## 17.09.2012.

## A procedure of drivers' installation for USB to RS232 Serial Converter in Lactoscan Analysers

The option embedded USB interface (USB to RS232 Serial Converter) for a connection of the Lactoscan analyser (LS) with a computer type IBM PC requires an installation of the current driver.

That USB interface is made on the base of the element MCP2200 of the company Microchip Technology Inc. – site <u>http://www.microchip.com</u>. This company offers a driver and an installation procedure described in the web site of the producer: <u>http://www.microchip.com/wwwproducts/devices.aspx?ddocname=en546923</u>, item <u>MCP2200 Windows Driver and Installer</u>

It is possible, the company Microchip Technology Inc. to change its site, so the Internet site to be missing or to be on another address. The customer needs to use the navigation on the Internet site to find the needed information.

As different variants (ways of installation) are possible, below we offer our description of the procedure of installing the standard driver Mcp2200.info for Windows Xp.

Connection between the analyzer and PC is done with standard USB Cable: computer – Printer. The coupling (Printer USB Type), in which to be connected the cable is situated on the rear panel of the analyzer, just next to the standard RS232 connector, DB9 type, as it is shown on the picture.



Connected cable to the USB RS232 connector:



The other coupling of the cable is connected to chosen by the customer USB connector of the computer (laptop), as it is shown on the picture:



After connecting the LS with the computer through a USB cable and switching on the power supply the following window appears:



After that the following window appears:

Found New Hardware Wizard							
	Welcome to the Found New Hardware Wizard						
	Windows will search for current and updated software by looking on your computer, on the hardware installation CD, or on the Windows Update Web site (with your permission). <u>Read our privacy policy</u>						
	Can Windows connect to Windows Update to search for software?						
	<ul> <li>○ Yes, this time only</li> <li>○ Yes, now and every time I connect a device</li> <li>● No, not this time</li> <li>Selected</li> </ul>						
	Click Next to continue.						
	< <u>B</u> ack <u>N</u> ext > Cancel						

The operator has to choose the marked option and to press the button Next.

The following window appears:

Found New Hardware Wizard							
	This wizard helps you install software for: MCP2200 USB Serial Port Emulator If your hardware came with an installation CD or floppy disk, insert it now.						
	What do you want the wizard to do?						
	C Install the software automatically (Recommended) Install from a list or specific location (Advanced) Selected Click Next to continue.						
	< Back Next > Cancel						

Using the Browse option from the next window, the operator has to choose the folder where the driver is in.

Found New Hardware Wizard
Please choose your search and installation options.
Search for the best driver in these locations.
Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.
Search removable media (floppy, CD-ROM)
Include this location in the search:
D:MCP2200 INF Browse
O Don't search. I will choose the driver to install.
Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.
< Back Next > Cancel

After that he has to continue with the button Next. And the following window is shown:

Hardware	Installation
<u>!</u>	The software you are installing for this hardware: USB Serial Port has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.) Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
	Continue Anyway STOP Installation

By pressing the button Continue Anyway the procedure goes on. The procedure is over with the appearance of the following screen:



Showing this message means that the driver is installed correctly.

## **Changing the number of COM Port**

The next task is to check, and if necessary to change, the number of COM Port, on which the driver is installed. The following succession is being observed (the numbering steps)



The following succession is being observed:

Adobe Adobe Reader	System Properties ?X
Crobat 4.0 9 Step N: 4 -	System Restore Automatic Updates Remote General Computer Name Hardware Advanced
File       Edit       View       Favori       System, Select	Add Hardware Wizard The Add Hardware Wizard helps you install hardware. Add Hardware Wizard Add Hardware Wizard
Switch to Category View See Also	Device Manager The Device Manager list Step N: 5 siled the properties of any device. Driver Signing Device Manager
Windows Update         Support           Wireless Link	Hardware Profiles Hardware profiles provide a way for you to set up and store
🖳 Device Manager	
File Action View Help ← → I II   ∰   😫 🕄	a Profiles
Boppy disk drives     DE ATA/ATAPI controllers     Set Set Set Set Set Set Set Set Set	ubmenu

By opening Submenu Ports (COM & LPT), an analog view is shown – a description of the available in the computer ports:



It is possible after installing the driver, a casual number of COM Port to be chosen, as in that case it is number 12. Because the program tools work with numbers from 1 to 4 (or to 9), observing the following procedure, the smallest free number is being chosen, in that case 3. On the driver of...- right click, choose Properties and the following screen appears:

💂 Device	Manager	ഗന്നവ	inications Port	.(	OM12) Propert	ies		? X	ī.		_
File Act	ion View			1							
$\leftrightarrow \rightarrow  $	💽 😭	Gener	al Port Settings		Driver   Resource	es					
	WER2										
	Computer				Bits per second:	9600		•			
±	Disk drives										
E	Display ad				Data bits:	8		_			
	Eloppy disk		COM3 (in use)	•	Paritur	Mana		_			
	Floppy disł		COM4 (in use) COM5 (in use)		rany.	INone					
•	IDE ATA/A		COM6 (in use)		Stop bits:	1		-			
	Keyboards Mice and a		COM7 (in use) - COM8								
	Mice and o Modems		COM9		Flow control:	Xon / Xoff		_			
<b>⊡</b>	Monitors		COM10								
Ē- <b>P</b>	Network a		COM12		Ad	vanced	Restore D	)efaults			
_ <u>- y</u>	Ports (CON		COM13								
Adv	anced Setti	ngs fo	COM15 COM16								
			COM17								
	IV Use H	-IFU bu	COM18 COM19		U compatible UAH	IJ				OK	
	Select	t lower :	COM20		pnnection problem	ns.					
E I	Select	t hiaher	COM21 COM22		erformance					Cancel	
L i	00100	( ngnor	COM23 COM24		Sitemanee.					Defaults	
	Receive Bu	uffer: L	COM24 COM25				— J	High (14)	(14)		_
			COM26 COM27		1.5	,	- <b>-</b> -				
	Transmit Bu	uffer: L	COM28			10.0	— J	High (16)	(16)		
ATL			COM29 COM30			1	ſ				
Contr			COM31 COM32	Ţ							
<b>E</b> (	COM Port Num	nber:	COM32	-							
-											

Choose Port Settings  $\rightarrow$  Advanced and in the COM Port Number field choose the smallest free number – in that case 3. Like this the whole installation and setting the USB to RS232 Convertor is over.

## Note:

In the example above, choosing the smallest free port is not obligatory but advisable. It is important the program tool with which the operator will work to support the set number above because the different tools work with a different maximum number of the communication port.

Now the changed number of the COM Port is inserted in the field of choosing the communication port of the started program tool, for example:



or:

💵 LS-Display Results						
СОМ р О 1	ort C 2	• 3	O 4			

After the so made installation the communication through the USB cable between the device and the computer IBM PC is normal. You have to know that at one and the same moment the communication can be made only through one cable, which means that the device can not be connected at the same time with two different computers through two cables.