

Your Partner in Cell Manipulation for ART

Intuitive. Precise. Reliable.



TransferMan® 4m, CellTram® 4m Oil, CellTram® 4m Air

The TransferMan[®] micromanipulators and their CellTram[®] injectors have been your partner in IVF for thirty years now. The system has always remained true to our principles of precision, quality and reliability.

With the ongoing development of our products, we continue to set new standards to simplify your work.

Micromanipulation Expertise

The Calibre Scientific TransferMan[®] 4m micromanipulator is characterised by outstanding technical performance and an overall ergonomic concept.

The exceptional precision and smoothness of movements in all directions makes the TransferMan[®] 4m the ideal working platform for use in ICSI and all other ART-related procedures.



Features/advantages TransferMan 4m

- Maximum stability ensures vibration-free work
- One joystick for precise movement control in 4 axes: X, Y, Z and X/Z (axial)
- Ergonomically shaped control unit for relaxed hand resting and therefore, fatigue-free working
- Various easy-to-use smart functions for a smooth workflow under the microscope, such as:
 - *Home* function, for quick capillary change
 - *Z-axis limit* to prevent capillary breakage
 - Position storage for quick changes between working and parking position of capillary



Swivel out function for easy capillary exchange.

No need to remove the capillary holder from the manipulator for this purpose.

Calibre Scientific TransferMan® 4m

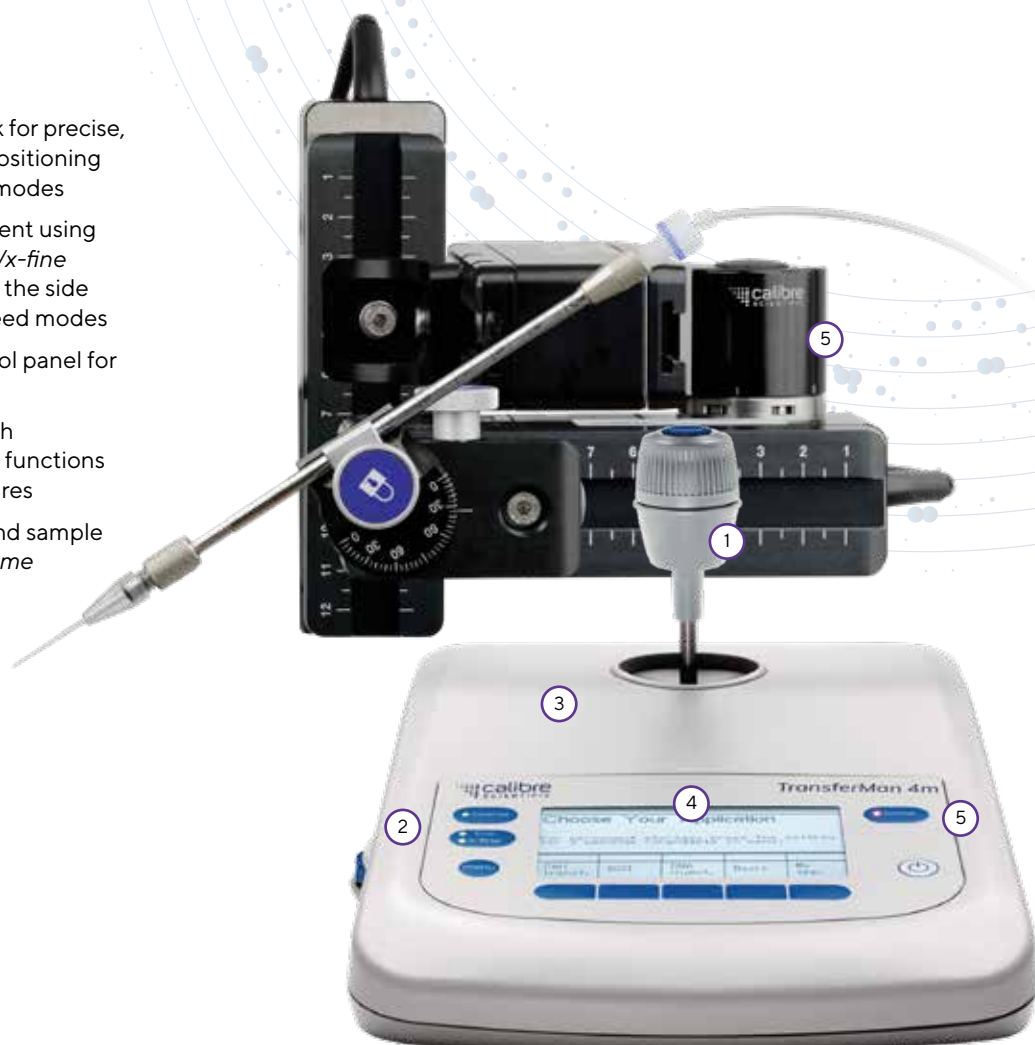
The user-friendly TransferMan® 4m micromanipulator combines an ergonomic and innovative operation concept making it ideal for manipulation of sensitive cells such as oocytes and blastocysts.

A customizable user interface simplifies the ART workflow under the microscope thanks to the predefined "ICSI" application mask with smart functions such as the *Home* and *Z-axis limit* functions.

The position storage function allows to store and quickly change the capillary position between the working position in the sperm droplet and parking position above the sperm drop of your ICSI dish.

The unique DualSpeed™ joystick combines precise and intuitive, direct movement with dynamic movement control for covering longer distances or speeding up sample processing.

1. Unique DualSpeed™ joystick for precise, instantaneous control and positioning using three different speed modes
2. Comfortable speed adjustment using the softkeys *coarse* and *fine/x-fine* and individual fine tuning by the side dial for each of the three speed modes
3. Ergonomically shaped control panel for fatigue-free work
4. Optimized user interface with individually selectable smart functions simplifies your work procedures
5. Simple and quick capillary and sample change using automated *home* function and the swivel joint



Product specifications

Control board	CellTram® 4m Air
Dimensions (W x H x D)	205 x 288 x 152 mm
Weight	1.8 kg
Control operator	One joystick for movement control in X-/Y-/Z-direction
Working ranges/ Speed modes	Coarse, fine, x-fine
Speed Control	Proportional and dynamic kinetics
Module (X-, Y- and Z-motor)	TransferMan® 4m
Step size	< 20 nm
Speed	0-10,000 µm/s
Max. travelling distance	20 mm (in X-/Y-/Z-direction)
Capillary exchange	Forward rotation of X-motor (swivel out)
Sample replacement	Backward rotation of X-motor (swivel in)
Operating angle of angle head	0° - 90°



Teaming up for success

While compatible with all systems, the microinjectors CellTram® 4m Air/Oil develop their full potential when used in combination with TransferMan® 4m micromanipulators. In addition to the high-precision pressure control for picking up and dispensing cells, special emphasis was placed on optimum ergonomics, ease of use and high reliability during development.

All this helps to simplify your work and protect your precious samples.

Features/advantages CellTram® 4m

- Coarse and fine drive for precise and intuitive sample control
- Hysteresis-less technology for direct responsiveness in the capillary
- Improved rotary knob design for a secure yet comfortable grip and easier cleaning

Product specifications	CellTram® 4m Air	CellTram® 4m Oil
Applications	> Gentle holding of oocytes or blastocysts > Aspiration and dispensing of small cells (e.g., sperm cells)	> Aspiration and dispensing of small cells (e.g., sperm cells) > Removal of cells (e.g., embryo biopsies)
Generation of pressure	Cylinder/piston system, air-filled	Cylinder/piston system, oil-filled
Minimum adjustable volume	<100 nL	<1.5 nL
Maximum pressure	3,000 hPa	20,000 hPa
Control modes	Coarse and fine	Coarse and fine
Capillary holder 4	Incl. grip head set 4 size 0, removal tool, cleaning stylet	Incl. grip head set 4 size 0, removal tool, cleaning stylet
Injection tube	Fluorinated ethylene propylene (FEP), 1.3 m length, inner diameter 0.5 mm, outer diameter 2.0 mm	Fluorinated ethylene propylene (FEP), 1.3 m length, inner diameter 1.0 mm, outer diameter 2.0 mm

Calibre Scientific CellTram® 4m Air/Oil

The CellTram® 4m Oil has long been known in the market for its high reliability and precise responsiveness when handling cells. Working with oil that is not compressible facilitates direct reaction and high-pressure build-up in the microcapillary, which is important for challenging applications such as embryo biopsies. The self-closing valve on the CellTram® 4m Oil eases oil filling.

The CellTram® 4m Air is a pneumatic microinjector optimized for safe and reliable use for gentle holding of oocytes or embryos and is also highly suitable for uptake and injection of sperm cells. For this application, its performance is comparable to that of oil-filled injectors.

Have you been looking for a solution to work entirely oil-free? With the CellTram® 4m Air you can avoid oil contaminations and save time by omitting the filling process.

CellTram® 4m Oil

1. Self-closing filling valve for spill-free oil filling

CellTram® 4m Air

2. Piston position scale for setting the air volume in the piston and thus the pressure response according to individual requirements
3. Single button aeration to quickly equilibrate pressure differences between the cylinder and ambient pressure

CellTram® 4m (both models)

4. Coarse and fine drive for precise and intuitive sample control
5. Capillary holder 4 with markings for easier re-positioning in the clamp of the micromanipulator



The CellTram® 4m features an improved rotary knob design for better grip and easier cleaning.

Antivibration Pads

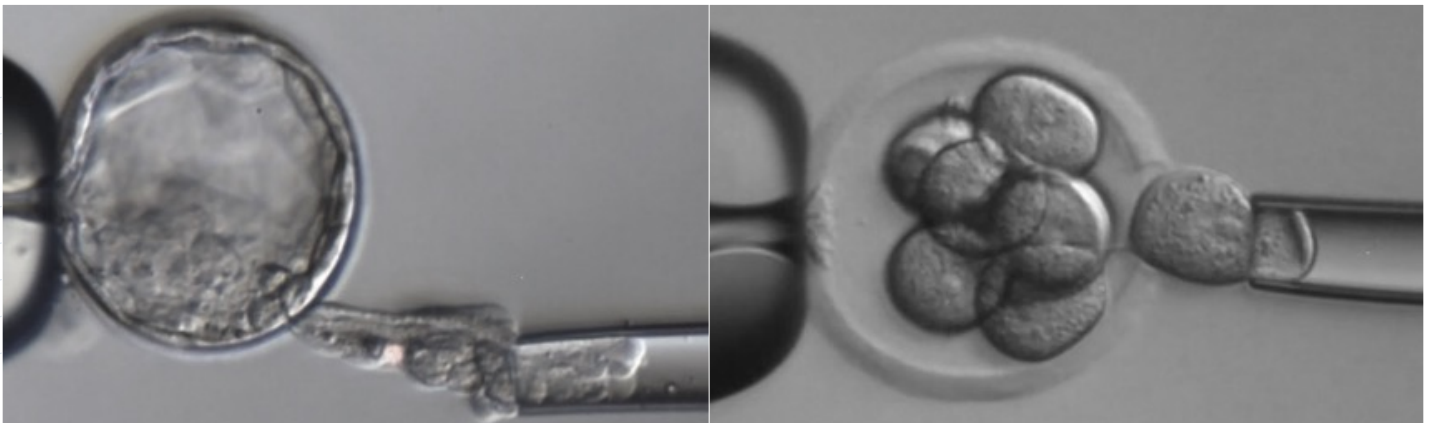
To protect your workstation from external oscillations and vibrations, place AV pads under the microscope feet.

Features/advantages AV Pads

- Easy to install as a stand-alone solution or as an addition to your antivibration table
- No gas supply necessary
- No maintenance required
- Low weight (750 g) and portable
- Space-saving

Five models available for different weight requirements. For optimum performance, the weight under each microscope foot should be measured.

Model	Weight range
XS	4.5 – 6.0 kg
S	6.0 – 8.0 kg
M	8.0 – 10.0 kg
L	10.0 – 12.5 kg
XL	12.5 – 16.5 kg



Sophisticated applications such as embryo biopsies



Ordering information

Description	EU, EEA Order no.	UK Order no.	US Order no.	AUS Order No.
TransferMan® 4m*, micromanipulator with DualSpeed™ joystick for direct and dynamic movement control	EPE-5191000015	EPE-5191000031	EPE-5191000050	EPE-5191000040
CellTram® 4m Air*, pneumatic, manual microinjector with gear, with capillary holder 4 and injection tube Air (I.D. 0.5 mm, white ring mark)	EPE-5196000021	EPE-5196000021	EPE-5196000021	EPE-5196000056
CellTram® 4m Oil*, hydraulic, manual microinjector with gear, with capillary holder 4 and injection tube Oil (I.D. 1.0 mm, blue ring mark) and Filling and Cleaning Set	EPE-5196000048	EPE-5196000048	EPE-5196000048	EPE-5196000064

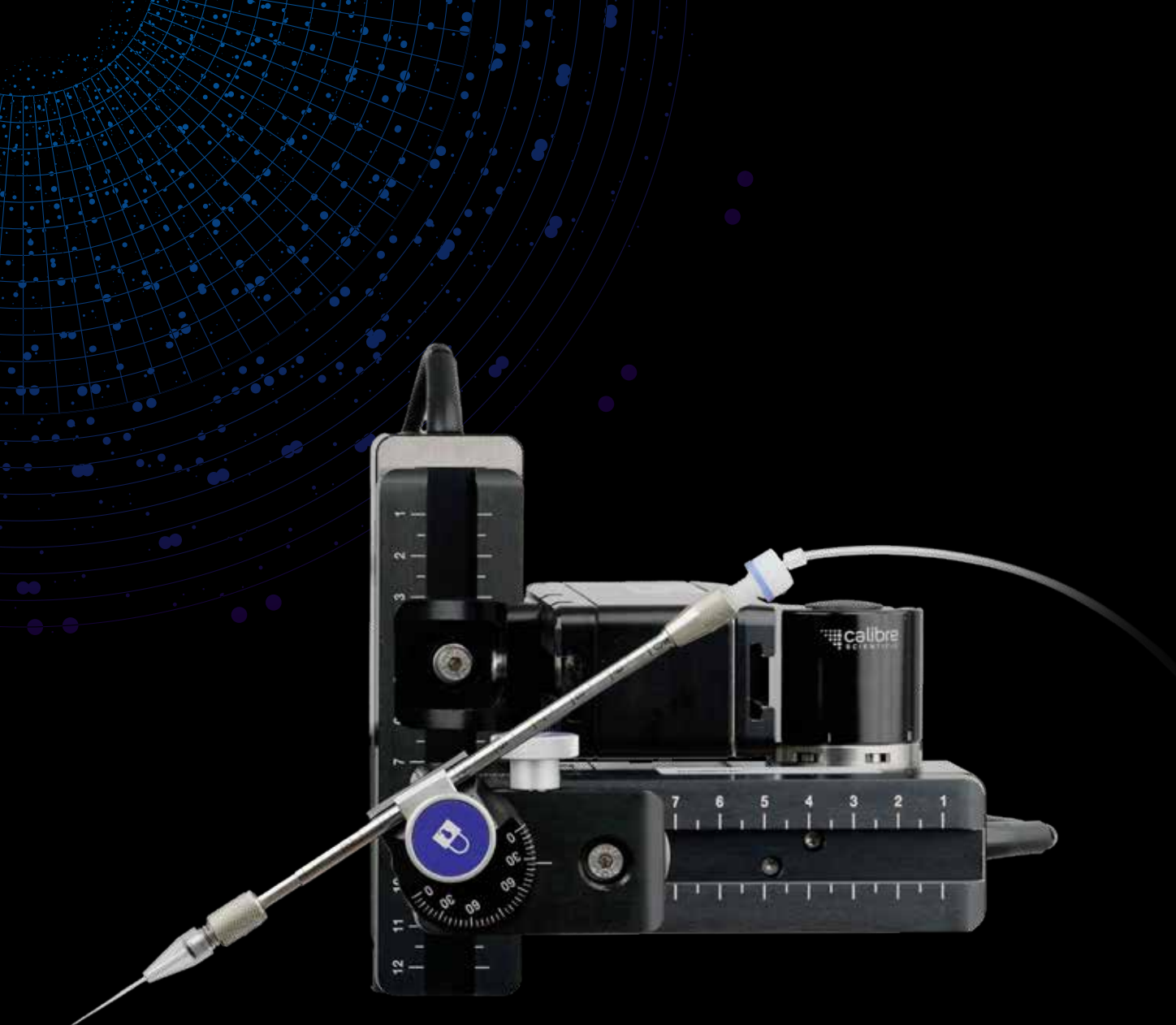
* The TransferMan® 4m and CellTram® 4m Air/Oil are certified as medical devices in Europe (EEA), USA and certain Asia-Pacific countries, depending on local regulatory requirements. Therefore these devices are suitable for use in IVF laboratories.

The TransferMan® 4m is compatible to microscopes from all major microscope brands.

Microscope adapter for TransferMan® 4m	International Order No.
Leica® 1, for Leica® DMI3000 B, 3000 M, 4000 B, 5000 B, 5000 M, 6000 B, DM IRB E, HC, DMi8 and DM IRE 2 microscopes	EPE-5192301000
Leica® 2, for Leica® DM IL LED and HC microscopes	EPE-5192302007
Nikon® 1, for Nikon Eclipse® Diaphot 200, 300 and Eclipse® Ti-E, Ti-U, Ti-S, TE200, TE300, TE2000 microscopes	EPE-5192316008
Nikon® 2, for Nikon® Eclipse® Ts2R microscope	EPE-5192317004
Nikon® 3, for Nikon® Eclipse® Ti2-I/-A/-U microscopes	EPE-5192318000
Olympus® 1, for Olympus® IX50, IX51, IX70, IX71, IX80, and IX81 microscopes	EPE-5192306002
Olympus® 2, for Olympus® IX53, IX73, IX83 microscopes	EPE-5192307009
Zeiss® 1, for Zeiss® Axiovert® 200, Axio Observer A1, D1, Z1 and Axio Observer 3, 5, 7 microscopes	EPE-5192311006
Zeiss® 2, for Zeiss® Axio Vert.A1 microscope	EPE-5192312002
Zeiss® 3, for Zeiss® Axiovert 5 microscope	EPE-5192313000

Accessories for CellTram® 4m Air and CellTram® 4m Oil	International Order No.
CellTram Capillary holder 4, for mounting microcapillaries, incl. 1 Grip head 4 size 0	EPE-5196081006
Grip head set 4 size 0, for capillary outer diameters from 1.0 to 1.1	EPE-5196082001
Capillary holder 4 (slim shape), for flat angle injections, for microcapillaries with outer diameter 1.0 mm	EPE-5196062000
O-ring set 4, incl 10 o-rings large, 10 o-rings small, 2 distance sleeves, o-ring removal tool	EPE-5196086007
Injection tube Air, for CellTram 4 Air, I.D. 0.5 mm, length 1,3 m	EPE-5196061004
Injection tube Oil, for CellTram 4 Oil, I.D. 1.0 mm, length 1,3 m	EPE-5196089006

Antivibration Pads	International Order No.	US Order No.
Antivibration Pad XS, weight range 4.5–6.0 kg	EPE-5181301009	EPE-920007945
Antivibration Pad S, weight range 6.0–8.0 kg	EPE-5181303001	EPE-920007953
Antivibration Pad M, weight range 8.0–10.0 kg	EPE-5181305004	EPE-920007961
Antivibration Pad L, weight range 10.0–12.5 kg	EPE-5181307007	EPE-920007970
Antivibration Pad XL, weight range 12.5–16.5 kg	EPE-5181309000	EPE-920007988



Your local distributor: cmi.calibrescientific.com/contact

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