

Manual SEAMate1A[®]Lite



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Prerequisites

Laptop supporting wireless network

Operating system: Windows 2000, Windows NT, Windows XP Vista

Congratulations on your SEAMate1A[®]Lite

The wireless connection to your on board instruments

SEAMate1A[®]Lite establishes a connection from the NMEA interface on your ships instruments to a computer via Ethernet_802.11 b/g Wireless standard.

So, now you can connect an ordinary computer with a wireless network card to your ships instruments without the use of cables.

The following must be carried out only once, in order to connect the SEAMate1A[®]Lite to the ships system.

1. Hardware installation
 - a. SEAMate1A[®]Lite must be connected to the ships NMEA bus
 - b. SEAMate1A[®]Lite must be connected to the ships 12/24 volt DC
2. Establish a point to point network between SEAMate1A[®]Lite and the laptop.
3. Using the software, delivered with your SEAMate1A[®]Lite, so-called virtual COM ports are established on the laptop, which will serve as input for the chart programmes. That is, where data come from the instruments to the chart programme.

In the following section we will take you through the installation process – point by point.

1. Hardware installation:

Using the enclosed velcro strips, install SEAMate1A[®]Lite indoors in the accommodation, close to a connection to 12/24 volt DC power and the NMEA connection. If possible, install SEAMate1A[®]Lite horizontally in order to get optimum range.

Cable installation:

Disconnect the power on board.

Find the NMEA connection point and accessible power 12/24 V DC

Power:

Connect the ships negative pole to **Ground** (negative= 12/24 Volt / earth)

Connect the ships positive pole to **+10-30VDC** (positive= 12/24Volt+ - the same on/off switch as the instruments so everything is switched on/off simultaneously)

CH2 (NMEA)

Connect the ships NMEA out (Tx) to **RS-232 in** (CH 2) (please refer to the instrument manuals)

Connect the ships NMEA ground to **RETURN** (CH2) (please refer to the instrument manuals)

Connect the ships NMEA in (Rx) to **RS-232 out** (CH 2) (please refer to the instrument manuals)

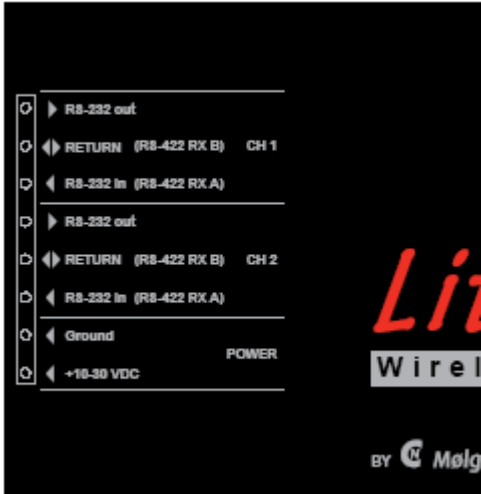
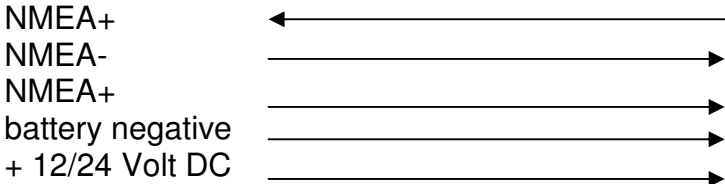
CH1 (AIS)

Connect the ships AIS out (Tx) to **RS-232 in** (CH 1) (please refer to the instrument manuals)

Connect the ships AIS ground to **RETURN** (CH 1) (please refer to the instrument manuals)

Connect the ships AIS in (Rx) to **RS-232 out** (CH 1) (please refer to the instrument manuals)

EXAMPLE – INSTALLATION OF NMEA INSTRUMENTS:

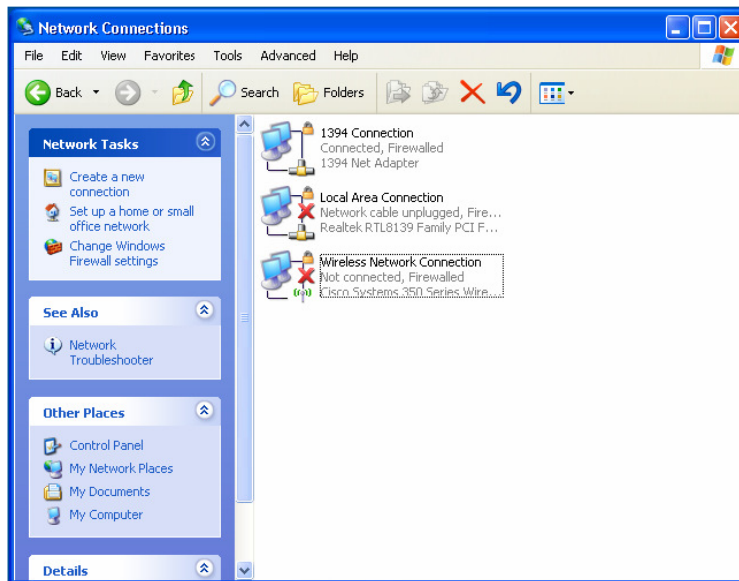


Control: If the power has been correctly connected, a green indicator will light up at the end (where the cable is installed) of the SEAMate1A[®]Lite.

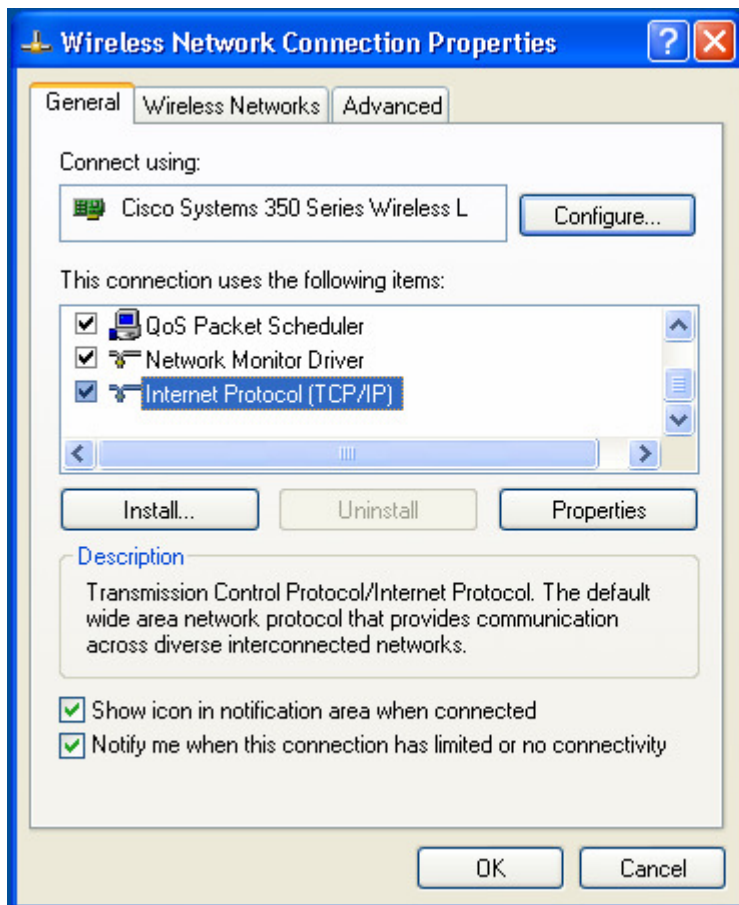
2. Wireless installation on a PC

(REMEMBER TO ACTIVATE THE WIRELESS NETWORK ON YOUR PC)

Choose "Show available networks":



Click "Wireless network" and choose "Properties".

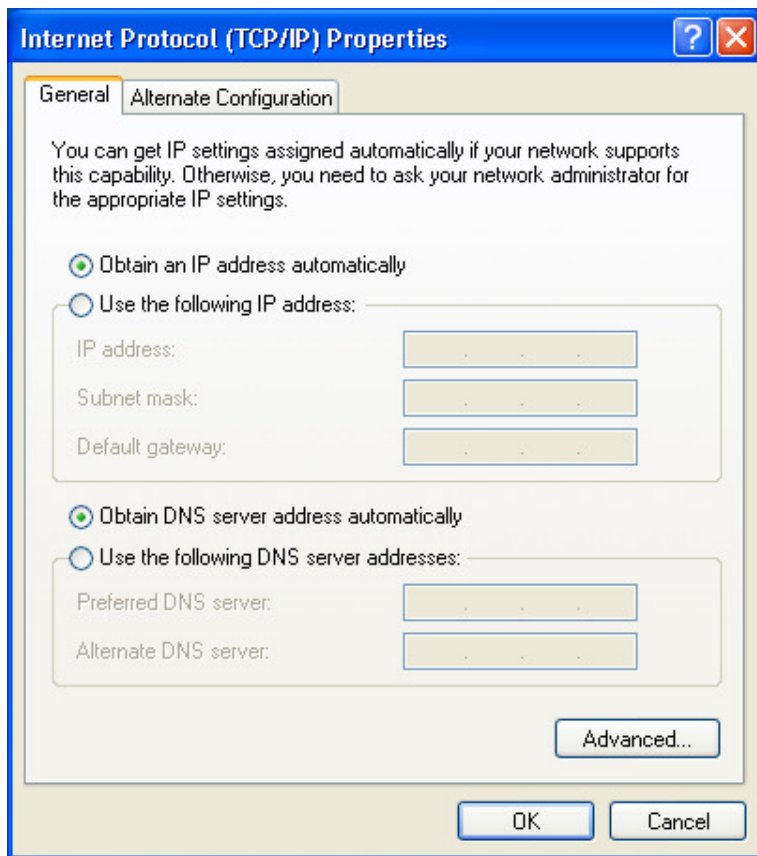


Choose: "Internet Protocol (TCP/IP)"

Choose "Properties"

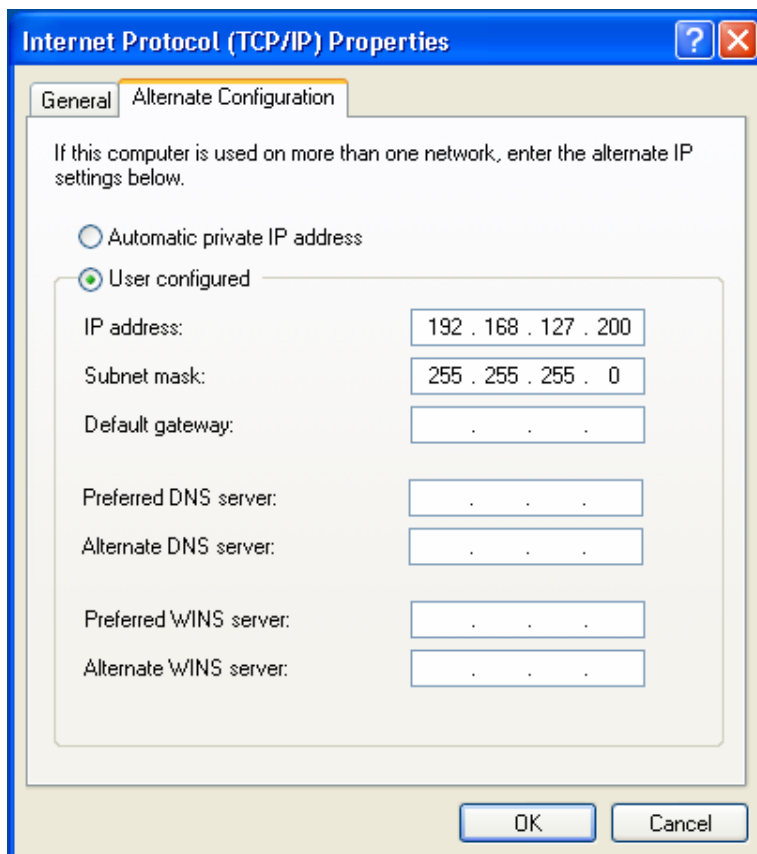
Choose "Obtain an IP address automatically"

Choose "Obtain DNS server address automatically."



Choose "Alternate Configuration"

Now choose "User configured" and enter the following values:



Press OK and leave the "Wireless network properties" section by pressing "OK" again

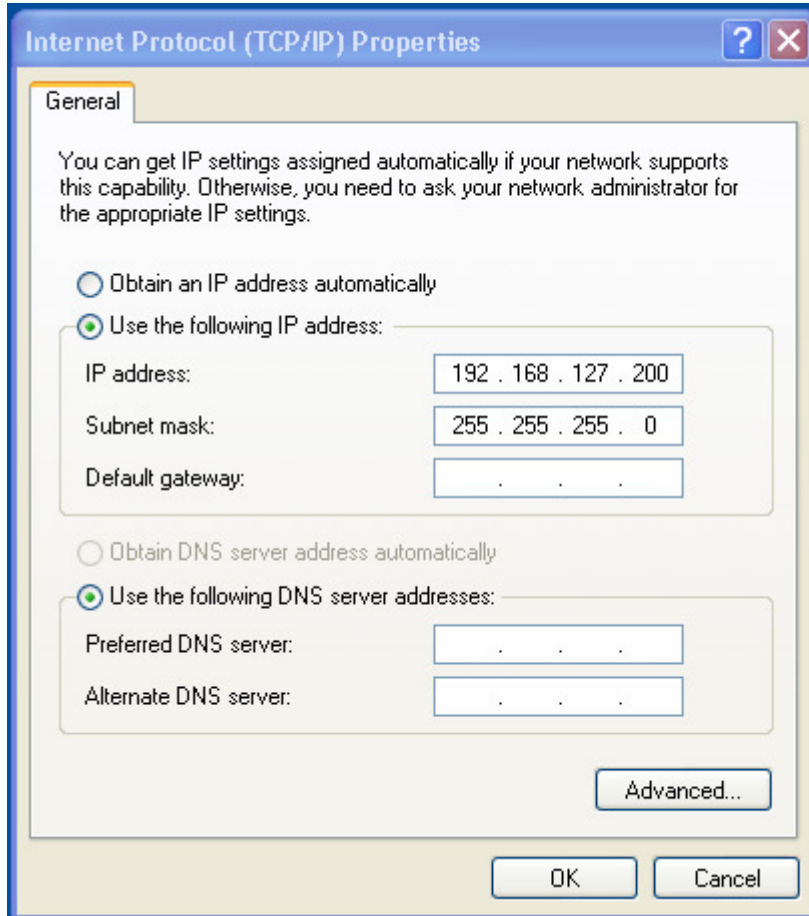
Alternative network properties for experienced users.

It is quicker to establish this network connection. However, you must change the properties for your access point at home/work, where a laptop is also used.

Set IP address.

Choose "Use the following IP address"

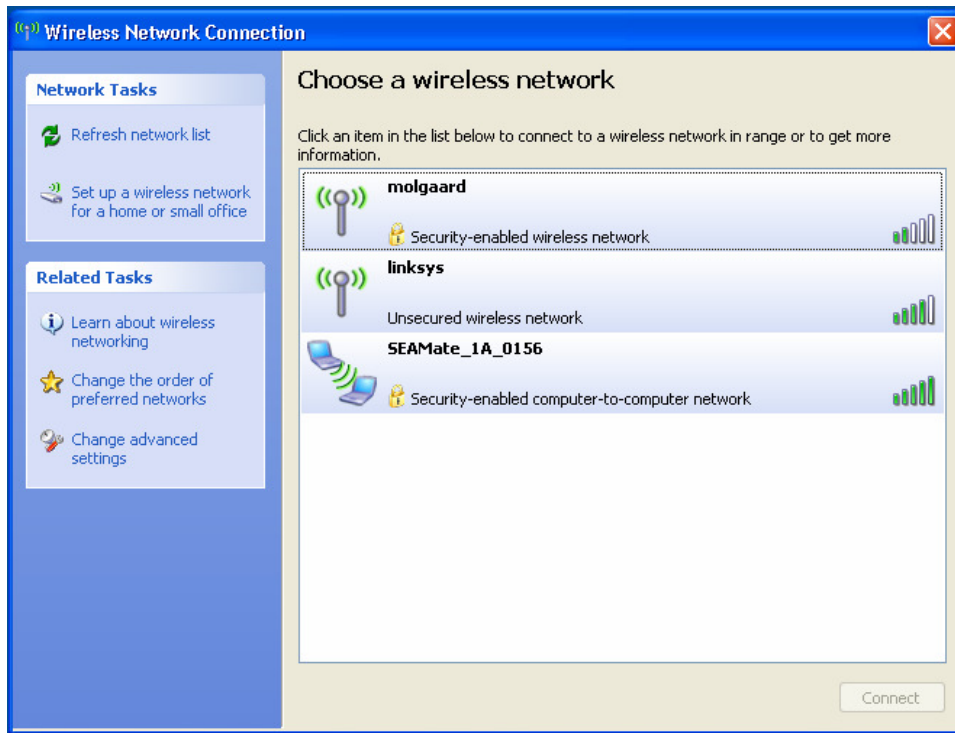
Enter the numbers shown below and finish by clicking OK



Now go to the menu "Choose a wireless network"

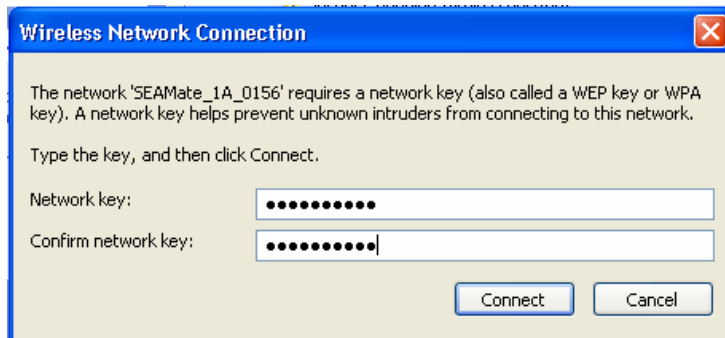
Remember to turn on the SEAMate1A[®] Lite

Click on the icon "Wireless network" in the bottom right hand corner of the screen or via the menu "Start".



Double click on the left mouse button and choose SEAMate_1A_XXXX. XXXX is the number of your SEAMate1A[®] Lite.

Enter network encryption key "123456abcd", confirm this and choose "Connect".



3. Software installation

COM port redirector

This programme will give you the COM ports your chart programme use as input source, e.g. GPS data etc.

A COM port redirector is installed in the computers operating system and once this is done, the computer will have extra COM ports (e.g. COM 8 & COM 9) which are disposable for input from the ships instruments. Note: The first COM Port is for AIS and the second for NMEA.

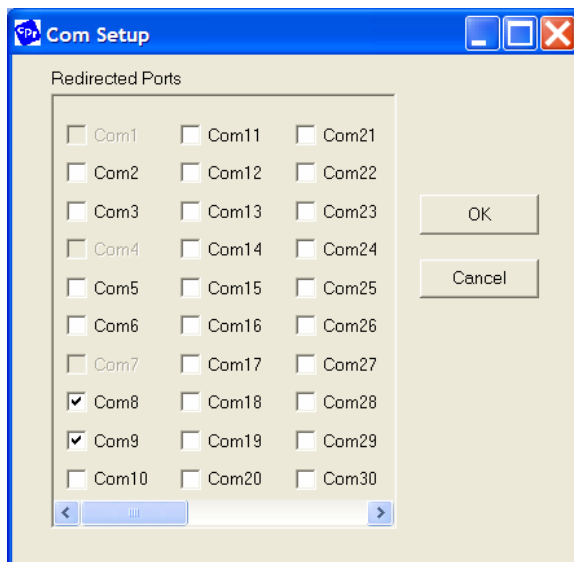
The enclosed CD contains Lantronix Com port redirector.

This is the installation guide:

Install the programme

Start "Lantronix Redirector"

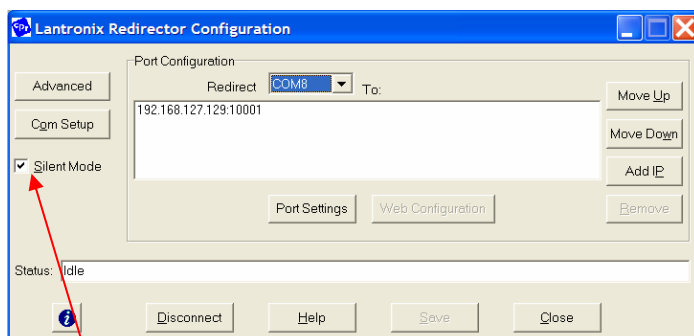
Go to "Com Setup"



Tick the COM ports which should be accessible on the PC.

If others are already used, choose COM 8 or COM 9.

Choose "OK" and return to this window:



Tick "Silent Mode"

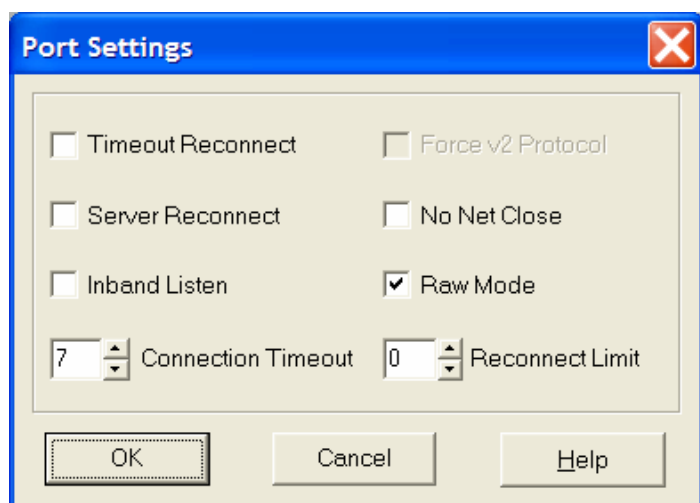
You need to set up two ports, the first for AIS, the second for NMEA
If the AIS has already been combined into the NMEA data by another piece of equipment, you need set up only one COM port. This is SeaMate channel 2, which requires the TCP port to be set as 10002 (see below)

From the drop-down menu choose the COM port, which was chosen in the previous window, e.g. COM 8

Click "Add IP"

Enter IP number Host: 192.168.127.129 Note: This is not the same IP address as used in setting up the wireless network (above)
TCP port 10001. This is for SeaMate channel 1
Confirm by choosing "OK"

Go to "Port Settings"



Tick "Raw mode"

Choose "Save"

You now need to set up a second port for Channel 2 – NMEA – which uses a different TCP port number

Repeat the same for COM 9, however for COM 9 the TCP port must be entered as 10002

Save and close

Restart your computer.