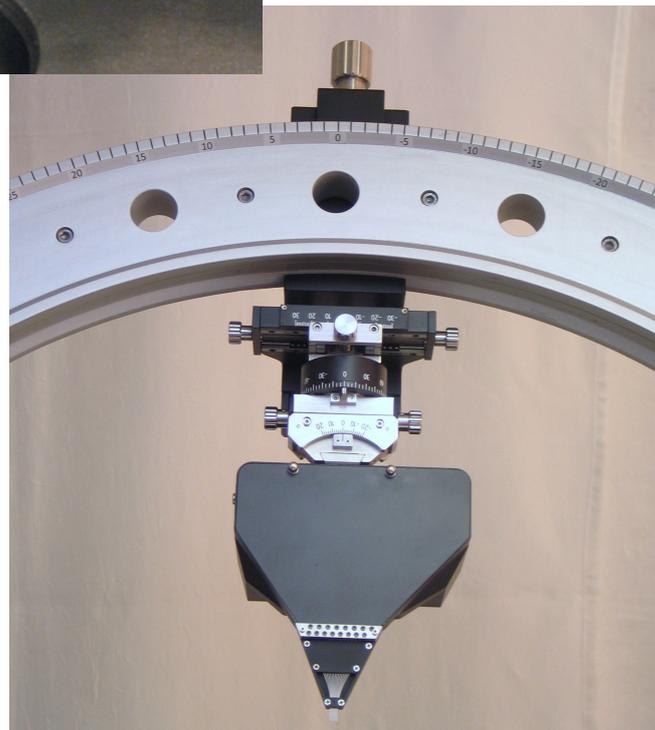




Thomas RECORDING GmbH

- The Microelectrode Company -

Microdrive Accessory Catalog



Microdrive Accessory Catalog

1.0 Microelectrode Impedance Test Device

The microelectrode impedance test device is designed to measure the electrode impedance before the electrodes are loaded to the microdrive system. This ensures that the electrodes have the correct impedance value before starting with the recording experiment.



Fig. 1: Electrode Impedance Test device (EIT-201)



Fig. 2: Labstand for EIT-201

Article number: **EIT-201**

Price: **On request**

2.0 Laboratory Stand for Microdrives



Fig. 3: Labstand for Microdrive

A very stable laboratory stand for Thomas Microdrive Systems is now available. This stand was developed for use with mini matrix systems but can be used also with Eckhorn and Micro Matrix Systems. The stand is very helpful especially if the microdrive has to be stored over night between recording sessions with loaded electrodes dipped into distilled water.

Article number: **LabStand**

Price: **On request**

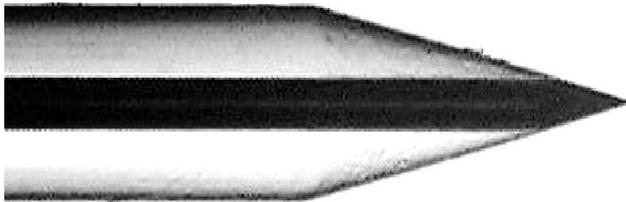
Microdrive Accessory Catalog

3.0 Iridium-Oxide coated Stimulation Microelectrodes

A thin film of iridium-oxide is used as low impedance tip coating for Thomas RECORDING stimulation & recording microelectrodes. The iridium-oxide provides a means of injecting charge into neural tissue while minimizing electrochemically irreversible processes at the microelectrode-tissue interface. The electrode impedance value at 1kHz dropped from app. 570kOhm (uncoated electrode tip) to 100kOhm (iridium-oxide coated electrode tip). This offers a low impedance microelectrode with small tip dimensions.

For TREC microdrives use:

Article number: **ES12ecXXXyyySTIM**



For other microdrives use:

Article number: **EF8025gSTIM**

4.0 Silicone Oil



Article number: **M-1000**

5.0 Cleaning Rods



for 305µm guide tubes use:

Article number: **CR-305-250**

for 254µm guide tubes use:

Article number: **CR-254-250**

Microdrive Accessory Catalog

6.0 Microelectrodes



Quartz glass insulated platinum-tungsten microelectrodes, ready for use with Thomas RECORDING microdrive systems. Tip only ground (g), impedance value 0,5-0,8MΩ, well suited for multi unit recording or tip pulled & ground (pg), impedance more than 1MΩ well suited for single unit isolation.

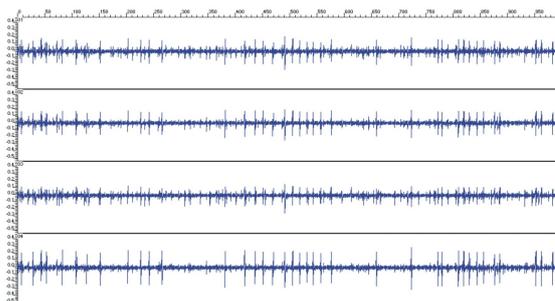
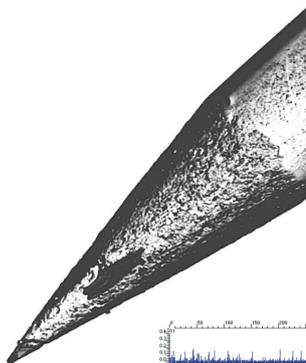
for **Mini Matrix** microdrives use:

Article number: **ESI2ecminiXXX/yyy**

for **Eckhorn Matrix** microdrives use:

Article number: **ESI2ecXXX/yyy**

7.0 Tetrodes



Thomas RECORDING offers a unique tetrode technology. Quartz glass insulated platinum tungsten microelectrodes with 4 metal cores insulated from each other by quartz glass with two different tip shapes. Only ground (g) tips for brain areas with normal cell density and pulled & ground (pg) tips for target areas with higher cell density. Please feel free to contact us for more information: info@ThomasRECORDING.com

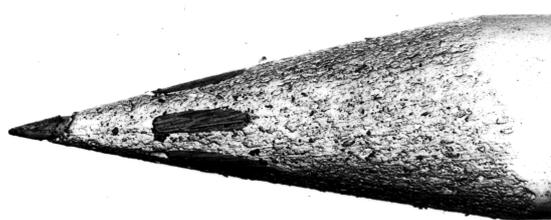
for **normal** cell density use:

Article number: **MEF9514264Cg**

for **higher** cell density use:

Article number: **MEF9514264Cpg**

8.0 Heptodes



Thomas RECORDING offers a unique heptode technology. Quartz glass insulated platinum tungsten microelectrodes with 7 metal cores insulated from each other by quartz glass with two different tip shapes. Please feel free to contact us for more information: info@ThomasRECORDING.com

Article number: **MEF9514264Cpg**

Microdrive Accessory Catalog

9.0 Workbench Motor Control Unit for Eckhorn Systems



Article number: **MCTD-02**

The Motor Control & Test Device MCTD-01 was developed by Thomas RECORDING for use with the Eckhorn microelectrode manipulator systems. The MCTD-01 is a very helpful, if not necessary, tool used during loading the microelectrode manipulator with microelectrodes in the laboratory. By using this device, the scientist is independent from the 7- or 16-channel motor control unit of the Eckhorn matrix, which usually is located in a 19" Rack in the near of the setup or the recording chamber. The manipulator can be loaded with electrodes while standing on a laboratory table. Each electrode can be driven with the MCDT-01 in forward or backward direction in different velocities. The moving direction can be selected with push button for each direction, the moving velocity of the electrode can be adjusted with a potentiometer.

10.0 Workbench Motor Control Unit for Mini & Micro Matrix Systems



Article number: **MMD-01**

This newly developed handheld remote motor control device **MMD-01** allows to control one of up to 5 *Mini Matrix* motors during microelectrode loading on the workbench before and after a recording experiment. The device is **battery powered** and therefore independent from mains power sources. It is equipped with two rotary switches. One switch allows to select 1 out of 5 motors. The second switch is for a motor speed selection in 5 steps. The moving direction of the microdrive motor (clockwise or counter clockwise) is selected by two push buttons. A low battery detector is also integrated. As a **stand alone device** the **MMD-01** does not require a connection to the motor control unit of the microdrive system and is also independent from a PC control!

Microdrive Accessory Catalog

11.0 Microelectrode Tip Cleaner



The **M**icroelectrode **T**ip **C**leaner (MTC) is an instrument that allows to clean the tips of metal microelectrodes after a longer stock period. Metal microelectrode impedance tends to increase if some time has passed since the electrode was manufactured or was not in use for some time. The impedance increase is caused by metal oxidation. The microelectrode tip cleaner uses a special developed electrochemical technique to clean the electrode tip. The cleaning process removes the oxidation layer from the electrode tip and reduces the electrode impedance to the recommended value. Tissue and csf are not removed by the tip cleaner. Therefore it is recommended to use an enzyme based cleaner to remove the proteins from the tip.

Article number: **MTC**

12.0 Screw Sets for TREC Microdrive Systems



Screw Set for Mini Matrix

Set of spare parts (e.g. small replacement screws, springs, stamps...) for Thomas RECORDING Mini Matrix systems. This set contains the most required replacement screws for the system

Article number: **MMSpareParts**



Screw Set for Eckhorn Matrix

Set of spare parts (e.g. small replacement screws, springs, stamps...) for Thomas RECORDING Eckhorn Matrix systems. This set contains the most required replacement screws for the system

Article number: **EMSPareParts**

Order Form



Please complete this form and fax it to:
++49-641-94414-14



Thomas RECORDING GmbH
Winchester Strasse 8
Europaviertel
35394 Giessen - GERMANY



If you have any question please call:
++49-641-94414-0



info@ThomasRECORDING.com

Yes, I want to order the followings products/parts:

| Article# | Article Description | Qty. |
|----------|---------------------|------|
| | | |
| | | |
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| | | |
| | | |

PAYMENT OPTIONS

- I want to pay with **credit card**. I am sending the credit card information attached!
- I am sending a **check** made payable to: Thomas RECORDING GmbH
- I am paying by **wire transfer** to the bank listed in the ordering information below.
(Please attach a copy of the telegraphic transfer instruction)

| Ship to |
|-----------|
| Name: |
| Univ. |
| Lab.: |
| Address: |
| Address: |
| City: |
| Zip Code: |
| Country: |

| Bill to: (if different from Ship to Address) |
|--|
| Name: |
| Univ. |
| Lab.: |
| Address: |
| Address: |
| City: |
| Zip Code: |
| Country: |

| | | | | | |
|-------|--|-------|--|------------|--|
| Tel.: | | Fax: | | email: | |
| Date: | | Name: | | Signature: | |

ORDERING INFORMATION

1) CREDIT CARD PAYMENT

If you want to pay with **credit card**, please provide the following information:

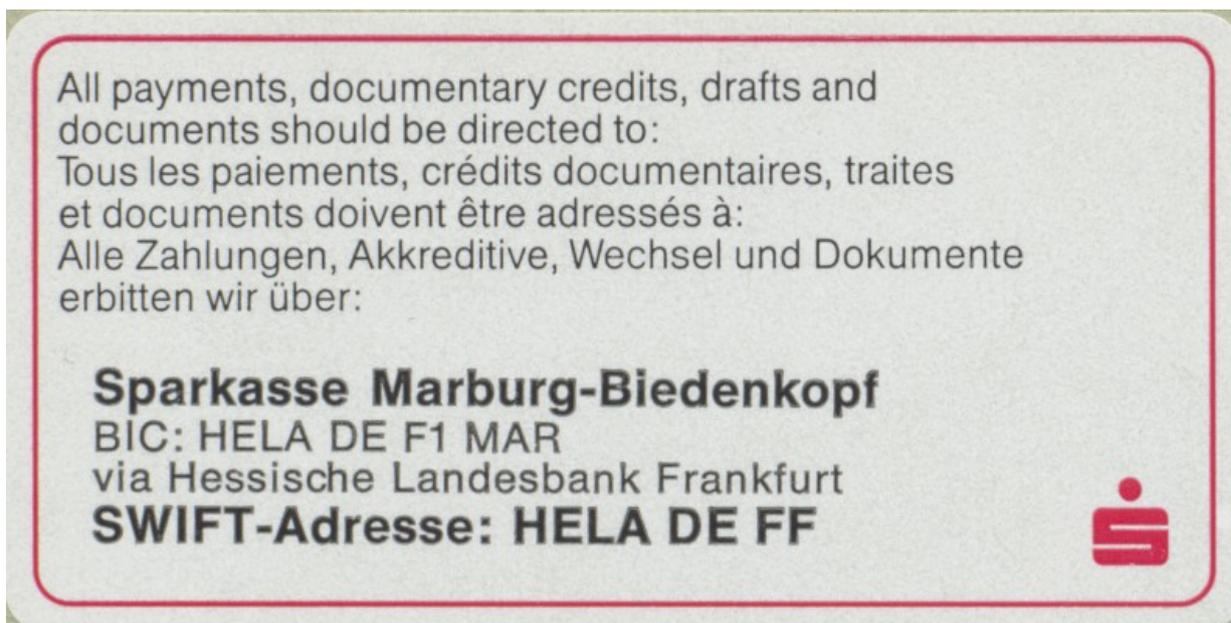
We accept Visa and MasterCard for payment. If this would be convenient to you, please let us know the

- type of credit card
- personal or corporate card
- name as it appears on the credit card
- complete address where credit card statement is mailed
- credit card number and
- expiration date

Please feel free to contact us if you need additional information.

2) WIRE TRANSFER PAYMENT

If you want to pay via **wire transfer**, please pay to the following bank:



If you should have any further question or if you need additional information, please do not hesitate to contact us via email: info@ThomasRECORDING.com