

HiClamp Software – What is New in Version 2.95

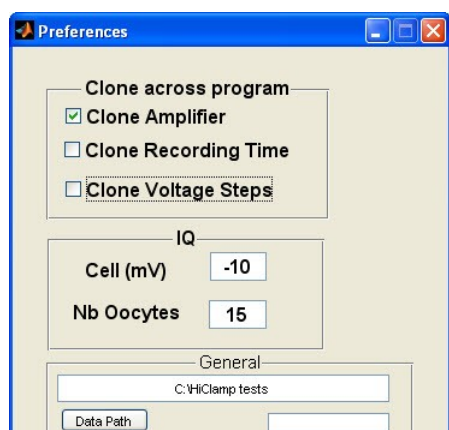
Installation

Please deinstall the “old” HiClamp software before installing the new version by using the deinstall function from the Windows control panel. Backup the HiClamp program folder before starting the deinstallation.

Execute the setup file “HiClamp_Setup-1.2.95.exe” to install version 2.95. Use the setup file “HiClamp_Setup-1.2.95_Full.exe” only if you want to install the software on a new computer.

Software version 2.95 works on the basis of some important changes in how the software communicates with the amplifier. To benefit from these changes it is obligatory to perform an **amplifier firmware update to version 0.56** before using the software. Please use the program “HiClamp Firmware Update” the icon of which will appear on your desktop after execution the setup file.

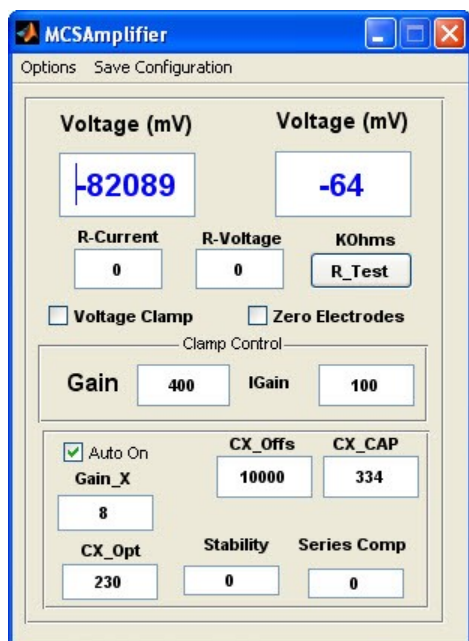
Important note: Please do not switch off computer or HiClamp while the firmware update is running. Also plug in the power adapter from the laptop before starting the firmware update.



Preferences

You can change now the value for the oocyte membrane potential (Cell(mV)) which is used as threshold during the automatic oocyte impalement. This feature is particularly useful for testing new protocols with the test model cell: type in a positive number (e.g. 15 mV) and you can run complete protocols without modification (i.e. without deleting the oocyte icon).

Please do not forget to change it back to a negative value before using oocytes. Choosing the “right” value can also increase the number of successful recordings.



Amplifier Window

There are visible changes in the amplifier window but - more importantly – also changes during the impalement procedure: The CX_offs value is now modified automatically before every oocyte impalement until the measured CX_CAP value is identical to CX_Opt. The CX_Opt value is 230 by default and should not be changed by the user.

Gain values 400 and 100 for gain and I-gain respectively are default values for ligand-gated ion channels. Together with a low filter frequency (e.g. 50 Hz) these values minimize the occurrence of artefacts during basket movements (glitches) but guarantee a time resolution sufficient for recording of ligand-gated channels, where the response is elicited by agonist application.

For recording of voltage-gated channels (i.e. using voltage steps for channel activation) higher gain values and higher filter frequencies may be needed for having a sufficient time-resolution.

Parameters for “Stability” and “Series Comp” are 0 by default and should not be changed unless you are told so upon future software updates or by the MCS support team.

Do not hesitate to contact MCS if you need further assistance.