

dBdata4W Noise

Software User Manual



Thank you for buying a Castle product, I am sure you will find both the goods and the service to be of the highest quality but if not, then please feel free to write to me personally and I will ensure that your needs are dealt with immediately.

This manual is designed to show you the operation of the goods you have purchased and a very brief insight into acoustics itself. If you would like to become a competent person in the eyes of the law, then you may like to know more about our Competent persons training course for the Noise at Work Regulations.

It is my intention for Castle Group Ltd to provide a complete range of Noise and Vibration products and Services of the highest standard. If you would like to know more about any of our other products and services then please complete the reply paid card in this manual and return it to us for prompt action or telephone on +44(0)1723 584250.

Simon Bull

A handwritten signature in black ink, consisting of several loops and a horizontal stroke at the end, representing the name Simon Bull.

Sales and Marketing Director

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Recommended Requirements

Minimum Hardware

Pentium® Processor P133+ or 100% compatible

32 MB RAM

100 MB Free Disk space

1 Free RS232 25pin Serial Communications Port

or

1 Free 9pin Serial Port

Software

Windows 95® / 98® / NT® / 2000®

Installation of dBdata4W Noise From 3.5” Disk

To install the dBdata4W Noise program insert the disk labelled Disk 1. Click the START button and select RUN.

At the prompt type A:\SETUP.EXE.

Then follow the on screen instructions inserting the correct disks when prompted.

Once the installation is complete restart you computer before you commence running the program.

Installation of dBdata4W Noise CD

To install the dBdata4W Noise program insert the CD into your CD or DVD ROM drive.

The CD should autorun the setup program, however, should it not click the START button and select RUN.

At the prompt type D:\SETUP.EXE. (where “D” is the designated letter for your CD ROM drive.

Then follow the on screen instructions.

Once the installation is complete restart you computer before you commence running the program.

Running the program

Once the installation of the software is complete the programs are stored in a file entitled ‘Castle Group Software’.

Click the START button and select programs.

Then select ‘Castle Group Software’.

Click on the icon called dBdata4W Noise

The FILE option

- Acquire: this function downloads data from the instrument
- Open : this function provides access to previously saved data
- Merge: this function adds a data file to the current file
- Save: this function saves the current file
- Save As: this function saves the current file to a specified name and destination
- Close: closes the selected file
- Close All: closes all files
- Print: this function prints the current page
- Exit: shuts down the program

The EDIT option

- Copy to clipboard: this function copies the data file to the clipboard

The View option


- Toolbar: this function turns the toolbar at the top of the screen on and off
- HPD database: this function lets you view and edit the Hearing Protection Devices used in the program
- Synchronise Instrument Clock: this allows you to set the time on a pocket instrument
- User Preferences: this function allows you to set which COM port your PC will use to talk to the instrument and a default directory to store your data to.

The Help option

- Contents: lists the help topics available
- Search for help on: allows you to type a particular subject you require help with
- Connect to Castle Website: if you have Internet access on your PC this option will allow you to connect to the Castle Website
- About dBdata for Windows: gives contact address, phone and fax numbers as well as the software version number

Acquiring Data from an Instrument

To download the data from a Castle Sound Level Meter:


1. Ensure that the instrument is connected to the PC and is set to PC mode.
2. Select 'Acquire' from the File menu or click the  icon on the toolbar.
3. When prompted, select which instrument you wish to download data from.
4. A dialogue box showing details of the instrument will be displayed. You can now choose which data you'd like to download from the instrument. When you're ready click OK.

When the data has been downloaded, a new entry will appear in the data browser to the left of the window. Double clicking on the new entry will allow you to view the data obtained from the instrument.

If data has already been downloaded from an instrument or if a data file is open, the new data will be added to the existing data. If you wish to open a new, empty file for the instrument data, the current file should first be closed.

Opening Data

To open previously saved data:

1. Select 'Open' from the File menu or click the  icon on the toolbar.
2. Select whether you wish to open a Professional*¹ or a Pocket*² file.
3. Select which type of file you wish to open.

*¹ Professional Instruments

GA120, GA121, GA122, GA123, GA221

*² Pocket Instruments

GA111, GA154

Merging Data Files

To add a data file to the current file, select 'Merge' from the file menu.

Viewing Data Using the Data Browser

The data browser located in the left of the window allows easy access to all the data in the current file.

Each data file can contain any number of data collections. A data collection may contain any number of locations and octave snapshots.

Selecting a location or octave snapshot will display the associated data in the data viewer to the right of the window.

Right click in the viewer screen

Clicking the right button in the viewer window will bring up the following options:

Copy to clipboard:	copies the window to the clipboard
Delete location:	deletes the location
Print current view:	prints the current window
Zoom:	allows you to zoom in on a selected time range
Show table:	switches between tabulated and graphical presentations
Edit Note:	adds notes to the graph
Chart options:	allows you to select which data you wish to view on the chart.

Adding Notes to Measurement records

To add a note to a measurement in a record:

1. Select the measurement to which you wish to add a note.
2. Click the right mouse button and select 'Edit Note'.
3. Type the text you require.
4. Click 'OK'.

Comparing Two Octave Snapshots

To compare two octave snapshots:

1. Select the first octave snapshot you wish to compare.
2. Press the right mouse button and select 'Compare with Snapshot' from the popup menu.
3. Select the octave snapshot you wish to compare it with.

Octave snapshots from different data collections can be compared.

Hearing Protector Devices

The hearing protector database included with this software contains a variety of different hearing protectors supplied by different manufacturers.

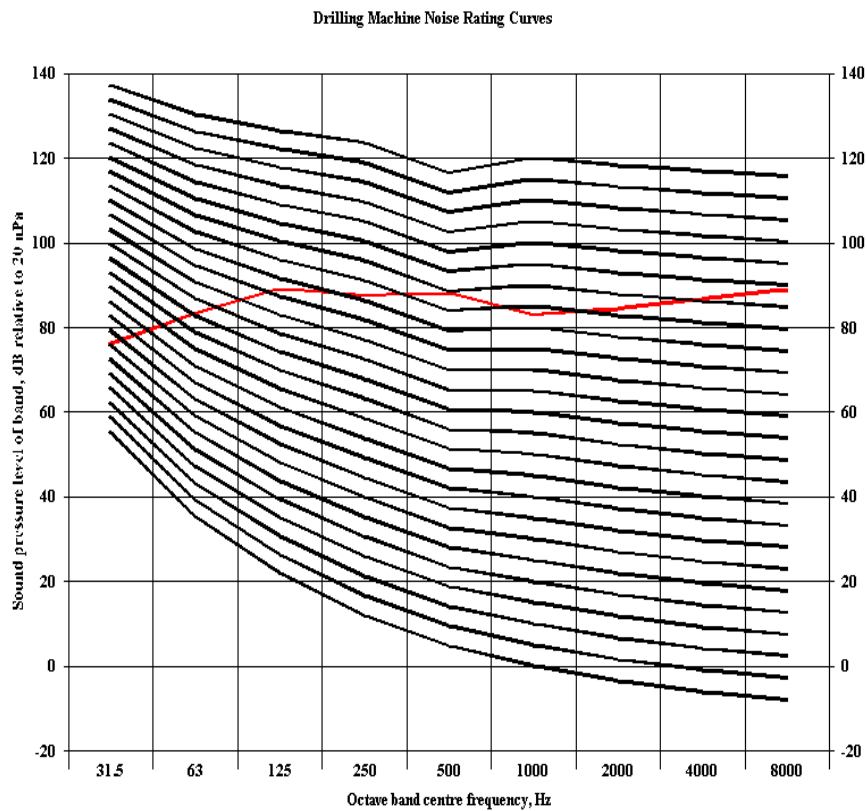
To compare your octave snapshot with a 'Hearing Protector Device':

1. Select the octave snapshot you wish to compare.
2. Press the right mouse button and select 'Compare with HPD' from the popup menu.
3. Select the Hearing Protector Device you wish to use from the list. (The arrow keys to the right of the list allow you to scroll up and down through the list).
4. Select whether you wish to subtract one or two standard deviations, then click 'OK'.
5. The octave snapshot will be temporarily A-weighted for comparison purposes only.

Noise Rating Curves

To obtain the Noise Rating Level for an octave snapshot:

1. Select the octave snapshot you want the Noise Rating Level for.
2. Press the right mouse button and select 'Noise Rating' from the popup menu.
3. The Noise Rating Curve graph for the selected octave snapshot will be displayed, with the Noise Rating Level shown under the graph.



Noise Rating Level = 94

Copying Locations/Octaves from one file to another

The data browser located in the left of the window allows locations and octaves to be cut or copied from one file to another.

Copying

1. Press the Ctrl key.
2. Keeping the Ctrl key depressed, select the location or octave to be copied by pressing the left mouse button.
3. Keeping the left mouse button depressed, drag the location or octave to the new file and release the left mouse button.

Cutting

As above except using the Alt key instead of the Ctrl key.

Copying Data to Other Applications

The current view can be copied to the clipboard by either selecting 'Copy to clipboard' from the edit menu or from the popup menu that appears when the current view is clicked on using the right mouse button.

Tables are copied to the clipboard in a tab-delimited format that is suitable for pasting into a spreadsheet or a word processing document.

Charts and graphs are copied as Windows metafiles and should normally be pasted into the target application by selecting 'Paste Special'.

Deleting Data Collections, Locations and Octaves

To delete any item from the data browser:

1. Select the item you wish to delete.
2. Press the right mouse button and select 'Delete' from the popup menu.
3. Confirm the deletion.

Although the item will be immediately removed from the data browser, the actual data will not be deleted until the file is next saved.

Deleting Individual Location Measurements

To remove a single measurement from a location record:

1. Select the measurement you wish to delete in the data table.
2. Click the right mouse button and select 'Delete This Measurement'.
3. Confirm the deletion.


If this is the last measurement in the location record then the record will also be deleted from the data browser.

Renaming Data Collections, Locations and Snapshots

All items in the data browser except the group headings 'Locations' and 'Octaves' can be renamed by first selecting the item you wish to rename and then clicking on the text of the item.

Printing

To print the current view:

1. Select 'Print' from the File menu or click the  icon on the toolbar.

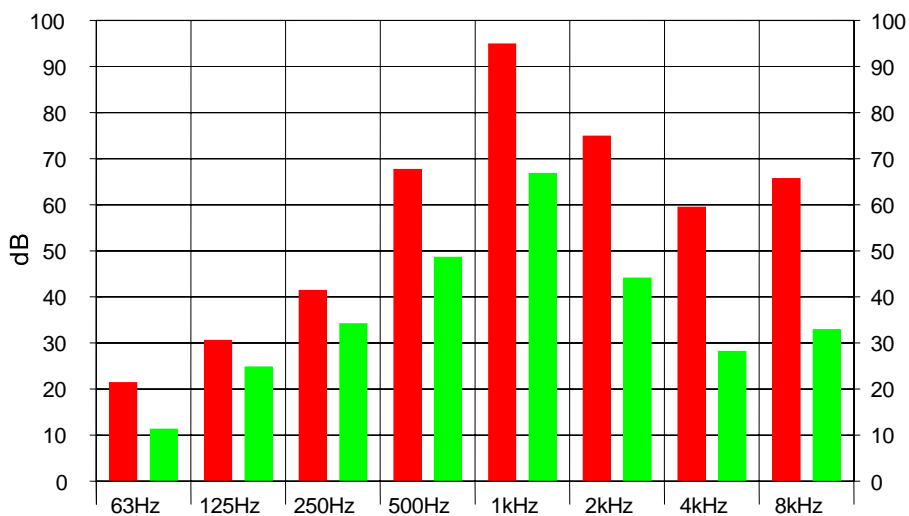
Pictures and text copied to clipboard from dBdata4W Noise

Scaleable metafile

This picture is an editable and scaleable Windows metafile. To create it, all you have to do is 'copy' the graph from dBdata4W using the right mouse button (see Copying Data to Other Applications) and select 'picture' in the 'paste special' dialogue box from the edit menu in an application.

A metafile is a picture made up from lines, boxes, shapes and text. This type of picture is used by most Microsoft applications and is such that you can scale it to any size without losing definition or using too much memory.

Hearing Protector Comparison
Octave 1 / Peltor H6A



SPL: 45.7dB APL: 42.2dB
Snapshot Type: Manual Frequency Weighting: A Time Weighting:
Recorded on 20/4/152 at 11:12:15

Numbers as text

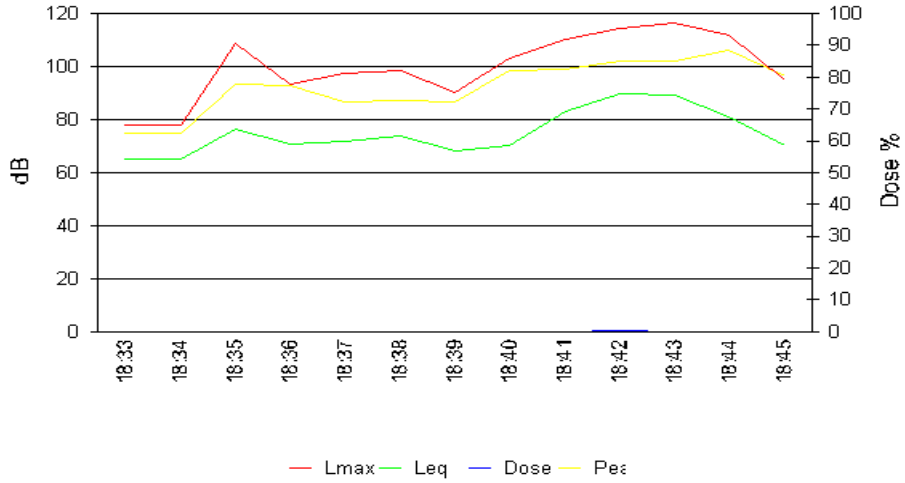
This is editable text, which is inserted by selecting 'paste' after clicking the right mouse button or 'unformatted text' in the 'paste special' dialogue box from the edit menu in an application.

	C1	C2
63Hz	21.4	11.3
125Hz	30.6	24.8
250Hz	41.4	34.2
500Hz	67.7	48.6
1kHz	94.9	66.8
2kHz	74.9	44.1
4kHz	59.5	28.2
8kHz	65.7	32.9

A Bitmap picture

The picture opposite is a bitmap file, which is inserted by selecting device independent bitmap from the paste special dialogue box from the edit menu in Word.

Noise Levels in Factory



Mode: Industrial Exchange: 85dB Criterion: 3dB Freq Weight: A Time Weight: Slow
 Leq: 614.5dB SEL: 329.6dB Actual Dose: 359.2%
 Lmax: 1478.4dB at 66:49:34 on 210/32/112 Peak: 1478.4dB at 00:00:00 on 60/144/40
 This is a sample of an environmental mode log.

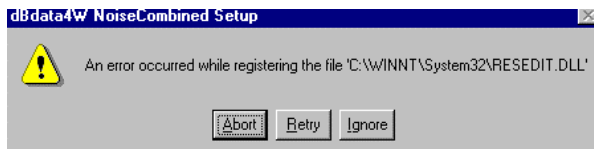
Table of results from above graph

	Lmax	Leq	Dose	Peak
18:33	65	65	0	74.8
18:34	65	65	0	74.7
18:35	90.5	76.5	0	93.3
18:36	77.8	70.7	0	92.7
18:37	81.2	71.9	0	86.5
18:38	82.2	73.6	0	87
18:39	75.2	68	0	86.6
18:40	86	70	0	98.4
18:41	91.8	83.3	0	99
18:42	95.2	89.7	0.2	101.8
18:43	96.9	89	0.1	102.1
18:44	93.3	81.2	0	105.9
18:45	79.2	70.1	0	96.2

Troubleshooting

Installation

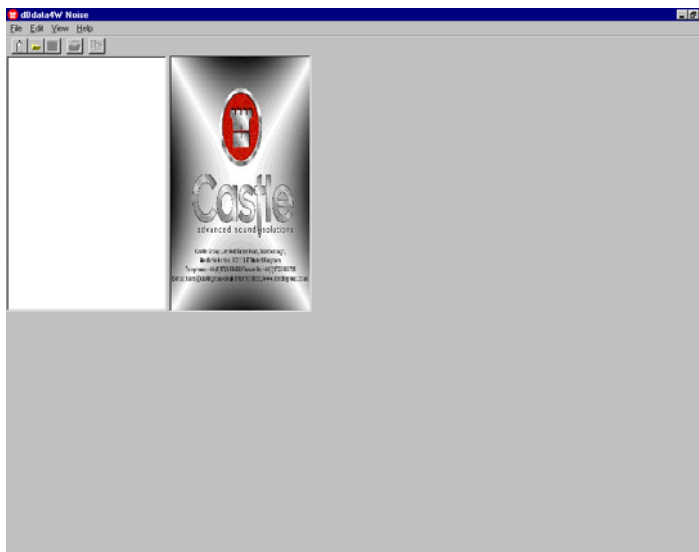
If the following error message occurs during installation:



Simply click on 'Ignore' and the software will work as expected.

Running the program for the first time

When running the program for the first time, if the opening screen appears small and in the top left hand corner of your screen simply close the program down and then re-open the program, the screen should then return to its full size.



Issue D

H:\Research & Development\Manuals\Noise Combined Software