams:

- A - The length of the stainless steel tubing below the plastic pedestal.
- B - The height of the cylindrical plastic base.
- C - The length of the stainless steel tubing below the plastic pedestal, can be customized.
- D - External diameter of stainless steel guide cannulas.
- E - External diameter of cylindrical plastic base.
- F1 - External diameter of Fixing screw.
- F2 - External diameter of Dummy Cannulas.
- H1 - Height of Fixing screw.
- H2 - Height of Dummy Cannulas.
- G1- The internal cannulas projection length beyond the guide cannulas tip, can be customized.
- G2- The dummy cannulas projection length beyond the guide cannulas tip, can be customized.

►Ordering Instructions:

- D-outer diameter of the Guide Cannula (Unit:g) , five sizes 22, 23, 24, 26 and 27g are available.
- C-length (Unit: mm) of the metal tube below the plastic pedestal (B).
- G1-length (Unit: mm) of the protrudent Injector through the Guide Cannula, 0.5 or 1.0mm is recommended.
- G2-length (Unit: mm) of the protrudent Dummy Guide, 0.5 or 1.0mm is recommended.
- Minimum Quantity: 10



Matching	Guide Cannula (OD×ID)	Internal Cannual (OD×ID)	Dummy Cannual (plastic OD)	Fixing Screw	A	B	E	Range of customized length			Optional		Screw	Phillips Screwdrive
								C	G1	G2	Dummy Cannual (metal OD)	PU Tube		
Cannula	62001 (23G) (0.64×0.45)	62201 (0.41×0.25)	62101 0.4	62502	0.6	6	3.5	1-14.5	0, 0.5-2.5	0, 0.5-1.0	62106 0.4	BC-22	62513	62999
	62002 (24G) (0.56×0.38)	62202 (0.36×0.20)	62102 0.3		0.6	6		1-14.5	0, 0.5-2.5	0, 0.5-1.0	62107 0.3			
	62003 (26G) (0.48×0.34)	62203 (0.30×0.14)	62102 0.3		0.6	6		1-14.5	0, 0.5-2.5	0, 0.5-1.0	62107 0.3			
	62004 (27G) (0.41×0.25)	62204 (0.21×0.10)	62104 0.2		0.6	6		1-14.5	0, 0.5-2.5	0, 0.5-1.0	62108 0.2			
	62005 (22G) (0.71×0.45)	62201 (0.41×0.25)	62101 0.2		1	6		1-14.5	0, 0.5-2.5	0, 0.5-1.0	62106 0.4			
	62006 (22G) (0.71×0.45)	62201 (0.41×0.25)	62101 0.4		1	8		1-12.5	0, 0.5-2.5	0, 0.5-1.0	62106 0.4			
	62007 (23G) (0.64×0.45)	62201 (0.41×0.25)	62101 0.4		0.6	8		1-12.5	0, 0.5-2.5	0, 0.5-1.0	62106 0.4			
	62009 (26G) (0.48×0.34)	62203 (0.30×0.14)	62102 0.3		0.6	8		1-12.5	0, 0.5-2.5	0, 0.5-1.0	62107 0.3			
	62010 (27G) (0.41×0.25)	62204 (0.21×0.10)	62104 0.2		0.6	8		1-12.5	0, 0.5-2.5	0, 0.5-1.0	62108 0.2			
	62011 (22G) (0.71×0.45)	/	62109 0.4	/	5	6		1-14.5	/	0, 0.5-1.0	/	BC-22		
	62014 (26G) (0.48×0.34)	/	62110 0.3	/	5	6		1-14.5	/	0, 0.5-1.0	/	BC-25		
	62015 (27G) (0.41×0.25)	/	62111 0.2	/	5	6		1-14.5	/	0, 0.5-1.0	/	62330		

Double Cannula

► Introduction:

RWD has launched I, II, III and IV series double cannula systems for acute and chronic intracranial drug administration in animal experiments.

Series I: Recommended for rat or mouse use, mm (outer diameter) x 0.34mm (internal diameter).

Series II: Recommended for rat use, 0.64mm (outer diameter) x 0.45mm (internal diameter).

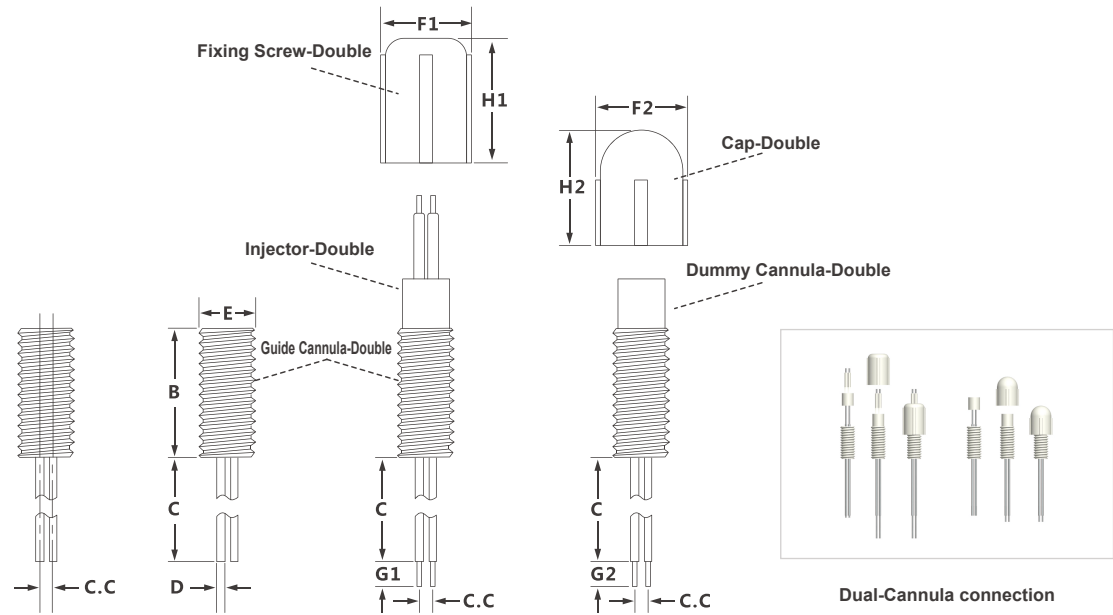
Series III: Specifically for mouse use, 0.48mm (outer diameter) x 0.34mm (internal diameter). The height of cylindrical plastic pedestal of Guide cannula is different from Series I.

Series IV: 0.41mm (outer diameter) x 0.25mm (internal diameter).

► Application:

Double cannula system is used for bilateral implantation, suitable for injecting one or two drugs into two different brain regions.

►Cording Diagram:



► Comments:

- B - Height of cylindrical plastic pedestal, which is 7.8mm for Series I, II & IV and 5.5mm for Series III
- ★ C - Length of stainless steel tube below the cylindrical plastic pedestal. The default value is 13.7mm for Series I & III, 20.0mm for Series II and 10.0mm for Series IV. The length can be customized with default value as maximum
- ★ C.C - Center distance between double guide cannulas, double dummy cannulas and double injectors. These 3 values should be the same in one system. It can be customized (range: 0.5mm-3.2mm)
- D - Outer diameter of stainless steel tube and it has 3 sizes: 0.48mm for Series I & III, 0.64mm for Series II and 0.41mm for Series IV
- E - Outer diameter of the cylindrical plastic pedestal and it comes with 3.5mm or 5.5mm. It is related to the outer diameter and centre distance between double guide cannulas
- F1 - Outer diameter of fixing screw and it comes with 5.0mm (when E=3.5mm) or 7.0mm (when E=5.5mm)
- F2 - Outer diameter of guide cannula cap and it comes with 5.5mm (when E=3.5mm) or 7.5mm (when E=5.5mm)
- H1 - Height of the fixing screw and it comes with 7.5mm (when E=3.5mm) and 8.0mm (when E=5.5mm)
- H2 - Height of guide cannula cap and it comes with 7.00mm (when E=3.5mm) and 7.5mm (when E=5.5mm)
- ★ G1 - Length of protruding part after internal cannula is inserted into guide cannula. This length can be customized
- ★ G2 - Length of protruding part after dummy cannula is inserted into guide cannula. This length can be customized

► Ordering Instructions

Determine the target brain region for drug administration and then determine target values of C, C.C, G1 and G2. These values can not exceed the default ones. Please refer to:

- ★ part of comments of cording diagram for more detail.
- ★ C: Maximal customized length is 12mm for Series I & III, 18mm for Series II and 13mm for Series IV.
- ★ C.C: Customized range is 0.6mm-3.2mm.
- ★ G1: Maximal customized length is 8mm for Series I, 6mm for Series II, 1mm for Series III and 8mm for Series IV.
- ★ G2: Maximal customized length is 3mm for Series I, 7mm for Series II, 2mm for Series III and 3mm for Series IV.
- ★ Minimum Quantity: 10

► Order Information: (Unit: mm)

Series I: Recommended for rat or mice

Matching	C.C	Guide Cannula	Dummy Cannula	Internal Cannual	Dust Cap	Fixing Screw	E	Range of customized length			Optional		Screw	Phillips Serewdrive
								C	G1	G2	Cannula Dummy (metal OD)	PU Tube		
Bilateral Guide (26G) 0.48x0.34	0.6	62022	62122	62250	62523	62521	3.5	1-12	0,0.5-8	0,0.5-3.0	62525	BC-22	62513	62999
	0.8	62023	62123	62223										
	1.0	62024	62124	62224										
	1.2	62025	62125	62225										
	1.4	62027	62127	62227										
	1.5	62028	62128	62228										
	1.6	62029	62129	62229										
	1.8	62030	62130	62230										
	2.0	62031	62131	62231										
	2.2	62072	62150	62272	62527	62528	5.5				62529			
	2.4	62073	62151	62273										
	2.6	62074	62152	62274										
	3.0	62075	62153	62275										
	3.2	62076	62154	62276										

Series II: Recommended for rat

Matching	C.C	Guide Cannula	Dummy Cannula	Internal Cannual	Dust Cap	Fixing Screw	E	Range of customized length			Optional		Screw	Phillips Serewdrive
								C	G1	G2	Cannula Dummy (metal OD)	PU Tube		
Bilateral Guide (23G) 0.64x0.45	0.8	62037	62137	62237	62523	62521	3.5	1-18	0,0.5-6	0,0.5-7.0	62525	BC-22	62513	62999
	1.0	62038	62138	62238										
	1.2	62039	62139	62239										
	1.4	62041	62141	62241										
	1.5	62042	62142	62242										
	1.8	62082	62160	62282	62527	62528	5.5				62529			
	2.0	62077	62155	62277										
	2.2	62078	62156	62278										
	2.4	62079	62157	62279										
	3.0	62080	62158	62280										
3.2	62081	62159	62281											

Series III: Recommended for mice

Matching	C.C	Guide Cannula	Dummy Cannula	Internal Cannual	Dust Cap	Fixing Screw	E	Range of customized length			Optional		Screw	Phillips Screwdrive
								C	G1	G2	Cannula Dummy (metal OD)	PU Tube		
Bilateral Guide (26G) 0.48x0.34	0.8	62052	62123	62223	62523	62521	3.5	1-12	0,0.5-8	0,0.5-3.0	62525	BC-22	62513	62999
	1.0	62053	62124	62224										
	1.2	62054	62125	62225										
	1.4	62056	62127	62227										
	1.5	62057	62128	62228										
	1.6	62058	62129	62229										
	1.8	62059	62130	62230										
	2.0	62060	62131	62231										

Series IV: Recommended for mice

Matching	C.C	Guide Cannula	Dummy Cannula	Internal Cannual	Dust Cap	Fixing Screw	E	Range of customized length			Optional		Screw	Phillips Screwdrive
								C	G1	G2	Cannula Dummy (metal OD)	PU Tube		
Bilateral Guide (27G) 0.41x0.25	0.6	62062	62162	62251	62523	62521	3.5	1-13	0,0.5-1	0,0.5-2.0	62525	BC-22	62513	62999
	0.8	62063	62163	62263										
	1.0	62064	62164	62264										
	1.2	62065	62165	62265										
	1.4	62067	62167	62267										
	1.5	62068	62168	62268										
	1.6	62069	62169	62269										
	1.8	62070	62170	62270										
	2.0	62071	62171	62271										

- Note: (1) For cap, plastic or metal is optional. Metal cap 62525 (corresponding plastic cap 62523).
- (2) The difference between Seriesland Series III is the height of the pedestal, the former is 7.8mm and latter is 5.5mm, and Series III is specially designed for mice.
- (3) For double cannula, the 68205 holder is suitable for a pedestal with a diameter of 3.5mm, whereas the 68230 holder is suitable for one with a diameter of 5.5mm.

Screws/Phillips Screwdriver



Model	Product Description
62513	Screw-M1.0xL2.0mm
62999	Phillips Screwdriver-45x1mm

Osmotic Pumps

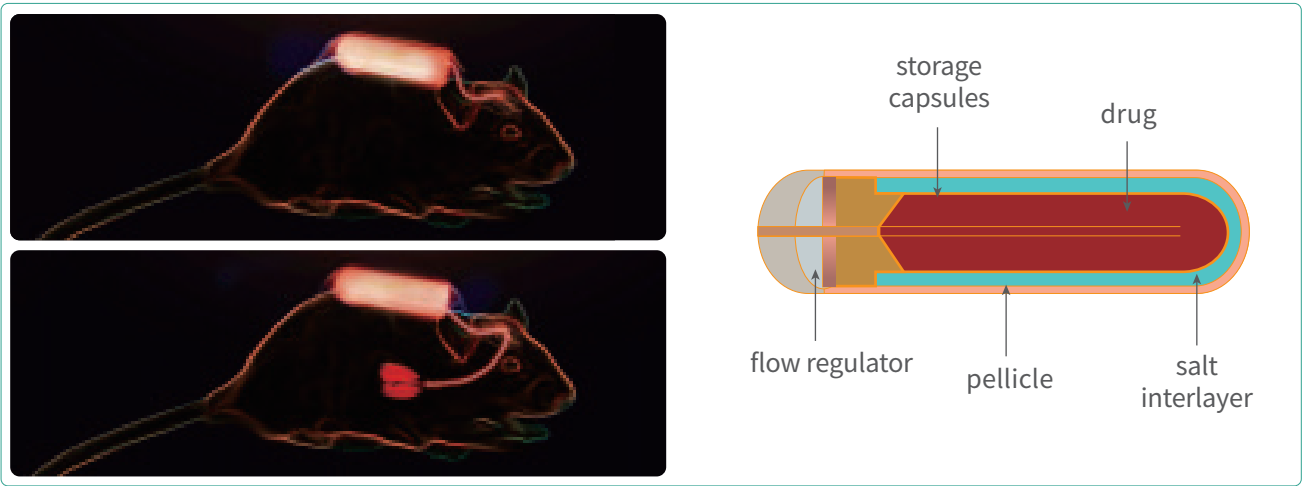
The osmotic pump has become the best tool for continuous dose of unrestrained laboratory animals. It can be implanted subcutaneously or intraperitoneally in animals. Minimizes side effects and experimental variables, and reduces the risk of stress due to frequent animal handling. And it is used for continuous delivery of a wide range of drugs, including antibodies, growth factors, cytokines, chemotherapeutics, addictive drugs, hormones, steroids and more.



► Features

- Ensure continuous and uninterrupted administration, maintaining the preset speed for the administration of the animal.
- Storage capsules have good drug compatibility, and protection for short half-life drugs.
- Capsules have good biocompatibility and do not affect the physiology of animals.
- Easy to use, It allows one-time operation in an experiment instead of frequent operation.
- Avoid the stress caused by repeated administration, reducing the impact of non-experimental factors on the experimental results.
- Small size, can be applied to experiments on mice, neonatal rats and other small animal.
- Ensure that the drug is delivered to the target site accurately.

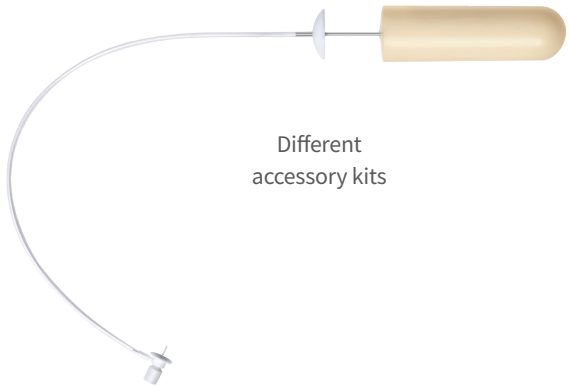
The osmotic pump can be directly implanted in the abdominal cavity or the back of the neck for drug administration, or it can be applied to specific tissue and organ, such as blood vessels, brain, spinal cord, subcutaneous part, abdominal cavity, etc., by connecting the catheter or other accessories.



- Flow regulator: The sole outlet for drug solution, which is used to connect the catheter to target administration area.
- Storage capsules: Fill with solution. It has good corrosion resistance to acid and alkali.
- Salt interlayer: absorption of tissue fluid by osmosis. After the salt interlayer absorbs the tissue fluid, it can only be extruded inwards to slowly pump the solution out of the capsule.
- Pellicle: prevents the salt layer from diffusing into the tissue, and ensures that the tissue fluid can enter the salt layer to squeeze the storage capsule and pump out the drug solution

► Technical Parameters

	Capacity	100μL					200μL				2ML	
Capsule (10 pieces /box)	Type	1003 D	1001 W	1002 W	1004 W	1006 W	1003 D	2001 W	2002 W	2004 W	2ML 2W	2ML 4W
	Duration	3D	1W	2W	4W	6W	3D	1W	1W	4W	2W	4W
	Pumping Rate(μL/hr)	1.0	0.5	0.25	0.13	0.083	2.0	1	0.5	0.25	5.0	2.5
Flow regulator (10 pieces /box)	Cap	Without					PE material					
	Tube	304 stainless steel material										
	Infusion needle	Flat head for the injection of liquid										



► Osmotic pump kit information (optional) :

	Model	Description
Brain Infusion Kit	Bic-3	For 1-3mm deep brain area administration (10 Bags/ Package)
	Bic-5	For 3-5mm deep brain area administration (10 Bags/ Package)
	BIC-7	For 5-7mm deep brain area 10pc/box
	BIC-9	For 7-9mm deep brain area 10pc/box
	BIC-X	For 1-9mm deep brain area 10pc/box

Blood Sampling and Administration System

The catheter is surgically inserted into the target location (jugular vein, carotid artery, bile duct, portal vein, etc.), and the Implant Button is then fixed subcutaneously, allowing simultaneous drug administration and blood sampling. It is suitable for manual continuous and repeated blood sampling and drug administration, long-term automatic drug administration and blood sampling by machine.

► Features:

- Suitable for up to 10 sampling sites such as jugular vein, carotid artery, femoral vein and bile duct.
- The design is compact and firm, not easy to be damaged by animals, and the biocompatibility has been verified by experiments.
- It can be matched with syringes, catheters and other sampling methods.
- Effectively reduce the stress reaction caused by repeated injection.



► Components:

Implant Button

The Implant Button consists of transparent shell, magnet, felt and capillary tube. Catheter is connected to capillary tube and inserted into a blood vessel. The Button is implanted subcutaneously and fixed by suturing the epidermis.

Pharmport

The Pharmport consists of shell (red and white) and capillary tube, sizes: 25g and 22g. The Pharmport is connected with the Implant Button as a simple infusion and blood sampling device.

Catheter connector

The Catheter connector is composed of shell and capillary tube, size: 25G, 22G. For connecting Pharmport and PE tubes in vitro.

Syringe connector

Syringe connector is composed of transparent shell and capillary tube, with a size of 25G. The front end of the injection needle can be directly inserted into the Pharmport for infusion and blood sampling, the rear end can be connected with the standard syringe.

Implant bufton cap

The Implant Button cap is made of high quality duralumin alloy and magnet. When the Implant Button is not in use, The cap can be used to ensure that the injection end is not contaminated. The magnet allows the operator to quickly attach the cap to Implant Button.

Handling

The Handling is made of high quality duralumin alloy and magnet. Fix the animal with one end of the Handling to pull out the Implant Button Cap, and then use the other end (including magnet) to continue to fix the animal for infusion or blood sampling operation.

Tube

The size of the catheter matches the capillary of the Implant Button, and the catheter can be inserted into the blood vessels of experimental animals. The node ensures that the catheter is not easy to fall off after implantation.

Swivel



The swivel can rotate as the animal moves. It can protect the catheter at the tether side from kinking or tangling. It also supports blood sampling and infusion when animals are awake and active.

Tether



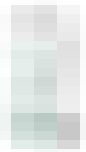
The tether of the catheter may be used in combination with the swivel and the implantable vascular access button, to protect the catheter connected to the button from being kinked or dislodged, supporting sampling or infusion when animals are awake and active. It is ideal for self-administration tests.

Multi-axis counter-balanced lever arm



The multi-axis counter-balanced lever arm comes in two styles, and the swivel mount can vertically move with the animal. Mating the swivel, it can make blood sampling and infusion possible when animals are awake and active.

Bile circulator



The bile circulator is attached to the implantable vascular access button for rats, in conjunction with the catheter for rat bile duct, to suit the need for long-term collection of bile or duodenal injection of target test fluids.

► Order Information

Product Description	Model	Product Description	Model
Implant Button(single channel 25G for mice-white)	BMS25	Bile Duct Catheters for Rats	PURBD
Implant Button(mouse dual channel 25G/25G)	BMD25/25	Portal Vein Catheters for Rats	PURPV
Implant Button(single channel 22G for rat-white)	BRSW22	Femoral Artery Catheters for Rats	PURFA
Implant Button(single channel 22G for rat-Rad)	BRSR22	Femoral Vein Catheters for Rats	PURFV
Implant Button(Rat dual channel 22G/22G)	BRD22/22	Jugular Vein Catheters for Guinea pigs	PUCJV
Catheter connector(22G)	C22	Carotid Artery Catheters for Guinea pigs	PUCCA
Catheter connector(25G)	C25	Carotid Artery Catheters for Mice	PUMCA
Syringe connector	SC-1	Jugular Vein Catheters for Mice	PUMJV
Pharmport(22G Red)	P22-R	Swivels (Single Channel 22G)	SS1-22
Pharmport (22G White)	P22-W	Swivels (Single Channel 25G)	SS1-25
Pharmport (25G Red)	P25-R	Swivels Mount for Mice	MLA-M
Pharmport (25G White)	P25-W	Swivels Mount for Rats	MLA-R
Implant Button Cap (mouse single channel-silver)	CMSC-S	Tethe (r mouse single channel)	TM-1
Implant Button Cap (mouse single channel-gold)	CMSC-G	Tethe (r mouse dual channel)	TM-2
Implant Button Cap (mouse dual channel-silver)	CMDC-S	Tethe (r drug administration for Rat)	TR-1dr
Implant Button Cap (mouse dual channel-gold)	CMDC-G	Tethe (r blood sampling for Rat)	TR-1bl
Implant Button Cap (rat-silver)	CRSC-S	Tethe (r rat dual channel)	TR-2
Implant Button Cap (rat-gold)	CRSC-G	Bile Loop	DZXHQ
Handling	BH	PE Tubing 22	BC-22
Carotid Artery Catheters for Rats	PURCA	PE Tubing 25	BC-25
Jugular Vein Catheters for Rats	PURJV		

Syringe Pumps

R462 Syringe Pump

RWD series syringe micro-injection pumps are widely used in scientific research. The upgrade from the first generation to the current second-generation products includes single-channel and dual-channel options.



Features

- Control the stepper motor for stable and high-precision operation at low speed.
- The communication with the touch screen of the host computer can control the output torque and rotation speed of the stepper motor according to the input, and then control the injection thrust and injection speed.
- Reserved communication interface (BNC, USB-B, and PC communication, RS485 multi-injection pump communication).
- Can input and output,15-pin D-sub Connector.
- With encoder, feedback speed, alarming when speed is abnormal, equipment operation suspend.
- Safety certification: EMC, ESD, and CE.
- Running indicator: convenient for users to intuitively discover the current status of the pump.

Order Information

Model	Name	Note
R462	RWD 462 Syringe Pump	Dual-channel

Technical Parameters

Operating mode	Injection/withdrawal
Injection accuracy	± < 0.35%
Repeatability	± < 0.05%
Syringe range	0.5μL-60 mL
Minimum flow rate	0.0001 μL / min (0.5 μL syringe)
Maximum flow rate	102 mL/min (60 mL syringe)
Linear thrust	50lbs (23 kg)
Operating temperature	4 °C to 40 °C
Storage temperature	-10 °C ~ 70 °C
Humidity	20% to 80%, non-condensing
Communication interface	USB-B, BNC, RS485 and TTL ports
Advance stroke per step	0.046μm / step
Display	5.0-inch LCD touch screen

R430 Series Syringe Pump

The R430 series split-type micro syringe pump is a high-precision fluid control device featuring precision, stability and strong anti-interference capability. It can be equipped with syringes to deliver micro-volume liquids accurately, uniformly and continuously, and has been widely used in laboratory and industrial environments.



Typical Application Scenarios

Neuroscience

Stereotaxic injection in small animals, optogenetic virus administration, behavioral studies

Animal Experiments

Precise micro-volume administration, microdialysis perfusion, tissue perfusion, blood collection

Biomedicine

Drug screening, cell culture, precise reagent addition, gene transfection

Industrial Applications

Microfluidics, electrospinning, microsphere preparation, material synthesis, titration analysis

Advantages

Split Design for Easy Use

Compact and lightweight execution unit, easy to disassemble, convenient for joint use with stereotaxic instruments and micromanipulators for stereotaxic injection.

Precision and Stability

Excellent control system and precise mechanical structure, with strong anti-electromagnetic interference, remains stable, reliable operation in complex experimental environments.

Intelligent Interaction

5-inch high-resolution color LCD touch screen with ergonomic tilt design, adjustable brightness, concise interface and one-click switching function.

Multi-mode Adaptation

Supports 5 working modes: Infuse, Withdraw, Infuse/Withdraw, Withdraw/Infuse and Continuous Cycle.

Strong Compatibility

Built-in parameters for mainstream syringe brands such as Hamilton and SGE, supports custom syringe specifications, and is compatible with domestic GaoGe syringes.

Flexible Expansion

Equipped with RS485, DB15 external control and USB-B interfaces, supports multi-unit cascade and remote automatic control.

Safety Protection

Screen lock + password protection, power failure memory, adjustable linear thrust, effectively preventing misoperation and syringe damage.

► Models and Ranges:

Model	Syringes	Application Scenarios
R430-S	0.5 μL~100 μL	ultra-micro stereotaxic injection, microinjection and microdialysis perfusion
R430-L	5.0 μL~1000 μL	conventional microinjection, reagent delivery and industrial microfluidics

► Technical Parameters:

- Operating Modes: Infuse, Withdraw, Infuse/Withdraw, Withdraw/Infuse, Continuous Cycle
- Channel Number: 1
- Maximum Stroke: 70 mm
- Linear Travel Accuracy: ±0.35% (when stroke > 30%)
- Repeatability: ±0.05%
- Flow Rate Range: R430-S: 0.005 nL/min ~ 152.456 μL/min; R430-L: 0.058 nL/min ~ 1.587 mL/min
- Linear Thrust: R430-S > 1 kgf; R430-L > 4 kgf (adjustable from 25% to 100%)
- Display: 5-inch high-resolution color LCD touch screen
- Screen Lock Function: Prevents misoperation during operation
- Power Failure Memory: Retains all parameter settings before power outage
- Communication Interfaces: RS485 , DB15 external control, USB-B

► Product list:

Name	Model	Configuration	Quantity	Usage
Control unit	\	standard	1	For parameter setting and injection unit operation control
Injection unit	\	standard	1	For syringe assembly, injection and withdrawal
Power Adaptor	\	standard	1	Available in GB, US, EU, UK and AU standards
Connection cable	\	standard	1	For injection unit and control unit connection
Foot switch and connection cable	R430-FS	optional	1	For controlling injection, emptying and other injection unit operations

R- 480 Nanoliter Injection Pump

The newly launched R- 480 Nanoliter Injection Pump is highly precise & airtight, stable & easy to operate, which can be used to accurate microinjection or suction for oocytes, larva, protozoa, animal brain, eyeball, etc.



► Features:

- Stable operation and high injection precision
- High airtightness, ensures no leakage during injection or withdrawal
- The brightness of the screen can be adjusted to meet different experimental situations
- Added the function to set needle retention time. A timer is no longer required if the needle is retained after the injection

► Technical Parameters

Operating mode	Injection/withdrawal
Injection Volume	0.6 nL-5000 nL
Minimum flow rate	0.02 nL/s
Maximum flow rate	200 nL/s
Emptying rate	0.02 nL-200nL/s
Withdrawing rate	0.02 nL-200 nL/s
Glass Capillary size	OD1.14mm, ID0.53mm
Minimum injection volume resolution	0.1 nL
Circle	1-8000
Display	5.0-inch LCD touch screen

► Order Information

Accessory Name	Model	Model	Quantity
R- 480 Nanoliter Injection Pump		Host(including Injector Head)	1
Power adapter		Plug-in power wire for device power input	1
3.5-inch (8.89cm) glass capillary	GC-3.5	Description:O.D. × I.D. :1.14×0.53, Qty: 100	2
Fixed fittings	R480-SF	For conjunction with brain stereotaxer and micromanipulator	1
Filling needle	R480-FN	For filling mineral oil: 30 Gauge, 2" length	1
Sealing material	R480-SM	For replacing the sealing material inside the Injector Head	1
Foot switch	R480-FS	For foot controlled injection	1
Adapter for Micromanipulator	R480-AFM	With special accessories for RWD Motorized Micromanipulator	1
Vattachment	68207	Accessory equipped with stereotaxic instrument	1

➤ Pathological Section Solutions ◀

Minux® Rotary Microtomes(S700/S700A)

Rotary microtome is a device for paraffin section,widely used in medical and biological research. It is used for pathological diagnosis in clinical,and used for research at the tissue and cell level.



► Features:

Visual pointer

- » Designed with the visual pointer on precise positioning system, easy to adjust the sample to the target angle, reducing trimming and sample waste.
- » Adjust multiple devices to the same angle easily and quickly.

The side knobs

- » Integrated with the machine, ergonomic design, make operation more comfortable and coordinated.
- » The sample feeding speed can be adjusted freely between 0-1800µm/s, more choice and more efficient.
- » Durable military-grade devices, service life is more than 20 million times.

Automatic section

- » It is stable and maintains slice consistency.
- » No extra skills required, easy to complete the operation.
- » Some specimens such as embryos and brains need to be cut for hundreds of pieces. It is hard for you, but easy for automatic section.

Easily removable waste tray

- » With magnetic function, easy to disassemble and install.
- » Special coating materials tray, easy to clean up, shorten the cleaning time to a few seconds.

► Technical Parameters

Parameters	Model	S700 Semi-Automated	S700A Fully-Automated
Section thickness setting range: 0.5 - 100 µm		✓	✓
Trimming section thickness setting range: 1 - 800 µm		✓	✓
Electric coarse feed speed: 0-1800µm/s		✓	✓
Specimen retraction: 0-250µm		✓	✓
Specimen feed: 28mm, vertical stroke: 70mm		✓	✓
Specimen orientation: X/Y axis 8°		✓	✓
Maximum specimen size:60*50*40mm		✓	✓
Automated mode and manual mode switch			✓
Emergency stop button			✓
Cut window function			✓
Slice speed selection: 0.5-450mm/s			✓
Four slice modes: Int.,Single,Cont., Multi.			✓
Foot Switch (optional)			✓

Cat No.	Product Description
S700A	Fully-Auto rotary microtome
S700	Semi-Auto rotary microtome
S700-F3	Universal clamp
S700-F4	Standard clamp
S700-F7	Blade holder assembly
S700-F9	Blade holder upper bracket
S700-F10	Easy-clean waste tray
S700A-F3	Foot Switch for Rotary & Cryostat Microtome (optional)

► Disposable Microtome Blades-low profile



► Features:

- Sharp and durable, cost-effective
- For rotary microtomes and cryostats use
- Packed in a push-out distribution box for easy access

► Order Information

Cat No.	Product Description
PB-2	Disposable Microtome Blades, 80mm*8mm*0.25mm, 50 pcs, for paraffin and frozen section

Minux® Rotary Microtomes (S710/S712)



Precise

Precise sampling system

- Precise cross roller bearings and screw rod, combined with a five-phase high-resolution stepper motor and a Link block made of aviation aluminum, form a high-precision sampling system to ensure section quality.
- Stable gantry structure design, high hardness alloy transfer, improve the rigidity of the host, and the hard tissue section is still accurate.

Precise knife holder

- The position change is extremely small after changing the knife edge by moving sideways.
- Scales on the knife holder to determine the best position of the blade holder.

Safe

Dual hand wheel locking system

- Handwheel lock on top of the handwheel, safe to replace the sample. Any position lock to brake the handwheel in any position.
- Sample advance and retreat, trim/section conversion, thickness adjustment, position memory and half-knife function can be realized by using separate control panel.

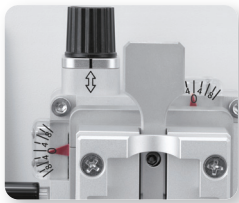
Hand wheel balance at any position

- The handwheel can be stopped at any position, making it more secure to use

Knife guard device

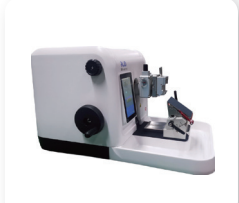
- The knife guard covers the full length of the blade to avoid potential injury during operation.

Convenient



Rapid positioning

- Unique visual pointer, visible angle adjustment. Sample positioning is faster and more precise.
- Adjust multiple devices to the same angle easily and quickly.



Convenient operation

- The small handwheel injection method is used with the side knob to adjust the slice thickness, which is ergonomically designed and the operation is more comfortable.
- The single-turn sampling distance of the small handwheel can be adjusted to meet individual needs.
- The torque at any position is lower than 2.5 kgf·cm, the operation is easy, and it is easy to use all day.



Easy to clean

- With magnetic function, easy to disassemble and install.
- Large capacity, special coating waste tray, easy to clean up, shorten the cleaning time to a few seconds.

Information backtracking

- With historical record system, operation and alarm logs are show on 5-inch touch screen, to query the microtome usage and facilitate information tracking.

Available accessories



Universal clamp
S700-F3



Standard clamp
S700-F4



Blade holder assembly
S700-F7



Blade holder upper bracket
S700-F9



Separate Control Panel
S710-F1

Quick Compare Chart

Parameter	Model	S710	S712
Section thickness range:0.5-100 μm		√	√
Trimming section thickness range:1-800 μm		√	√
Electric coarse feed:900/1200/1800μm/s adjustable		√	√
Specimen retraction:0-250 μm adjustable		√	√
Horizontal feed: 28mm		√	√
Vertical stroke:70mm		√	√
Specimen orientation: X/Y axis 8°		√	√
Maximum specimen size:60*50*40mm		√	√
WxDxH: 490*430*315mm		√	√
Machine Weight:30kg		√	√
Rock mode		√	√
Position memoryfunction		√	√
Separate Control Panel		Option	Standard

Minux® Cryostats (FS900)

Cryostat is a device for rapidly cooling tissue to a certain hardness under low temperature conditions and then slicing. It is a quick and easy method. Hospitals mainly use it for rapid pathological diagnosis during surgery. Researchers use it for preparation of biological tissue samples for in situ hybridization, immunohistochemistry, etc.



Features

Stable and Reproducible High-Quality Section

- The chamber and specimen head**
Cooled separately by high-performance dual compressors, breaking the traditional overall cooling mode and achieving precise temperature control of the dual system. According to the characteristics of different samples, the optimal slicing temperature can be quickly and accurately adjusted to ensure slicing quality.
- Blade Holder Refrigeration**
Accurately control the section temperature, avoid sample thermal damage, reduce sample deformation and adhesion during the section process, and reduce repetitive operations. Constant low temperature can also slow down the wear rate of blades and extend their service life.
- Temperature-Adjustable Freezing Station**
Ensures rapid freezing of the sample and reduces the production of ice crystals. At the same time, it also avoids sample freezing and cracking caused by low temperature, maximizes the preservation of the original morphology and biological activity of the sample, and provides high-quality samples for pathological diagnosis and scientific research analysis. At the same time, rapid freezing can improve the efficiency of laboratory sample processing, reduce waiting time, and achieve efficient sample circulation.
- ±2°C Precise Temperature Control With Fully-open Windows**
The high-precision variable frequency temperature control system is equipped with precision temperature sensors to achieve real-time monitoring of the temperature of the chamber, and automatically adjust the temperature of the chamber. Chamber temperature within 2°C during continuous operation (3+ hours with open windows),reducing the impact of temperature differences caused by frequent window opening and closing, improves section efficiency.

Protecting Personnel Health and Organizational safety

- Ag+ Antibacterial Coating**
The standard nano silver ion antibacterial coating shell can cause the destruction or functional impairment of microbial common components through contact reactions, resulting in the loss of cell division and proliferation ability and death. Effectively reducing the growth of pathogenic microorganisms outside the equipment, reducing the risk of tissue infection, and lowering equipment maintenance costs.
- Low-temperature UV Disinfection System**
The intelligent low-temperature UV lamp disinfection system with an ultra-long lifespan (8000h) , certified by authoritative certification can be set to automatic and manual disinfection according to needs. The disinfection time is available in 30 minutes and 180 minutes respectively, with higher disinfection quality and lower maintenance costs.
- Waste Liquid Bottle Management System**
Equipped with monitoring of the capacity and location of waste liquid bottles, by gravity sensors, it can accurately capture real-time changes in the weight of the liquid inside the bottle, effectively avoiding the risk of waste liquid overflow caused by misjudgment of liquid level. Timely full load warning can be obtained, reducing manual monitoring costs, significantly improving management efficiency, and ensuring laboratory safety.

Improve Section Efficiency

- Multiple Control Panels**
The 10.1-inch overall touch panel is paired with dedicated control panels on both sides, making it more convenient to adjust functional parameters without frequent switching of settings interfaces. The friendly human-computer interaction design greatly improves the smoothness of operation, reduces errors caused by complex operations, and meets the usage habits of different users.
- Multiple Freezing Sites**
The new "21+2" freezing station design meets the experimental and diagnostic needs of multiple samples and types of samples. The temperature of the two semiconductor freezing sites is as low as -60 °C, ensuring rapid freezing of the sample, reducing crystal production, and also meeting the requirements of large-scale and urgent frozen slicing scenarios.
- Microscope Slide Placement Area**
Set up a slide placement area on the right side of the screen for easy spreading and placement of labeled slides, making it convenient for operators to quickly identify and retrieve them. Optimize workflow to ensure efficient and orderly slicing work.
- Hierarchical User Management**
Adopts the management mode of administrators for multiple ordinary users. Administrators can flexibly allocate resources, assign responsibilities to individuals, facilitate management, improve overall work efficiency, and ensure compliance in the use of data and equipment, providing guarantees for the stable operation of the organization.

Technical Parameters

Section range: 0.5-100μm; 0.5-5μm in 0.5μm increments; 5-20μm in 1μm increments; 20-30μm in 2μm increments; 30-60μm in 5μm increments; 60-100μm in 10μm increments
Trim range: 1-800μm; 1-10μm in 1μm increments; 10-20μm in 2μm increments; 20-50μm in 5μm increments; 50-100μm in 10μm increments; 100-800μm in 50μm increments
Specimen retraction: 0~250 μm
Specimen feed: 28 mm ±1 mm
Vertical stroke: 70 mm ±1 mm
Electric coarse feed: 600 μm/s , 1800 μm/s
Specimen orientation: 8° (X/Y axis) , 360° (Z axis)
Cryo chamber temperature range: 0 ~-35 °C
Specimen cooling temperature range: -10 ~-50 °C
Blade holder cooling temperature range: -10 ~ -35 °C
Freezing station temperature: -10~-42°C

Minux® Cryostats (FS800/FS800A)



Features

Stable

- **Stable temperature:** advanced temperature control system, small temperature fluctuations. Even if the window is opened for more than 1 hour, the temperature is still stable.
- **Stable slice quality:** high-precision cross rail and screw, five-phase high-resolution sampling motor and horizontal sampling slider made of aviation aluminum, form a precise sampling system to ensure stable slice quality.

Safe

- **UVC disinfection:** the latest low-temperature UVC disinfection technology. The irradiation intensity can effectively kill bacteria and viruses, disinfect the inner surface and the air of the cabinet, and reduce the risk of contamination by infectious materials.
- **Waste liquid management system:** a waste liquid volume display on the touch screen. There are reminders of full bottle and not in place to prevent waste liquid from flowing out and contaminating the ground.

Efficient

- **Efficient operation:** the color touch screen, with a joystick that integrates coarse sample feeding, trimming and section switching, and slice parameter adjustment, constitutes an efficient operating system.
- **Quick positioning:** precise positioning system with ±8°visual pointer, easy to adjust the specimen clamp to the target angle, reducing trimming and sample waste.
- **Automatic sleep and wake-up:** saving energy, simplify manual operation and reduce waiting time.
- **Sample installation and marking:** Buckle design, convenient installation and firm fixation. The unique label design of specimen discs makes it easy to record and identify each sample to prevent confusion.
- **Efficient and thorough defrosting:** automatic defrosting for cryochamber, specimen head, quick-freeze shelf, more thorough. For manual defrosting, there are different parts to choose to improve efficiency.

Technical Parameters

Parameters	Model	FS800 Semi-Automated	FS800A Automated
Section thickness setting range: 0.5-100μm		✓	✓
Trimming section thickness setting range: 1 - 800 μm		✓	✓
Electric coarse feed speed: 0-3000μm/s adjustable		✓	✓
Specimen retraction: 0-250 μm		✓	✓
Specimen feed: 28mm		✓	✓
Vertical stroke: 70mm		✓	✓
Specimen orientation with visual pointer: X/Y axis 8°, Z axis 360°		✓	✓
Number of refrigerated sites: 15		✓	✓
Number of fast cooling sites: 2		✓	✓
Cryochamber temperature range: 0°C~-35°C		✓	✓
The temperature range of the sample holder: -10 °C ~ -50 °C		✓	✓
Automatic and manual defrosting		✓	✓
Automatic and manual UVC disinfection		✓	✓
Automated mode and manual mode switch			✓
Emergency stop button			✓
Cut window function			✓
Slice speed selection			✓
Four slice modes: Int.,Single,Cont., Multi.			✓
Pedals(optional)			✓

Order Information

Cat No.	Type	Product Description
FS800	Specimen	Semi-Auto,with UVC disinfection,specimen cooling system
FS800A	Auto	Fully-Auto,with UVC disinfection,specimen cooling system,auto section function

Frozen Section Embedding Compound

Featuer

- Rapidly solidify, no ice crystal damage
- Water soluble, no background
- Easy to operate, suitable for all cryostats

Type	Specification	Amount
FS-EM	120mL	12Bottles/Pkg



Cellular and Molecular Biology Research Solutions

Single Cell Suspension Dissociator

RWD single cell suspension dissociator gently and rapidly processes tissues into highly viable and uniform single-cell suspensions, single-nucleus suspensions, or tissue homogenates. Equipped with standardized program control, an independent multi-channel processing system, and self-developed tissue-specific enzymatic digestion kits, the dissociator significantly enhances cell viability, yield, and preserves antigen epitope integrity. It excels in improving experimental efficiency and reproducibility, making it ideal for a wide range of applications including cancer research, immunology, neuroscience, and organoid culture.



Effortlessly begin your single-cell research journey!

Product Highlights

High quality

- 90% High Viability & High Yield Single-Cell Suspensions
- Low Clumping & Minimal Debris
- Gentle Dissociation Preserves Cell Surface Antigens

High efficiency

- Built-in multiple standardized protocols with 3 program templates for user-defined processing
- Equipped with dedicated accessories and matched reagent kits
- Precise temperature control at 37°C with accurate speed regulation (0-4000 rpm)

Standardization

- 15-30 Minute Efficient Tissue Dissociation
- Multi-Channel Independent Operation. One-click start with visual progress tracking for intuitive operation
- Unique Count-Up Timer. Precisely monitors sample processing duration

Multi-applications

- Versatile processing for single cells, nuclei, homogenates or perfusion
- Wide tissue compatibility with specialized digestion kits
- Upgradeable system via USB connectivity

Technical Parameters:

Model	DSC-200	GTD-2*	DSC-410	GTD-4*	DSC-810	GTD-8*
Channels	2		4		8	
Weight	9 kg		10.3 kg		18 kg	
Dimensions (W*D*H)	215*380*190 mm		215*380*190 mm		417*394*196 mm	
Screen	7 inches,touch screen					
Temperature	37°C					
Speed	0~4000rpm(Clockwise and counterclockwise)					
Sample Volume	20~4000mg					
Buffer Volume	0.3~10mL					
User Programs	Default programs+custom programs+500 storable programs					

* Designated for U.S. market only

Order Information

Cat. No.	Product Description	Specification
DSC-200 / GTD-2*	Single Cell Suspension Dissociator (two channels)	2 channels
DSC-410 / GTD-4*	Single Cell Suspension Dissociator (four channels)	4 channels
DSC-810 / GTD-8*	Single Cell Suspension Dissociator (eight channels)	8 channels
SCT-25	Tissue Processing Tube	25 pcs/box
SCT-100	Tissue Processing Tube	100 pcs/box
HJ-400	Heating Jacket	4 pcs/box

Consumables

Tissue Processing Tube

- Ethylene oxide(EO) sterilized
- Independent packaging make it convenient for storage and use



Order Information

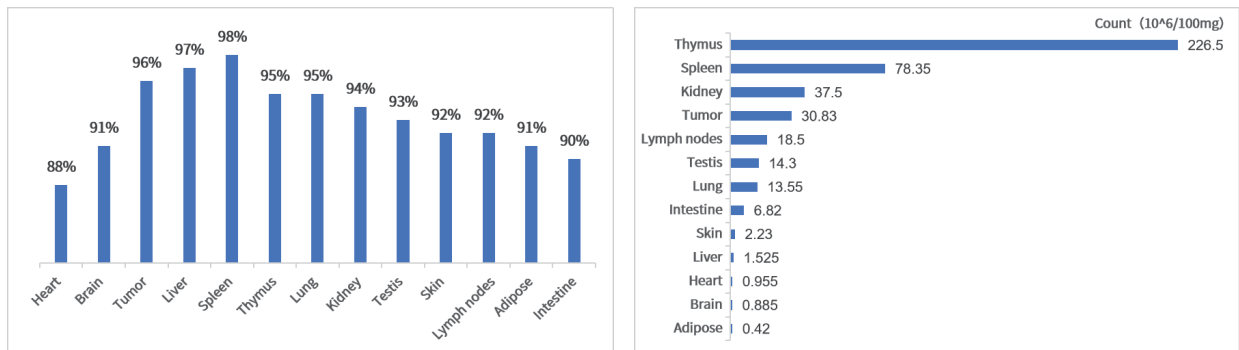
Model	SCT-25	SCT-100
Sample volume	20-4000 mg	
Buffer volume	0.3-10 mL	
Dimensions	35*89 mm	
Package	25pcs/box	100pcs/box

Enzymatic Digestion Kit

- Targeted optimization of enzymatic hydrolysis formula can ensure high cell viability
- Preserving cell surface epitopes leads to no effect for downstream experiments



Data Presentation



RWD High Activity Tissue Enzymatic Digestion Kit, used together with the Single Cell Suspension Dissociator (#RWD, DSC-810), delivers high viability and high yield across a wide range of tissues.

Order Information

Cat. No.	Product Description	Number of reactions
DHTE-5001	High Activity Tumor Tissue Enzymatic Digestion Kit (Mouse)	50T
DHNBE-5002	High Activity Neonatal Brain Enzymatic Digestion Kit (Mouse and Rat)	50T
DHABE-5003	High Activity Adult Brain Enzymatic Digestion Kit (Mouse and Rat)	50T
DHGTP-5004	High Activity General Tissue Enzymatic Digestion Kit II	50T
DHTEH-2505	High Activity Tumor Tissue Enzymatic Digestion Kit (Human)	25T
DHDR-5006	High Efficiency Debris Removal Kit	50T
DHIE-5007	High Activity Intestine Tissue Enzymatic Digestion Kit (Mouse)	50T
DHBTE-2508	High Activity Brain Tumor Enzymatic Digestion Kit	25T
DHWSE-2509	High Activity Whole Skin Enzymatic Digestion Kit (Mouse)	25T
DHAE-5010	High Activity Adipose Tissue Enzymatic Digestion Kit (Mouse and Rat)	50T
DHME-5012	High Activity Muscle Tissue Enzymatic Digestion Kit (Mouse and Rat)	50T
DHNE-2511	High Efficiency Nuclei Extraction Kit	25T
DHHE-2515	High Activity Hepatocyte Extraction Kit (Mouse and Rat)	15T
DHUTE-2516	High Activity Umbilical Cord Enzymatic Digestion Kit (Human)	25T
DHYTE-2517	High Activity FFPE Tissue Enzymatic Digestion Kit	25T
DHNCE-2518	Mouse And Rat Neonatal Heart Dissociation Kit(25T)	25T

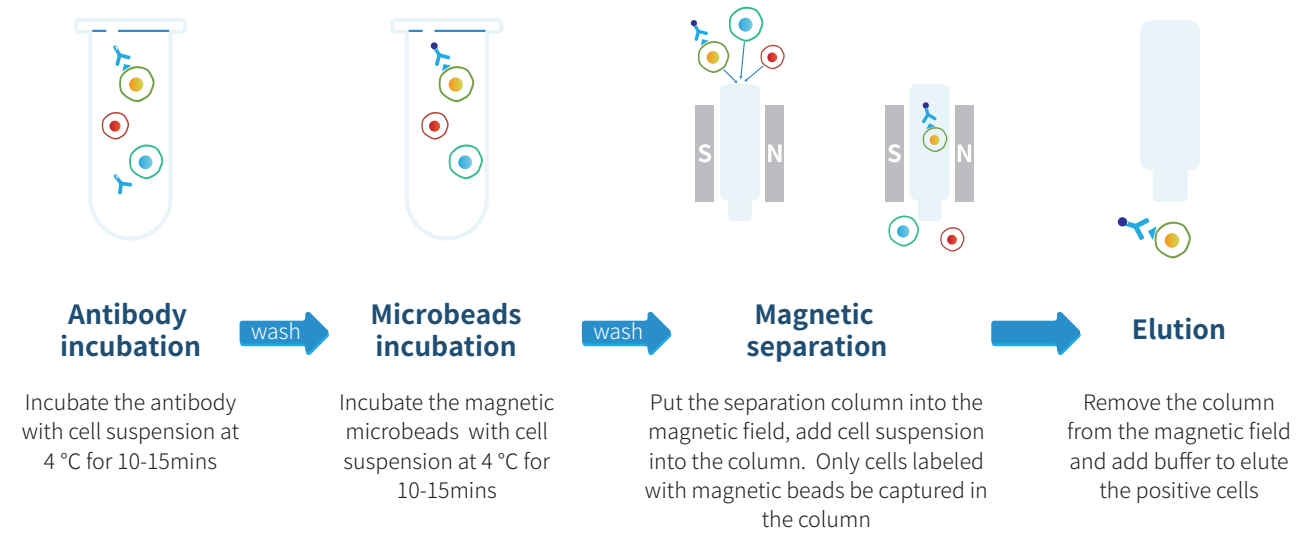
Nano-Beads Cell Separation Platform(Column Based)

RWD cell separation products include self-developed magnetic microbeads cell separation kits and cell separation columns, which can obtain target cells with high purity and high viability through simple operation. Nano-sized magnetic beads do not need elution, and the separated cells can be directly used in downstream experiments such as flow cytometry, cell culture, single-cell sequencing, etc.



Application field:

Immunology research / Oncology research / Neuroscience / Stem cell research / Cell therapy



► Order Information

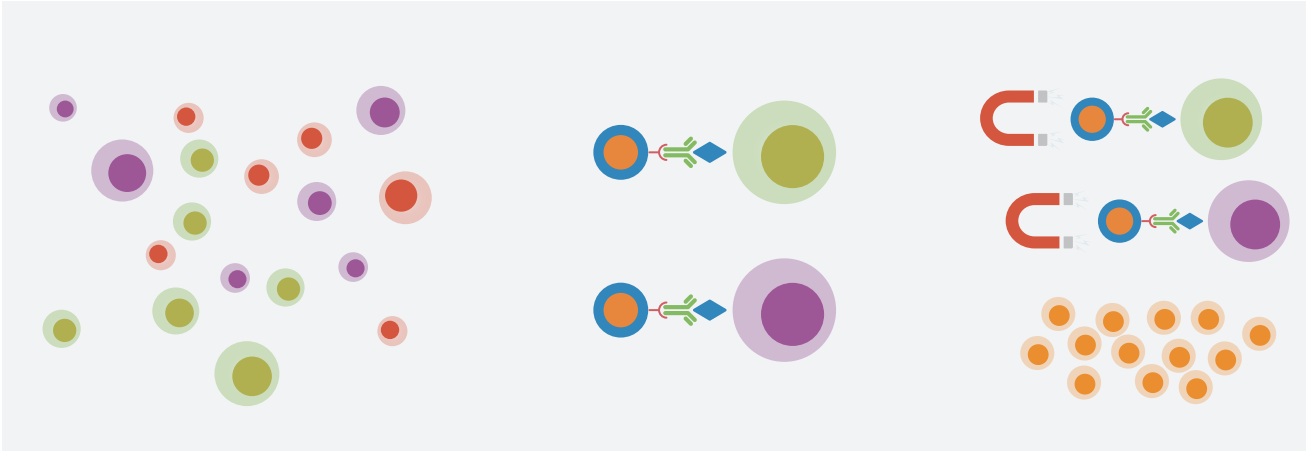
Category	Cat. No.	Product Name	Sorting Mode	Capacity
Column based Indirect Labeling	K1301-10	Mouse CD3+ Cell Separation Kit (100T)	Positive	for 1*10^9 total cells
	K1302-10	Mouse CD4+ Cell Separation Kit (100T)	Positive	for 1*10^9 total cells
	K1303-10	Mouse CD8+ Cell Separation Kit (100T)	Positive	for 1*10^9 total cells
	K1304-10	Mouse CD45+ Cell Separation Kit (200T)	Positive	for 2*10^9 total cells
	K1305-20	Mouse CD19+ Cell Separation Kit (200T)	Positive	for 2*10^9 total cells
	K1306-10	CD11b+ (Microglia) cell separation Kit (100T)	Positive	for 1*10^9 total cells
	K1307-10	Mouse Pan B Cell isolation Kit (100T)	Negative	for 1*10^9 total cells
	K1308-10	Mouse CD4+CD25+ Regulatory T Cell Isolation Kit	Hybrid Labeling	for 1*10^9 total cells
	K1201-10	Human CD3+ Cell Separation Kit (RUO,100T)	Positive	for 1*10^9 total cells
	K1202-10	Human CD4+ Cell Separation Kit (RUO,100T)	Positive	for 1*10^9 total cells
	K1203-10	Human CD8+ Cell Separation Kit (RUO,100T)	Positive	for 1*10^9 total cells
	K1204-10	Human CD14+ Cell Separation Kit (RUO,100T)	Positive	for 1*10^9 total cells
	K1205-10	Human CD45+ Cell Separation Kit (RUO,100T)	Positive	for 1*10^9 total cells
	K1206-10	Human CD19+ Cell Separation Kit (RUO,100T)	Positive	for 1*10^9 total cells
	K1207-10	Human NK Cell Isolation Kit (RUO,100T)	Negative	for 1*10^9 total cells
Column based Direct Labeling	B1302-20	Mouse CD4 (L3T4) Nanobeads (RUO,200T)	Positive	for 2*10^9 total cells
	B1303-20	Mouse CD8 (Ly-2) Nanobeads (RUO,200T)	Positive	for 2*10^9 total cells
	B1201-10	Human CD31 NanoBeads (RUO,100T)	Positive	for 1*10^9 total cells
Column based General Beads	K1200-10	Streptavidin Nano-Magnetic beads (RUO,100T)	Positive	for 1*10^9 total cells
	B2000-20	Anti-FITC NanoBeads (RUO,200T)	Positive	for 2*10^9 total cells
	B2001-10	Anti-PE NanoBeads-100T (Universal)	Positive	for 1*10^9 total cells

► Consumables and accessories for Column-based products

Cat. No.	Product Name	Size
LSC-S1	LSC Separator (single channel)	1 pcs
SS01	Separation stand	1 pcs
HCSC-100	LarSep Columns (4box, 25pcs/box)	100 pcs
HCSC-25	LarSep Columns (25pcs/box)	25 pcs
HCSC-5	LarSep Columns (5pcs/box)	5 pcs
CSAK-01	Cell Separation assembly kit (single channel)	1 Set
MCSC-25	MedSep Columns (25pcs/box)	25 pcs
MCSC-5	MedSep Columns (5pcs/box)	5 pcs

Nano-Beads Cell Separation Platform(Column Free)

► Product Principle



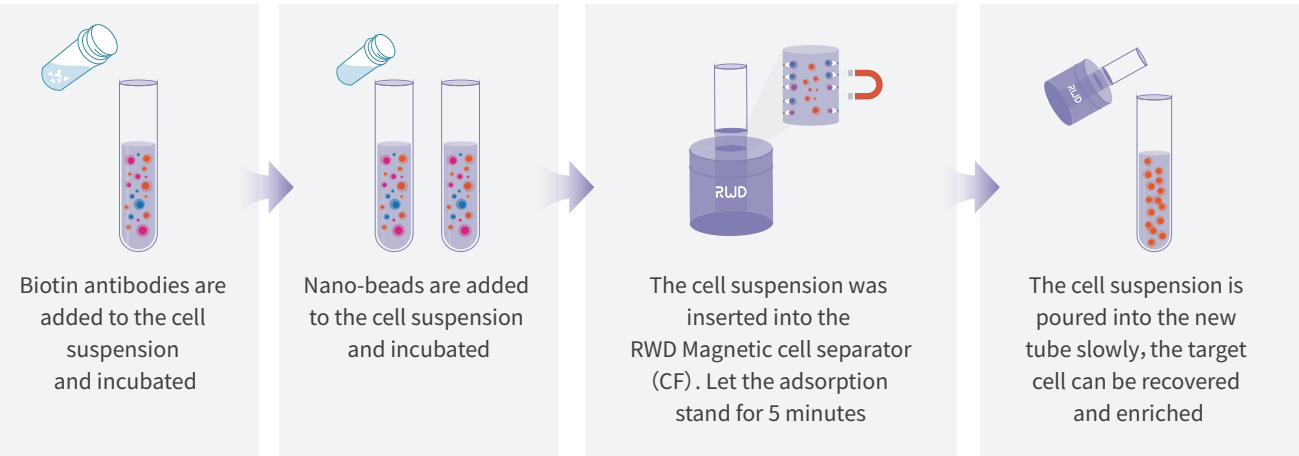
Nano-Bead Cell Separation Platform (Column Free), by adding biotin-antibodies to PBMC or single cell suspension to label non-target cells (negative selection), and then binding streptavidin magnetic beads to labeled non-target cells. The target cells without contact with magnetic beads can be separated quickly, easily and in large numbers.

► Product characteristics

- Nano-Beads — mild & low stimulation
- Magnetic adsorption — strong & sensitive
- Column free — fast sorting & low cost
- Negative sorting — get truly untouched cells
- Wide application — direct cell experiments



► Experimental Process



► Order Information

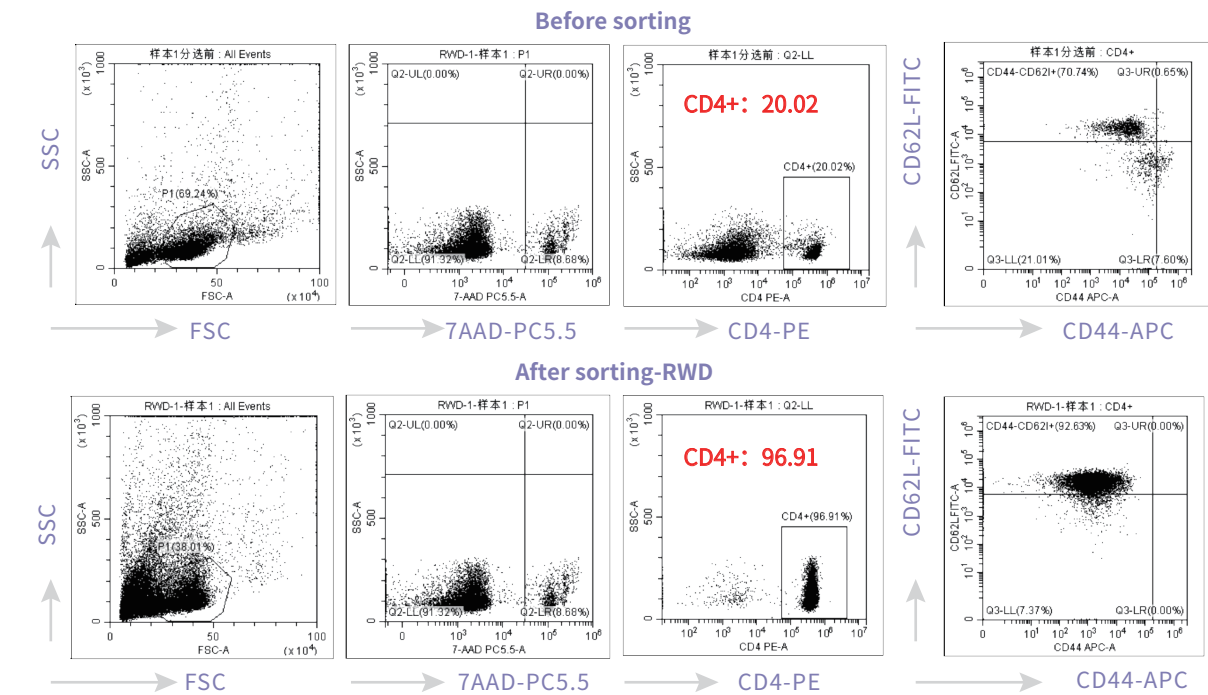
Category		Cat. No.	Product Name	Sorting Mode	Capacity
Column free	Mouse	F1501-10	Mouse Pan B Cell isolation Kit-CF (100T)	Negative	for 1*10^9 total cells
		F1502-10	Mouse NK Cell isolation Kit-CF (100T)	Negative	for 1*10^9 total cells
		F1505-10	Mouse Naive CD8 T Cell Isolation Kit-CF (100T)	Negative	for 1*10^9 total cells
		F1506-10	Mouse Naive CD4 T Cell Isolation Kit-CF (100T)	Negative	for 1*10^9 total cells
		F1508-10	Mouse CD4 T Cell Isolation Kit-CF (100T)	Negative	for 1*10^9 total cells
		F1512-10	Mouse CD8 T Cell Isolation Kit (100T)	Negative	for 1*10^9 total cells
	Human	F1401-10	Human NK Cell isolation Kit-CF (RUO,100T)	Negative	for 1*10^9 total cells
		F1402-10	Human CD8 T Cell Isolation Kit (100T)	Negative	for 1*10^9 total cells
		F1509-10	Human CD4 T Cell Isolation Kit-CF (RUO,100T)	Negative	for 1*10^9 total cells
		F1510-10	Human CD19 Cell Separation Kit-CF (RUO,100T)	Positive	for 1*10^9 total cells
		F1511-10	Human CD3 Cell Separation Kit-CF (RUO,100T)	Positive	for 1*10^9 total cells
	General	F1507-10	Dead Cell Removal Kit (RUO,100T)	Negative	for 1*10^9 total cells

► Consumables and accessories for column-free products

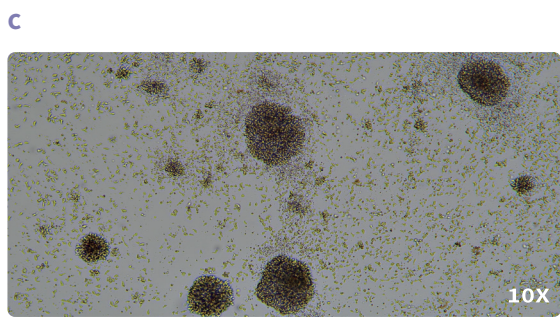
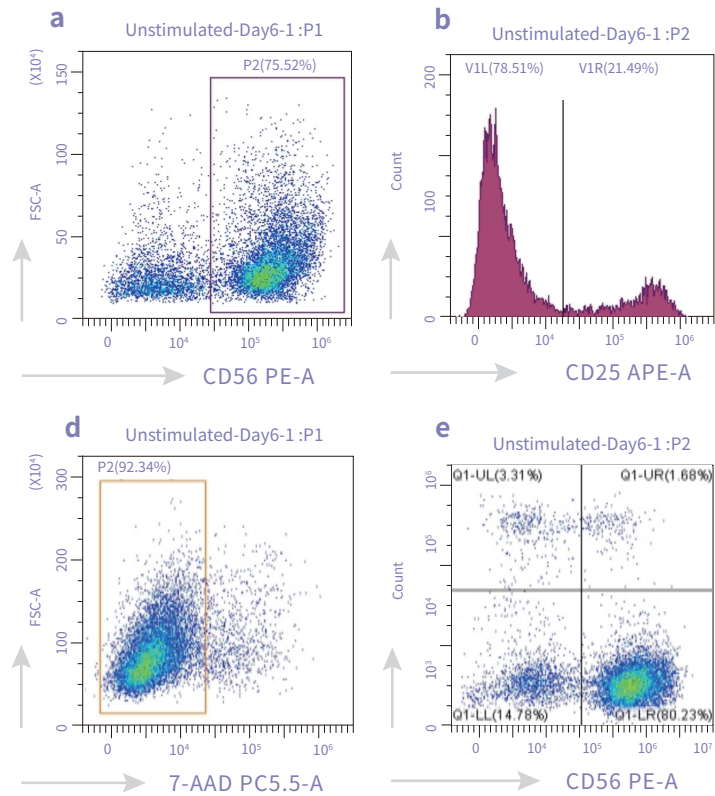
Cat. No.	Product Name	Size
CFMS-S1	Magnetic cell separator-CF (single channel)	1 pcs

► Data Presentation

Mouse Naive CD4 T Cell Isolation Kit-CF (RWD, #F1506-10)



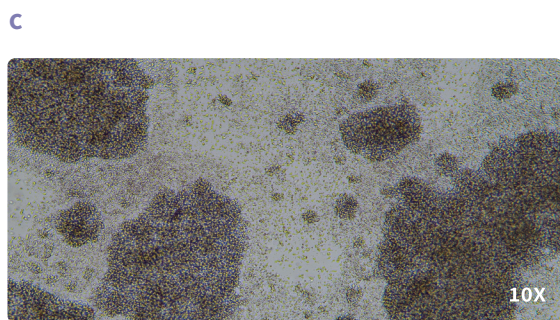
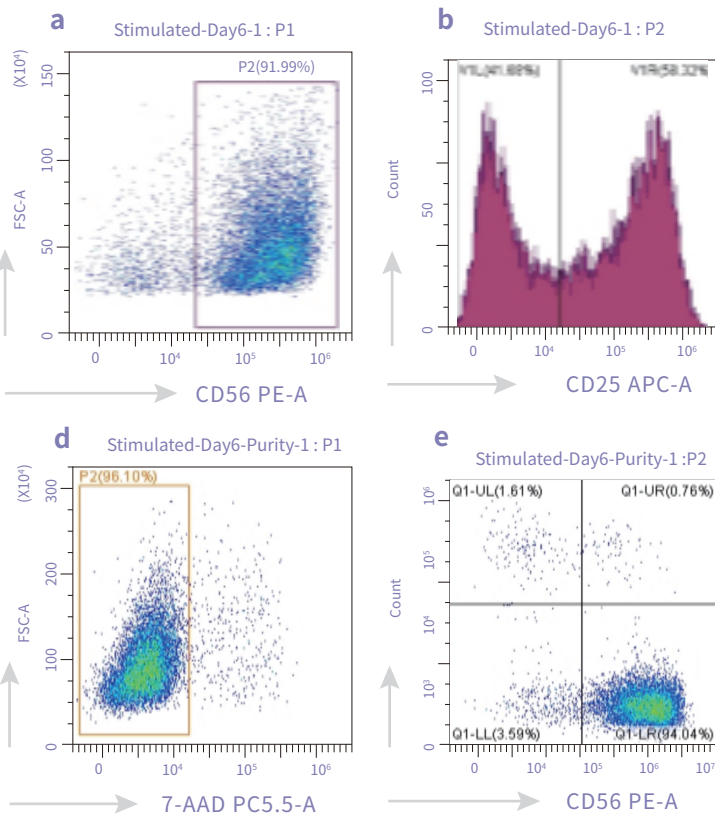
Human NK Cell isolation Kit-CF (RUO)



Control, Unstimulate

- a. Enriched human NK cells were cultured after 6 days without activation ,which analysis by flow cytometry.
- b. CD25 expression of enriched human NK cells were cultured after 6 days without activation.
- c. Cell culture state of enriched human NK cells were cultured after 6 days without activation.
- d. Cell activity of enriched human NK cells were cultured after 6 days without activation.
- e. After using Human NK Cell isolation Kit-CF (RUO) again, cell purity of enriched human NK cells were cultured after 6 days without activation.

Human NK Cell isolation Kit-CF (RUO)



Case,Stimulate

- a. Enriched human NK cells were cultured after 6 days activated by IL-2, which analysis by flow cytometry.
- b. CD25 expression of enriched human NK cells were cultured after 6 days, which activated by IL-2.
- c. Cell culture state of enriched human NK cells were cultured after 6 days, which activated by IL-2.
- d. Cell activity of enriched human NK cells were cultured after 6 days, which activated by IL-2.
- e. After using Human NK Cell isolation Kit-CF (RUO) again, cell purity of enriched human NK cells were cultured after 6 days activated by IL-2.

Gradient PCR Thermal Cycler

RWD PCR Thermal Cycler is equipped with 6 long-life dedicated Peltier thermal cycling modules and corrosion-resistant, high-thermal-conductivity aluminum alloy sample blocks, delivering precise temperature -control with outstanding uniformity and accuracy. It supports flexibly adjustable temperature ramp rates and dual temperature gradient modes (linear + conventional), enabling rapid optimization of experimental conditions and efficient, specific amplification of target DNA fragments.



Product Characteristics

Excellent Temperature Control, High Precision and High Efficiency

- Equipped with 6 long-life dedicated TEC modules, with a maximum temperature ramp rate of 6 °C/s.
- Integrated high-thermal-conductivity aluminum alloy sample block ensures uniform heat transfer and consistent temperature accuracy.
- Linear / conventional temperature gradient quickly determines the optimal annealing temperature.
- Dual temperature control modes (Block / Tube) eliminate sample temperature deviation and ensure experimental precision.

Wide Compatibility for Multi-scenario Applications

- Dual-function design with constant-temperature incubation, meeting diverse experimental needs including PCR, enzyme digestion and ligation.
- Compatible with 0.1/0.2 mL PCR tubes and 8-strip tubes, supporting reaction volumes from 5 to 120 μL.
- Supports a variety of applications including conventional PCR, touchdown PCR, long PCR and RT-PCR.

Easy Operation, Intelligent and Efficient

- 10.1-inch HD touch screen with Android system for simple, intuitive operation.
- Stores more than 200,000 protocols; frequently used programs can be recalled with one click to improve efficiency.
- Remote monitoring via mobile APP and email notification upon experiment completion allow unattended operation.

Safe, Reliable and Worry-free

- Multi-level account management with clear permissions to protect experimental data security.
- Screen lock function prevents accidental operation and parameter modification to ensure smooth running.
- Adaptive heated lid prevents tube deformation, sample evaporation and condensation.
- Power failure protection: automatically resumes unfinished cycles after power recovery to ensure safe amplification.
- Compliant with GLP guidelines with fully traceable experimental data, fully meeting laboratory compliance requirements.

M2-96SG

Handle
One-step locking

Hot Lid
Auto-adjust Height & Pressure

Al Alloy Block
Corrosion & Oxidation Resistant

Touch screen
10.1-inch+Android OS

Ventilation port
Front-in Rear-out

USB 2.0
Import/Export & Update



M2-32TG

Hot Lid
Auto-adjust Height & Pressure

Al Alloy Block
Corrosion & Oxidation Resistant

Touch screen
10.1-inch+Android OS

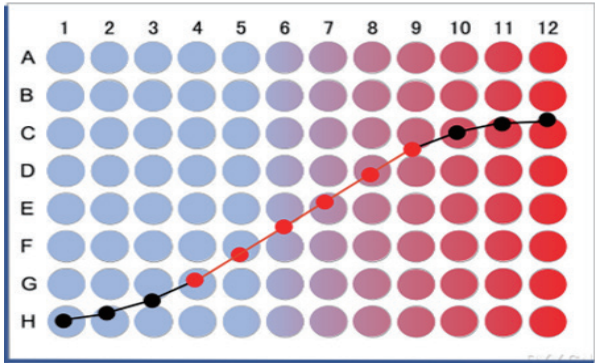
Ventilation port
Front-in Rear-out

USB 2.0
Import/Export & Update

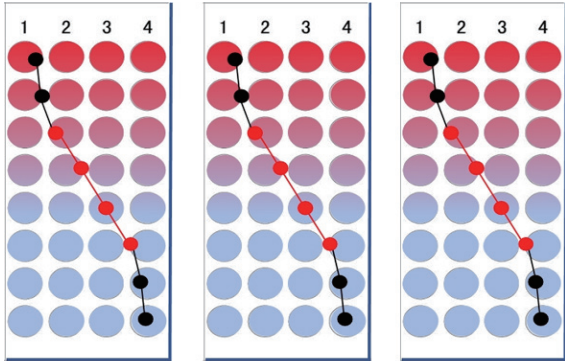


Product characteristics

Linear temperature gradient for precise determination of optimal annealing temperatur



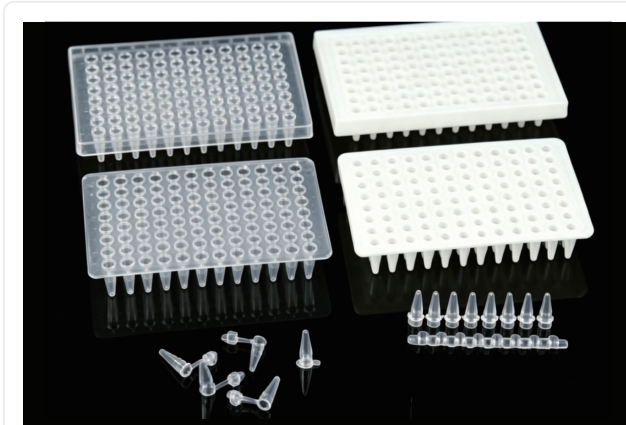
12-column linear temperature gradient (M2-96SG)



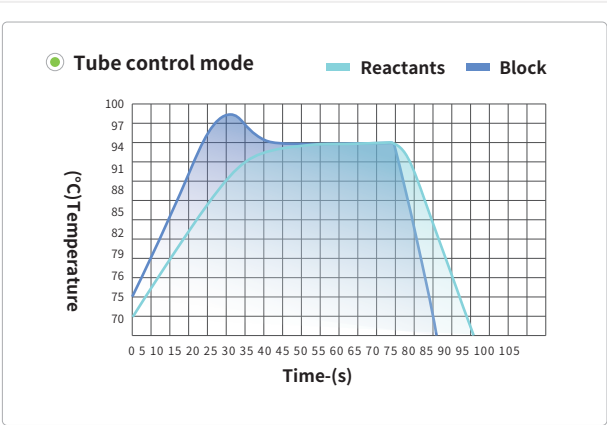
8-row linear temperature gradient (M2-32TG)



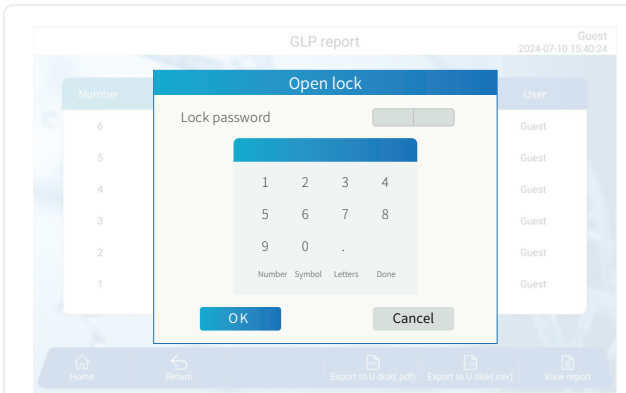
Mobile APP monitoring, unattended operation supported



Compatible with various consumables: single tube, strip tubes and PCR plates (single-block model only)



Tube temperature control mode avoids sample temperature deviation



Screen lock function prevents accidental parameter modification

GLP report				
Number	Finish time	File	Block	User
6	2024-07-10 15:38:45	ST3	A	Guest
5	2024-07-10 15:14:15	ST3	A	Guest
4	2024-07-09 17:20:48	New file	A	Guest
3	2024-07-09 16:40:14	ST3	B	Guest
2	2024-07-09 16:40:10	ST3	A	Guest
1	2024-07-09 15:36:45	TOUCHDOWN	B	Guest

GLP compliant; records all running steps of the program

► Technical Specifications

Model	M2-96SG	M2-32TG
Block Type	96-well aluminum alloy sample block	3 independent 32-well aluminum alloy sample blocks
Display	10.1-inch HD touch screen, 1280×800 pixels	
Compatible Consumables	0.1/0.2 mL single tube, 8/12-strip tubes, skirtless & semi-skirted PCR plates	0.2 mL PCR single tube and 8-strip tubes
Block Temperature Range	0-105°C	
Heated Lid Temperature Range	30-115°C	
Max. Temperature Ramp Rate	6°C/s	
Temperature Control Mode	Block / Tube	
Temperature Display Resolution	0.1°C	
Temperature Uniformity	≤±0.2°C	
Temperature Accuracy	≤±0.1°C	
Gradient Type	12-column linear / conventional temperature gradient	8-row linear / conventional temperature gradient
Gradient Temperature Range	30-105°C	
Gradient Delta Range	0.1-42°C	0.1-30°C
Program Storage	200,000 protocols (unlimited expansion via USB drive)	
Max. Steps per Program	40 steps (supports nested PCR)	
Max. Cycles per Program	200 cycles (up to 100,000 under nested cycling)	
Time Increment / Decrement	±(1 s-600 s) (for Long PCR)	
Temperature Increment / Decrement	±(0.1-10.0 °C) (for Touchdown PCR)	
Real-Time Temperature Curve	Real-time recording of heated lid and block temperature	
GLP Compliance	Logs all running steps; GLP report exportable	
User Access Control	Three-level permissions: Guest, User, Administrator	
Tm Calculator	Calculate primer Tm values	
Screen Lock	Password / password-free lock	
Power Failure Protection	Auto-resume unfinished run after power recovery	
Email Alert	Auto email notification upon run completion	
APP Monitoring	Simultaneous monitoring of up to 250 instruments	
Communication Interface	USB2.0, WIFI	
Power	100-240VAC, 50/60Hz, 600 W	
Dimensions (W*D*H)	270mm×385mm×255mm	
Net Weight	10kg	11kg

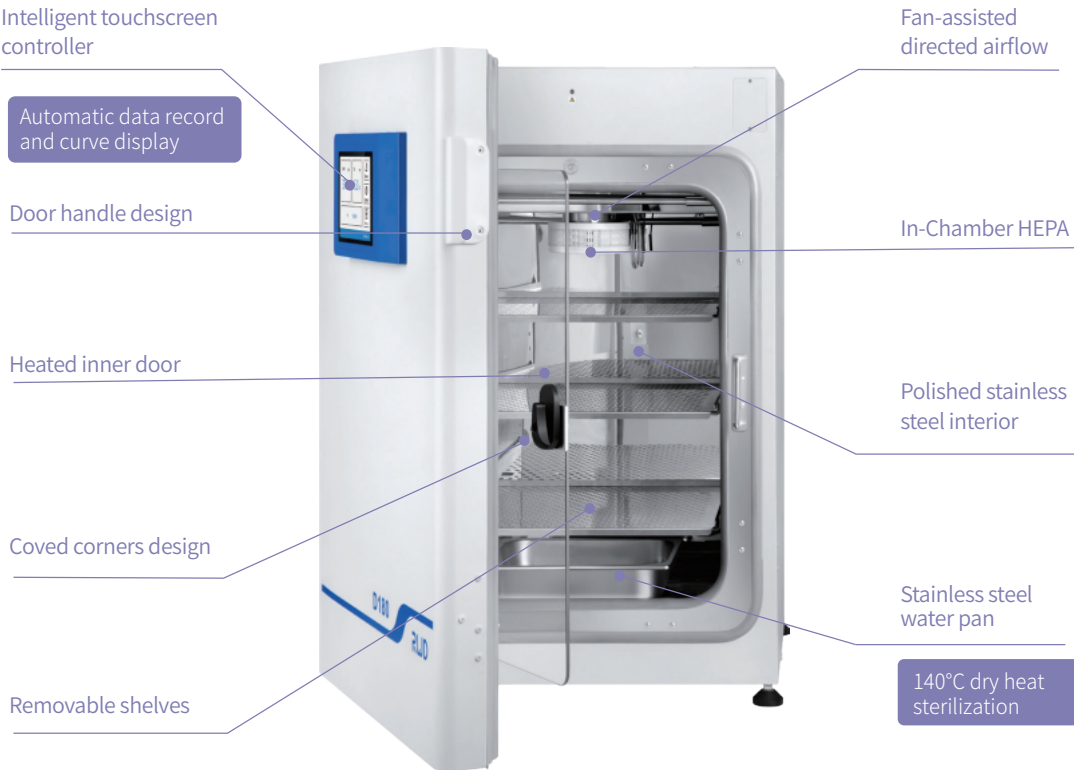
► Order Information

Model	Description	Module Type
M2-96SG	PCR Thermal Cycler (Single Block)	96-well aluminum alloy sample block
M2-32TG	PCR Thermal Cycler (Triple Block)	3 × 32-well aluminum alloy sample blocks

CO₂ Incubator

Provide A More Suitable Environment for Cell Culture

D180 CO₂ incubator provides a more suitable culture environment for cells by controlling temperature, CO₂ concentration precisely and by maintaining a high relative humidity (rH). It is an indispensable cell culture tool in the fields of stem cell research, immunology research, neurobiology research and cancer research.



► Product characteristics

Stable environment for cell culture

- Accurate IR sensor monitors the CO₂ concentration change.
- Six-sided air jacket heating system ensures fast heating.
- Optional humidity probe to monitor real-time humidity changes.

Contamination control of inner chamber

- High efficient sterilization by 140°C dry heat.
- In-chamber HEPA to filter the microorganism.
- Easy cleaning with coved corners and removable shelves design.

Intelligent operation

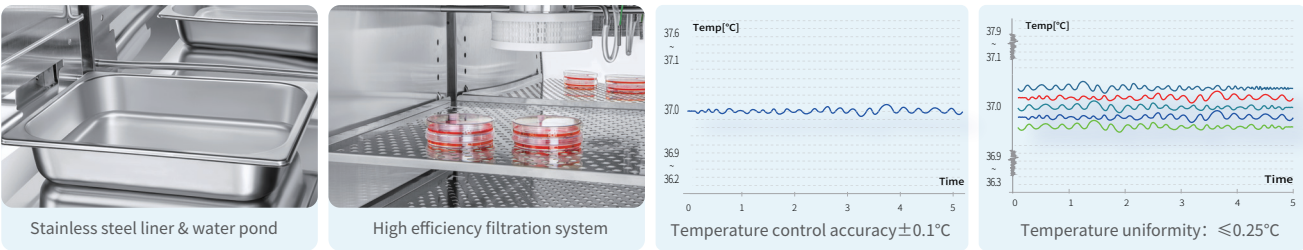
- 7-inch touchscreen controller for real-time display.
- Automatic data record of 7 days curve display.
- External USB port for fast and convenient data export.

Multiple alarm system

- Internal and external door open overtime alarm.
- Abnormal inner cavity core parameters alarm.
- High temperature sterilization over temperature alarm.

Convenient and flexible design

- Handle design enables a comfortable door opening.
- Optional bracket with casters for convenient moving of the chamber.
- Less consumables in cavity for easy cleaning.



D165H CO₂ Incubator Series



► Product characteristics

Upgraded anti-contamination function for more thorough sterilization

The 180°C high-temperature dry-heat sterilization technology can efficiently kill fungi, molds, bacteria, their spores, mycoplasma, etc. It meets pharmacopeia requirements, and has passed third-party verification, ensuring a 99.99% microbial killing rate. The 12-hour process is easy to operate: just remove the HEPA filter, no need to autoclave other accessories separately.

Condensation-free water reservoir design for faster humidity recovery

The 4L integrated reservoir design boosts space utilization and humidity recovery, five times faster than the standard water pan. After a 30-second door opening, relative humidity restored in 10 minutes. The system monitors the water level, refills timely, has a low-humidity mode, and enables easy water operations without moving shelves or cultures.

Flexible low-oxygen control, wider application

Optional oxygen-controlled models can mimic the hypoxic environment of in-vivo cells, facilitating the rapid and healthy growth of primary, stem, and embryonic cells. The oxygen detector, equipped with a durable zirconia sensor, ensures precise and stable O₂ concentration control.

RLink IoT system for more timely alarm response

The RLink intelligent IoT remote monitoring system enables real-time monitoring of equipment status. You can instantly receive anomaly alarms via mobile devices to ensure timely handling and safeguard sample security.

Optional safety door lock for safer high-temperature sterilization

An advanced active safety door lock system is optional. When the high-temperature sterilization program runs, if the temperature exceeds 65°C, the door lock activates automatically to ensure lab staff safety.

New air-flow circulation system ensures rapid recovery of core parameters

A larger HEPA filter paired with an active fan-assisted air-circulation system significantly boosts air-purification efficiency. After the door is open for 30 seconds, ISO 5 (Class 100) air quality is restored in just 5 minutes.

Optional triple small split doors, less environmental impact when opening and closing

Opting for the three inner-door design, only one door leaf opens per operation. This not only reduces air exchange, minimizing internal-chamber environment fluctuations, but also cuts energy consumption, avoiding waste from the frequent door-openings. It also lessens sample interference and contamination risk.

Complies with FDA 21 CFR PART11 for electronic signature and user management

The equipment has a three-level permission system(administrator, operator, visitor)with account-password log-in. Administrators can define permissions and manage users. All critical operations(door opening/closing, password, and setting changes)are recorded with non- alterable and non-deletable electronic signatures for operation traceability.



► Technical Parameters

	Model	D180	D165H	D165HT
Dimensions & Weight	Cavity volume	188 L	170 L	
	Internal dimensions	51.0(W) × 54.7(D) × 67.5(H) cm	47.0(W) × 57.0(D) × 60.0(H) cm	
	Water reservoir		33(W) × 41.5(D) × 6.9(H) cm	
	External dimensions	69.5(W) × 67.0(D) × 97.0(H) cm	69.0(W) × 86.0(D) × 90.0(H) cm	
	Weight	110 kg	120 kg	
Shelves	Standard quantity	4	3	
	Maximum quantity	17	11	
	Dimensions	48.7 × 46.1 cm	41.8 × 46.5 cm	
	Area	2245 cm2	1943.7 cm2	
	Load - bearing capacity	20 Kg/pcs		
Power	Maximum power consumption	1100 W	1300 W	
	Heating power	300 W	510 W	
	Stable function power (@37°C)	30 W	16 W	
Temperature	Heating method	Air-Jacket Heating Method		
	Sensor	Pt1000		
	Controller	PID		
	Control accuracy and range	±0.1°C at 37°C, RT + 5°C - 50°C	±0.1°C at 37°C, RT + 3°C - 55°C	
	Uniformity	±0.3°C at 37°C	±0.25°C at 37°C	
CO2 Concentration	Control accuracy and range	±0.1%@5%, 0 ~ 20%		
	Sensor	IR		
	Input pressure	0.1 ~ 0.15 Mpa	0.08 ~ 0.1 Mpa	
	Reading and setting ability	0.1%		
Humidity	Humidification method	Water Pan	Water Reservoir	
	Relative humidity	≥ 90%	≥ 93% (Normal Mode)	
	Volume	3.8 L	3.8 L	
	Display	1% RH	Water level display	
O2 Concentration	Control accuracy and range	/		±0.1%, 0.1% - 21% (hypoxia)
	Sensor	/		Zirconia
	Input pressure	/		Recommended pressure: 0.08 - 0.1 Mpa
Sterilization	Sterilization temperature	140°C dry heat sterilization	180°C dry heat sterilization	
	Sterilization time	12 hours	12 hours	
	Filter	HEPA High - Efficiency Particulate Air Filter		
Safty	Temperature alarm setting	Users can customize it. Upper limit: (T + 0.1) ~ (T + 5.0); Lower limit: (T - 0.1) ~ (T - 5.0)		
	CO ₂ alarm setting	Users can customize it. Upper limit: (T + 0.1) ~ (T + 1.0); Lower limit: (T - 0.1) ~ (T - 1.0)		
	Humidity alarm setting	Default lower limit: 75%, customizable		Low water level alert
	O ₂ alarm setting	/		Users can customize it. The upper limit ranges from (T + 0.1) to (T + 1.0); the lower limit ranges from (T - 0.1) to (T - 1.0).
	Door - opening alarm setting	An alarm will be triggeared 2 minutes after the door is opened.		
	Safety door lock	/	Optional safety lock engages automatically at over 65°C during sterilization.	

► Accessories for D180 Model

Options	Order no.	Description
CO ₂ intake pipe kit	D180-F01	Pipeline fittings for connecting the equipment to the carbon dioxide gas cylinder
Horizontal partition and its hanging rod	D180-F02	Used for placing experimental samples
Humidification water tray	D180-F03	Maintains the humidity inside the chamber
HEPA filter	D180-F04	Maintains ISO 5 - class air cleanliness inside the chamber
High - efficiency filter	D180-F05	Used for filtering at the gas sampling port at the rear of the equipment
Stacking machine lock assembly	D180-F06	Used to fix two devices when stacked
Caster - equipped bracket	D180-F07	Facilitates the movement of the equipment, with a maximum load - bearing capacity of 200 kg
Carbon dioxide gas pressure reducing valve	D180-F08	Used to adjust the pressure of the carbon dioxide gas cylinder

► Accessories for D165H/D165HT Model

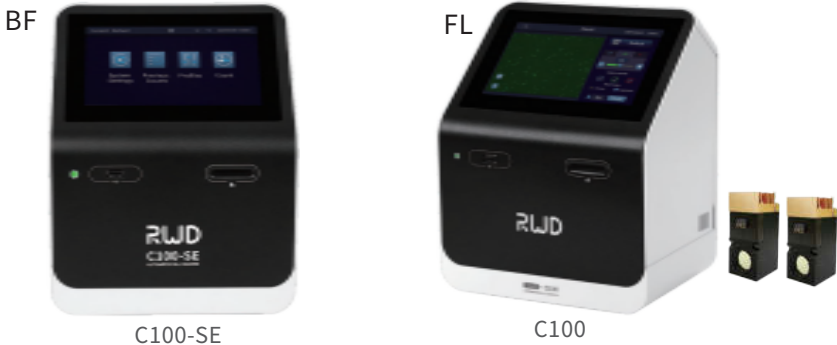
Options	Order no.	Description
HEPA filter	D165H-F01	Maintain ISO 5 - class air cleanliness in the inner cavity.
Intake air filter	D165H-F02	Filter for the equipment's gas inlet.
Horizontal partition and its hanging rod	D165H-F03	Used to place experimental samples.
Small - sized horizontal partition and its hanging rod	D165H-F04	The horizontal partition for the bottom layer, including a horizontal shelf and its two hanging rods.
Three - small - door inner door module	D165H-F05	The inner door with three air - tight small doors reduces the impact on the environment when the door is opened.
Caster - equipped bracket	D165H-F07	Facilitates the movement of the equipment, with a maximum load - bearing capacity of 200 kg.
Stacking machine lock assembly	D180F-F07	The lock assembly used to fix two stacked devices.
Safety door lock	D165H-F06	The door lock that automatically locks the outer door when the temperature exceeds 65°C during high - temperature sterilization to prevent it from being accidentally opened.
Gas pressure reducing valve	D180-F08	Used to adjust the pressure of the carbon dioxide gas cylinder.

► Ordering Information

Options	Model	Description
CO ₂ Incubator with Humidity monitoring	D180/D181	volume 188L; 140°C setrlization; humidity sensor; voltage 100~120VAC, 60H2, 10A
CO ₂ Incubator	D165H	volume 170L; 180°C setrlization; voltage 100~120VAC, 60H2, 10A
CO ₂ Incubator with oxygen module	D165HT	volume 170L; 180°C setrlization; with oxygen module; voltage 100~120VAC, 60H2, 10A

Automated Cell Counter

RWD Automated Cell Counter adopts Trypan Blue staining method, intelligent image recognition and advanced optical imaging technology to achieve accurate and automatic cell analysis. The algorithm can identify both live and dead cells within 9 seconds. Information such as cell counts, viability, diameter can be obtained by just one-click. With fluorescence cube, C100&C100-Pro can display images in BF and FL channels simultaneously and clearly present cell counts and cell morphology. In order to meet the needs of cell therapy and biopharma, the data management and software system of C100-Pro fully conforms to FDA 21 CFR Part 11. It is an optimal device for cell analysis in cell therapy, biopharmaceutical, immunology and vaccine development, tumor research, stem cell and metabolism research.



Product Characteristics

High accuracy

- The self-developed algorithm can identify clustered cells.
- Intelligently cell marks contribute to precise cell recognition.
- RBC counting.
- Low autofluorescence and high-transmit filter enable clear imaging.

Time-saving

- User-friendly UI and built-in user guide interfaces ensure easy operation.
- Up to 1000 counting results can be stored. No need another device for extra storage.

User-friendly

- Autofocus and auto exposure.
- Powerful computing capability ensures high efficiency.

Compact design

- Compact size fits into different placements.
- Removable modular FL cubes allow easy switches among various scenes.

Accessories and consumables



Disposable Cell Counting Slide



FL Cube



RS-100 Reusable counting slide

Clustered cell recognition algorithm

Clear fluorescence imaging

Pre-dilution calculator

Cell splitting calculator

Technical Parameters

Parameters	Description	
Model	C100-SE	C100
Optional fluorescence application	N/A	● (Ex :375/28nm ;Em:460/50nm)
		● (Ex :480/30nm ;Em:535/40nm)
		● (Ex :540/25nm ;Em:620/60nm)
Amplification Factor	2.5×, 5.0 Megapixel	
Focus Method	Manual focusing & Autofocusing	
Counting Area	2.15 mm×1.62 mm	
Cell Type	Cell lines, stem cells, primary cells, pollens, beer yeast	
Cell Size Range	4-60 μm (Optimal: 7-60 μm)	
Cell Concentration Range	104-107 cells/mL	
Cell counting Time	Less than 9s	
Historical Data Storage	1000 counting reports and images at most	
Languages	Chinese and English	
Dimensions	212m(W)*165mm(D)*264mm(H)	
Weight	~3.0kg	~3.2kg

FL Cube	Excitation	Emission	General Dyes
FL Cube-01	375/28nm	460/50nm	DAPI, Hoechst, BFP
FL Cube-02	480/30nm	535/40nm	Acridine Orange (AO) , Calcein-AM, Alexa fluor 488, SYBR Green, FITC, GFP
FL Cube-03	540/25nm	620/60nm	Propidium Iodide (PI) , DsRed, dTomato, RFP

► Order Information

Cat No.	Product Description
C100-SE	Automated Cell Counter (BF)
C100	Automated Cell Counter (BF + FL)
FL Cube-01	● (Ex :375/28nm ;Em:460/50nm)
FL Cube-02	● (Ex :480/30nm ;Em:535/40nm)
FL Cube-03	● (Ex :540/25nm ;Em:620/60nm)
DS-50	Disposable Slide (50 pcs/box)

Fluorescent cell counter C200FL



► Product Characteristics

More precise, more stable

- No need to focusing and the imaging is clearer
- Preset parameters can be used directly without manual operation
- Intelligently cell marks for precise cell recognition
- Low autofluorescence and high-transmit filter enable clear imaging

Smarter and more efficient

- APP style program, one click counting
- 6-channel counting slide, automatic sampling
- Optional 1-3 counting area, 5s/sample
- 500G storage, one click export multiple formats of data

Safer and easier to use

- FDA 21 CFR Part 11 compliance
- Multiple built-in help interfaces, easy to use
- Compact size fits into different placements

► Product Interface

Count

Count Group1

Copy Edit Delete Export

Total Cell Count Trypan Blue Trypan Blue-Auto Exp AOPI GFP Faint-GFP

RFP Faint-RFP Nucleus Add

- APP style program, one click counting
- Apps can be managed in group

Edit Counting Information

Count Type: [Pre]AOPI Experiment Name: AOPI-3

Ch 1 Ch 2 Ch 3 Ch 4 Ch 5 Ch 6

Sample Name Ch 3 Cell Type 293 Dilution Factor 2.00X

Start

- 6-channel automatic sampling

Counting...

Cell Viability: 10.69%
Fluo Total Conc: 5.69×10^3 /ml
Live Conc: 6.08×10^3 /ml
Dead Conc: 5.08×10^3 /ml
Fluo Total Cell Number: 262
Live Cell Number: 28
Dead Cell Number: 234
Average Size: 10.43um
Average Circularity: 0.94
Cell Aggregation Rate: 0.76%
Nucleated Cell Rate: 100.00%

- Real time display of counting results

► Result

A Data Export

Format: PDF Image Excel Fcs

Path: External Storage Device Server

Cancel Confirm

B Growth Curve

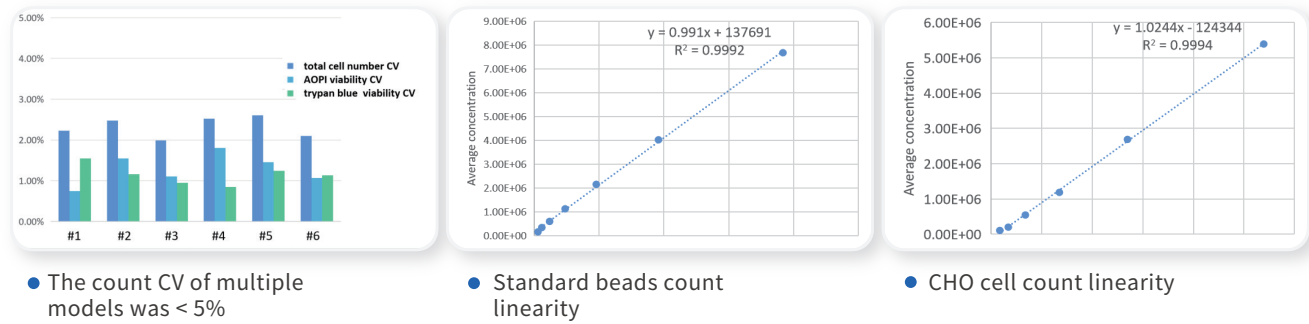
X-axis: Sequence Y-axis: Total Concentration

C Counting results report complete and detailed information

Multiple data formats available for export

Cell growth curve

► High accuracy & repeatability



► Consumables

- 6-channel disposable counting slide for C200FL cell counter
- One-piece cover plate, no cover glass required
 - Disposable consumables, no manual cleaning
 - Disposable design to avoid biological safety hazards
 - Separate and easy-to use packaging

Parameters	Description
Model	DS-66
Chamber volume	10μL/20μL
Number of chambers	6
Dimensions of slide	75mm*25mm*2.1mm
Dimensions of chamber(10uL)	16.85mm*6.05mm*0.1mm
Dimensions of chamber(20uL)	16.85mm*6.05mm*0.2mm
Package	50PCS/box



► Technical Parameters

Model	C200FL
Optical parameters	5×, 5.0 Megapixel
Fluorescence parameters	AO/GFP: Ex: 480/30nm, Em: 535/40nm PI/RFP: Ex: 525/30nm, Em: 590LP
Cell size range	1-200μm (Optimal: 5-30μm)
Cell concentration range	1×10 ⁴ - 3×10 ⁷ /mL
Counting area	1.72mm×1.3mm (Optional 1-3 zones)
Cell counting time	5s/sample (bright field)
Storage	500G
Dimensions	310mm(W)*262mm(D)*420mm(H)
Weight	~11KG
Languages	Chinese and English
Display	10.1-inch LCD touch screen
Consumables	6-channel counting slide, 10μL or 20μL/sample

Centrifuge

M1324R Refrigerated Microcentrifuge

RWD microcentrifuges M1324R and M1324 simplify centrifugation, which can work stably and quietly at the maximum speed of 15800rpm. Optional rotors for different needs (PCR tubes, 1.5/2 mL EP tubes, etc.). Small footprint and low noise, touch screen interaction, all your user-defined preset programs can be called by one click. The refrigerated microcentrifuge M1324R will still make sure the stable temperature centrifugation of samples at -10°C~40°C even at the highest speed. All the functions are designed according to your needs, which is the best choice for laboratory separation.



M1324R Microcentrifuge

► Product Characteristics

Efficient

- Quick precooling. From RT to 4 °C in only 8 minutes.
- The seamlessly fit for inner cavity winding technology enables high-efficient energy transfer.
- Adjustable 10 ACC/DEC ramps to satisfy different customers' needs.

Stable and Safe

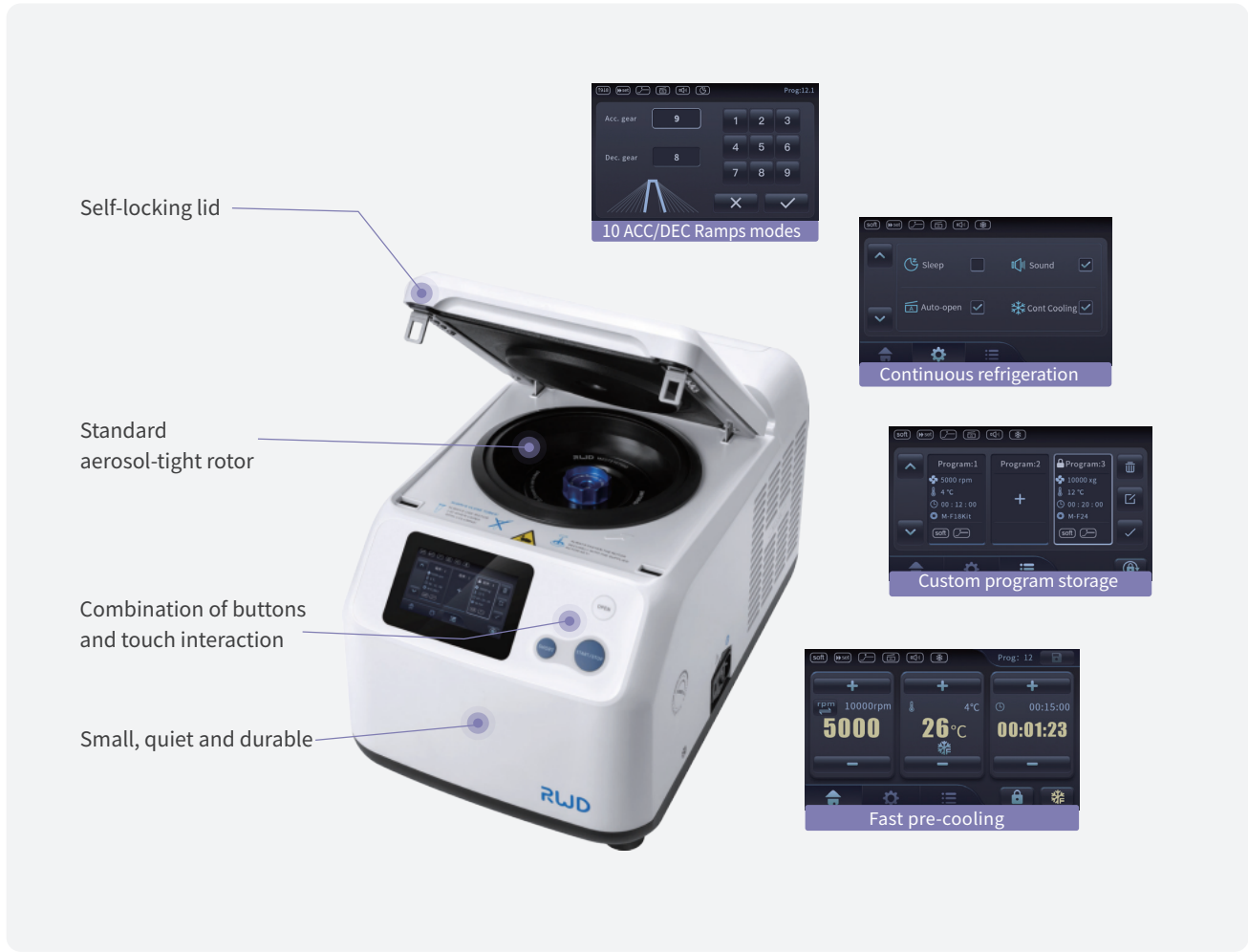
- High-density foaming technology benefits energy-saving and heat-preservation.
- Standard aerosol-tight rotor with aerospace-grade aluminum alloy withstands high temperature sterilization and avoids biohazards.
- Qualified ultrasonic non-destructive test, Schenck balancing test and extreme blasting test to protect personnel safety.
- Multiple Real-time rotor dynamic balancing monitoring system and alarm functions guarantee safe operation.

Simple

- Combination of touch screen and function keys provides quick and convenient setting and parameter use.
- 12 custom programs enable immediate centrifuge operation in multiple scenarios.
- Magnetic condensed water collection pan to eliminate inner water accumulation.
- Mechanical lock design for the centrifuge lid enables easy opening and closing.
- Quick-Lock rotor, closes with only a 1/8 turn.

Compact

- One-pipette-width compact design.
- Lid hinge design with suspending hovering optionally.



M1324 Ventilated Microcentrifuge



M1324 Microcentrifuge

Product Characteristics

Excellent and Efficient

- Unique heat dissipation material and duct design to enhance heat dissipation performance.
- Double cooling system to ensure stable centrifugation of samples at the highest speed.
- Running vibration amplitude ≤ 1um to maintain stable operation.

Stable and Safe

- Standard aerosol-tight rotor with aerospace-grade aluminum alloy withstands high temperature sterilization and avoids biohazards.
- Qualified ultrasonic non-destructive test, Schenck balancing test and extreme blasting test to protect personnel safety.
- Real-time rotor dynamic balancing monitoring system and multiple-imbalance alarm functions guarantee safe operation.

Intelligent and Quiet

- Dual noise control system with intelligent three-gear fan control, full load at maximum speed noise <50dB(A).
- Combination of touch screen and function keys provides quick and convenient setting and parameter use.
- Use EPP foam material to reduce noise pollution.

Simple and Practical

- Quick-lock rotor closes with only 1/6 turn for easy and secure sample handling.
- 10 acceleration and deceleration ramps meet the centrifugation needs of different samples.
- 48 custom programs enable immediate centrifuge operation in multiple scenarios.
- Automatic lid opening design, easy and quick to take samples.

Technical Parameters

Parameters	M1324R	M1324
Max. Speed	15800 rpm	
Max. RCF	23444 × g	
Max. Capacity	5mL × 10	
ACC/DEC Ramps	10/10	
Display	Touch screen	
Program	12	48
Temperature Control	-10°C to 40°C	/
Noise Level	<54dB (A)	<50dB(A)
Dimension (W*H*D)	304mm*304mm*517mm	262mm*286mm*385mm
Weight (with rotor)	35.5kg	~22.5kg

Order Information

Model	Product Description	Maximum Speed (rpm)	Maximum RCF(xg)
M1324	Ventilated Microcentrifuge(With M-F24QGrotor)	15,800	23,444
M1324R	Refrigerated Microcentrifuge (M-F24QGrotor)	15,800	23,444
M-F10QG	Aerosol-tight Lid , 10X5 mL tube quicklock rotor	15,800	23,444
M-F24QG	Aerosol-tight Lid , 24X1.5/2.0 mL tube quick- lock rotor	15,800	23,444
M-F24Q	24X1.5/2 mL tube quick-lock rotor	15,800	23,444
M-F24G	Aerosol-tight Lid, 24 X1.5/2 mL tuberotor	15,800	23,444
M-F24	24X1.5/2 mL tube rotor	15,800	23,444
M-F4PCR	4 X PCR tube rotor (32 × 0.2 ml)	15,800	20,653
M-F18Kit	18 X Spin column rotor	15,800	20,095

M1416/M1416R High-Speed Benchtop Centrifuge

RWD High-Speed Benchtop Centrifuge provides intelligent centrifugation, adapting various applications from micro to medium throughput with a speed up to 18,000 rpm (31,152 × g). Offer a broad selection of rotors and adaptors (swing-bucket rotors and fixed-angle rotors) to meet different customers' needs. The capacity of M1416R ranges from 24 x 2mL to 4 x 400mL, and the plate rotor also accommodates PCR and deep-well plates. In addition, equipped with a 7-inch touch screen, M1416R provides visual operation and a personalized account management system ensuring efficient and quality control.

Product Characteristics

- Abundant accessories

 - Multi-purpose device equips with various rotors and adaptors.
 - Self-locking rotors enable non-tools required installation and removal and exchange in 3 seconds.
 - Fixed-angle rotor equipped with the quick-lock lid, closes with only a 1/6 turn.
- Various guarantees

 - Multi-level alarm reminders for fast dealing.
 - Static rotor identification function for maximum operational safety.
 - Precision assembly motor with special bearings ensures the precision of speed ≤ ±1rpm, amplitude ≤ 0.01mm.
- Ergonomic operation

 - Scheduling reservations provide the pre-cooling function for organized experiments.
 - Acceleration and braking ramps setting achieves stable centrifugation.
 - Built-in simple introduction for quick operation.
- Multipurpose function

 - An intuitive touch screen shows key parameters clearly.
 - View the centrifuge health with one click.
 - Front USB port for easy and quick data transfer.
 - More than 100 pre-program setting storage with customized steps achieves continuous centrifugation.



Technical Parameters

Parameters		Description
Swing-out Rotor		
Maximum Capacity		M-S4-400-P, 4*400 mL
Maximum Speed		M-S4-180WS, 6,300 rpm
Maximum RCF		M-S4-180WS, 7,188 x g
Fixed-angle Rotor		
Maximum Capacity		M-F6-100CF, 6*100 mL
Maximum Speed		M-F24-2QG, 18,000 rpm
Maximum RCF		M-F24-2QG, 31,152 x g
Details		
Model	M1416R	M1416
Temperature range	-10°C to +40°C	Room temperature
Noise	56 dB(A)	63 dB(A)
Acceleration/Deceleration ramps	9 /10	9 /10
Program Storage	100 programs	100 programs
Dimension (W*D*H)	620*670*400 mm	447*693*410 mm
Weight without rotor	96.5 kg	64 kg

Order Information

Model	Product Description
M1416R	High-Speed Benchtop Refrigerated Centrifuge (Without Rotor)
M1416	High-Speed Benchtop Centrifuge (Without Rotor)

Rotor Information

Model	Product name (Description)	Maximum Speed (rpm)	Maximum RCF(xg)
M-S4-400-P	4*400mL Swing-out rotor	5000	4696
M-S4-400-CP	4*400mL Swing-out rotor (incl. 4*M-A4-50 and 4*M-A9-15 adaptors)	5000	4696
M-S2-DWP-P	2*3 Standard 96-well plate (2*1 DWP)	4000	2272
M-S2-400M	Multi-function rotor	7,200	4,297
M-F24-2QG	Aerosol-tight Lid , 24×2 mL tube quick- lock rotor	18,000	31,152
M-F30-2QG	Aerosol-tight Lid , 30×2 mL tube quick- lock rotor	15,200	25,830
M-F48-2QG	Aerosol-tight Lid , 48×2 mL tube quick- lock rotor	15,200	25,314
M-F18-5QG	Aerosol-tight Lid , 18×5 mL tube quick- lock rotor	15,000	24,652
M-F6-50QG	Aerosol-tight Lid , 6×50 mL tube quick- lock rotor	12,100	20,133
M-F30-15C	30×15 mL tube clinic rotor	5650	4997

*For more information about the rotor adapters, please contact RWD Sales.

High-Speed Refrigerated Centrifuge

Make Your Centrifugation Intelligent MX30R



Application Scenario

Delivering efficient, reliable, and user-friendly centrifugation solutions for scientific research and bioprocessing

- Biological Research & Pharmaceutical Development:**
From large-volume culture harvesting to high-speed, small-volume protein/antibody purification for complete R&D workflows
- Cell Biology, Molecular Biology & Proteomics:**
Precipitation and separation of proteins, exosomes, nucleic acids (DNA/RNA), and subcellular organelles; density gradient centrifugation.
- Virology & Nanotechnology:**
High-speed pelleting of viruses, viral particles, and nanoparticles using rotors reaching 31,000 rpm.
- Production Bioprocessing:**
Scale-up from research to production for harvest and clarification using large-capacity rotors.
- Diagnostics & Clinical Biochemistry:**
Clinical blood separation with rotors compatible with bloodcollection tube adapters.

Product Characteristics

Diverse Rotor Options

- Versatile Rotors:** Horizontal, fixed-angle, and continuous-flow rotors for diverse applications.
- Carbon Fiber Innovation:** Lightweight, fatigue-resistant, and durable. Achieves 17,000 × g with 6x1000mL loads.
- High-Strength Titanium:** Supports 8x50mL (100,000 × g) and 6x50mL (110,000× g) configurations.



Unmatched Safety

- Self-locking and auto-recognition rotors prevent risks from improper installation or misuse.
- A triple-layered, reinforced chamber protects against operational hazards.
- Fixed-angle rotors feature a leak-containment design to secure spilled samples and avoid cross-contamination.
- A optional HEPA filter ensures all exhaust air is purified of aerosols.

Intelligent Control System

- Features both routine centrifugation and ACE integral modes, with ACE technology ensuring consistent results across runs
- Includes a built-in rotor calculator for quick conversion of speed and time between different rotors
- Operates via a durable 7-inch touchscreen that supports gloved use, offering intuitive operation with high clarity in a fully button-free interface
- Supports GMP/GLP compliance with a built-in audit trail and seamless USB export of complete centrifugation data records

Effortless Convenience

- Tool-free, push-button rotor locking enables secure installation and changes within 3 seconds.
- Three door-opening options, including innovative hands-free foot-sensor operation.
- An adaptive vacuum system can engage either pre-centrifugation or after reaching set speed.
- Multi-layer sound insulation ensures quiet operation (<59 dBA) for a peaceful lab environment.



User Management

Account login with password and role-based access control

Parameter Configuration

Quick and intuitive setting of operational parameters

Rapid Pre-cooling

Fast pre-cooling function to enhance centrifugation efficiency

Rotor Identification

Automatic rotor recognition for reduced setup time

Run Status

Real-time display of operation status for clear monitoring

Program Setup

Intuitive interface for easy creation and execution of protocols

Program Management

Smart and simplified operation for diverse program management needs



► Technical Specifications

Model	MX30R High-Speed Refrigerated Centrifuge
Max. RCF (×g)	110,000×g (MX-F6-50Ti)
Max. Speed (rpm)	31,000 rpm
Max. Capacity	6×1000mL (MX-F6-1000CF)
Rotor Recognition	Instant automatic identification
Rotor Locking	Self-locking
Vacuum System	Intelligent vacuum extraction
Display	7-inch full-color touch screen, 800×480px resolution
Temperature Range	-20℃ to +40℃
Temperature Accuracy	±2℃
Acceleration/Deceleration	12 acceleration / 13 deceleration rate selections
Speed Control Accuracy	±25 rpm
Program Storage	1000 run programs
Noise Level	<59dB(A)
Dimensions (W×D×H)	950mm680mm670mm
Weight (without rotor)	300kg

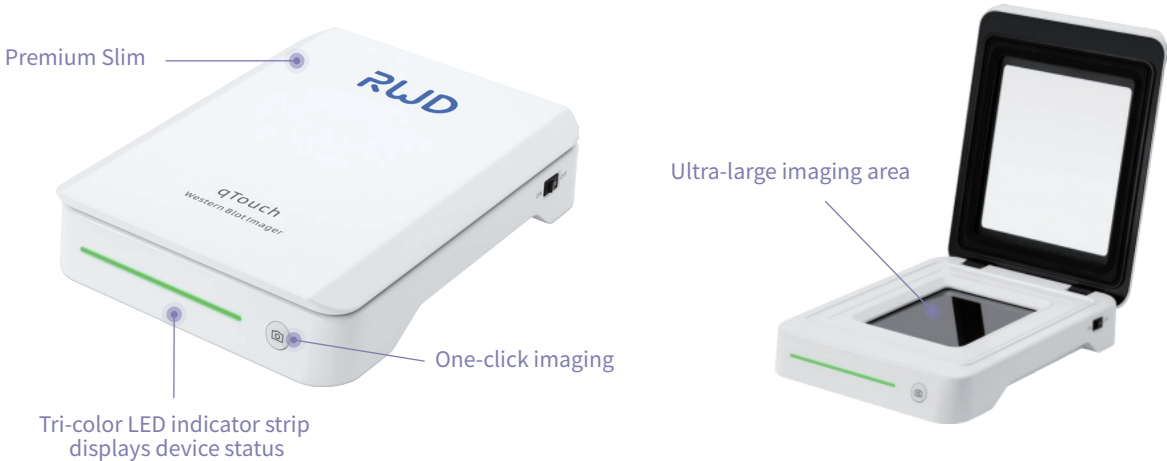
► Order Information

Name	Model	Capacity(mL)	Max Speed (rpm)
High-Speed Refrigerated Centrifuge	MX30R	6*1000	31,000
MX-S4-1000 Swing-out Rotor	MX-S4-1000-P	4*1000	5,500
MX-F6-1000CF Carbon Fiber Rotor	MX-F6-1000CF	6*1000	9,000
MX-F6-50Ti Titanium Alloy Rotor	MX-F6-50Ti	6*50	31,000
MX-F8-50Ti Titanium Alloy Rotor	MX-F8-50Ti	8*50	30,000
MX-F8-50 Aluminum Alloy Rotor	MX-F8-50	8*50	27,000
MX-F6-500CF Carbon Fiber Rotor	MX-F6-500CF	6*500	12,000
MX-F6-100CF Carbon Fiber Rotor	MX-F6-100CF	6*100	23,500
MX-F12-50CF Carbon Fiber Rotor	MX-F12-50CF	12*50	20,000
MX-F48-2CF Carbon Fiber Rotor	MX-F48-2CF	48*2	23,000
MX-CF20 Continuous Flow Rotor	MX-CF20	1350	20,000

qTouch Western Blot Imager

Not available in the U.S.

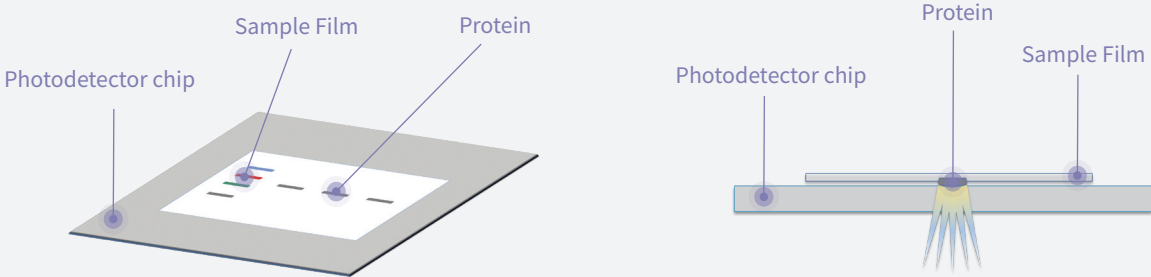
RWD qTouch Western Bolt Imager consists of a main unit and a computer, and is a contact imaging device with a large 145 cm² photoreceptive chip. It is capable of non-destructively collecting light signals from Western Blot, Southern Blot, and Northern Blot. The device has a wide quantitative linear range, capable of capturing both strong and weak signal samples, and the imaging speed is extremely fast, with most samples being imaged within 1 second. The software that comes with it is comprehensive, supporting automatic and manual exposure as well as gray level analysis of Western Blot bands, and is also capable of processing and exporting analysis results of up to 40 images. In addition, the device also has multi-user management functions, allowing users to set personalized file saving paths to ensure data security and convenience. Despite its powerful functions, the device is compact in size, occupies little space, and is easy to transport and carry.



► Product characteristics

High Sensitivity

- Imaging with direct contact between the photodetector chip and the sample membrane
- Reduces light signal loss by more than 99%, capturing extremely weak signals
- Improves sensitivity and quantitative range by two orders of magnitude
- Three sensitivity levels for adjustment to fit a wider range of samples
- Clear colored Marker imaging, easy molecular weight sizing



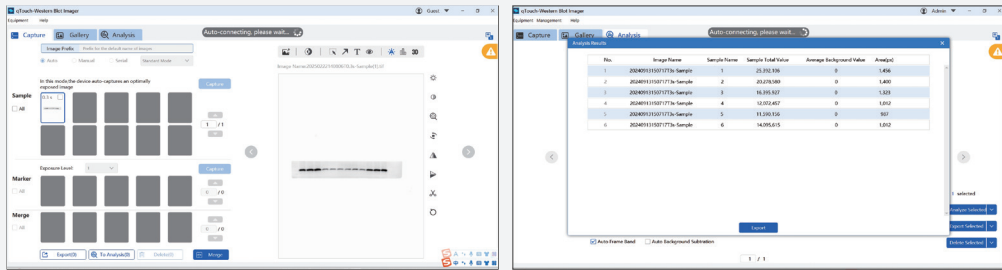
Rapid Imaging

- Versatile exposure modes, with a transmission speed greater than 1000Mbps for rapid image output.
- Most samples can achieve high-quality imaging within 1 second.
- Significantly reduces the time required for collecting low-abundance samples.
- Custom image algorithms ensure high-quality images.



Intelligent Operation

- The operation software is easy to use, feature-rich, and stable.
- The device has a cover closure darkroom detection feature to ensure image quality.
- It has built-in image processing and analysis capabilities, allowing for one-click band recognition.
- A multi-level account system manages the data, with separate data storage for each account.



Technical Parameters

Parameters	Description
Imaging Area Size	145cm²
Device Power	Powered by a DC12V adapter
Device Interface	USB3.0
Transfer Speed	Greater than 1000 Mbps
Sensitivity	At the pg level
Dimensions (W*D*H)	216*270*66 mm
Weight	<3.25kg
Host Compatibility	Windows10,64bit

Software Configuration	Description
Expose Mode	Automatic/Manual
Sensitivity Adjustment	Low Sensitivity/Standard/Ultra-High Definition in three levells
Imaging Algorithm	Self-developed image correction algorithm
Image Processing	Image cropping, rotation, inversion, contrast adjustmentt, etc.
Data Processing	High-precision intelligent band grayscale analysis
Image Output	Export in multiple resolutions: 300dpi, 600dpi, 1200dpi
Data Management	Multi-level account system automatically generates an irmware database
Other Features	3D image viewing, overexposure warning, etc.

Animal Surgical Instrument & Matrices

RWD surgical instruments cover surgical scissors, surgical forceps, orthopedic instruments, scalpels and blades, vascular forceps, needle forceps, with more than 1,000 kinds of models.

Surgery Instrument Kit

SP0001-G
General Surgery Instrument Kit for Rodents

Cat.No.	Product Description	Qty
S11001-08	VANNAS Spring Scissors (Triangular)-S/S Str/8*1.5mm/8cm	1
S11002-08	VANNAS Spring Scissors (Triangular)-S/S Cvd/8*1.5mm/8cm	1
S12011-11	IRIS-Fine Scissors-S/S Str/Head length 25mm/Width 5mm, 11.5cm	1
S12012-11	IRIS-Fine Scissors-S/S Cvd/Head length 25mm/Width 5.4mm, 11.5cm	1
S12007-10	IRIS-Fine Scissors-S/S Str/Head length 21mm/Width 4.2mm, 10.5cm	1
S12001-09	IRIS-Fine Scissors-S/S Cvd/Head length 24mm/Width 4.6mm, 9cm	1
F11001-11	Micro Forceps-Str, head length 30mm, Tip 0.2*0.12mm, 11cm	1
F11004-11	Micro Forceps-Cvd, head length 26.8mm, Tip 0.2*0.12mm, 11cm	1
F12010-10	Dressing Forceps-Str, Tip width 1.8mm, teeth length 15mm, 10.5cm	1
F12011-10	Dressing Forceps-Cvd, Tip width 1.9mm, teeth length 15mm, 10.5cm	1
F21001-12	HALSTED Artery Forceps-Str/23.5*1mm/12.5cm	2
F21002-12	HALSTED Artery Forceps-Cvd/24*1mm/12.5cm	2
F22002-10	HARTMAN Mosquito Forceps-Str/20*0.8mm/10.5cm	2
F22003-10	HARTMAN Mosquito Forceps-Cvd/20.8*1mm/10cm	2
F31047-12	OLSEN-HEGAR Needle Holders with Scissors-Str,8.5*1.5mm/12cm	1
S13029-14	MAYO-STILLE Dissecting & Operating Scissors-B/B Str/37*9mm/14cm	1
S15001-11	SPENCER Ligature Scissors (Slender Type)-27*6mm/11cm	1
S21010-15	BOHLER Rongeurs (Double)-Light Cvd/2*19mm/15cm	1
S22004-11	Bone Cutters with Flat Blades (SGL)-15*6.8mm/11cm	1
S14014-12	Operating Scissors (Round Type)-S/S Str/37.6*8.5mm/12.5cm	1
S31011-01	11# Scalpel Blades (Box of 100pcs)	1
S32003-12	Scalpel Handles with Ruler 3# Solid-12.5cm	1
S33009-06	Scalpel Blade Remover-6.5cm	1
F13019-12	ADSON 1x2 Teeth Tissue Forceps, Tip width 1.8mm, 12cm	1
R21027-12	STEVENS Hooks, 1 Angled Tooth , 5mm depth, 12.5cm	1
R21013-01	MANNERFELT Hooks, 1 Tooth, Blunt, 15.5cm	1
R22009-01	ALM 4x4 Teeth Retractors-Blunt, 65mm Spread, 7.5cm	1
R22005-45	3x3 Teeth Retractors-Blunt, 30mm Spread, 5cm	1
R51003-11	Dual-end Micro Spatula w/tip W. 2mm x Thk. 0.3mm - Cvd/11cm	1
F35204-70	NA Nylon Sutures w/Needle-△3/8/2.5×5/30cm/7-0 (50/Box)	0.2
F35401-50	NA Terylene Sutures w/Needle-○3/8/3×10/90cm/5-0 (50/Box)	0.2
R31006-06	SS Micro Clamps-Cvd/L*W 6.6*1mm/17mm	5
R31005-06	SS Micro Clamps-Str/L*W 6*1mm/19mm	5
R34001-14	Clip Applicator for R31005- and R31006-Clamps-8.4*5mm/14cm	1
SP0001-P	Instrument Storage Portfolio	1

SP0003-R
Microsurgery Instrument Kit for Rat, Cat, Rabbit etc.

Cat.No.	Product Description	Qty
S12007-10	IRIS-Fine Scissors-S/S Str/Head length 21mm/Width 4.2mm, 10.5cm	1
S12012-11	IRIS-Fine Scissors-S/S Cvd/Head length 25mm/Width 5.4mm, 11.5cm	1
F31047-12	OLSEN-HEGAR Needle Holders with Scissors-Str,8.5*1.5mm/12cm	1
F11001-11	Micro Forceps-Str, head length 30mm, Tip 0.2*0.12mm, 11cm	1
R31005-06	SS Micro Clamps-Str/L*W 6*1mm/19mm	5
R34001-14	Clip Applicator for R31005- and R31006-Clamps-8.4*5mm/14cm	1
S11001-08	VANNAS Spring Scissors (Triangular)-S/S Str/8*1.5mm/8cm	1
S11002-08	VANNAS Spring Scissors (Triangular)-S/S Cvd/8*1.5mm/8cm	1
F21001-12	HALSTED Artery Forceps-Str/23.5*1mm/12.5cm	1
F21002-12	HALSTED Artery Forceps-Cvd/24*1mm/12.5cm	1
F35401-50	NA Terylene Sutures w/Needle-○3/8/3×10/90cm/5-0 (50/Box)	0.2
S32003-12	Scalpel Handles with Ruler 3# Solid-12.5cm	1
S31011-01	11# Scalpel Blades (Box of 100pcs)	1
SP0001-P	Instrument Storage Portfolio	1

SP0003-M
Microsurgery Instrument Kit for Mice

Cat.No.	Product Description	Qty
S12007-10	IRIS-Fine Scissors-S/S Str/Head length 21mm/Width 4.2mm, 10.5cm	1
S12001-09	IRIS-Fine Scissors-S/S Cvd/Head length 24mm/Width 4.6mm, 9cm	1
F31047-12	OLSEN-HEGAR Needle Holders with Scissors-Str,8.5*1.5mm/12cm	1
F11001-11	Micro Forceps-Str, head length 30mm, Tip 0.2*0.12mm, 11cm	1
R31005-04	SS Micro Clamps-Str/L*W 4*0.75mm/16mm	5
R34001-14	Clip Applicator for R31005- and R31006-Clamps-8.4*5mm/14cm	1
S11001-08	VANNAS Spring Scissors (Triangular)-S/S Str/8*1.5mm/8cm	1
S11002-08	VANNAS Spring Scissors (Triangular)-S/S Cvd/8*1.5mm/8cm	1
F22002-10	HARTMAN Mosquito Forceps-Str/20*0.8mm/10.5cm	1
F22003-10	HARTMAN Mosquito Forceps-Cvd/20.8*1mm/10cm	1
F35401-50	NA Terylene Sutures w/Needle-○3/8/3×10/90cm/5-0 (50/Box)	0.2
S32003-12	11# Scalpel Blades (Box of 100pcs)	1
S31011-01	Scalpel Handles with Ruler 3# Solid-12.5cm	1
SP0001-P	Instrument Storage Portfolio	1

SP0005-R
Brain Microinjection Surgery Instrument Kit for Rat



Cat.No.	Product Description	Qty
S31011-01	Scalpel Handles with Ruler 3# Solid-12.5cm	1
S32003-12	11# Scalpel Blades (Box of 100pcs)	1
S12007-10	IRIS-Fine Scissors-S/S Str/Head length 21mm/Width 4.2mm, 10.5cm	1
S12008-10	IRIS-Fine Scissors-S/S Cvd/Head length 21mm/Width 4.6mm, 10.5cm	1
F12010-10	Dressing Forceps-Str, Tip width 1.8mm, teeth length 15mm, 10.5cm	2
F12011-10	Dressing Forceps-Cvd, Tip width 1.9mm, teeth length 15mm, 10.5cm	2
F21001-12	HALSTED Artery Forceps-Str/23.5*1mm/12.5cm	2
F21002-12	HALSTED Artery Forceps-Cvd/24*1mm/12.5cm	2
F31047-12	OLSEN-HEGAR Needle Holders with Scissors-Str,8.5*1.5mm/12cm	1
S14014-12	Operating Scissors (Round Type)-S/s Str/37.6*8.5mm/12.5cm	1
F35204-70	NA Nylon Sutures w/Needle-△3/8/7-0 (50/Box)	0.2
R22009-01	ALM 4x4 Teeth Retractors-Blunt, 65mm Spread,7.5cm	1
R51003-11	Dual-end Micro Spatula w/tip W.2mmxThk.0.3mm- Cvd/1lcm	1
SP0001-P	Instrument Storage Portfolio	1

SP0007-M
Univeral Dissecting Surgery Instrument Kit for Mice



Cat.No.	Product Description	Qty
S12005-10	IRIS-Fine Scissors (Round Type)-S/s Str/23*5mm/10.5cm	1
S12004-09	IRIS-Fine Scissors (Round Type)-S/s Cvd/24*4.6mm/9.5cm	1
S13003-11	STEVENS Fine Dissecting Scissors (Flat Type)-B/B Str/25*4mm/11.5cm	1
S13004-11	STEVENS Fine Dissecting Scissors (Flat Type)-B/B Cvd/28*5mm/11.5cm	1
S15001-09	SPENCER Ligature Scissors (SlenderType)-20.3*4mm/9cm	1
S32003-12	11# Scalpel Blades (Box of 100pcs)	1
S31015-01	15# Scalpel Blades (Box of 100pcs)	1
F12005-10	IRIS Dissecting Forceps-Str, Tip width 1mm, teeth length 14mm, 10cm	2
F12006-10	IRIS Dissecting Forceps-Light Cvd, Tip width 1mm, teeth length 13.5mm, 10cm	2
F22002-10	HARTMAN Mosquito Forceps-Str/20*0.8mm/10.5cm	2
F22003-10	HARTMAN Mosquito Forceps-Cvd/20.8*1mm/10cm	2
F13029-10	IRIS 1x2 Teeth Tissue Forceps-Str, Tip width 1.3mm, 10.5cm	1
F31047-12	OLSEN-HEGAR Needle Holders with Scissors-Str,8.5*1.5mm/12cm	1
F35401-50	NA Terylene Sutures w/Needle-○3/8/3x10/90cm/5-0 (50/Box)	0.2
R22005-45	3x3 Teeth Retractors-Blunt, 30mm Spread, 5cm	1
R31005-04	SS Micro Clamps-Str/L*W 4*0.75mm/16mm	5
R42002-12	Spinal Cord Hook -Tip Dia.3mm/12cm	1
R34001-14	Clip Applicator for R31005-and R31006-Clamps-8.4*5mm/14cm	1
SP0001-P	Instrument Storage Portfolio	1

SP0008-M Cardio-cerebral Perfusion Surgery Instrument Kit for Mice



Cat.No.	Product Description	Qty
S14014-10	OperatingScissors (Round Type)-S/s Str/32.7*8.45mm/10.5cm	1
S12012-11	IRIS-Fine Scissors-S/s Cvd/Head length 25mm/Width 5.4mm, 11.5cm	1
S11001-08	VANNAS Spring Scissors (Triangular)-S/s Str/8*1.5mm/8cm	1
F12007-10	IRIS Dissecting Forceps-Large Cvd, Tip width 0.9mm, teeth length 10mm, 10cm	1
F12010-09	Dressing Forceps-Str, Tip width 1.8mm, teeth length 13.5mm, 9.5cm	2
F22002-10	HARTMAN Mosquito Forceps-Str/20*0.8mm/10.5cm	2
F22003-10	HARTMAN Mosquito Forceps-Cvd/20.8*1mm/10cm	2
F35401-50	NATerylene Sutures w/Needle-○3/8/3x10/90cm/5-0 (50/Box)	0.2

SP0005-M
Brain Microinjection Surgery Instrument Kit for Mice



Cat.No.	Product Description	Qty
S31011-01	Scalpel Handles with Ruler 3# Solid-12.5cm	1
S32003-12	11# Scalpel Blades (Box of 100pcs)	1
S12007-10	IRIS-Fine Scissors-S/S Str/Head length 21mm/Width 4.2mm, 10.5cm	1
S12001-09	IRIS-Fine Scissors-S/S Cvd/Head length 24mm/Width 4.6mm, 9cm	1
S14014-10	OperatingScissors (Round Type)-S/s Str/32.7*8.45mm/10.5cm	1
F12005-10	IRIS Dissecting Forceps-Str, Tip width 1mm, teeth length 14mm, 10cm	2
F12006-10	IRIS Dissecting Forceps-Light Cvd, Tip width 1mm, teeth length 13.5mm, 10cm	2
F22002-10	HARTMAN Mosquito Forceps-Str/20*0.8mm/10.5cm	2
F31047-12	OLSEN-HEGAR Needle Holders with Scissors-Str,8.5*1.5mm/12cm	1
F35204-70	NA Nylon Sutures w/Needle-△3/8/7-0 (50/Box)	0.2
F22003-10	HARTMAN Mosquito Forceps-Cvd/20.8*1mm/10cm	2
R51003-11	Dual-end Micro Spatula w/tip W.2mmxThk.0.3mm-Cvd/11cm	1
SP0001-P	Instrument Storage Portfolio	1

SP0007-R
Univeral Dissecting Surgery Instrument Kit for Rat



Cat.No.	Product Description	Qty
S12005-10	IRIS-Fine Scissors (Round Type)-S/s Str/23*5mm/10.5cm	1
S12006-10	IRIS-Fine Scissors (Round Type)-S/s Cvd/22*4.5mm/10.5cm	1
S12010-11	IRIS-Fine Scissors (Round Type)-s/s Cvd/23.5*6mm/11.5cm	1
S13005-14	METZENBAUM Dissecting Scissors (Round Type)-B/B Str/40*6.3mm/14.5cm	1
S13006-14	METZENBAUM Dissecting Scissors (Round Type)-B/B Cvd/44*7.5mm/14.5cm	1
F21001-12	HALSTED Artery Forceps-Str/23.5*1mm/12.5cm	2
F21002-12	HALSTED Artery Forceps-Cvd/24*1mm/12.5cm	2
F12010-10	Dressing Forceps-Str, Tip width 1.8mm, teeth length 15mm, 10.5cm	2
F12011-10	Dressing Forceps-Cvd, Tip width 1.9mm, teeth length 15mm, 10.5cm	2
F13029-10	IRIS 1x2 Teeth Tissue Forceps-Str, Tip width 1.3mm, 10.5cm	1
F31047-12	OLSEN-HEGAR Needle Holders with Scissors-Str,8.5*1.5mm/12cm	0.2
S15001-11	SPENCER Ligature Scissors (Slender Type-27*6mm/11cm	1
S32003-12	11# Scalpel Blades (Box of 100pcs)	1
S31015-01	15# Scalpel Blades (Box of 100pcs)	1
F35401-50	NA Terylene Sutures w/Needle-○3/8/3x10/90cm/5-0 (50/Box)	1
R22009-01	ALM 4x4 Teeth Retractors-Blunt, 65mm Spread, 7.5cm	1
R31005-06	SS Micro Clamps-Str/L* w 6*1mm/19mm	5
R42002-12	Spinal Cord Hook -Tip Dia.3mm/12cm	1
R34001-14	Clip Applicatorfor R31005-and R31006-Clamps-8.4*5mm/14cm	1
SP0001-P	Instrument Storage Portfolio	1

SP0008-R
Cardio-cerebral Perfusion Surgery Instrument Kit for Rat



Cat.No.	Product Description	Qty
S14014-12	OperatingScissors (Round Type)-S/s Str/37.6*8.5mm/12.5cm	1
S12007-10	IRIS-Fine Scissors-S/S Str/Head length 21mm/Width 4.2mm, 10.5cm	1
S11002-08	VANNAs Spring Scissors (Triangular)-S/s Cvd/8*1.5mm/8cm	1
F12007-10	IRIS Dissecting Forceps-Large Cvd, Tip width 0.9mm, teeth length 10mm, 10cn	1
F12005-10	IRIS Dissecting Forceps-Str,Tip width 1mm, teeth length 14mm, 10cm	2
F21001-12	HALSTED Artery Forceps-Str/23.5*1mm/12.5cm	2
F21002-12	HALSTED Artery Forceps-Cvd/24*1mm/12.5cm	2
F35401-50	NA Terylene Sutures w/Needle-○3/8/3x10/90cm/5-0 (50/Box)	0.2
F35204-70	HARTMAN Mosquito Forceps-Str/20*0.8mm/10.5cm	0.2
R21013-01	Product Decription:MANNERFELT Hooks, 1 Tooth, Blunt, 15.5cm	1
R22005-45	3x3 Teeth Retractors-Blunt,30mm Spread, 5cm	1
F31047-12	OLSEN-HEGAR Needle Holders with Scissors-Str,8.5*1.5mm/12cm	1
R31005-06	SS Micro Clamps-Str/L* w6*1mm/19mm	5
R42002-12	Spinal Cord Hook -Tip Dia.3mm/12cm	1
R34001-14	Clip Applicator for R31005-and R31006-Clamps-8.4*5mm/14cm	1
SP0001-P	Instrument Storage Portfolio	1

SP0011-B MCAO
Surgical Instrument Kit for Rat & Mice



Cat.No.	Product Description	Qty
S32003-12	Scalpel Handles with Ruler 3# Solid-12.5cm	1
S31015-01	15# Scalpel Blades (Box of 100pcs)	1
S14014-15	Operating Scissors (Round Type)-S/s Str/48*10mm/15.5cm	1
S12007-10	IRIS-Fine Scissors-S/S Str/Head length 21mm/Width 4.2mm, 10.5cm	1
S12008-10	IRIS-Fine Scissors-S/S Cvd/Head length 21mm/Width 4.6mm, 10.5cm	1
F12005-10	IRIS Dissecting Forceps-Str, Tip width 1mm, teeth length 14mm, 10cm	1
F12006-10	IRIS Dissecting Forceps-Light Cvd, Tip width 1mm, teeth length 13.5mm, 10cm	1
F13029-10	IRIS 1x2 Teeth Tissue Forceps-Str, Tip width 1.3mm, 10.5cm	1
F13030-10	IRIS 1x2 Teeth Tissue Forceps-Light Cvd, Tip width 1.3mm, 10.5cm	1
R21013-01	MANNERFELT Hooks, 2 Teeth (7mm), Blunt, 15.5cm*	4
R31005-06	SS Micro Clamps-Str/L*W6*1mm/19mm	5
F11028-13	Micro Forceps-Cvd, head length 38mm,Tip 0.1*0.06mm, 13cm	1
F11027-13	Micro Forceps-Str, head length 37.5mm, Tip 0.1*0.06mm, 13cm	1
F11003-13	Micro Forceps-45°Angled, head length 30mm, Tip 0.15*0.1mm, 13cm	1
F11002-11	Micro Forceps-Str, head length 36.5mm,Tip 0.15*0.1mm, 1lcm	1
F22002-10	HARTMAN Mosquito Forceps-Str/20*0.8mm/10.5cm	1
F22003-10	HARTMAN Mosquito Forceps-Cvd/20.8*1mm/10cm	1
S11001-08	VANNAS Spring Scissors (Triangular)-S/s Str/8*1.5mm/8cm	1
F31047-14	OLSEN-HEGAR Needle Holders with Scissors-Str,8.5*1.5mm/12cm	1
F35204-70	NA Nylon Sutures w/Needle-△3/8/7-0 (50/Box)	0.2
SP0001-P	Instrument Storage Portfolio	1

SP0010-B Basic Surgical Instrument Kit for Rat & Mice

Cat.No.	Product Description	Qty
S11001-08	VANNAS Spring Scissors (Triangular)-S/s Str/8*1.5mm/8cm	1
S12012-11	IRIS-Fine Scissors-S/s Cvd/Head length 25mm/Width 5.4mm, 11.5cm	1
F12005-10	IRIS Dissecting Forceps-Str, Tip width 1mm, teeth length 14mm, 10cm	1
F12006-10	IRIS Dissecting Forceps-Light Cvd, Tip width 1mm,teeth length 13.5mm, 10cm	1
F11020-11	Micro Forceps-Str, head length 36mm, Tip 0.05*0.0lmm, 1lcm	1
F22002-10	HARTMAN Mosquito Forceps-Str/20*0.8mm/10.5cm	1

SP0009-R General Surgery Instrument Kit for Rat



Cat.No.	Product Description	Qty
F11020-11	Micro Forceps-Str, head length 36mm,Tip 0.05*0.0lmm, 1lcm	1
F11021-11	Micro Forceps-45°Angled, head length 30mm, Tip 0.1*0.06mm, 1lcm	1
S32003-12	Scalpel Handles with Ruler 3# Solid-12.5cm	1
S31011-01	11# Scalpel Blades (Box of 100pcs)	1
F35401-50	NATerylene Sutures w/Needle-○3/8/3x10/90cm/5-0 (50/Box)	0.2
F35204-70	NA Nylon Sutures w/Needle-A3/8/2.5x5/30cm/7-0 (50/Box)	0.2
F31047-12	OLSEN-HEGAR Needle Holders with Scissors-Str,8.5*1.5mm/12cm	1
S11001-08	VANNAs Spring Scissors (Triangular)-S/s Str/8*1.5mm/8cm	1
S11002-08	VANNAS Spring Scissors (Triangular)-S/s Cvd/8*1.5mm/8cm	1
R22009-01	ALM 4x4 Teeth Retractors-Blunt, 65mm Spread, 7.5cm	1
F12005-10	IRIS Dissecting Forceps-Str, Tip width 1mm, teeth length 14mm, 10cm	1
F12006-10	IRIS Dissecting Forceps-Light Cvd, Tip width 1mm, teeth length 13.5mm, 10cm	1
F12007-10	IRIS Dissecting Forceps-Large Cvd, Tip width 0.9mm, teeth length 10mm, 10cm	1
F13029-10	IRIS 1x2 Teeth Tissue Forceps-Str, Tip width 1.3mm, 10.5cm	1
S12009-11	IRIS-Fine Scissors (Round Type)-S/s Str/25*5.6mm/11.5cml	1
S12010-11	RIS-Fine Scissors (Round Type)-S/s Cvd/23.5*6mm/11.5cm	1
F21001-12	HALSTED Artery Forceps-Str/23.5*1mm/12.5cm	1
F21002-12	HALSTED Artery Forceps-Cvd/24*1mm/12.5cm	1
SP0001-P	Instrument Storage Portfolio	1

SP0009-M
General Surgery Instrument Kit for Mouse



Cat.No.	Product Description	Qty
F11020-11	Micro Forceps-Str, head length 36mm,Tip 0.05*0.0lmm, 1lcm	1
F11021-11	Micro Forceps-45°Angled, head length 30mm, Tip 0.1*0.06mm, 1lcm	1
S32003-12	Scalpel Handles with Ruler 3# Solid-12.5cm	1
S31011-01	11# Scalpel Blades (Box of 100pcs)	1
F35401-50	NATerylene Sutures w/Needle-Q3/8/3x10/90cm/5-0 (50/Box)	0.2
F31047-12	OLSEN-HEGAR Needle Holders with Scissors-Str,8.5*1.5mm/12cm	1
S11001-08	VANNAS Spring Scissors (Triangular)-S/s Str/8*1.5mm/8cm	1
S11002-08	VANNAs Spring Scissors (Triangular)-S/s Cvd/8*1.5mm/8cm	1
R22029-04	Colibri Eye Specula- 15mm spread, 4cm	1
F12005-10	IRIS Dissecting Forceps-Str, Tip width 1mm, teeth length 14mm, 10cm	1
F12006-10	IRIS Dissecting Forceps-Light Cvd, Tip width 1mm, teeth length 13.5mm, 10cm	1
F12007-10	IRIS Dissecting Forceps-Large Cvd, Tip width 0.9mm, teeth length 10mm, 10cm	1
F13029-10	IRIS 1x2 Teeth Tissue Forceps-Str, Tip width 1.3mm, 10.5cm	1
S12012-11	IRIS-Fine Scissors-S/s Cvd/Head length 25mm/Width 5.4mm, 11.5cm	1
S12007-10	IRIS-Fine Scissors-S/s Str/Head length 2lmm/Width 4.2mm, 10.5cm	1
F22002-10	HARTMAN Mosquito Forceps-Str/20*0.8mm/10.5cm	1
F22003-10	HARTMAN Mosquito Forceps-Cvd/20.8*1mm/10cm	1
SP0001-P	Instrument Storage Portfolio	1

► SP0010-L Lite Surgical Instrument Kit

Model	Products Description	Qty
S11001-08	VANNAS Spring Scissors (Triangular)-S/S Str/8*1.55mm/8cm	1
S12005-10	IRIS-Fine Scissors (Round Type)-S/S Str/23*5mm/10.5cm	1
F12005-10	IRIS Dissecting Forceps-Str, Tip width 1mm, teeth length 14mm, 10cm	1
F12006-10	IRIS Dissecting Forceps-Light Cvd, Tip width 1mm, teeth length 13.5mm, 10cm	1
F31047-12	OLSEN-HEGAR Needle Holders with Scissors-Str,8.5*1.5mm/12cm	1
C12006-02	Sterilization Trays-215*135*22mm	1



VANNAS Spring Scissors
Cat.No:S11001-08

- Triangular/Straight/8cm
- Sharp&Sharp
- Cutting Edge(Length):8mm
- Width:1.55mm



Cat.No:S11002-08

- Triangular/Curved/8cm
- Sharp&Sharp
- Cutting Edge(Length):8mm
- Width:1.5mm



Cat.No:S11003-08

- Triangular/Angled/8.5cm
- Sharp&Sharp
- Cutting Edge(Length):6.3mm
- Width:1.35mm



VANNAS Spring Scissors
Cat.No:S11035-08

- Triangular/Straight/8cm
- Sharp&Sharp
- Cutting Edge(Length):3.5mm
- Width:1.3mm



Cat.No:S11036-08

- Flat/Straight/8cm
- Sharp&Sharp
- Cutting Edge(Length):8.2mm
- Width:1.5mm



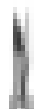
Cat.No:S11037-08

- Flat/Curved/8cm
- Sharp&Sharp
- Cutting Edge(Length):8mm
- Width:1.5mm



NOYES Spring Scissors
Cat.No:S11007-12

- Straight/12.5cm
- Sharp&Sharp
- Cutting Edge(Length):19mm
- Width:4.25mm



Cat.No:S11019-14

- Straight/14cm
- Sharp&Sharp
- Cutting Edge(Length):14.5mm
- Width:3.2mm



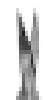
Cat.No:S11022-14

- Curved/14cm
- Sharp&Sharp
- Cutting Edge(Length):14.5mm
- Width:3.2mm



VANNAS Spring Scissors
Cat.No:S11014-12

- Straight/12.5cm
- Sharp&Sharp
- Cutting Edge(Length):5.5mm
- Width:1.9mm



Cat.No:S11008-12

- Curved/12cm
- Sharp&Sharp
- Cutting Edge(Length):14mm
- Width:4.5mm



IRIS-Fine Scissors
Cat.No:S12000-09

- Cutting Edge: 24mm;
- Width:4.2mm;
- Length:9cm



Cat.No:S12001-09

- Cutting Edge: 24mm;
- Width:4.6mm;
- Length:9cm



Cat.No:S12007-10

- Cutting Edge: 21mm;
- Width:4.2mm;
- Length:10.5cm



Cat.No:S12008-10

- Cutting Edge: 21mm;
- Width:4.6mm;
- Length:10.5cm



Cat.No:S12011-12

- Straight/12.5cm
- Sharp&Sharp
- Cutting Edge(Length):31mm
- Width:5.8mm



Cat.No:S12012-11

- Cutting Edge: 25mm;
- Width:5.4mm;
- Length:11.5cm



Cat.No:S12031-11

- Curved/11.5cm
- Sharp&Sharp
- Cutting Edge(Length):29mm
- Width:6mm



Delicate Scissors
Cat.No:S13001-10

- Straight/11.5cm
- Sharp&Sharp
- Cutting Edge(Length):25.5mm
- Width:6mm



Cat.No:S13020-11

- Straight/12cm
- Sharp&Sharp
- Cutting Edge(Length):20mm
- Width:5mm



Cat.No:S13002-10

- Curved/10cm
- Sharp&Sharp
- Cutting Edge(Length):26mm
- Width:5.5mm



Operating Scissors
Cat.No:S14001-10

- Straight/10.5cm
- Sharp&Blunt
- Cutting Edge(Length):33mm
- Width:7.5mm



Cat.No:S14001-13

- Straight/13cm
- Sharp&Blunt
- Cutting Edge(Length):40.5mm
- Width:9.4mm



Cat.No:S14001-15

- Straight/15.5cm
- Sharp&Blunt
- Cutting Edge(Length):50mm
- Width:10mm



Cat.No:S14016-11

- Curved/11.5cm
- Sharp&Blunt
- Cutting Edge(Length):35.4mm
- Width:7.5mm



Cat.No:S14014-12

- Straight/12.5cm
- Sharp&Sharp
- Cutting Edge(Length):37.6mm
- Width:8.6mm



Cat.No:S14014-13

- Straight/13cm
- Sharp&Sharp
- Cutting Edge(Length):45mm
- Width:9.8mm



Cat.No:S14014-15

- Straight/15.5cm
- Sharp&Sharp
- Cutting Edge(Length):48mm
- Width:10mm



Operating Scissors

Cat.No:S14014-10

- Straight/10.5cm
- Sharp&Sharp
- Cutting Edge(Length):32.7mm
- Width:8.45mm



Cat.No:S13004-11

- Curved/11.5cm
- Blunt&Blunt
- Cutting Edge(Length):28mm
- Width:5mm



Cat.No:S13029-14

- Straight/14cm
- Blunt&Blunt
- Cutting Edge(Length):37mm
- Width:9mm



Operating Scissors

Cat.No:S13030-14

- Curved/15cm
- Blunt&Blunt
- CuttingEdge(Length): 41mm
- Width: 9.5mm



Stitch Scissors

Cat.No:S15006-09

- Curved/9.5cm
- Sharp&Sharp
- Cutting Edge(Length):13.5mm
- Width:4mm



SPENCER Ligature Scissors

Cat.No:S15001-11

- Slender Type/11cm
- Cutting Edge(Length):27mm
- Width:6mm



Cat.No:S15001-09

- Slender Type/9cm
- Cutting Edge(Length):20.3mm
- Width:4mm



BEEBE Bone Cutters

Cat.No:S16001-10

- Straight/10.5cm
- Cutting Edge(Length):21mm
- Width:10mm



BEEBE Bone Cutters

Cat.No:S22005-12

- Flat Blades/12.5cm
- Cutting Edge(Length):15.2mm
- Width:7.4mm



Rongeurs

Cat.No:S21022-14

- Curved/14cm
- Cutting Edge(Length):0.5mm



Cat.No:S22004-11

- Flat Blades/11cm
- Cutting Edge(Length):15mm
- Width:6.8mm



Cat.No:S21002-15

- Curved/15cm
- Cutting Edge(Length):12.5mm
- Width:3.5mm



Cat.No:S21010-15

- Curved/15cm
- Cutting Edge(Length):19mm
- Width:2mm



Cat.No:S21023-14

- Curved/14cm
- Cutting Edge(Length):0.7mm
- Width:7mm



Cat.No:S21024-14

- Curved/14cm
- Cutting Edge(Length):1mm
- Width:6.5mm



Rongeurs

Cat.No:S21019-14

- Straight/14.5cm
- Cutting Edge(Length):0.5mm
- Width:7.5mm



Scalpel Blades(10#)

Cat.No:S31010-01

- Box of 100 pcs



Scalpel Blades(11#)

Cat.No:S31011-01

- Box of 100 pcs



Scalpel Blades(12#)

Cat.No:S31012-01

- Box of 100 pcs



Scalpel Blades(15#)

Cat.No:S31015-01

- Box of 100 pcs



Scalpel

Cat.No:S33006-13

- Straight/13cm
- Cutting Edge(Length):25mm
- Width:3mm



Scalpel Handles(3#)

Cat.No:S32003-12

- 12.5cm



Scalpel Handles(4#)

Cat.No:S32004-13

- 14cm



Micro Forceps

Cat.No:F11029-11

- Straight/11cm
- Tips:0.14X0.09mm



Micro Forceps

Cat.No:F11030-11

- 45° Angled/11cm
- Tips:0.1X0.06mm



Micro Forceps

Cat.No:F11031-11

- Curved/11cm
- Tips:0.07X0.03mm



Micro Forceps

Cat.No:F11001-11

- Straight/11cm
- Tips:0.2X0.12mm



Cat.No:F11002-11

- Straight/11cm
- Tips:0.15X0.1mm



Cat.No:F11020-11

- Straight/11cm
- Tips:0.05X0.01mm



ADSON Dressing Forceps

Cat.No:F12002-12

- Straight/12cm
- Tips width:0.6mm



Cat.No:F12003-12

- Straight/12cm
- Tips width:1.5mm



Cat.No:F12029-09

- Straight/9.5cm
- Tips width:0.8mm



Cat.No:F13030-10

- Curved/10.5cm
- 1X2 teeth
- Tips width:1.3mm



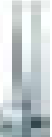
Cat.No:F12011-13

- Curved/13cm
- Width:1.2mm



Cat.No:F12019-10

- Straight/10.5cm
- Tips width:2mm



Cat.No:F18017-09

- Ring/9cm
- ID:2.2mm
- OD:3.2mm



Cat.No:F12006-10

- Curved/10cm
- Tips width:1mm



Cat.No:F12007-10

- Curved/10cm
- Tips width:0.9mm



Cat.No:F14012-10

- Curved/10cm
- Tips width:0.5mm



MCPHERSON Forceps

Cat.No:F18011-09

- Straight/9cm
- Tips :0.4X0.9mm
- 5mm Platform



Micro Forceps

Cat.No:F11003-11

- 45° Angled/11cm
- Tips:0.3X0.15mm

Cat.No:F11003-13

- 45° Angled/13cm
- Tips:0.15X0.1mm



Cat.No:F11021-11

- 45° Angled/11cm
- Tips:0.1X0.06mm



Micro Forceps

Cat.No:F11022-11

- Curved/11.5cm
- Tips:0.1X0.06mm



Cat.No:F13004-11

- Curved/11.5cm
- Tips:0.3X0.15mm



Cat.No:F11004-11

- Curved/11cm
- Tips:0.2X0.12mm



Micro Forceps

Cat.No:F11027-13

- Straight/13cm
- Tips:0.1X0.06mm



Cat.No:F11028-13

- Curved/13cm
- Tips:0.1X0.06mm



Dissecting Forceps (Standard)

Cat.No:F12019-10

- Straight/10cm
- Width:2mm
- Price:\$10.90



Cat.No:F12010-13

- Straight/13cm
- Width:1.3mm



Cat.No:F12029-09

- Straight/9.5cm
- Width:0.8mm



Cat.No:F12011-10

- Curved/10.5cm
- Width:1.9mm



Dressing Forceps

Cat.No:F15007-15

- Curved/15cm
- Width:1.2mm



1X2 Teeth Tissue Forceps (Standard)

Cat.No:F13023-14

- Straight/14cm
- Width:1.8mm



Cat.No:F12010-10

- Straight/10.5cm
- Width:1.8mm



SEMKEN 1X2 Teeth Tissue Forceps

Cat.No:F13029-10

- Straight/19.5cm
- Tips width:1.3mm



Cat.No:F21002-12

- Curved/12.5cm
- Width:1mm

Artery Forceps

Cat.No:F21001-12

- Straight/12.5cm
- Width:1mm



Cat.No:F18001-10

- Curved/10.5cm
- Width:4.7mm

Cover Glass Forceps

Cat.No:F18015-10

- Straight/10.5cm
- Width:4mm



Artery Forceps

Cat.No:F21019-16

- Straight/16cm
- Width:1mm



Cat.No:F22003-10

- Curved/10cm
- Width:1mm



Cat.No:F21020-16

- Curved/16cm
- Width:1.5mm



Cat.No:F21011-14

- Straight/14.5cm
- Width:2mm



Cat.No:F22002-10

- Straight/10.5cm
- Width:0.8mm



Ear Punch

Cat.No:C22001-10

- Straight/10.5cm
- Punch Dia:1mm

Cat.No:C22002-10

- Straight/10.5cm
- Punch Dia:2mm



Clip Applicator

Cat.No:R34001-14

- Straight/14cm
- Tip:8.4×5mm



Cat.No:R31005-04

- Straight/16mm
- Cutting Edge (Length):4mm
- Wtdth:0.75mm



Cat.No:R31005-06

- Straight/19mm
- Cutting Edge (Length):6mm
- Wtdth:1mm



Cat.No:R31005-08

- Straight/18mm
- Cutting Edge (Length):8mm
- Wtdth:2mm



Cat.No:R31005-10

- Straight/20mm
- Cutting Edge (Length):10mm
- Wtdth:2mm



Cat.No:R31006-04

- Curved/17mm
- Cutting Edge (Length):6.3mm
- Wtdth:1mm



Cat.No:R33001-48

- Straight/48cm
- Cutting Edge (Length):14mm
- Width:4mm



Cat.No:R31010-26

- 45° Angled/26.5mm
- Cutting Edge (Length):15mm
- Wtdth:2.5mm



Cat.No:R33003-01

- Straight/58mm
- Cutting Edge (Length):17mm
- Wtdth:3.7mm



Cat.No:R33003-02

- Curved/58mm
- Cutting Edge (Length):18.5mm
- Wtdth:4mm



Cat.No:R31006-06

- Curved/17mm
- Cutting Edge (Length):6.6mm
- Wtdth:1mm



Needle Holders

Cat.No:F31047-14

- Straight/14cm
- Cutting Edge (Length):17.3mm
- Width:1.7mm



BARRAQUER
Needle Holders

Cat.No:F31031-15

- Straight/15.5 cm
- Width:2.5mm



Needle Holders

Cat.No:F31025-13

- Straight/13cm
- Cutting Edge (Length):17.5mm
- Width:1.75mm



Hooks

Cat.No:R21013-01

- 1 Tooth,Blunt
- 15.5cm



Spatula

Cat.No:R51003-11

- Curved/11cm
- Tips :2X0.3mm



Retractors

Cat.No:R22029-03

- 11mm Spread/3cm



Retractors

Cat.No:R22005-45

- 36mm Spread/5cm



Retractors

Cat.No:R22009-01

- 65mm Spread/7.5cm



Retractors

Cat.No:R22029-04

- 20mm Spread/4cm



Retractors

Cat.No:R22013-10

- 10mm Spread



Tying Forceps

Cat.No:FC11001R-11

- Straight(SS)/11cm
- Tips: 0.3X0.5mm
- Tying platform: 6mm



Tying Forceps

Cat.No:FC11002R-08

- Straight(SS)/8.5cm
- Tips: 0.3X0.5mm
- Tying platform: 6mm



Tying Forceps

Cat.No:FC11001T-11

- Straight(TA)/11cm
- Tips: 0.3X0.5mm
- Tying platform: 6mm



Tying Forceps

Cat.No:FC11002T-08

- Straight(TA)/8.5cm
- Tips: 0.3X0.5mm
- Tying platform: 6mm



Tissue Forceps

Cat.No:FC13002R-08

- Straight(SS)/8.5cm
- Tips: 0.3X0.5mm
- 1X2 teeth, 6mm tying platform



Tissue Forceps

Cat.No:FC13001T-11

- Straight(TA)/10.7cm
- Tips: 0.3X0.5mm
- 1X2 teeth, 6mm tying platform



Tissue Forceps

Cat.No:FC13001R-11

- Straight(SS)/10.7cm
- Tips: 0.3X0.5mm
- 1X2 teeth, 6mm tying platform



Tissue Forceps

Cat.No:FC13002T-08

- Straight(TA)/8.5cm
- Tips: 0.3X0.5mm
- 1X2 teeth, 6mm tying platform



Corneal Forceps

Cat.No:FC12001T-11

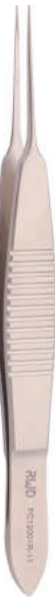
- Straight(TA)/10.7cm
- Tips width: 0.3mm
- 6mm tying platform with ϕ 0.2 hole



Corneal Forceps

Cat.No:FC12002R-08

- Curved(SS)/8.5cm
- Tips width: 0.3mm
- 6mm tying platform



Corneal Forceps

Cat.No:FC12001R-11

- Straight(SS)/10.7cm
- Tips width: 0.3mm
- 6mm tying platform with ϕ 0.2 hole



Corneal Forceps

Cat.No:FC12002T-08

- Curved(TA)/8.5cm
- Tips width: 0.3mm
- 6mm tying platform



Capsulorhexis Forceps

Cat.No:FC14001R-11

- Curved(SS)/11cm
- Tips: 0.6X0.6mm
- Triangular platform with mesh grooves



Capsulorhexis Forceps

Cat.No:FC14001T-11

- Curved(TA)/11cm
- Tips: 0.6X0.6mm
- Triangular platform with mesh grooves



Cataract Scissors

Cat.No:SC12001R-13

- Straight(SS)/13cm
- Tips: 19X1mm



Cataract Scissors

Cat.No:SC12002R-13

- Curved(SS)/13cm
- Tips: 19X1mm



Cat.No:SC11001R-12

- Curved(SS)/12cm
- Sharp&Sharp
- Cutting Edge(Length):15mm
- Width:3mm

Corneal/Conjunctival Scissors

Cat.No:SC11002R-11

- Curved(SS)/11cm
- Sharp&Sharp
- Cutting Edge(Length):11mm
- Width:3mm



Cat.No:SC11001T-12

- Curved(TA)/12cm
- Sharp&Sharp
- Cutting Edge(Length):15mm
- Width:3mm



Cat.No:SC11002T-11

- Curved(TA)/11cm
- Sharp&Sharp
- Cutting Edge(Length):11mm
- Width:3mm



Ear Tag applicator

Cat.No:C23001-14

- Straight/14.5cm
- Punch Dia:2.55mm
- Width:3mm



Ear Tag

Cat.No:23001-5

- Black number A1-A500

Glass Bead Sterilizer

The sterilizer provides a safe, convenient and affective metheodfor sterilizing your surgical instruments before and during surgery, en suring the tools free of pathogens and microbial contaminants. Thle highest temperature can reach 300 °C. The surgicalinstrument could sterilized completed Within 5 seconds.

Order Information

Model	Products Description	Price
RS3001	300g Glass Bead Sterilizer-4x14cm(110V)	\$514.00
RS3002	300g Glass Bead Sterilizer-4x14cm(220V)	\$514.00
RS1500	Glass Beads for Sterilizer, 1500g	\$40.00

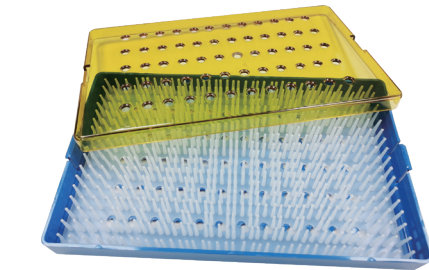


Sterilization Trays

Sterilization Trays

Cat.No.:C12006-01

- Plastic
- Width:270x160x22mm



Sterilization Trays

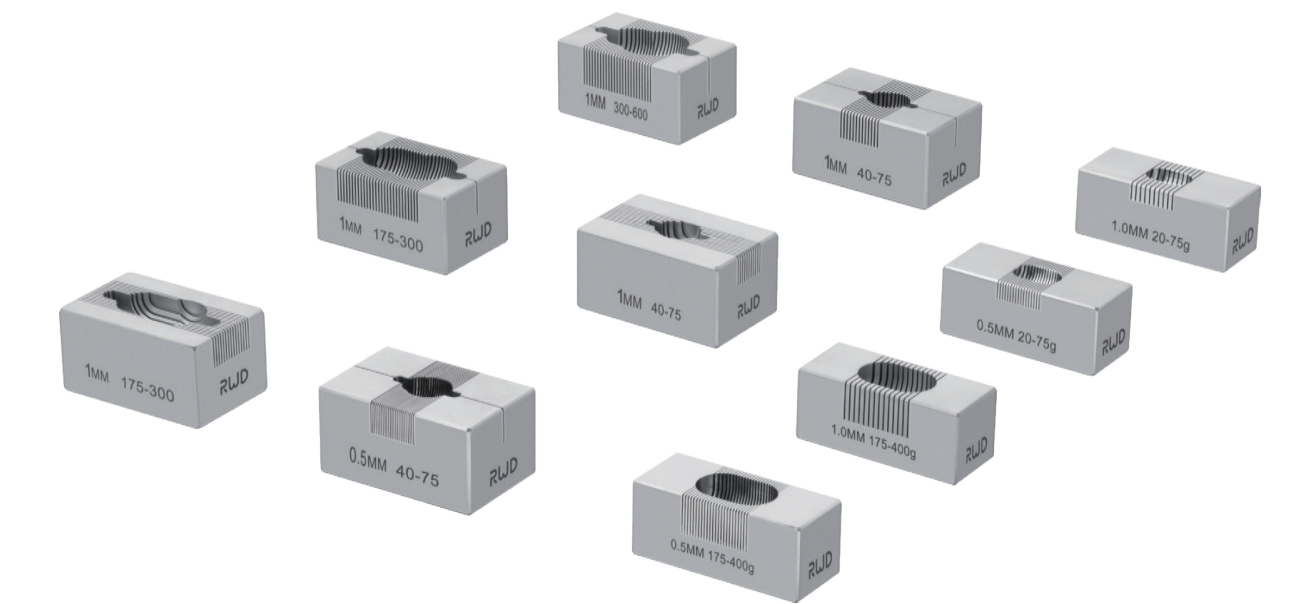
Cat.No.:C12006-02

- Plastic
- Width:215x135x22mm

Brain & Heart Matrices

RWD Brain and Heart matrices is made of stainless steel, electroless plating, through precision machining and highly polished, strong durability, which can be heated, chilled, autoclaved scrubbed and use in variety of harsh conditions. The surface will not be damaged by thermal pressure, and will not be damaged by mechanical impact, keeping the product in use for a long time.

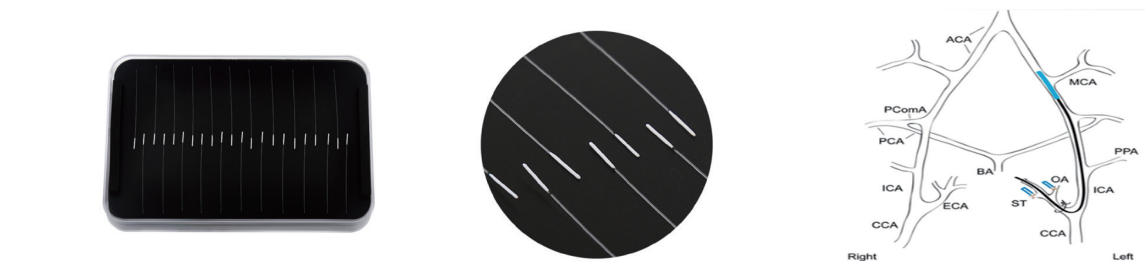
Brain matrices have coronal sections and sagittal sections, each section can be as 0.5 mm or 1 mm. Widely use in preparing pathological tissue section and cut out TTC dyeing organization.



Model	Products Description	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Depth (mm)	Diagram
68707	Brain Matrix, Mouse 20-75g, Coronal, 1mm, Stainless steel	3.18	11.1	8.73	19.1	12.5	7.40	
68708	Brain Matrix, Mouse 20-75g, Sagittal, 1mm, Stainless steel	3.18	11.1	8.73	19.1	12.5	7.40	
68709	Brain Matrix, Rat, 75-300g, Coronal, 1mm, Stainless steel	4.76	17.9	14.7	36.6	27.35	8.94	
68710	Brain Matrix, Rat, 75-300g, Sagittal, 1mm, Stainless steel	4.76	17.9	14.7	36.6	27.35	8.94	
68711	Brain Matrix, Rat, 300-600g, Coronal, 1mm, Stainless steel	4.76	19.8	14.7	36.6	25.7	10.91	
68713	Brain Matrix, Mouse, 20-75g, Coronal,0.5mm, Stainless steel	3.18	11.1	8.73	19.1	12.5	7.40	
68719	Heart Matrix, Mouse 20-75g, Coronal, 1mm, Stainless steel	8.3	12.7				4.8	
68720	Heart Matrix, Rat 175-400g, Coronal, 1mm, Stainless steel	12.7	19.9				9.6	
68721	Heart Matrix, Mouse 20-75g, Coronal, 0.5mm, Stainless steel	8.3	12.7				4.8	
68722	Heart Matrix, Rat 175-400g, Coronal, 0.5mm, Stainless steel	12.7	19.9				9.6	

MCAO Sutures

RWD MCAO suture utilizes high-quality nylon thread to induce ischemic stroke. The within-group variation of stroke models can be reduced by the super smooth surface and evenness of RWD suture. Without rupturing the vessel, RWD suture makes its insertion into the animal brain much easier. The stability is also increased by the cerebral ischemia modeling. Diameters of silicone-rubber coated part range from 0.19mm to 0.44mm; Length of suture from 2-3cm.



► Features

- It adopts high-quality nylon thread with very good flexibility, not easy to puncture blood vessels, which increase the success of stroke model development
- Ensure high uniformity and stability of the MCAO model.
- Silicone-rubber coated in tip, greatly reduces the risk of puncturing blood vessels
- The line is marked with black dots, increased the observability during plugging into the blood vessel.
- The new manufacturing process makes sutures lighter and easier to use. The success rate of model making is higher and it is more suitable for long-term experiment
- L1 in mouse suture: 3~4mm
- L1 in rat suture: 5~6mm

► Order Information

Model	Diameter of Head end (mm)	Silicone head length (mm)	Diameter of suture body (mm)	Total Length (mm)	Animal's weight(g)	Packing (pcs)
MSMC19B007PK50	0.17~0.19	3~4	0.07	30	15~20g	50
MSMC19B008PK50	0.17~0.19	3~4	0.08	30	15~20g	50
MSMC19B100PK50	0.17~0.19	3~4	0.1	30	15~20g	50
MSMC21B007PK50	0.20~0.21	3~4	0.07	30	21~25g	50
MSMC21B008PK50	0.20~0.21	3~4	0.08	30	21~25g	50
MSMC21B100PK50	0.20~0.21	3~4	0.1	30	21~25g	50
MSMC21B120PK50	0.20~0.21	3~4	0.12	30	21~25g	50
MSMC23B007PK50	0.22~0.23	3~4	0.07	30	26~30g	50
MSMC23B008PK50	0.22~0.23	3~4	0.08	30	26~30g	50
MSMC23B100PK50	0.22~0.23	3~4	0.1	30	26~30g	50
MSMC23B120PK50	0.22~0.23	3~4	0.12	30	26~30g	50
MSMC25B120PK50	0.24~0.25	3~4	0.12	30	31~35g	50
MSMC25B150PK50	0.24~0.25	3~4	0.15	30	31~35g	50
MSMC26B150PK50	0.25~0.26	3~4	0.15	30	>35g	50
MSRC32B200PK50	0.31~0.32	5~6	0.2	50	<200g	50
MSRC35B200PK50	0.33~0.35	5~6	0.2	50	200~250g	50
MSRC37B200PK50	0.36~0.37	5~6	0.2	50	251~280g	50
MSRC40B200PK50	0.38~0.40	5~6	0.2	50	281~330g	50
MSRC42B200PK50	0.41~0.42	5~6	0.2	50	331~400g	50
MSRC45B200PK50	0.43~0.45	5~6	0.2	50	>400g	50

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