FIELD GUIDE for **dBadge2®**
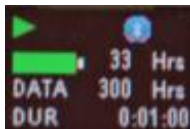# Personal Noise Dosimeter

dBadge2 is designed to make personal noise exposure measurements simpler than ever before and features up to three simultaneous dosimeters (D1, D2 & D3). It consists of the instrument body, microphone, windscreen and mounting clips which are all pre-assembled on delivery. This simple guide will get you 'up and running' but we recommend that to get the best from your purchase that you refer to the full handbook available from the Support section of the Casella website. The Airwave App and USB Download Utility will also be found in the dedicated Product Support section.

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Introduction. The dBadge2 is available in one of three models, described in the table below.

	dBadge2	dBadge2 PLUS	dBadge2 PRO
H-M-L (C-A)	●	●	●
Programmable delay timer	●	●	●
Fixed run timer	●	●	●
Pause function	●	●	●
Wireless*	●	●	●
Time history	●	●	●
Audio recording		●	●
Octave band			●

*Bluetooth 'Smart' Wireless may be disabled in any version using the USB utility App

Switching On/Off. To switch the dBadge2 on press the left hand key and it will display a number of start-up screens including serial number and firmware version followed by an indication of battery, memory and Bluetooth® status. Pressing either key will review data from the previous run.

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The display may blank after user set timeout period. A Red LED status indictor will flash when the display is blank. The display may be 'woken' by pressing either key. To switch off, press & hold the left hand key during the 3-2-1 countdown.

Charging.
Charge the dBadge2 by placing it in any available 'pocket' in the combined Docking Station & Charger (part 207078B) connected to the mains using a PC18 adaptor. Note that the left hand pocket also serves as the USB download interface as indicated by the symbol .

The dBadge2 will display the charge status and blank after approximately 20 seconds; the LED status indicator will intermittently flash red whilst charging and steady blue once fully charged. To 'wake' the display whilst charging, press either key or tilt the Docking Station forward.

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Configure the dBadge2. You will typically not need to do this every time the dBadge2 is used. Press the left hand key to power the dBadge2 up then immediately press the right hand key to enter the configuration mode. This allows the following settings to be made:-

- Select language
- Adjust date and time
- Set the display contrast
- Set the display timeout
- Specify the setup to be displayed for D1 and optionally D2 and D3
- Select/deselect the capture of Audio Notes (Pro & Plus)
- Select/deselect real-time octave band analysis (Pro)
- Select/deselect the Pause function
- Select/deselect events & audio capture (Plus & Pro)
- Select/deselect visual alarms
- Select/deselect Auto Lock of the keys
- Select large or small display font
- Select/deselect Auto Scroll of the display
- Select/deselect Timers
- Select/deselect Bluetooth connectivity (see note below)
- Clear the memory
- Cycle back through the configuration menu or exit

Note that Bluetooth® can be permanently disabled using the firmware upgrade utility and this option would not then appear in the settings menu.

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Generally, pressing the left hand key scrolls through the available options for each setting and the right hand key accepts the change and moves to the next setting. Any changes made will become the default when the dBadge2 is next powered up.
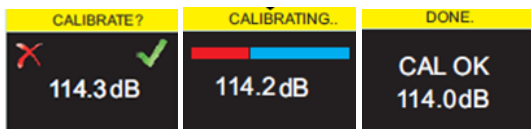
Fitting and Removing the Windscreen. The

Windscreen provides protection against dirt and moisture, impact damage and air movement that may otherwise affect the measurement. To remove the Windscreen (e.g. in order to perform a calibration) grip the black plastic body and pull in the direction of the arrow indicated on the tab of the Windscreen and refit by aligning the tab with the recess in the main body of the dBadge2. An audible "click" confirms that it is securely in place.
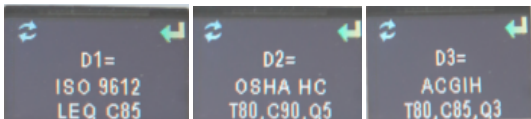

Mounting Clips. It will not normally be necessary to remove

the clips. Please refer to the full handbook for details of how to do this.

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Calibration.   With the dBadge2 in stop mode, remove the Windscreen and place a CEL-120/2 acoustic calibrator firmly over the microphone and switch on (note a red arrow indicating an overload may temporarily appear but will clear and may be ignored).

The dBadge2 will automatically detect a 1 KHz calibration tone and enter the calibration mode (the target calibration level is set in Casella Insight Data Management Software). Press the right hand key to confirm you wish to calibrate. Two further screens will show progress and confirm that calibration has been completed.
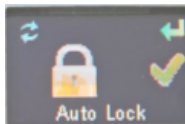

Starting a Measurement Run Manually. Many users may only want an ISO setup on D1 and therefore deselect D2 & D3 (in the Configuration Menu) whereas users in the USA may wish, for example, to simultaneously display OSHA HC, OSHA PEL and ACGIH criteria (the screens below show some of the set up options).

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With the dBadge2 turned on, press & hold both keys during the 3-2-1 countdown to start a measurement run. The ▶ 'play' icon indicates that a run has started.

If Audio notes are enabled (Plus and Pro models), the user will be given the opportunity to record up to 15 seconds of notes by pressing and holding the right key.

Locking the keys. If the Auto Lock feature has been selected in the Configuration Mode (shown below) the keys will lock automatically when a measurement run has started and a padlock symbol will appear in the display.
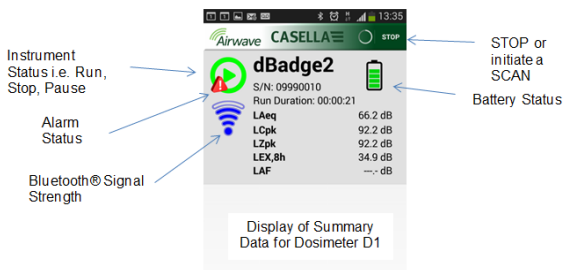

To lock manually (and unlock) press & hold the right hand key for 2 seconds and whilst still holding the right key, press the left key 3 times in quick succession.

Stopping a Measurement Run Manually. To stop a measurement run, if necessary first unlock the keys (see above), then press & hold both keys during the 3-2-1 countdown. The ■ icon indicates that the run has stopped.
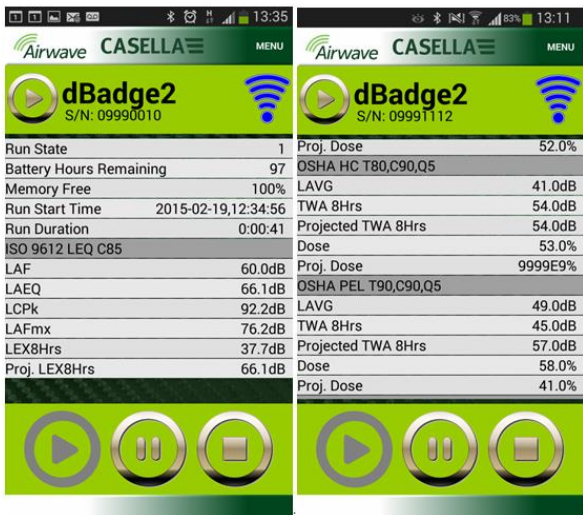
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Starting & Stopping a Measurement Run Remotely. Bluetooth® low energy wireless connectivity is a standard feature of all models which allows remote start/stop /pausing and data review using the Airwave App included.

Ensure that Bluetooth is switched on i.e. indicated in the status screen and/or switched on in the Configuration Mode. Load the Airwave App on your mobile device, open it and it will scan for instruments in range and display it/them accordingly.

‘Tapping’ the screen will take you to the monitor screen shown overleaf

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Example of ISO D1 settings (left) and OSHA D1 & D2 (right)

Touch & hold the appropriate icon during the 3-2-1 countdown to Pause or Stop a run.

Touching the Menu option will allow data to be copied to the clipboard or emailed along with additional field notes and a photograph of the task.

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Downloading data to PC. With the Docking Station connected to both a mains power supply and a PC using a USB Mini B to USB (PC) cable (part CMC51), place the dBadge2 in the left-most pocket. The dBadge2 will begin to charge but a ⭠⭢ symbol will also appear in the display. Data can either be downloaded using the USB Download Utility or Casella Insight Data Management Software.

Error Messages. Please refer to the troubleshooting section of the full handbook.

Useful Casella contact details:-

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