INTERFACE
Cardioline XR-200 – Cubestress

STEP I **Setting up the hardware**

1. For controlling the XR-200 ergometer by the Cubestress you need a RS232 cable (part no. 930911), The lay-out of the cable is as follows:

Straight RS232 cable 930911		
D-con 9 pin female		D-con 9 pin male
2 RxD	----------	2 TxD
3 TxD	----------	3 RxD
5 GND	----------	5 GND

2. Connect the RS232 cable to the XR-200 ergometer *(see picture 1).*
3. Connect the RS232 cable to the Cubestress *(see picture 2).*

STEP II **Setting up the ergometer**

4. Switch on the ergometer
   The XR-200 ergometer is default shipped with the LODE RS232 communication protocol. This is the correct RS232 protocol to communicate with the Cubestress.
   In case you need to change the RS232 protocol you do this by following the procedure:
   - Switch on the ergometer and press enter.
   - You will be in the "MAINMENU"
   - Select, by using the up/down keys, the menu "SYSTEM PARAMETER" and press enter
   - Select, by using the up/down keys, the menu "SETTINGS" and press enter
   - Select, by using the up/down keys, the menu "RS232 PROTOCOL" and press enter
   - Select, by using the up/down keys, the " lode protocol" and press enter.
   - Save the selected RS232 protocol or restore the default RS232 protocol, which is also the LODE PROTOCOL.
   - Switch off the ergometer.

5. For controlling the XR-200 ergometer by the Cubestress the XR-200 ergometer should be set in "Terminal" mode. The "Terminal" should be selected as follows. After switching the ergometer on press enter, and select "Terminal" and press enter again

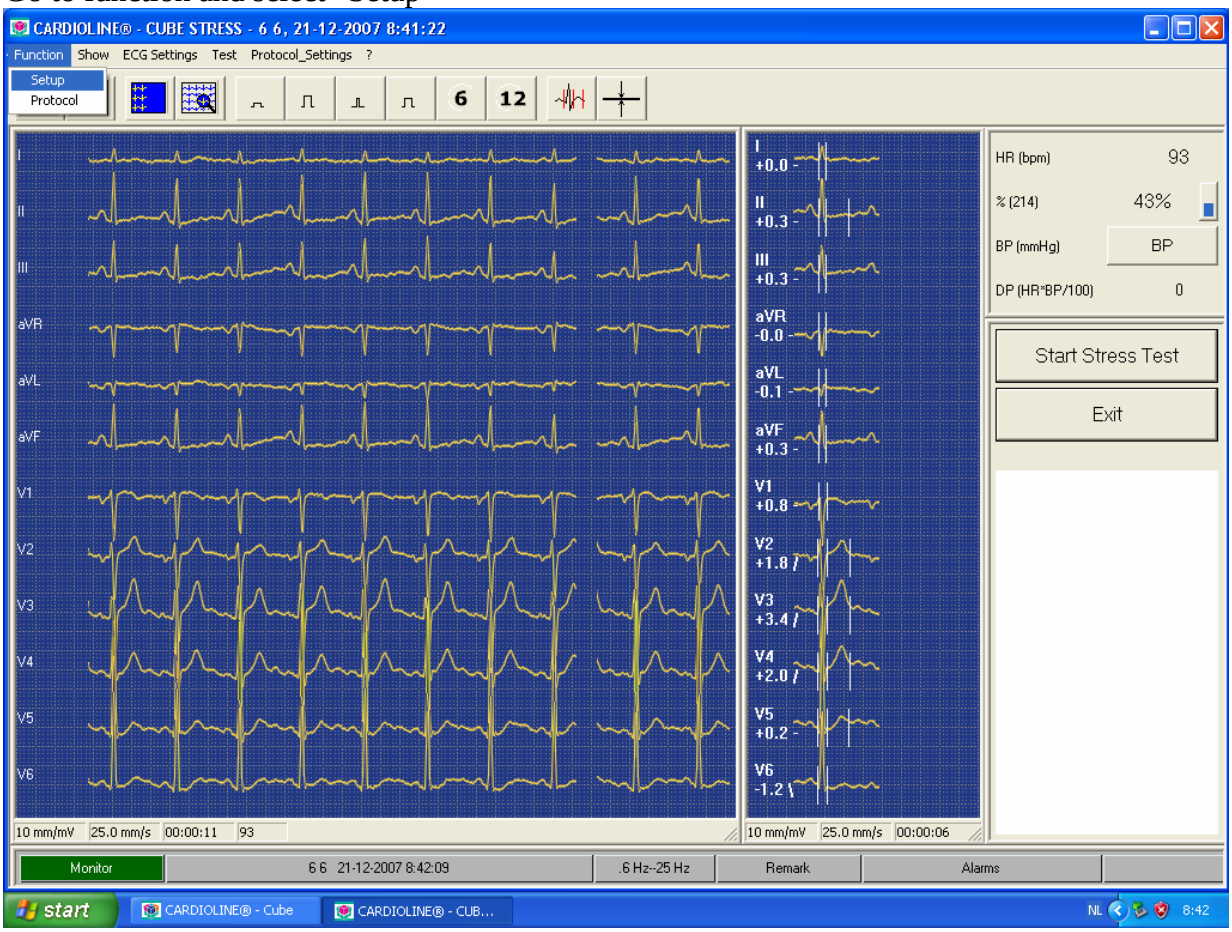
   NOTE: You can also let the ergometer start-up in "Terminal" mode every time you switch on the ergometer, by using the default start menu. To set up the ergometer for starting up in "Terminal" mode proceed as follows:
   - Switch on the ergometer and press enter.
   - You will be in the "MAINMENU"
   - Select, by using the up/down keys, the menu "SYSTEM PARAMETER" and press enter
   - Select, by using the up/down keys, the menu "SETTINGS" and press enter
   - Press enter to confirm the menu “DEFAULTSTARTMENU” and press enter

If you switch off the ergometer it will start-up in the "Terminal" mode every time when the ergometer is switched on again.

6. The XR-200 ergometer is now ready for external control

STEP III	Setting up the Cubestress

Switch on the Cubestress system.
Go to function and select "Setup"



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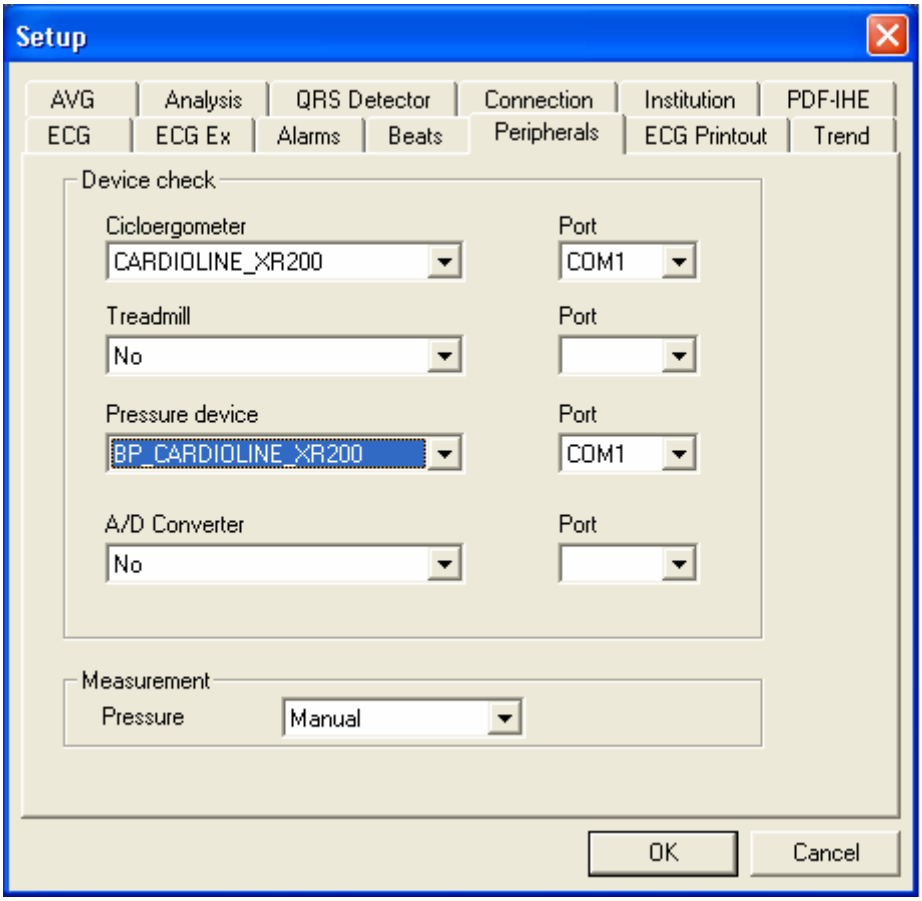
Select “Peripherals” and select for Cicloergometer the Cardioline_XR200 and under Pressure device BP-Carioline_XR200. Press OK to save the changes.



Restart the ergometer and ECG device and then your system is ready to be used.

the standard in Ergometry

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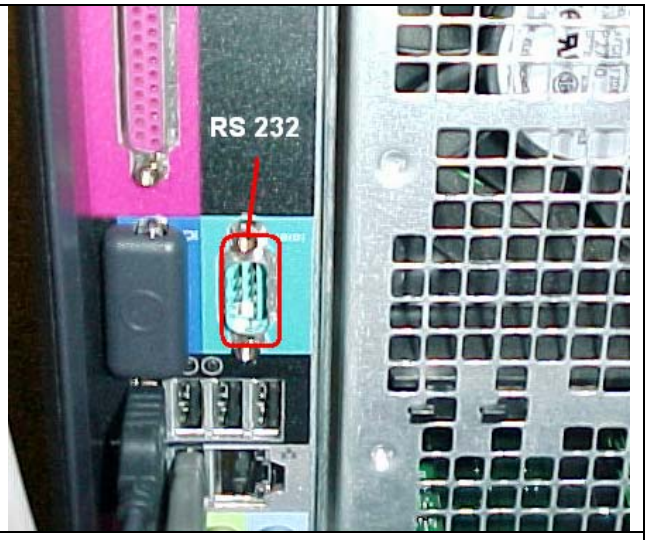
For questions and comments, you can contact the Lode service department by e-mail at service@lode.nl or by telephone at +31 50 5712811.

Picture 1: Connection to the Ergometer



Picture 2: Connection to the Computer

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ISO 9001:2000 and ISO 13485:2003 certified
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