

# INTERFACE

## Lode Ergometer – Norav PC ECG 1200 V2.00

1. You will need the RS-232 cable (part no.930911 ) to establish communication between the Lode and the PC ECG 1200, 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 TxD
5 GND	-----	5 GND

2. Connect the RS232 cable to the PC ECG 1200 stress system (*see picture 1*).
3. Connect the RS232 cable and the trigger cable between the Ergometer and the Norav PC ECG 1200 system (*see picture 2*).

### STEP II                      Setting up the ergometer

4. Switch on the ergometer

The Corival ergometer is default shipped with the LODE RS232 communication protocol. It should be set to the LODE RS232 protocol but when it is not set to the default protocol. You can check and/or change the RS232 by following the procedure below:

- 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" RS232 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 ergometer by the PC ECG 1200 the ergometer should be set in "TERMINAL" mode. The "TERMINAL" mode 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 startup 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



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- Select, by using the up/down keys, the menu "SETTINGS" and press enter
- Press enter to confirm the menu "DEFAULTSTARTMENU" and press enter.
- Select "TERMINAL" and press enter
- You will be asked to save the changes confirm with "YES"
- 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 Lode ergometer is now ready for external control

### STEP III                      Setting up the PC ECG 1200

7. Switch on the Computer and start the "Stress PC ECG Application"
8. Select setup
9. Select "Environment"
10. Select the communication ports for your Exercise device, your Automatic Blood Pressure monitor and your PC-ECG system.
11. Select ergometer and choose Corival
12. Press OK to save setup
13. Close the program and restart it to activate the made changes.

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



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### Pictures.



Picture 1



Picture 2

#### Remarks:

- The installation procedures of the Lode ergometers Corival, Angio and Excalibur (Sport) are all the same. The connection of the cables may be on slightly different places.

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

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