

### **PC setup for dialing with RAMSAT and High Speed Data terminals into INTERNET by using asynchronous PPP protocol and Dial Up Network**

Using the RAMSAT external Terminal Adapter to simplify interfacing to satellite based terminals with High Speed Data support, makes it possible to dial directly into the Internet if you have access to an Internet Service Provider (ISP) supporting ISDN connections at 64/56 kbps. The Internet link can be used for browsing, standard mail services, file exchange or any other Internet service.

#### **Minimum requirements:**

⇒ Remote side:

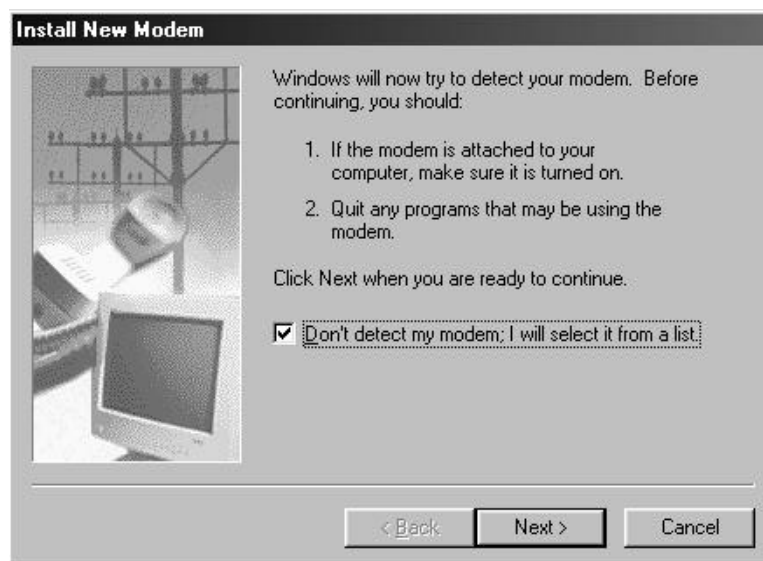
- 1 fixed or mobile Inmarsat B Terminal with High Speed Data option
- 1 RAMSAT Terminal Adapter unit (RVP24 or ROP24)
- 1 PC with 1 available COM Port with a 16550 UART in order to do serial communication at the asynchronous speed of 115.2 kbit/s.
- PC standard Internet related software Dial Up Network, Outlook, FTP etc.

## Installing RAMSAT High Speed Data interface as a modem into Windows 98

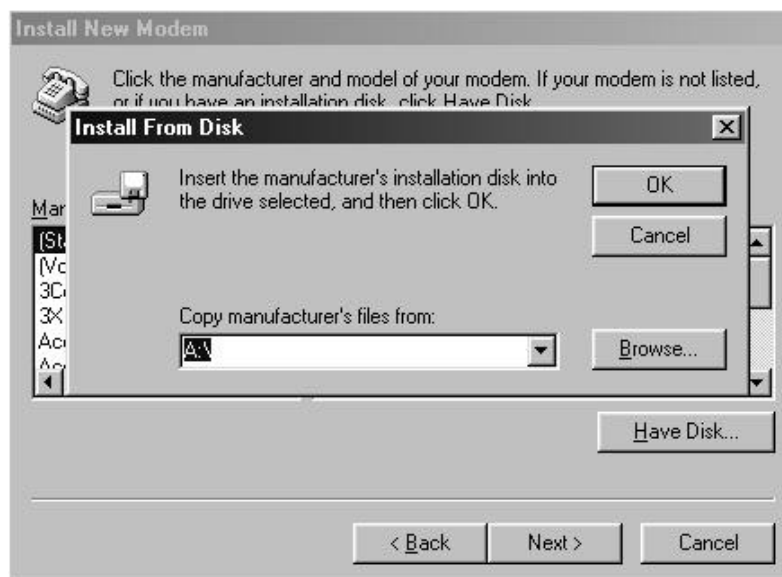
To be able to use the HSD 64000b/s utility of your SAT-B-terminal with RAMSAT you need to install RAMSAT RVP24 or ROP24 as an ISDN modem by the **Modems** setup in the **Control Panel** on your PC.

If you have used your B-terminals LSD 9600 data service utility you have probably already installed a modem driver for the LSD service to your PC in a similar way.

**Control Panel** is found in **Start/Settings**. Double click the **Modems** icon, select the box *Don't detect my modem; I will select it from a list*, then click *Next* button



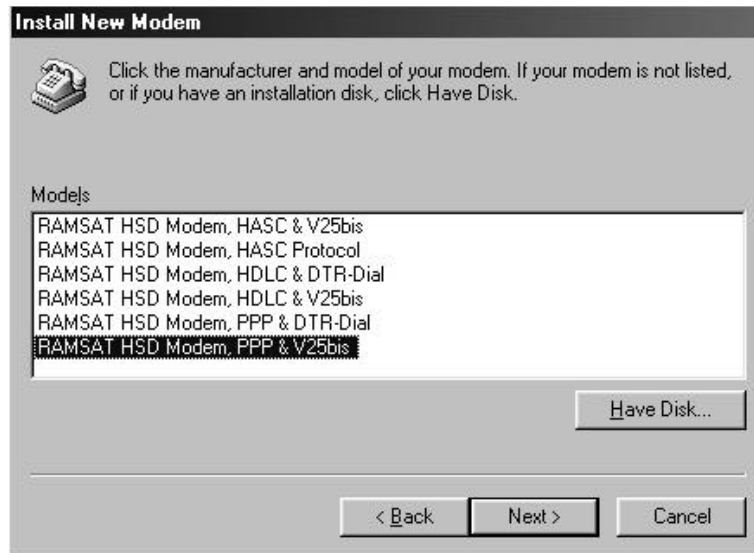
In the next window click *Have disk* , then insert the disk labelled “RAMSAT - File Transfer” and click *OK* .



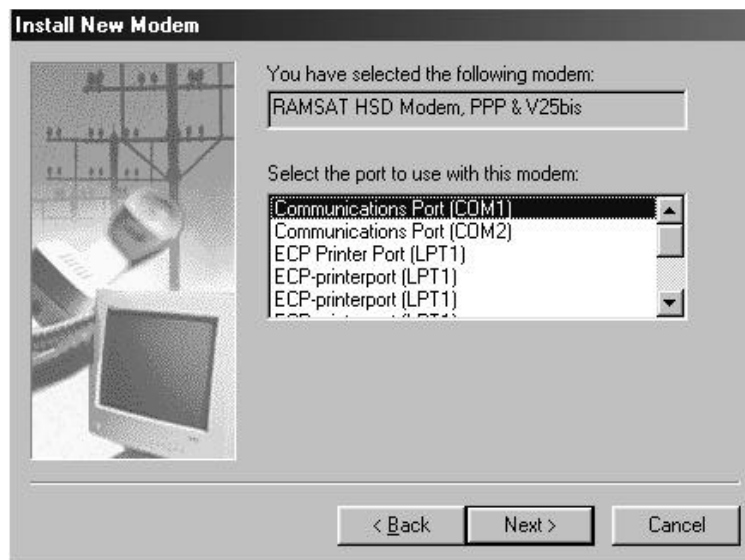
## RAMSAT APPLICATION NOTE



Next you will see a window containing a list of different modem drivers for RAMSAT, select PPP and V25bis support by a click on “**RAMSAT HSD modem, PPP & V25bis**”, then click *Next*. (If you need other preferences confer the manual )



Select the COM-Port to which the RAMSAT unit was attached, then click *Next*.



Click the *Finish* button in the last window. Now the RAMSAT interface unit should be correct installed to the PC and may be used with Dial Up Networking calling into Internet or other Net servers using the PPP protocol to negotiate a connection.

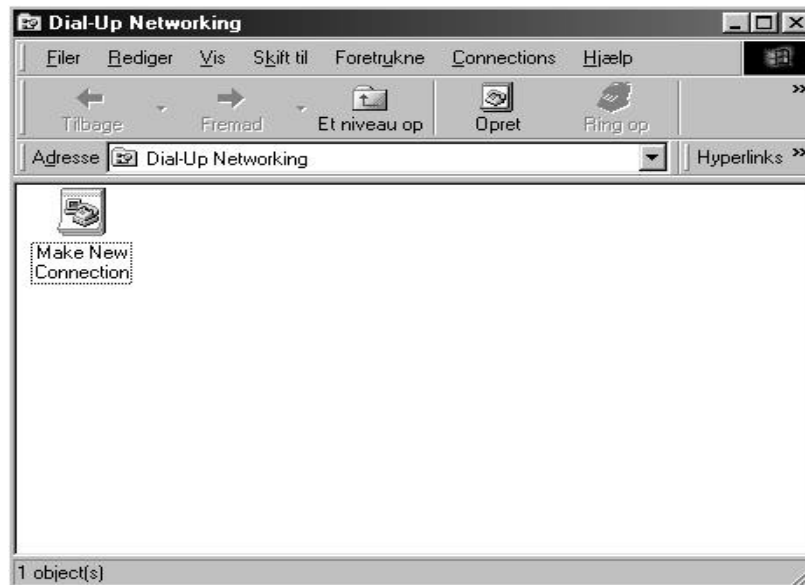
RAMSAT is automatically initialised to use PPP protocol by the modem driver installed when used with Dial Up Networking. It is important however to verify that a TCP-IP protocol has been installed and configured according to your ISP preferences in the network setup before you can obtain access to the Internet.

### Making a Dial Up Networking (DUN) setup for Internet access

To make a connection to the Internet by an ISP (Internet Service Provider) Dial-Up Networking needs to be configured with data from your ISP account and information about which hardware to use for the connection.

In your **Network** setup you must verify that a TCP-IP protocol has been installed and has a binding to a virtual dial adapter and a configuration matching your ISP preferences. Verify this in **Network** setup found in **Control Panel** under **Start/Settings**.

**Dial-Up Networking** is found under **Start/Programs/Accessories/Communications/Dial-Up Networking**. (If the *Dial-Up Networking* does not appear, see the Windows 98 manual on Configuring the PC: How to install *Dial-Up Networking*).

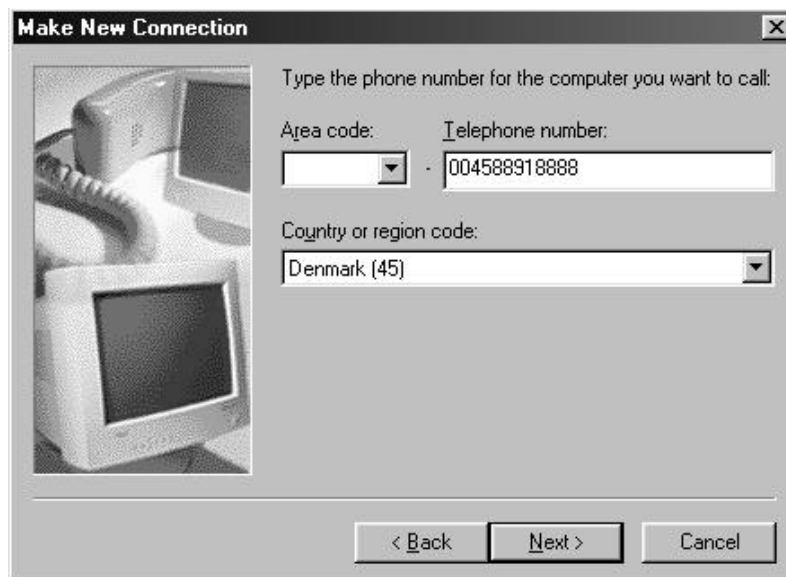


In the **Dial Up Networking** folder double click the icon *Make New Connection*.

In the first window, name the session and select which installed modem to use for the connection (if more than one modem are installed on the PC) otherwise select the recent installed RAMSAT HSD modem, then click the *Next* button



In the following window enter the phone number for your Internet provider and remember to enter the country code. In this example the provider is located in Denmark and the country code is **0045XXXXXXXX**.



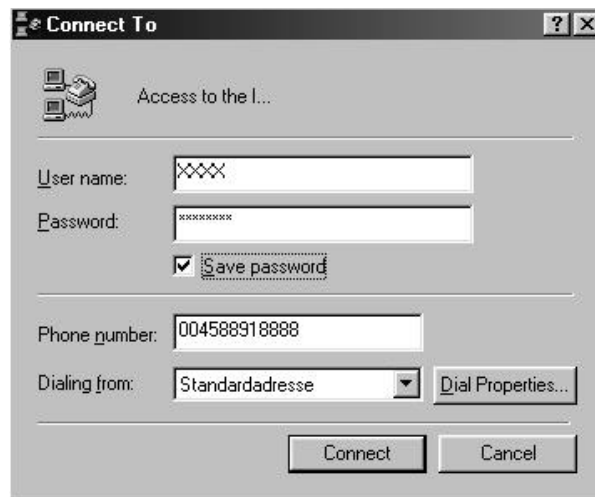
When done press *Next* and use the last window to confirm and save the settings by clicking *Finish*.

When setting up a *Dial-Up Networking* connection for Windows 98, a Dial-Up Adapter must be installed. The dial-up adapter is a virtual adapter which for Internet (PPP) connections must have a TCP/IP protocol binding.

If the adapter is not installed, Windows 98 will automatically ask for it to be installed when the *Dial-Up Networking* connection setup is saved.

### Testing your setup with Dial Up Network

To test if the configuration is properly installed, try to connect to your ISP by clicking the new connection icon you named “*Internet*” which was stored in the folder *Dial-Up Networking*, then enter the user name and password obtained from your provider, verify the phonenumber, then press the *Connect* button



The DUN application should respond by displaying a message window telling whether the connection attempt succeeded or failed.

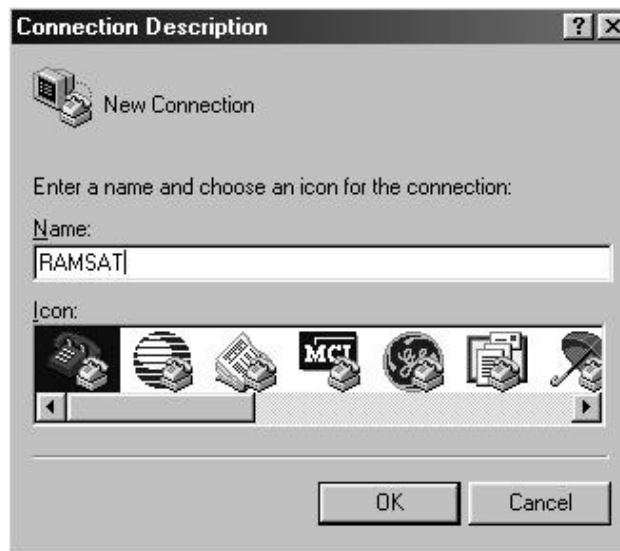
If a connection was obtained it should now be possible to start the browser software installed on the PC to surf the WEB (World Wide Web) or make a configuration of the e-mail client according to the information given from your ISP.

### Verifying the RAMSAT installation

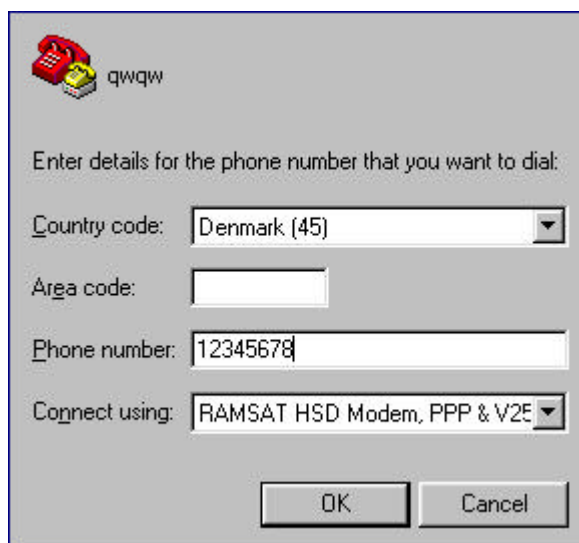
If your connection for some reason fails to connect, try to verify the RAMSAT installation by using HyperTerminal or a similar terminal program to send AT commands to RAMSAT and verify that the RAMSAT interface unit has a proper response to AT commands.

HyperTerminal can be found under **Start/Programs/Accessories/Communications/HyperTerminal**. If HyperTerminal is not present confer with the Windows 98 manual on how to install HyperTerminal.

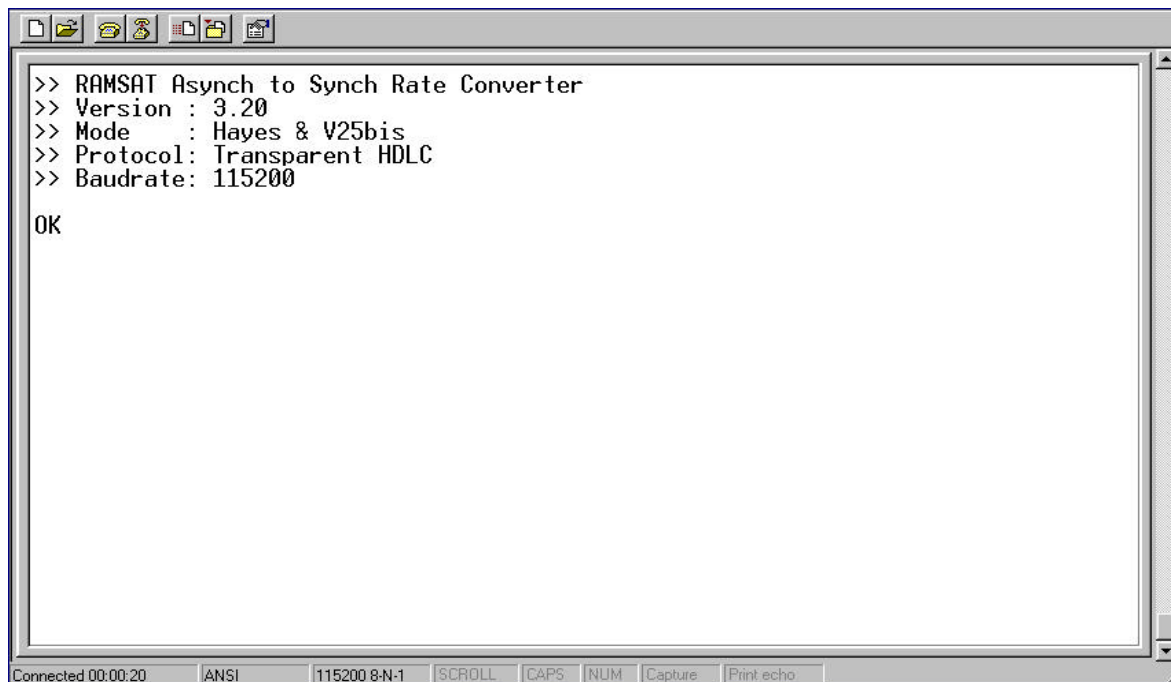
Make a new HyperTerminal session by double clicking the Hypertrm.exe icon, give the session a name, then click OK.



In the next window select the modem attached to the COM port (RAMSAT HSD modem PPP and V25bis) or alternatively use: *Direct to comX* (where X is the number of the COM-port where the RAMSAT is attached) then click OK.



HyperTerminal is now ready to send **AT** commands to the RAMSAT unit. Enter the command **AT<cr>** and verify a response of **OK**, then enter the command **AT%I<cr>**. The commands are sent to RAMSAT by the COM port selected and RAMSAT should respond by displaying the current settings which is either the default setting or a result of your recent AT commands sent. The response for default factory setting is shown below. Change and verify the protocol setting to PPP by typing **AT%P3<cr>**. Verify by typing **AT%I<cr>** again and verify the result. **AT&F<cr>** resets the modem to default factory setting again.



The screenshot shows a HyperTerminal window with the following text displayed in the main area:

```
>> RAMSAT Asynch to Synch Rate Converter
>> Version : 3.20
>> Mode : Hayes & V25bis
>> Protocol: Transparent HDLC
>> Baudrate: 115200
OK
```

The status bar at the bottom of the window shows: Connected 00:00:20 | ANSI | 115200 8-N-1 | SCROLL | CAPS | NUM | Capture | Print echo

### Dialing with HyperTerminal

To verify that you can make a call with the RAMSAT installation try to dial into a known ISDN site or your ISP by typing **ATDxxxxxxx<cr>** where **xxxxxxx** is the number to dial.

If you are dialing into an ISP you cannot make a “normal” login because Hyperterminal does not support PPP protocol sessions, but you may be able to make a short connection verifying that dialing is possible. Always assure that the protocol used is present at the receiver site as well otherwise you may get unpredictable results .

HyperTerminal may now be closed . The HyperTerminal session may be saved for later verification sessions.