Figure 9. Memory screens

Taking Measurements (Refer to Figure 10)

The measurement options and screen details will vary, depending on the instrument type you are using.

The instrument must be in the **Measurement Stop** mode (with red bars at the top and bottom of the screen) before you can start a measurement.

Press the **Run/Stop** key (**D**) to start making measurements. The screen shows green bars at the top and bottom.
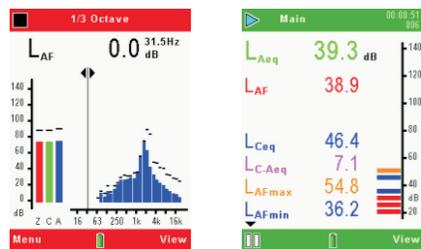

Figure 10. Example Stop and Run screens

Note: A **Record Notes** screen will appear prior to starting a measurement if **Audio Notes** have been activated. Refer to User Manual for more details.

Run Screens

The **Play** symbol ▶ is displayed at the top left-hand corner of the screen, and the Pause symbol ‖ is displayed at the bottom left-hand corner of the screen. The left-hand soft key (**A**) is the **Pause/Run** control and toggles between these two modes when operated.

The screen displays **PAUSED!** when measurements are paused. The incremental run number and its duration are displayed at the top right-hand corner of the screen. If the Run Duration Timer is set, an icon that shows a stopwatch is displayed next to the countdown timer. To enable or disabled the Run Duration Timer, use the **Settings** screens (refer to Figure 6). If the Run Duration Timer is not set, the digital timer clock counts up until you stop the measurement run manually (by pressing the **Run/Stop** key **D**).

Figure 11. Graph and Main screens

For instruments that include this option, the broadband values can be viewed as a bargraph or as a graphical time history on the **Graph** screen. Press the **View** key (**B**) to toggle between the **Graph** and the **Main** screens.

Certain instrument types provide two additional Octave (or 1/3 Octave) screens (refer to Figure 12). Use the **View** key (**B**) to toggle the screens. Use the left/right navigation keys (**C**) to move across the frequency bands in the Graph view. Use the up/down navigation keys to toggle between showing L$_{max}$ and L$_{eq}$ functions

Each bar in the graph represents an octave band measured in Hz or kHz. To view a table of the octave values, press the **View** key (**B**).

In 1/3 Octave mode, use the up/down navigation keys to change the displayed frequencies on the table.

Some instruments in the CEL-63x range can display all the screens shown in Figure 11 and Figure 12.

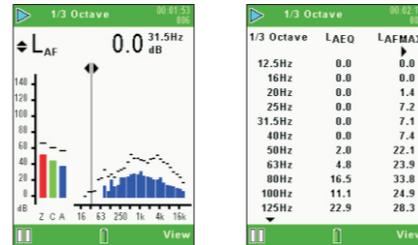The **Marker** screen allows you to tag noise data and record audio, for example noise

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Figure 12. 1/3 Octave graph and list views

from a road vehicle, with a specific identity using one of four markers.

When the measurement run has finished, press the **Run/Stop** key (**D**). A screen is displayed asking you to confirm the action - press **Yes** to end the run.

Storage

Switch the CEL-63x instrument off when you are not using it to record measurements, and remove the batteries if the instrument will not be used for extended periods of time.

Always protect the instrument from physical damage and from water.

To protect the microphone, you should always keep the windshield fitted.

More information

For more information about any of the topics summarised in this Quick Start guide and additional functions, refer to the User Manual.

Instrument types

Table 1 below lists the instrument types and shows the capabilities of each instrument in the range. Please remember that the features that are available to you and the screens that you can see depend on the type of instrument you are using.

Application	Occupational	Environmental	Occupational (with logging)	Environmental (with logging)
Model number	CEL-630	CEL-631	CEL-632	CEL-633
Cumulative Results	✔	✔	✔	✔
Period Results			✔	✔
Profile Results			✔	✔
Statistical Parameters (Ln%)		✔		✔
Audio Notes	✔	✔	✔	✔
Marker Events			✔	✔
Level Events				✔
External Events				✔
SLM Mode	✔	✔	✔	✔
ONLINE Mode			✔	✔
NNR Mode			✔	✔
Timers			✔	✔

Table 1. CEL-63x instrument types, applications and capabilities

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CASELLA CEL

Field Guide
CEL-63x Series Sound Level Meters

Figure 1. The CEL-63x series
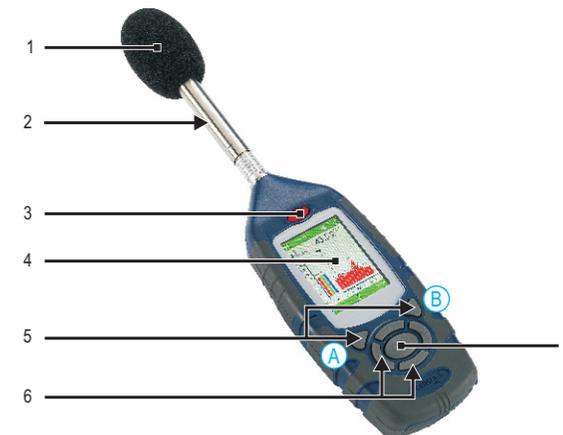
1. Windshield (covering the removable microphone)
2. Removable amplifier   5. Soft keys **A** and **B**
3. On/Off key   6. Navigation keys
4. Display   7. Run/Stop key

Introduction

This Quick Start guide helps you to familiarise yourself with the CEL-63x instrument quickly, so that you can begin to use it without delay.

The guide assumes this is the first time you have used the instrument. It therefore includes instructions to install the batteries, switch ON and set up the instrument to be ready for use, calibrate it, take measurements, and store it safely.

We want you to get the best possible performance from the CEL-63x instrument, and we recommend you refer to the Operator's Manual for detailed information.

Fit the batteries

The CEL-63x instrument requires three AA batteries.

Remove the battery compartment cover and fit the batteries using the correct polarities. Refit the battery compartment cover.

Note: The batteries can be zinc carbon, alkaline or rechargeable. DO NOT mix battery types.

Switch the instrument ON

Press the **On/Off** key. Confirm the battery condition symbol shows there is a good level of charge in the batteries.

The initialisation screen is displayed for approximately 10 seconds, and then the measurement screen is displayed in the STOP mode (with red bars at the top and the bottom of the screen). Press the **Menu** key to access the settings, memory and instrument status. The screens displayed depend on the model of instrument in use.

Settings screen

MENU   SETTINGS   LANGUAGE

1. Settings   2. Memory results   3. Instrument status
A. Exit / Back   B. Select / Edit
C. Navigation keys

Figure 2. Settings screen

Set language (Refer to Figure 2)

Select **1 Settings** and press **B** to continue. Use navigation keys **C** to select the **Language** symbol **4**. Press **B** to continue. Use navigation keys **C** to select the correct language. Press **Select** (**B**). Press **Exit** (**A**).

Set frequency modes (Refer to Figure 2)

Some instruments in the CEL-63x range allow you to select either Octave or 1/3 Octave with which to take measurements. Select **1 Settings** and press **B** to continue. Use navigation keys **C** to select the **Octave** symbol **5**. Press **B** to continue. Use navigation keys **C** to select Octave mode. Press **Select** (**B**). Press **Exit** (**A**).

Set the time and date (Refer to Figure 3)

Select **1 Settings** and press **B** to continue. Use navigation keys **C** to select the **Set Clock** symbol **2**. Press **B** to continue. Use navigation keys **C** to select the time or date. Press **B** to edit. Use navigation keys **C** to adjust time/date. Press **Save** (**B**). Press **Exit** (**A**).
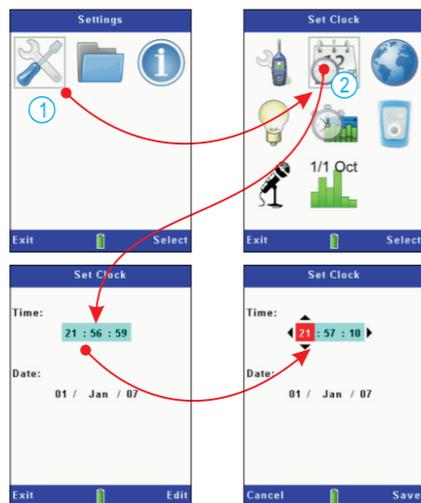

Figure 3. Setting the time and date

Calibration (refer to Figure 4)

Calibration is auto-set to the reference level as set within the **Settings** menu. Refer to the manual to set the calibration reference level.

Figure 4. Calibration

Select the Measurement **Stop** screen. Fit the acoustic calibrator fully over the removable microphone. Press the calibrator's **On/Off** key **1**. The CEL-63x instrument detects the signal and activates the calibration screen (with yellow bars at the top and bottom). Press **B** to start the calibration. The instrument calibrates and displays the word **PASSED** when finished. Press **Exit** (**A**) to return to the **Stop** screen. Press and hold the calibrator's **On/Off** key to switch the calibrator off. Remove the acoustic calibrator.

Setup (Refer to Figure 5)

Select **1 Settings** and press **B** to continue. Use navigation keys **C** to select the **Setup** symbol **2**. Press **B** to continue. Use navigation keys **C** to select the required measurement view for your local legislation. Refer to the User Manual for detailed information about the measurement views.

Note: This instrument simultaneously records all noise functions for every measurement it completes. The **Measurement View** screens simply define which functions are displayed on the measurement screens.

Figure 5. Settings options

Measurement control (Refer to Figure 6)

Select **Settings** and use the navigation keys to select the **Measurement control** symbol **1**. Press **B** to continue. Use the navigation keys to select the **Measure - Start/Stop** symbol **2**. Press **Edit** (**B**). Use the navigation keys to select the **Mode** (Key Press / Fixed Duration / Timers). Press **Save** (**B**). Use the navigation keys to select additional **Fixed duration** or **Timers** options. Press **Edit** (**B**), and use the navigation keys to set the run duration. Press **Save** (**B**) to continue (if required).
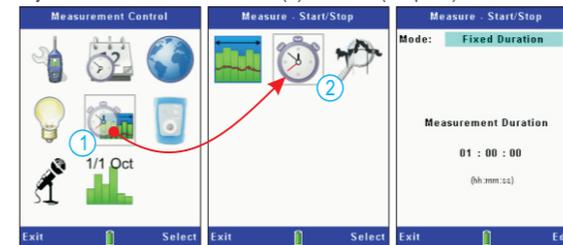

Figure 6. Run duration

Measurement data sets (Refer to Figure 7)

Cumulative measurements made by the instrument apply for the entire measurement duration. They do not show how the sound level changed during the period of measurement. The instrument can also make **Periodic** measurements, which store measurements acquired during a repeating interval of time. When one interval ends, the next one begins until the periodic measurements stop.

The instrument's **Profile** recording function provides an additional time-history recording channel, which may operate in parallel with either Cumulative or Periodic data recording. The **Profile** time history channel can provide faster recording resolution but for a reduced set of noise parameters.

Select **Settings** and use the navigation keys to select the **Measurement control** symbol **1**. Press **B** to continue. Use the navigation keys to select the **Data Sets** symbol **2**. Set the Periodic and Profile measurement intervals and press **Exit**.
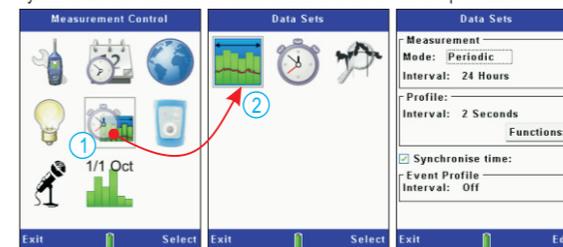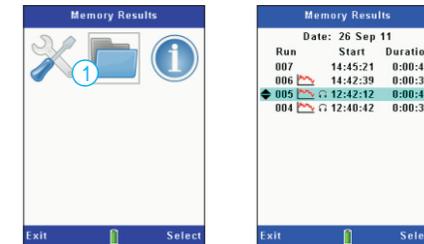

Figure 7. Measurement data sets

Memory results (Refer to Figure 8)

Press the **Menu** key to access the settings, memory and instrument status. Use the navigation keys to select the **Memory Results** symbol **1** and press **Select** (**B**) to continue. Use the navigation keys to select a result in the list, and press **Select** (**B**) to select the measurement.

Use the navigation keys to select **View Results 1** (see Figure 9) and press **Select** (**B**) to display the selected memory results. For additional data press **View** (**B**). The screen displays detailed, read-only data for the selected measurement. Press **View** (**B**) to see the data in a graphical format, using the Octave format saved in the Memory Results. Use the navigation keys to move the vertical line across the graph. Each graph bar represents an octave level measured in Hz or kHz. Press **View** (**B**) again to view tabular octave results.

Use the navigation keys to toggle between functions such as L$_{max}$ and L$_{Aeq}$. Press **View** (**B**) to view the results in tabular form. The results stored for the octave band graph display functions L$_{max}$ and L$_{eq}$.

Press **Exit** (**A**) to leave the **Memory Results**, or press **View** (**B**) to cycle the **Memory Results** screens again. Note that the display screens will vary according to the model of CEL-63x instrument you are using.

Figure 8. Memory results

Delete Memory Results

Refer to the User Manual for details and instructions to delete the results stored in the instrument's memory.