NETHAWK ANALYSER

USER'S GUIDE

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Notice:

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1. Precautions

Follow the instructions in this manual. They are meant to ensure your own safety and to prevent any damage to the NetHawk adapter and to your PC.

Keep the NetHawk adapter at room temperature for 12 hours before installation. This ensures that any moisture is dried from the adapter surface.

- Electrical current from PC power and communications cables is hazardous. For the safety of yourself and others you should always connect the PC and other equipment to properly grounded mains outlet.
- Always handle the NetHawk adapter carefully to avoid accidentally damaging it.
- The NetHawk adapter is meant to be used in normal room temperatures. The allowed operational temperature is +10 - +40 °C (+50 - +100 °F) and relative humidity 20 - 85 %.
- Note that the PC equipment and NetHawk adapter may be damaged if you power them up below +10 °C.
- Remember to take proper anti static precautions in order to avoid damage to the equipment due to static discharge.
- X-Net Oy accepts no responsibility for any damage done to the analysed device when connecting cables, nor is it responsible for damage made to the NetHawk adapter or to the analysed device when using self made cables.

In case of Ethernet adapters delivered with NetHawk analysers, follow the instructions provided by the manufacturer of the adapter.

2. Installation

This chapter explains the installation of the NetHawk adapters and the NetHawk Analyser software. There are five different NetHawk adapters:

- NetHawk Advanced PCM Card (NAP),
- NetHawk CardBus PCM Card (N2),
- NetHawk PCM Card for E1 interface (NPC E1),
- NetHawk PCM Card for T1 interface (NPC T1) and
- NetHawk ISDN Card (NIC).

The analyser software may be:

- NetHawk GSM,
- NetHawk V5,
- NetHawk SS7,
- NetHawk ISDN or
- NetHawk ISDN BRI

Performance of the NetHawk Analyser depends on the performance of your PC. The README.TXT file states the requirements for the latest analyser version.

2.1 What do I need to install the NetHawk Analyser

Before you start installing the analyser check you have all the necessary components available. When installing the one card version of the NetHawk Analyser you should have:

- a PC,
- software license agreement and $3^1/_2$" diskette(s) containing the NetHawk Analyser software,
- one NetHawk adapter,
- optionally, an Ethernet adapter delivered with the NetHawk Analyser
- User's Guide (this document) and
- one set of cables.

When installing the two card version there are additional parts:

- second NetHawk adapter and
- another set of cables.

2.2 Installing the N2 card

The N2 is a CardBus (PC Card type II) adapter. Open the parcel carefully and remove the card from its package.

There are three parts that make the NetHawk product: adapter for CardBus slot (PCC), a POD that contains the physical interface and a connecting cable. Note that the cable has been soldered both to the POD and to the PCC. **Do not attempt to disconnect the cable!**

N2 adapter.

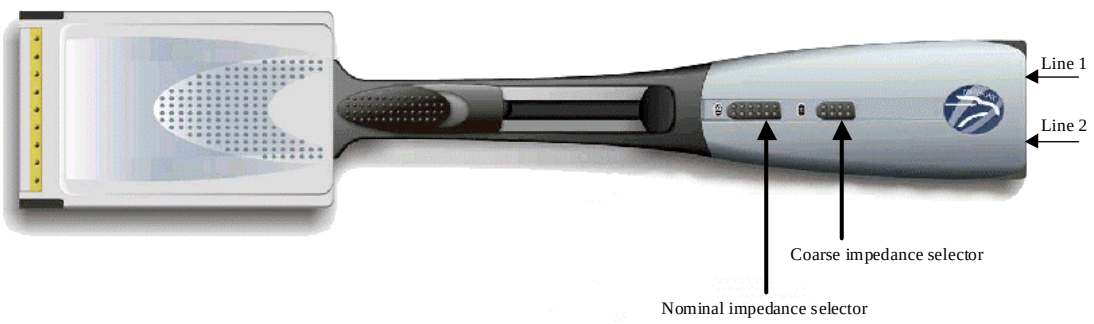
When you plug the NetHawk adapter in the slot of your PC, the PC Card software automatically reserves resources for the card.

Please check that the high/low impedance switch of the N2 POD is set to HIGH position.

2.3 Connecting to G.703 interface with N2

The N2 requires a PC Card type II slot with CardBus interface. The physical interface of the N2 adapter can be configured with software. You can select either the 2 Mbit/s E1 interface or the 1.544 Mbit/s T1 interface. The selection is made from the User Interface of the NetHawk analyser (Tools|Options|Hw -dialog).

When monitoring a G.703 interface, you should connect the NetHawk parallel to the G.703 line to be analysed. The type of the standard monitoring cable for N2 card is **3045C**.



Connectors and selectors of N2 adapter

Check that the 'coarse impedance selector' is in HIGH position before connecting the N2 to the line.

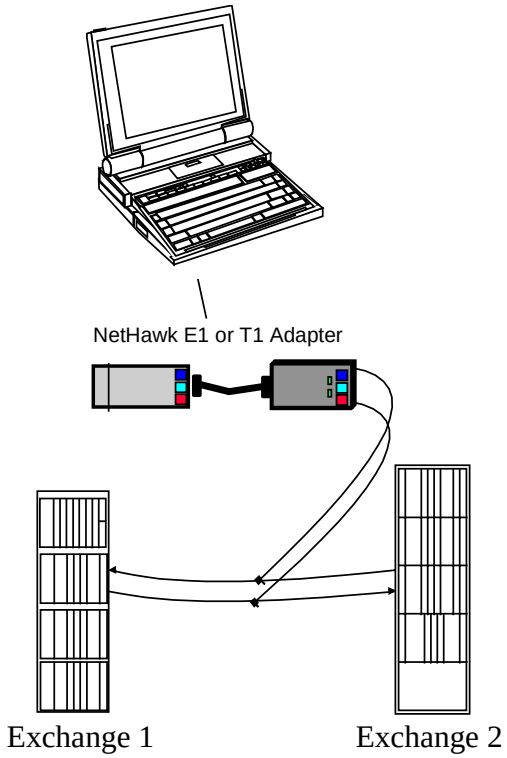
You can analyse one physical G.703 line with one N2 adapter. You can have up to 2 N2 adapters installed to your PC. To monitor two (2) PCM lines, a second N2 card and two-card software version has to be purchased.

N2 is connected to the G.703 line like NPC adapter. See ch. 4.15 'Connecting to G.703 interface with NPC' for more details.

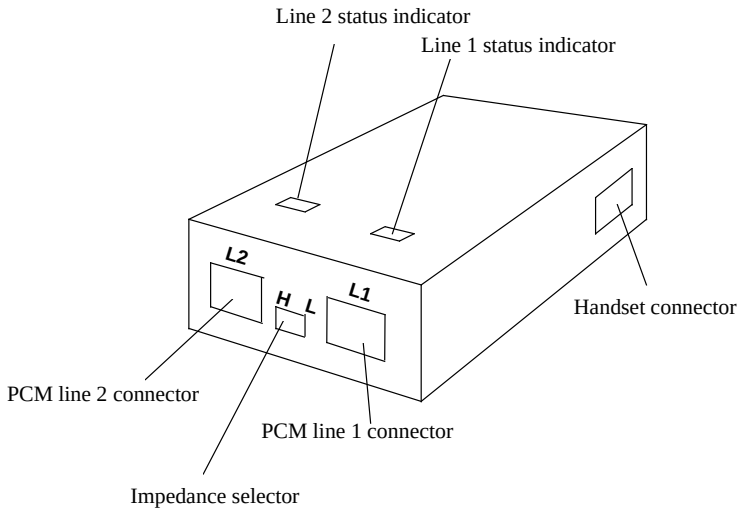
2.4 Connecting to G.703 interface with NPC

The NPC requires a PC Card type III slot. There are two types of NPC adapters: the NPC E1 for the 2 Mbit/s E1 interface and the NPC T1 for the 1.544 Mbit/s T1 interface.

When monitoring a G.703 interface, you should connect the NetHawk parallel to the G.703 line to be analysed. The type of the standard monitoring cable for NPC card is **3005**.



Connecting NPC or N2 to a G.703 line.



Connectors of NPC POD.

When the cables are firmly connected and NPC has been plugged in the slot of your PC, you can start the NetHawk Analyser to seek traffic in G.703 interface.

At start-up an information window will be displayed. Open the 'Setup Connections' dialog by pressing *F7*. If you want to view pre-recorded traffic select the 'File' radio button from the 'Source' pane and click the 'Trace file' button to select the file. You can monitor up to eight connections simultaneously. Activate the time slots that you want to monitor. You can also activate the built-in *Scanner* (click 'Tools|Scanner' from main menu) of the analyser to search for the signalling and traffic timeslots from the PCM for you.

The monitoring window will display the signalling messages on the connections you have activated according to the default decoding settings. Press *F6* to change the settings.

If you wish, you can save the set-up to be used later. Type *F7*. Enter the name for your configuration file. If you use the name **Default.gcf**, the NetHawk will load this file automatically the next time you start it.

You can do the same action for the trap file. NetHawk will load the traps defined in **Default.gtd** at start-up.

3. Specifications and performance

3.1 N2 specifications

Dimensions:	**PCC**	**POD**
Height	5,0 mm	25,5 mm
Width	54,0 mm	38,0 mm
Depth	85,6 mm	90,0 mm

Weight	100 g

Electrical values

Power supply	3,3 V
Current consumption	650 mA

CardBus

The ‘PC Card Standard 1995 release’ compatible CardBus host interface.
68 pin connector.

PCM interface

According to G.703 specification
Input impedance >> 120 Ω

Receiver performance

The signal levels 36dB below the level specified in G.703 can be detected.