

“DM System” supports your extracellular recording !

Introducing the convenient usages (Part I)

DMA-1551(One-axis Motorized Stereotaxic Micromanipulator) makes a remote control possible with its useful motorized system (**DM system**) for in vivo recording of animal.

Furthermore, the system has many convenient usages to support extracellular recording such as multi-unit recording. Introducing our FAQ, those advantages of using the system may be useful tool for your experiment.



I want my silicon probe proceed slowly.
For example, **travelling 3mm in 10 minutes.**
Is that possible?



Setting example of DMA-1551

Yes, it's possible.

The parameter setting allows the change of **driving speed** and **distance**.

- “Driving speed” can be determined by its frequency: Hz, which is changed by values higher or lower. (The frequency determined becomes the standard speed of each precision settings: Coarse, Fine, and S.Fine.)
- “Driving distance” can be set by the “SET drive” mode, by a setting of target distance.



How to set the “Driving speed” and “driving distance”

Setting the driving speed

1. Press MENU to enter the parameter mode. Move to the Function section.

2. Select [Set drive]⇒[5-phs step motor freq]⇒ Then, change the value of Hz from “5,000Hz(default)” to “100Hz”.

*The frequency of 100Hz applies when using the Fine precision which speed is at 0.05 μ m per 1Hz. Therefore, travelling 3mm in 10 minutes by the input of 100Hz figures as “5 μ m per second.”

*When using the S.Fine precision which speed is at 0.005 μ m per 1Hz, thus it requires the input as “1,000Hz.”

*The target time in total (such as 10 minutes) may be changed by the proceeding situation of electrode.

Setting the driving distance (“Set distance” mode)

1. Press MENU to enter the parameter mode. Move to the Function section.

2. Select [Set drive]⇒[CH1]⇒[Select set drive]⇒Distance

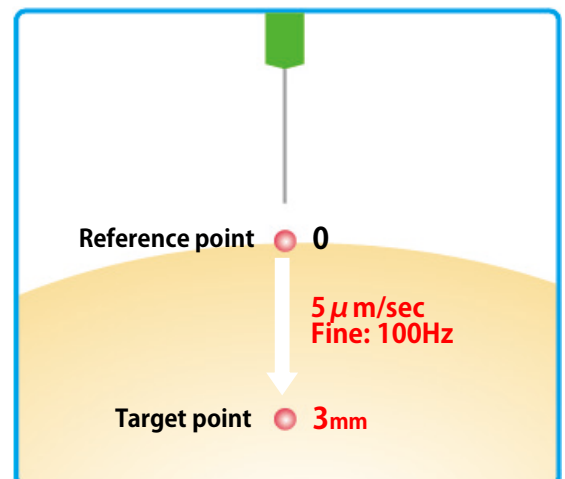
3. [CH1]⇒[Set distance]

4. Input “3,000.000 μ m”(3mm) instead of the default setting: 0.000 μ m.

*The driving distance is set as 3mm by settings above. With this example, the reference point (zero) is set on the brain surface layer. Reference point can be set voluntarily.

*After reaching the target point at 3mm, if the set drive is performed one more time, another 3mm with the same speed; 5 μ m/sec travels.

(In that event, the point becomes 6mm away from the reference point.)



«Products of DM system»

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|----------------------------|----------------------------|
| •DMA-1510/1511 (for SM-11) | •DMA-1550/1551 (for SM-15) |
| •MO-82 | •MO-952 |
| •MO-972 | •MO-972A |

If you have any questions or need further information, please contact us.