

Noise Explorer™ Type 7815

A Windows Application for Managing and Viewing Files
using data from:

2260 Investigator with BZ 7201/02/03/10

Sound Level Meter Type 2231 with BZ 7112
Sound Level Meter Type 2236 (all variants)
Sound Level Meter Type 2237 A and 2237B
Noise Dose Meter Type 4436

and

Files generated by software:
Types 7694, 7696, 7697 and BZ 7028

Note: Noise Explorer Type 7815 is a true 32-bit application, but if Microsoft Win32s is present on your PC, Noise Explorer software can also be installed to run on Windows 3.10 or 3.11. Win32s is included on the installation disks for Noise Explorer Type 7815. Noise Explorer™ Type 7815 will also work with Windows NT™ 3.51 and 4.0

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1 Introduction

This guide contains instructions for the installation of Noise Explorer Type 7815, which is an application for the users of Brüel & Kjær Sound Level Meters Type 2236, 2237, 2231/BZ 7112, 2260/BZ 7201/02/03/10 and Noise Dose Meter Type 4436. This application is designed for MS Windows 95, but it will also work with Windows Version 3.10*, 3.11* and Windows NT ver. 3.51 or 4.0.

Noise Explorer Type 7815 consists of the following component parts:

- One set of 3.5" disks with the program files, an installation file, and on-line documentation (including a user-printable Tutorial as well as full reference information about all commands and functions).
- One set of 3.5" disks with Microsoft Win32s program files.
- A software key (HASP).
- This Installation Guide.

* Only if Microsoft Win32s is present on your PC. Help with installing Win32s is given in Section 5

2 System Requirements

Minimum System Requirements

- Any IBM® compatible personal computer with an Intel 80486-66 MHz processor with 8 MB RAM
- MS Windows 3.10 running in enhanced mode
- 20 MB free hard-disk space
- VGA colour graphics display and adapter (640 x 480)
- A 3¹/₂" , 1.44 MB disk drive
- One available serial (COM) port
- Parallel port LPT1
- A mouse or other pointing device.

Recommended System Configuration

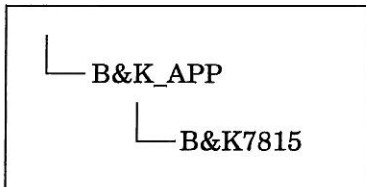
- Any IBM compatible personal computer with an Intel Pentium® processor
- 16 MB RAM
- MS Windows 95
- At least 20 MB free hard-disk space
- SVGA graphics display and adapter (1024 x 768)
- A 3¹/₂" , 1.44 Mb disk drive
- One available serial (COM) port
- Parallel port LPT1
- A mouse or other pointing device
- One PC-CARD drive

3 Installing Noise Explorer Type 7815

Note: Before installing, it is recommended that a backup copy of the master program disk is made. Store the master disk in a safe place and use the backup disk for this installation. See your Windows user manuals for instructions on making disk copies.

The installation procedure has the following structure:








1. You choose the disk drive and directory where the application is going to be installed. The default value is **C:\B&K_APP\B&K7815**, but this can be changed as required.
2. The installation routine checks that there is sufficient free space on the specified hard disk before proceeding.
3. The automatic installation procedure creates the following directory structure on your hard disk:



4. All executable program files are expanded and copied to the B&K7815 directory.
5. A program group is created containing the Noise Explorer Type 7815 icon.

4 Windows 95 and Windows NT 4.0

To start the Noise Explorer Type 7815 installation procedure when running Windows 95 or Windows NT 4.0:

1. If Windows 95 is already running, quit all programs and restart Windows 95. If NT4.0 is already running, then restart and make sure that you are logged on as ADMINISTRATOR.
2. Insert the disk with program files in the appropriate drive (for example drive A:).
3. Double-click on the Desktop icon called **My Computer**
4. Double-click on the control panel icon: 
5. In the Control Panel windows, double-click on the **Add/Remove Programs** icon: 
6. In the Add/Remove Programs dialog box, click on  .
7. Click on  .
8. When **A:\setup.exe** is displayed, click on  .
9. When the Brüel & Kjær Installation Program has been started click on  .
10. The dialog box shown in Fig. 1 will be displayed. To accept the proposed drive and directory choose  .
To specify another path, enter it in the **Destination Directory** text box. If you would like, you can click on the **Browse...** button to see what directories currently exist on your hard disk.

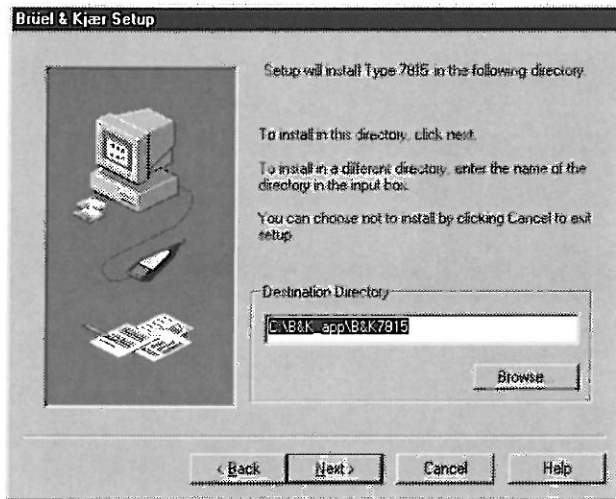



Fig.1 The Noise Explorer home directory is specified in the Destination Directory box

11. To quit without installing Noise Explorer Type 7815 choose **Cancel**.
12. The window that appears next (see Fig.2) asks you to select a Program Group.

The Program Group is where you will find Noise Explorer once installed. The selected Program Group appears in the Programs pop-up window of the Start menu.

Brüel & Kjær Applications is suggested as the default Program Group, but by double-clicking on a line in the Existing Groups box, any existing group can be selected. Alternatively, a new name can be entered in the Program Group box.

Continue the installation by clicking on  .

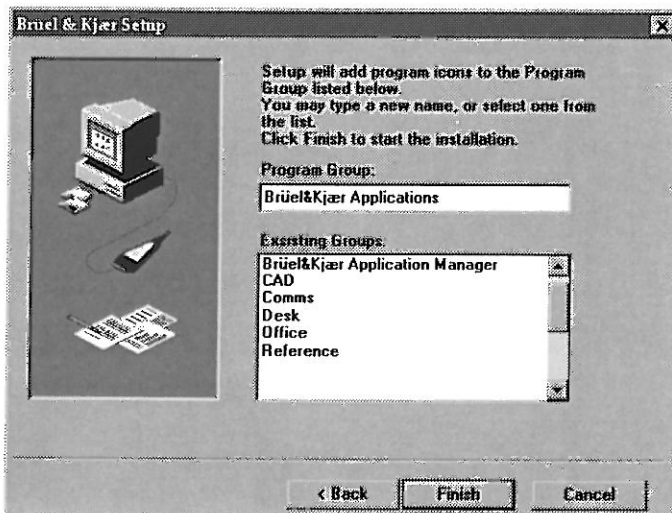


Fig.2 The group to which Noise Explorer is added is specified in the Program Group box

If Installation Difficulties are Encountered

There are two possible causes for installation difficulties:

- The installation routine found insufficient hard-disk space.
- The installation routine was unable to copy one or more files to your hard disk.

The first problem can only be resolved by making more space available for the installation of Noise Explorer Type 7815.

The second problem can arise when earlier versions of one or more system files cannot be overwritten with new files from the Noise Explorer installation disk.

When this error occurs, the offending file name is listed in the error message that appears. Make a note of the name, then use the Windows Explorer to locate the file on your hard

disk and rename it. You can, for example, replace the file's extension with the extension .OLD. Repeat the installation and file renaming procedure as many times as necessary to reach a successful installation.

5 Installing Win32s



Note: You only need do the following procedure if you are going to use Noise Explorer with Windows 3.10 or 3.11. Installing Win32s is not necessary if you use Noise Explorer with Windows 95 or Windows NT.

Noise Explorer Type 7815 is a true Windows 95 32-bit application. In order for it to run under Windows 3.10 or 3.11, Microsoft Win32s version 1.30 (or higher) **must** be installed on your PC **before** installing Noise Explorer Type 7815.

To install Microsoft Win32s (which comes as part of the Noise Explorer Type 7815) follow this procedure:

1. If it is not already running, start Windows.
2. Insert the first disk with Win32s program files in the appropriate drive (for example drive A:).
3. At the **F**ile menu (in Program Manager or File Manager) select **R**un...
4. In the **R**un dialog box, type the command line:
a:\setup
and press **<Enter>**.
5. Follow the instructions given by the Microsoft Win32s installation procedure.
6. After installation, **reboot** your computer.

6 Windows 3.10 or 3.11

1. Make sure Win32s is installed on your computer (see Section 5).
2. Start Windows.
3. Insert the first disk with Noise Explorer program files in the appropriate drive (for example drive A:).
4. At the **File** menu (in Program Manager or File Manager) select **Run...**
5. In the **Run** dialog box, type the command line
a:\setup
6. Press **<Enter>**.
7. When the Brüel & Kjær Installation Program has been started click on the **Next** button:  .
8. The dialog box shown in Fig. 3 will be displayed. To accept the proposed drive and directory choose  .
To specify another path, enter it in the **Destination Directory** text box. If you would like, you can click on the **Browse...** button to see what directories currently exist on your hard disk.
9. To quit without installing Noise Explorer Type 7815 choose **Cancel**.

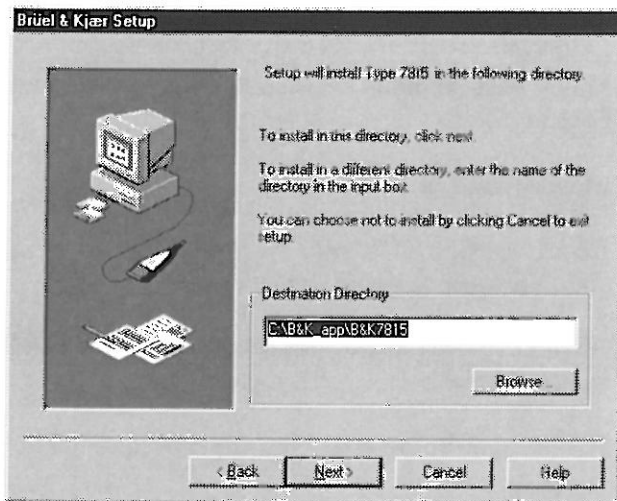



Fig. 3 The Noise Explorer home directory is specified in the Destination Directory box

10. The window that appears next (see Fig. 4) asks you to select a Program Group.

The Program Group is where you will find Noise Explorer once installed. The selected Program Group appears in the Program Manager window.

Win32 Applications is suggested as the default Program Group, but by double-clicking on a line in the Existing Groups box, any existing group can be selected. Alternatively, a new name can be entered in the Program Group box.

Continue the installation by clicking on  .

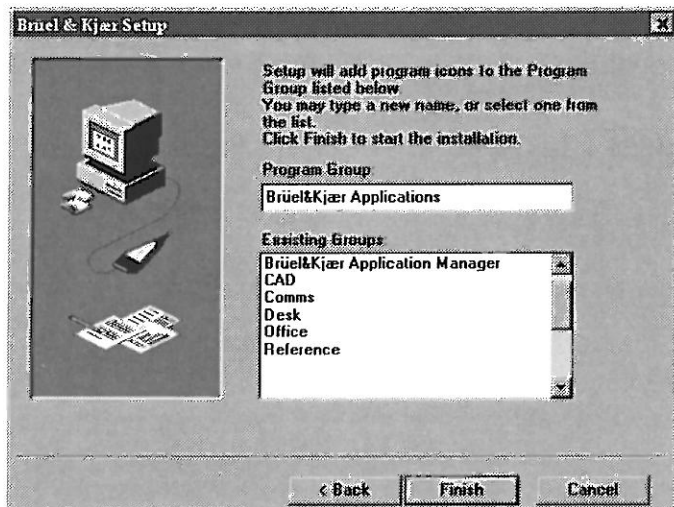


Fig.4 The group to which Noise Explorer is added is specified in the Program Group box

If Installation Difficulties are Encountered

There are two possible causes for installation difficulties:

- The installation routine found insufficient hard-disk space
- The installation routine was unable to copy one or more files to your hard disk.

The first problem can only be resolved by making more space available for the installation of Noise Explorer Type 7815.


The second problem can arise when earlier versions of one or more system files cannot be overwritten with new files from the Noise Explorer installation disk.


When this error occurs, the offending file name is listed in the error message. Make a note of the name, then use the Windows File Manager to locate the file on your hard disk, and to rename it. You can, for example, replace the file's

extension with the extension .OLD. Repeat the installation and file renaming procedure as many times as necessary to reach a successful installation.

7 Windows NT 3.51

1. Start Windows.
2. Make sure you are logged on as **ADMINISTRATOR**.
3. Insert the first disk with Noise Explorer program files in the appropriate drive (for example drive A:).
4. At the **File** menu (in Program Manager or File Manager) select **Run...**
5. In the **Run** dialog box, type the command line
a:\setup
6. Press **<Enter>**
7. When the Brüel & Kjær Installation Program has been started a message telling you to be logged on as **ADMINISTRATOR** appears. Click on **OK** if you have logged on as **ADMINISTRATOR**. Otherwise click on **Cancel** and start again from step 2.

8. Click on the **Next** button:  .

9. The dialog box shown in Fig. 5 will be displayed. To accept the proposed drive and directory choose  .

To specify another path, enter it in the **Destination Directory** text box. If you would like, you can click on the **Browse...** button to see what directories currently exist on your hard disk.

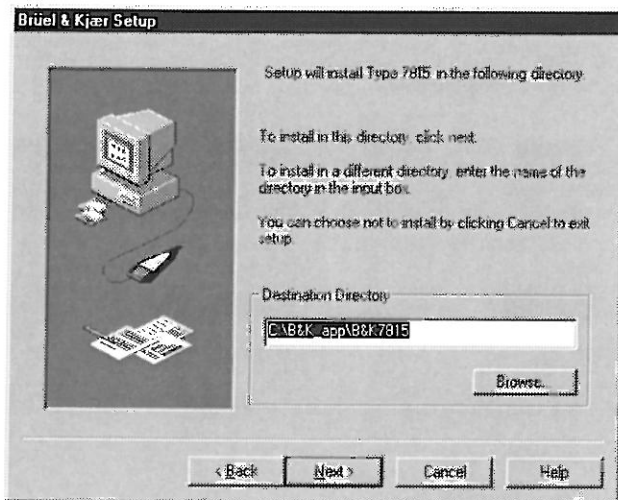


Fig.5 The Noise Explorer home directory is specified in the Destination Directory box

10. To quit without installing Noise Explorer Type 7815 choose **cancel**.
11. The window that appears next (see Fig.6) asks you to select a Program Group.

The Program Group is where you will find Noise Explorer once installed. The selected Program Group appears in the Program Manager window.

Brüel & Kjær Applications is suggested as the default Program Group, but by double-clicking on a line in the Existing Groups box, any existing group can be selected. Alternatively, a new name can be entered in the Program Group box.

Continue the installation by clicking on



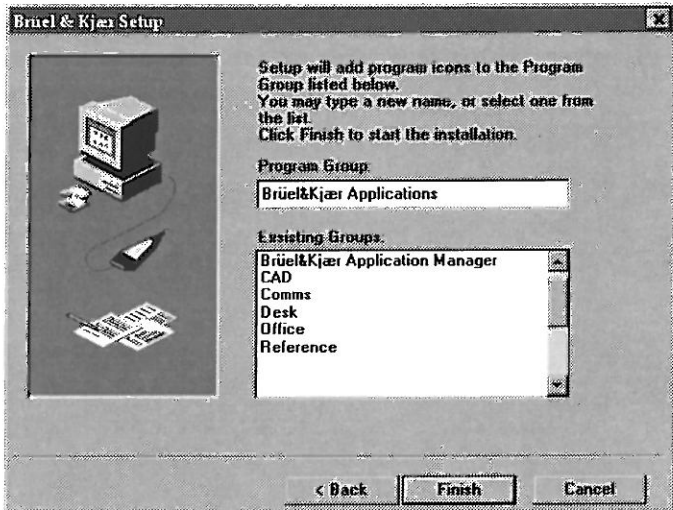


Fig. 6 The group to which Noise Explorer is added is specified in the Program Group box

If Installation Difficulties are Encountered

There are two possible causes for installation difficulties:

- The installation routine found insufficient hard-disk space
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The first problem can only be resolved by making more space available for the installation of Noise Explorer Type 7815.

The second problem can arise when earlier versions of one or more system files cannot be overwritten with new files from the Noise Explorer installation disk.

When this error occurs, the offending file name is listed in the error message. Make a note of the name, then use the Windows File Manager to locate the file on your hard disk,

and to rename it. You can, for example, replace the file's extension with the extension .OLD. Repeat the installation and file renaming procedure as many times as necessary to reach a successful installation.

8 Attaching the Software Key (HASP)

For proper operation of Noise Explorer, the supplied software key must be connected to the LPT1 parallel port on your computer.

You may already have other equipment (such as a printer) connected to this port, but the key has no effect on the normal operation of the parallel port or the equipment connected to it.

To attach the software key to your computer, proceed as follows:

1. Turn off any equipment (such as your printer) connected to the selected parallel port.
2. Exit Windows and turn off your computer.
3. Remove any cable attached to the selected parallel port.
4. Plug the software key into the port.
5. Reconnect the cable into the software key.

9 Connecting Types 2236, 2237 or 2260

The 9-pin serial-interface connector at the base of the sound level meter is used to transfer data to the computer. On the computer, select one of the COM ports as input connector.

The required interface cable has Brüel & Kjær part number AO 1386. This is an optional part not supplied with the sound level meter or the Noise Explorer Type 7815 software. AO 1386 has 9-pin connectors at each end. A 9-pin to 25-pin adapter is supplied with the AO 1386 for use with computers with 25-pin serial connectors.

Procedure

1. Choose a free COM port on your computer.
2. Connect the sound level meter to your chosen port on the computer with cable AO 1386 (and adapter if required).

Caution: To avoid risk of damage, the sound level meter must be switched off before connecting or removing the connecting cable.

Note: Disconnect the sound level meter from the computer after completion of data transmission. Leaving it connected risks draining the batteries because it might power on when the PC is switched off.

10 Connecting Type 4436

The 5-pole digital-output interface socket at the top of the noise dose meter is used to transfer data to the computer.

The required interface cables are available from Brüel & Kjær. These are optional parts not supplied with the Noise Dose Meter or the Dose Reporter software. Cable AO 0507* has a LEMO connector at each end. Cable AO 0498* has a 25-pole connector for the PC and a LEMO connector to connect it to cable AO 0507.

Procedure

1. Choose a free COM port on your computer.
2. Connect the Noise Dose Meter to your chosen port on the computer with the cables.

Note: In some configurations it may not be possible to power-on the dose meter when connected to the PC. In such cases, power-on the dose meter before making the connection.

* Cables AO 0498 and AO 0507 have ferrite protection that conforms to the CE standard. If you have an earlier version of the dose meter with cables AO 0299 and AO 0335, these can still be used, but the CE standard will not be up-held.

11 Connecting Type 2231

Procedure

1. Switch the sound level meter and the computer off
2. Set the baud rate on Interface Module ZI 9101 to 9600. The DIP Switch on ZI 9101 should read 1–5 = 0 and 6–9 = 1. (for more information see section 5.2 of the 2231+BZ7112 manual).
3. Attach the interface module to a free COM port on your computer.
4. Attach Interface Module ZI 9101 to the sound level meter in the same way as you would Short Term Leq Module BZ 7112. The set-up is shown in this figure.

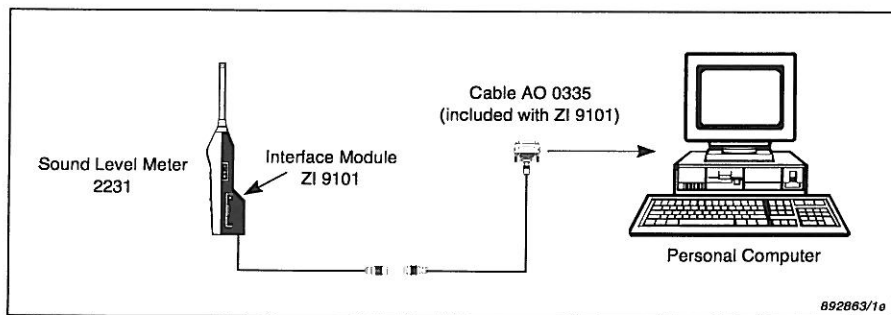


Fig.7 Using Interface Module ZI 9101 to connect Sound Level Meter Type 2231 to a PC


5. Switch the sound level meter and the computer on.
6. Check that the system monitor is set to the default value 1. If it is not, change it.
 - a. Remove the front plane from the 2231.
 - b. Switch **Load/Run** to **Load**.

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- c. Press **Enter/Exit**. (The display shows SY-1).
 - d. Press pushkey 7.
 - e. Switch **Load/Run** to **Run** (The display shows MO-X where X is 0, 1 or 2)
 - f. Press pushkey 1 to change the display to MO-1.
 - g. Press **Enter/Exit**. (The display shows W-M1).
 - h. Press **Enter/Exit** again.

12 Running Noise Explorer Type 7815

With Windows 95 or Windows NT4.0

On installation, a Brüel & Kjær application folder is created in the Programs pop-up window of the Start menu.

1. Click on . An extended menu appears.
2. Move the mouse cursor over **Programs**. A new menu appears.
3. Locate **Brüel & Kjær Applications** and move the mouse cursor over it.
4. Move the mouse cursor over **Noise Explorer Type 7815** and click the left mouse button.

Noise Explorer now starts.

With Windows 3.10 or 3.11

On installation, a Brüel & Kjær application group is created under the Program Manager.

1. Click on **Program Manager** to display its window.
2. Double click on the **Win32 Applications** icon.
3. Double-click on the **Noise Explorer Type 7815** icon to start the application.

Note: Starting Noise Explorer Type 7815 may take slightly longer than other Windows applications.

With Windows NT3.51

On installation, a Brüel & Kjær application group is created under the Program Manager.

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1. Click on **Program Manager** to display its window.
 2. Double click on the **Brüel & Kjær Applications** icon.
 3. Double-click on the **Noise Explorer Type 7815** icon to start the application.

Note: Starting Noise Explorer Type 7815 may take slightly longer than other Windows applications.

13 Notes on Using Noise Explorer

Noise Explorer includes Help files with detailed instructions on all aspects of the application. Instructions for preparing the analyzer and the computer for measurement data transfer are found in Chapter 1 of the on-line tutorial.

To print a copy of the on-line tutorial, or any of the other Help topics, proceed as follows:

1. Check your printer is ready for printing.
2. From the **Help** menu on Noise Explorer's menu bar, select **Tutorial**.
3. Click on **Chapter 1**.
4. With the tutorial topic displayed, select **Print Topic** from the Help file's **File** menu.

14 Uninstalling Noise Explorer

From Windows 95 or NT4.0:

1. Double-click on the Desktop icon called **My Computer**.
2. Double-click on the **Control Panel** icon.
3. In the Control Panel window, select **Add/Remove Programs**.
4. In the Add/Remove Programs dialog box, click on the **Noise Explorer Type 7815** line in the list.
5. Click on the **Add/Remove...** button.
6. The Brüel & Kjær Uninstall Utility will be started.
7. Click on **Next** to remove Noise Explorer Type 7815.

All Noise Explorer Type 7815 files have now been removed from your system.

From Windows 3.10, 3.11 or Windows NT3.51:

1. Start the **Windows Program Manager**.
2. Select the **Main** group.
3. Select **File Manager**.
4. Select the disk-drive where Noise Explorer has been installed.
5. Select the directory **B&K_APP** (or the alternative directory if the default was not accepted at installation).
6. Select the sub-directory **B&K7815**.

-
7. Select **Delete** from the File Manager's **File** menu.
 8. Select **OK**.
 9. Select **Yes to All**. It may be necessary to repeat this step more than once until all files have been deleted.

All Noise Explorer Type 7815 files have now been removed from your system.

15 Troubleshooting

Difficulties During Data Transfer

In the event you encounter difficulty in transferring data, review the following points:

Communication

- If using a Type 2236 or 2260, check that Noise Explorer has the same Baud rate (menu item: *Tools/Options...*) as the sound level meter. (The 4436 and 2237 have fixed baud rates.)
- Check the correct COM port on the computer has been used (menu item: *Tools/Options...*).
- Check that the correct cable has been used (see Section 9)
- Ensure that the COM-port interrupt level has been set correctly. (The correct setting is dependent upon the machine configuration. Consult the manuals supplied with your computer for further information).
- Check that no other applications (such as the mouse) are using the same COM port at the same time.

Battery Power

- Be sure the SLM's batteries are not running low. The SLM switches itself off when the batteries reach a minimum power level.

Virtual Memory

- Check that another application is not taking all the CPU time. On 386 and higher based computers, virtual memory can be set to reduce the time spent swapping.

Difficulties with HASP

The HASP device (software key) is connected to your PC's parallel port LPT1. Commonly, this port is also used for local printers.

If general, if you have a functional printer connected to LPT1, attaching the HASP should make no difference to the printer's operation.

However, you may find that although the LPT1 port appears to function with a printer, it does not function when a HASP is attached (either with or without a printer). This is because the HASP device uses the bi-directional capability of the parallel port which might not be used by your printer.

If you are experiencing difficulties when a HASP is attached, review the following:

1. Is the internal parallel card/motherboard port securely coupled to the back-panel connector?
2. Are there any I/O address conflicts?

For example, the LPT port and a network adaptor may have overlapping addresses that only become apparent when the bi-directional capabilities are used. If there is a conflict, the address of the network card must be changed.

