



**dB24 Software for CEL-24X  
Sound Level Meters**

**OPERATOR'S MANUAL**

**HB3336-03**

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## **PREFACE**

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### **MANUAL CONVENTIONS**

Details the priority of Warnings, Cautions and Notes that may apply throughout this manual.

### **INTRODUCTION**

Brief overview of the equipment/application.

### **MINIMUM PC REQUIREMENTS**

Minimum PC requirements necessary to run the software.

### **SOFTWARE INSTALLATION**

Details how to load dB24 for the CEL-24X Instrument.

### **PREPARATION FOR USE**

Describes the first steps to using the CEL-24X Digital Sound Level Meter.

### **CEL-24X – PC INTERFACE**

Details how to get the PC and the CEL-24X to communicate.

### **CAPTURE DATA TO A PC**

This section of the manual details how to store data onto a PC.

### **DOWNLOADING DATA FROM CEL-242/246 INSTRUMENTS**

Describes how to download stored data from within the memory of CEL-24X instruments that have onboard memory.

### **SWITCH OFF THE CEL-24X**

Describes the shut down procedure.

### **SERVICE AND WARRANTY**

Casella's after sales policy on the software covered in this manual.

## MANUAL CONVENTIONS

### WINDOWS, DIALOG BOXES, BUTTONS AND MENUS

Throughout this handbook the following conventions are used:

Names of buttons, menus and related items are written in *Italics* to distinguish them from the surrounding text, whereas window and dialog names are written with initial capital letters, for example:

Click the *OK* button to save the changes made in the Configuration dialog.

The vertical bar symbol (|) is used to denote the path for hierarchical menu items, For example:-

From the Main Menu select *View | Properties...*

### KEYBOARD AND MOUSE

Throughout this handbook the following conventions are used:

Key names are spelled with an initial capital and are underlined. A plus sign denotes a key combination, for example:-

Press Ctrl+A to select all the text in the window.

When a mouse click is indicated, the default is always a left-click unless otherwise specified, for example:-

Right-click and select *Properties...*

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## INTRODUCTION

Congratulations on your purchase of the CEL-24X Digital Sound Level Meter. The CEL-24X has been designed to perform accurate noise measurements through a wide decibel range. The CEL-24X is a digital sound level meter, designed for stable, reliable performance, fully compliant with international sound level meter standards. The dB24 software package was developed to enable the CEL-24X to interface with any PC conforming to the [minimum PC requirements](#). dB24 software allows the 'C' and 'A' weighted sound pressure to be stored to your PC every second, with the time weighting (Fast, Slow or Impulse) currently selected on the CEL-24X.

This Operator's Manual details how to install and use the dB24 software to ensure you get the most benefit from your CEL-24X.

The principle components for operation are detailed in Figure 1.



Figure 1: CEL-24X Digital Sound Level Meter

1. Microphone 2. Power ON / OFF key 3. Display 4. Left Key 5. Right key  
6. USB PC Output 7. Audio in/out Socket

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## MINIMUM PC REQUIREMENTS

The PC must meet the following minimum requirements.

- Pentium III – 1Ghz
- 256MB RAM
- 20GB Hard Drive
- CD Drive for Program Installation
- Super VGA Colour Monitor. 1024 x 768 16M colour Recommended
- USB (2.0)

Operating System

- Windows 2000 (service pack 4)
- Windows XP Home or Professional
- Windows NT4 (service pack 6a)
- Windows Vista

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## SOFTWARE INSTALLATION

Before commencing installation it is recommended that a back-up copy be made of the Program CD. Use the copy to install the software and keep the original in a safe place.

1. Insert the Program CD into the CD Drive.
2. The CD will automatically run. If the CD does not automatically run, access the CD drive and run 'SETUP.EXE'.
3. The Setup Wizard will be displayed on the screen. Read the Agreement and tick the Check Box. This will enable the *Next* button. Click the *Next* button and follow the onscreen instructions.
4. When the software has been successfully installed click the *Finish* button. Remove the CD from the CD Drive.

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## PREPARATION FOR USE

**PROCEDURE** (Refer to Figure 2)

1. Open the Battery Cover.
2. Fit three new AA Alkaline (or NiMH) batteries according to the polarity in the battery compartment.
3. Close the Battery Cover.

**Notes:**

To prevent the CEL-24X switching OFF while in use, always fit new batteries when the battery indicator (A) shows battery strength is low. However, when connected to the PC's USB port via the –CMC51 cable, the CEL-24X will be continuously powered from the PC.

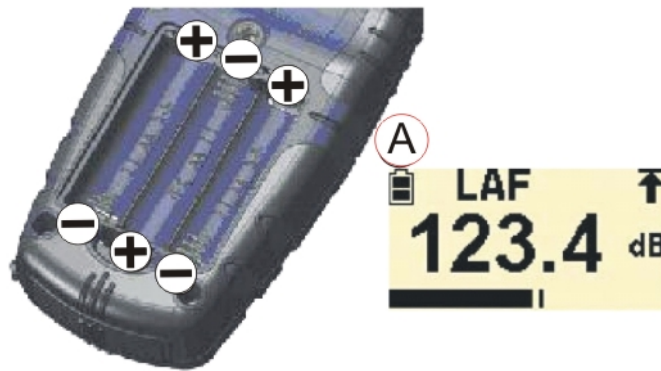


Figure 2: Fitting Batteries

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## CEL-24X – PC INTERFACE

1. Connect the USB lead to the CEL-24X socket shown in Figure 1 and to the PC.
2. Switch **ON** the CEL-24X if not already switched ON, shown in Figure 1.
3. Start dB24 by double clicking the dB24 shortcut on your desktop.
4. A 'virtual' CEL-24X will be displayed on the PC screen.

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## CAPTURE DATA TO A PC

1. Connect the USB lead as detailed in this manual.
2. Use the cursor to click the LEFT button on the displayed virtual instrument to start data capture.
3. A 'Save As' window is displayed. Select a suitable file name and location and press Save. (Figure 3). A red indicator on the virtual CEL-24X will flash during data capture.

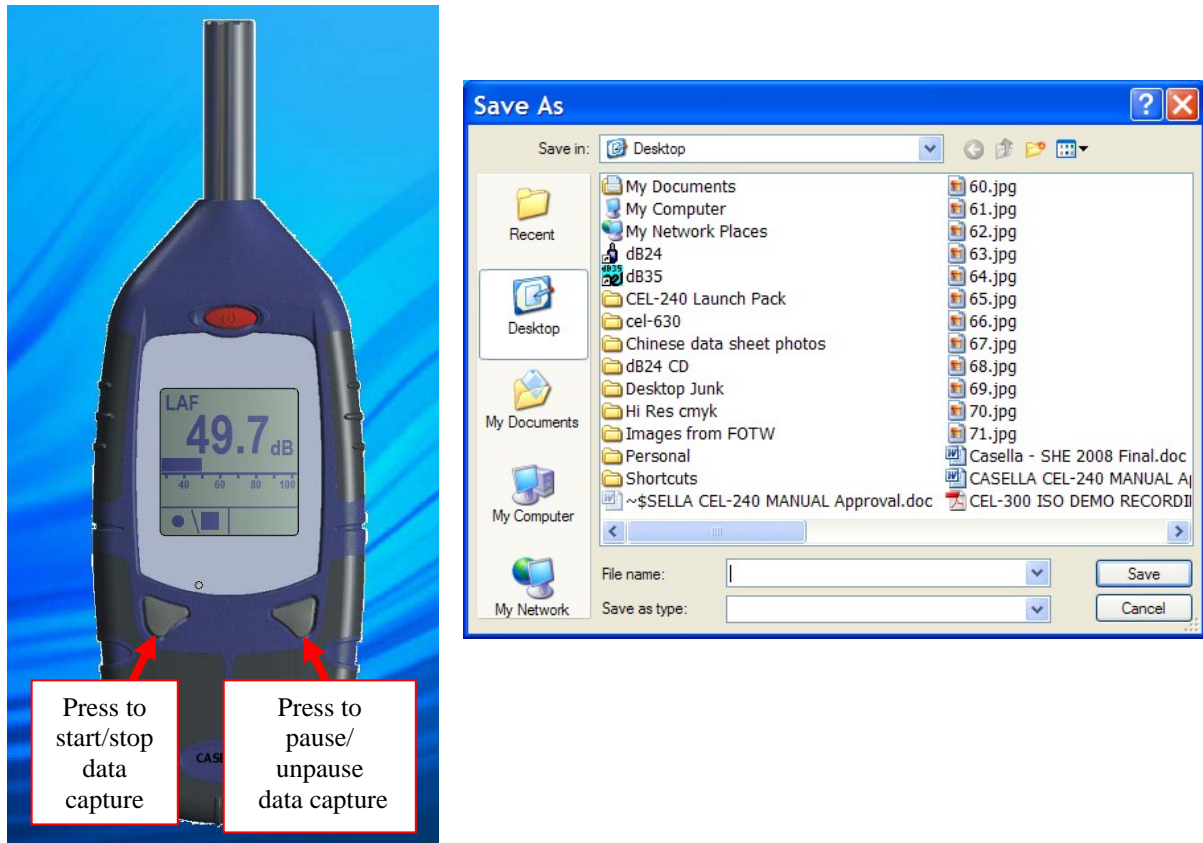



Figure 3: 'Save As' Window

4. Press the RIGHT button on the displayed virtual instrument to stop data capture.
5. The data will automatically be saved in a .csv format. This can be opened with Microsoft Excel.

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## DOWNLOADING DATA FROM CEL-242/246 INSTRUMENTS

CEL-242 and CEL-246 instruments have on-board memory which can be downloaded to a PC. During the installation of dB24, a utility called 'Casella Drive' is installed at the same time which continually runs in the system tray. The icon  will be displayed in the system tray. 'Casella Drive' allows CEL-242 and CEL-246 instruments to be viewed as a removable drive in a similar way to a USB flash memory drive. Ensure the dB24 software component described above is closed as this will prevent CEL-242/246 instruments connecting to 'Casella Drive'.

1. Connect the USB lead as detailed in this manual to a CEL-242 or CEL-246 instrument.
2. The instrument will be automatically detected and downloaded. The window shown in Figure 4 will be displayed in the bottom right of the screen and the instrument will begin to download.

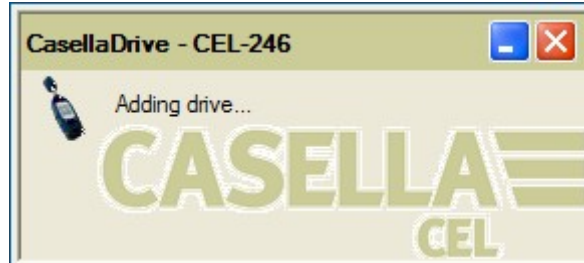


Figure 4: Downloading

3. Once the download has completed, an explorer window will automatically appear which will show the stored data files as individual .csv files which can be open on spreadsheet packages as required, as shown in Figure 5. Files should be saved to the computer hard drive prior to editing. The CEL-242/246 will not store edited files.
4. Settings to the 'Casella Drive' utility can be made by right clicking on the icon in the system tray to give 2 options:
  - a. 'Open Explorer window after download'. This option will cause the application to open the new drive in a separate Explorer window once the instrument has been successfully downloaded.
  - b. 'Minimise main window on startup'. This causes the application to automatically minimise to the 'system tray' area of the 'taskbar' once loaded.

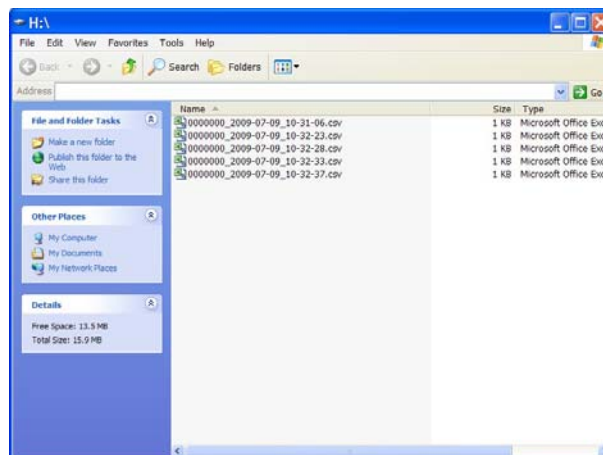


Figure 5: An Explorer Window Following Successful Download

**Notes:** If for some reason 'Casella Drive' is not shown in the system tray then it needs to be started manually. On your PC, press the 'Start' button in the bottom left of the screen, then select *All Program | Casella CEL | Casella Drive*.

## SWITCH OFF THE CEL-24X

When the required measurements have been stored, press and hold the Power key (Refer to Figure 6) for three seconds to switch OFF the CEL-24X. A 'door' display will be shown counting down 3, 2, 1.

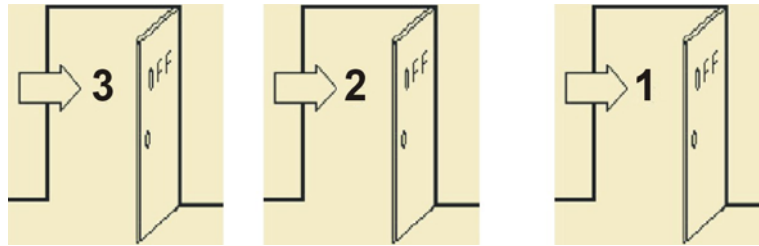


Figure 6: Switch OFF the CEL-24X

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## **SERVICE AND WARRANTY**

The manufacturers undertake to replace any disk containing significant errors that are directly attributable to design fault or manufacture that make the program unusable, and which become apparent during the warranty period. In order to take advantage of this warranty, the disk or disks must be returned, carriage paid to the manufacturer's factory or accredited agent. The warranty period runs for three months from the date of receipt of goods.

Casella CEL Ltd's liability is limited to items of their manufacture and they do not accept liability for any loss resulting from the operation of, or the interpretation of results obtained by using this software. All technical information for individual sets of software is filed under the version and issue number given on the installation disks, therefore the version and issue numbers should be quoted on all correspondence concerning this software. In the event of a malfunction appearing during the warranty period, the disk or disks should be returned either to Casella CEL Ltd's local agent or the Casella CEL Ltd's Customer Service's Department at Bedford. Please include the following information:

Instrument type(s), serial number(s) and firmware version number(s)

Customer name and address

Contact name and phone number

Details of any PC and software involved, including version number(s)

Reason for returning the equipment with a detailed description of the fault

List of any error messages that may have been displayed.

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END