

# HDC75 Display and Control Unit

Quick Start Guide and Safety Instructions



This document describes the major functions of the HDC75 instrument. The complete manual can be found at <http://www.ibpmt.com/btle.shtm>. For reading the document Adobe® PDF it's necessary to have Adobe® PDF Reader installed.

Account: Biotech-Lab

Password: btl (Biotech-Lab)

Support, manual and software updates are available at: <http://www.ibpmt.com/btle.shtm>

# Safety Instructions

## Read This First

### **FOR YOUR SAFETY READ AND CONSIDER THE SAFETY INSTRUCTIONS BELOW CAREFULLY**

- Read carefully the entire user manual of the Biotech-Lab system before using the Biotech-Lab system.
- Read carefully the entire manual of the devices under test before connecting the Biotech-Lab system to the devices under test.
- The battery included with the HDC75 does not arrive fully charged. The battery must be charged for a minimum of 2 hours prior to use.
- Keep the devices away from unauthorized persons.
- Make sure that all Biotech-Lab Modules have valid calibration certificates.
- Only use the Biotech-Lab system in a dry environment and do not touch it with wet hands.
- Prevent every mechanical overstraining of electrical wires.
- If the acquired values seem to be not believable, make sure that the no device is defective.
- Prevent electrostatic discharge on the connectors. This can lead to substantial damage of the Biotech-Lab devices and devices under test. Make sure to be completely discharged before touching the connectors or cables connected to the instrument.
- Potentials above 42 V against earth ground are dangerous. This potentials can lead to electrical shock and therefore to health hazards. Make sure that none of the connectors has higher voltage than mentioned before.
- Never open a device of the Biotech-Lab system. There are no serviceable parts inside.

# 1 Getting to Know the HDC75

**THE HDC75 IS A ROBUST SMART DEVICE WITH WINDOWS 10. IT HAS FIVE RS485-INTERFACES FOR THE DIRECT CONNECTION OF THE BIOTECH-LAB MODULES.**



## USB-Interface

Used also for charging the device. For charging use only the Quick-Charge 2.0 compatible charger delivered with the HDC75. If you charge the device with a different charger the battery charge status of Windows 10 will not working properly with the increased battery size of the HDC75.

Quick charge and fast charge modes are only entered when the charger is plugged in while the HDC75 is completely turned off.

Turning on the HDC75 while in proper fast charge mode results in the sensor ports being inaccessible as long as charging is in progress.

To activate the sensor ports again it is necessary to briefly unplug the USB charger and then plug it in again. The charge circuit will revert to normal or slow charge depending on the capabilities of the USB charger.



**LED Green On:** Charger connected

**LED Red On:** Charging with a standard charger at max. 5 V / 1500 mA

**LED Red Blinking:** Charging with Quick-Charge 2.0 mode at up to 12 V / 1500 mA



## Power Button

Turn on: Press and hold the power button about 5 seconds until the green LED gives you a short blink feedback.

Turn off: Press and hold the power button until the device switches off.

## Lock and Unlock

Lock: Press the power button

Unlock: Press the power button to turn on the HDC75, than place your finger on the lock icon and slide the icon to the unlock position.



## RS485-Interface for the Connection of the Biotech-Lab modules.

The connector next to the button is the number one and will be shown as the first sensor in the Biotech-Lab Software.

# 2 OS Windows 10

IF YOU ARE NOT FAMILIAR WITH WINDOWS 10 PLEASE NAVIGATE TO:  
[HTTP://WINDOWS.MICROSOFT.COM/EN-US/WINDOWS-10/SUPPORT](http://windows.microsoft.com/en-us/windows-10/support)

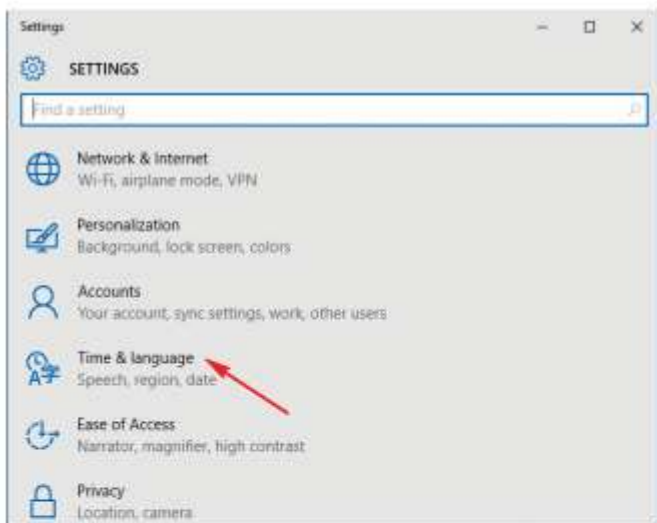


## Need help with Windows 10?

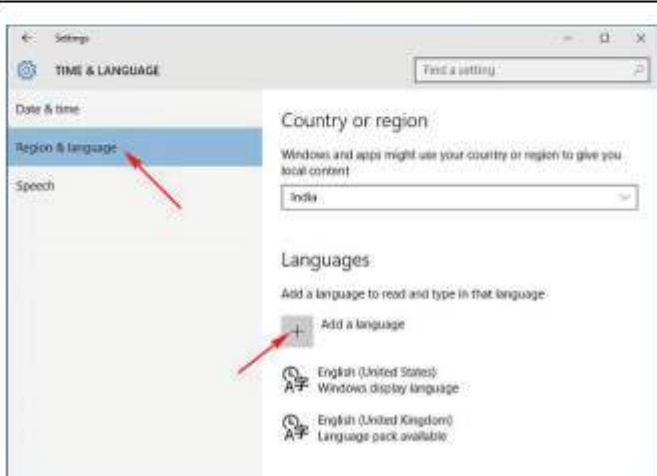
Get answers to your questions about using Windows 10 on PCs here.

### Changing the Display Language in Windows 10

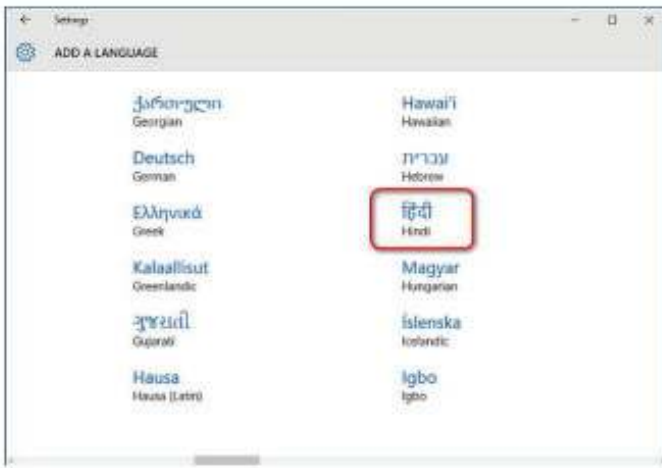
To change the default language, sign in to Windows 10 and Go to “Start Menu” and select Settings.



Select “Time & Language”.

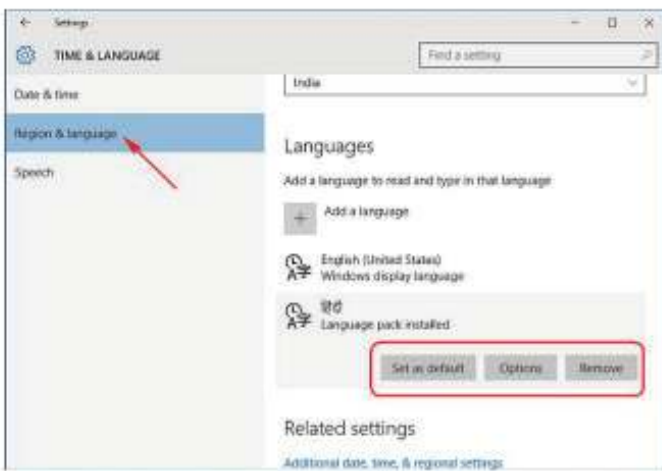


Select “Region & Language”  
Select the region you are in.  
Click “Add a language”.



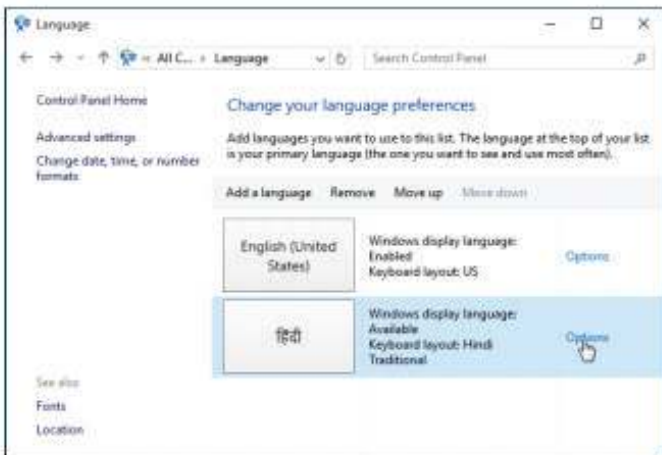
Click on the language you want, and it will start downloading.

Go back to the “Time & Language” screen and click on the language you just installed.



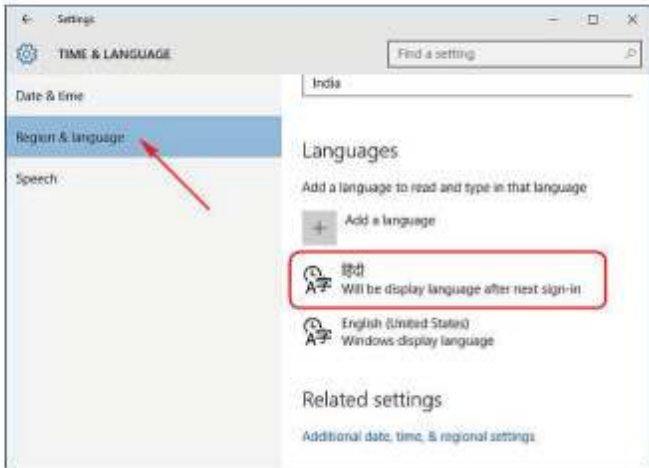
You’ll see three options: “Set as default”, “Options”, “Remove”.

Under “Options”, click “Download” to download the language pack and keyboard for that language.



If you open “Control Panel > Languages”, you’ll see the traditional settings which you are familiar with.

Changing the Display Language  
To change the language of the user account you are currently using, select a language, then click “Set as default”.



**Changing the Display Language**  
To change the language of the user account you are currently using, select a language, then click “Set as default.”

# 3 Biotech-Lab Biometer Software

THE BIOMETER APP ALLOWS DISPLAYING MEASURING VALUES FROM SENSORS, SIMULATORS AND TESTERS.

## General Functionality



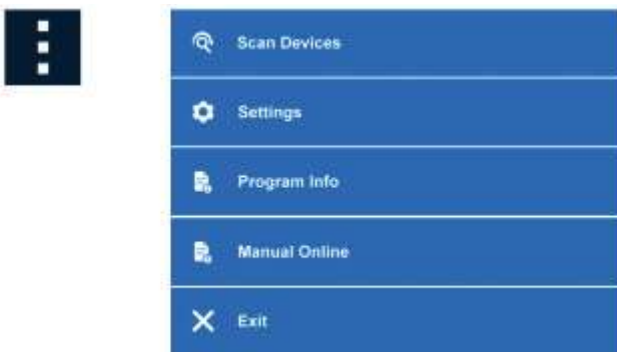
Head Area  
Mode selection

Value Display Area.

## Head Area Functionality

Scans all connected devices and shows the devices suitable for this program.

Button                      Function



Settings leads to the base settings of Biotech-Lab.

Downloads the user manual.



Shows list of all values



Shows graph of all values



Shows statistic values of all Sensors

## Value Display Area Functionality

Depending on the connected devices different readouts are shown.



This readout is a typical one value display without any additional special functionality in the display area.



This is a typical two value display. L acc is the accumulated amount in L.



This is a typical two value display with an additional functionality in the headline. "Dialysis Machine Standard" indicates here the selected conductivity temperature compensation coefficient.



Shows settings for the particular device.

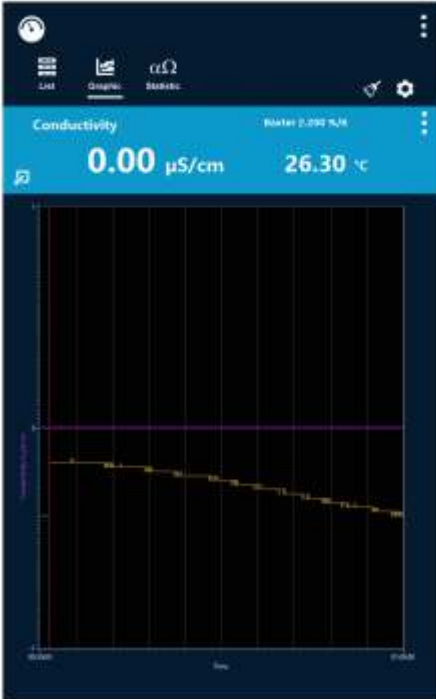


Shows additional features of the particular device. To return to the list view, press the button again. For sensors a single sensor graphic is shown.



## Single Sensor Graphic

After pressing



Leads to Graphic Settings

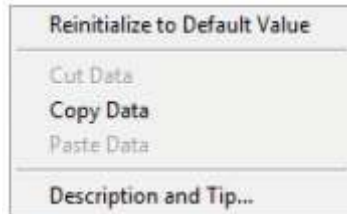


Deletes the measured values

### Additional Subfunction

The following functions are available with connected mouse only.

With a Right-Mouse-Click into the graphic you get the following menu options.



More sub-functions below.

## All Sensor Graphics

After pressing



Leads to Graphic Settings

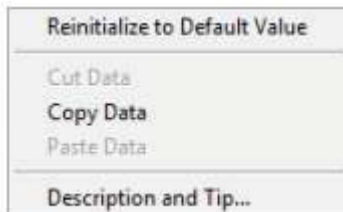


Deletes the measured values

### Additional Subfunction

The following functions are available with connected mouse only.

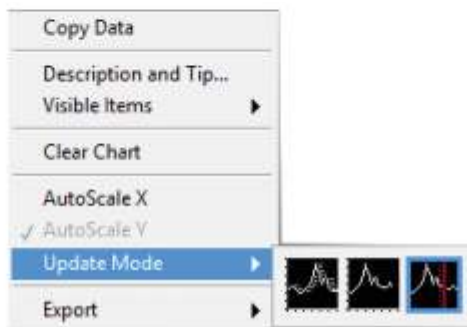
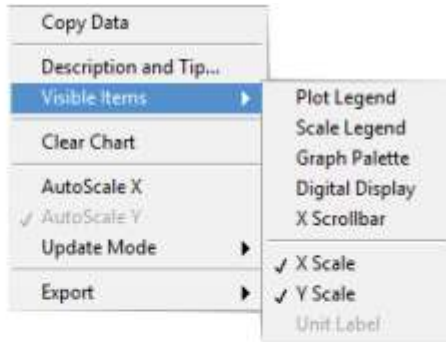
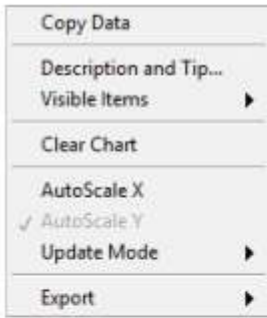
With a Right-Mouse-Click into the graphic you get the following menu options.



More sub-functions below.

## Sub-Functions Accessible By Mouse

To get the following sub-functions make a Left-Mouse-Click followed by a Right-Mouse-Click.




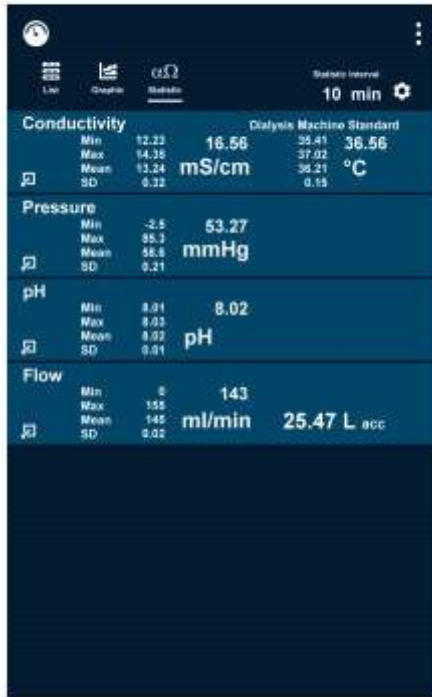
Scale Range allows modifying the scales on both sides of the graphic.

Allows selecting the time interval.

Allows selecting the colors of both the grid and the backplane.

## Statistic Values

After pressing 



Head Area  
Mode Selection

Value Display Area

Element

Function



Minimum Value  
Maximum Value  
Arithmetic Mean Value  
Standard Deviation



Current Value



Selection of Statistic Interval

This is the time range for the calculation of the statistic values. The time range starts from the last measuring value and goes back with the selected value.

For your notes:

### Revisions

Version	Date	Author	Comments	Software Version
1.00	15.05.16	Werner Pfingstmann	Initial Version	1.00
1.01	05.09.16	Werner Pfingstmann	Statistic Screen added Details optimized	1.01

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