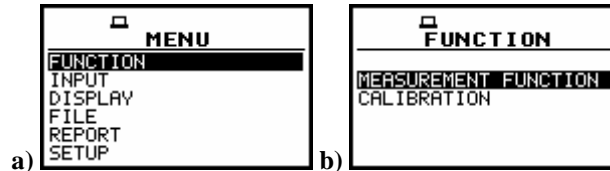


4 FUNCTIONS OF THE INSTRUMENT - FUNCTION

In order to select the **FUNCTION** list one has to press the **<MENU>** push-button, select by means of the **<▲>**, **<▼>** (or **<◀>**, **<▶>**) push-buttons the **FUNCTION** text and press the **<ENTER>**. The **FUNCTION** list contains two elements: **MEASUREMENT FUNCTION** and **CALIBRATION** sub-lists. The list is closed and the instrument returns to the presentation mode after pressing the **<ESC>** push-button.

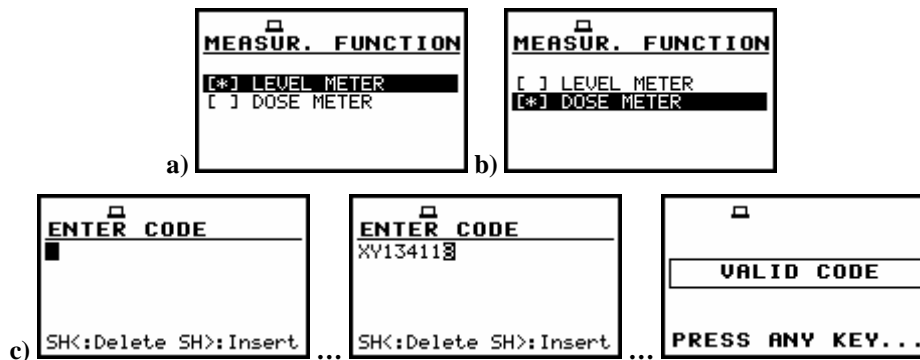


View of the displays with the main list, the **FUNCTION** text selected (a) and the **FUNCTION** list opened; the **MEASUREMENT FUNCTION** selected (b)

4.1 Measurement functions of the instrument - MEASUR. FUNCTION

In order to select the required function the user has to enter the **MEASUR. FUNCTION** sub-list (to select the **MEASUR. FUNCTION** text using the **<▲>**, **<▼>** or **<◀>**, **<▶>** push-buttons and press the **<ENTER>** one, when this text is displayed inversely).

After entering the **MEASUR. FUNCTION** sub-list, the set of the available functions appears on the display. Currently active function is marked by the special character.



View of the displays with the **MEASUREMENT FUNCTION** sub-list opened, the **LEVEL METER** text selected (a), **DOSE METER** text selected (b) and the activation of the **DOSE METER** function (c)

The main function of the instrument is the **measurement of sound level**. The **DOSE METER** function is optional and it broadens the applications of the instrument. It can be supported by the producer or purchased later. The producer activates the optional function bought with the instrument. The user should activate by itself the function purchased later.

The **sound LEVEL METER (SLM) mode** provides the user with the functions of the **SLM** meeting the IEC 61672:2002 standard for Type 1 accuracy. The instrument can also be used for the long-term acoustic monitoring using for this purpose the huge logger, in which the measurement results are stored.

The **SLM** mode is selected by placing the special character in the line with the **LEVEL METER** text. The position of the character can be changed using the **<▲>**, **<▼>** (or **<◀>**, **<▶>**) push-buttons. After placing the character in the line with the **LEVEL METER** text the user has to press the **<ENTER>** push-button, which closes the **MEASUR. FUNCTION** sub-list.

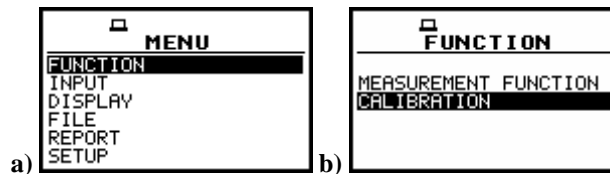


Notice: It is not possible to change the mode during the measurements. The instrument displays in this case for about 3 seconds the text: **“MEASUREMENT IN PROGRESS”**. In order to **change the mode of the instrument the measurement must be finished!**

4.2 Instrument's calibration - CALIBRATION

The instrument is factory calibrated with the supplied microphone for the standard environmental conditions. Because the microphone sensitivity is a function of the temperature, ambient pressure and humidity, when the absolute sound pressure level value is important, the calibration of the measurement channel has to be done. In order to select a calibration function the user has to enter the **CALIBRATION** sub-list (to select the **CALIBRATION** text using the <^>, <v> or <^>, <^> push-buttons and press the <ENTER> one, when this text is displayed inversely).

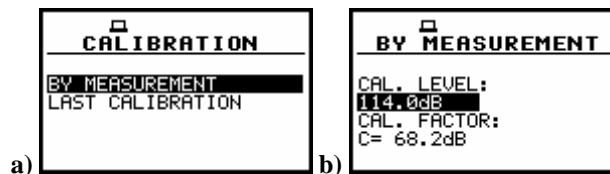
The **CALIBRATION** sub-list consists of two positions: **BY MEASUREMENT**, which is used to perform the calibration measurements and **LAST CALIBRATION**, which contains the list of the performed in the past the calibration measurements and the obtained results.



View of the displays with the main list, the **FUNCTION** text selected (a), the **FUNCTION** list opened, the **CALIBRATION** text selected (b)

4.2.1 Calibration procedure of the instrument - BY MEASUREMENT

In order to enter the **BY MEASUREMENT** window, the user has to select the proper text in the **CALIBRATION** window using the <^>, <v> push-buttons and press the <ENTER> one.



View of the displays in the **CALIBRATION** window, the **BY MEASUREMENT** text selected (a) the **BY MEASUREMENT** window opened (b)

The calibration for the sound measurements can be done in the following way:

1. Attach the acoustic calibrator SV 30A (or equivalent 114.0 / 1000 Hz) to the microphone of the instrument.




Notice: It is also possible to use the piston-phone, which generates the signal ca 124 dB or different type of acoustic calibrator dedicated for 1/2" microphones. **In any case, before starting the calibration measurement, the user has to set (by means of the <^>, <^> push-buttons) the level of the signal generated by the given calibrator (CAL. LEVEL position of CALIBRATION sub-list), which is usually stated in the calibration certificate of the unit (the value of the CAL. LEVEL set by the producer of SVAN 955 is equal to 114.0 dB).**

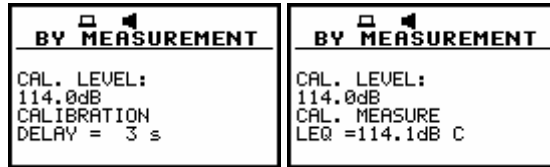
2. Switch on the calibrator and wait ca 30 seconds before starting the calibration measurement.

3. Start the calibration measurement by pressing the <START / STOP> push-button.

The measurement time is set to 5 seconds with 5 seconds delay. During the calibration measurement the <ESC> and <PAUSE> push-buttons do not operate but it is possible to stop the measurement using the <START / STOP> one.



Notice: It is not recommended to stop the calibration measurement before programmed 5 seconds period!




View of the displays during the calibration measurement

Waiting for the start of the measurements the **DELAY** is counted down on the display. During the measurements, each one-second result is presented on the display. After the end of the measurement, its result is displayed on the display in the bottom line.

It is recommended to repeat the calibration measurement few times. The obtained results should be almost the same (with ± 0.1 dB difference). The reasons for the unstable results are as follows:


- the calibrator is not properly attached to the instrument,
- there are external disturbances,
- the calibrator or the measurement channel (the microphone, the preamplifier or the instrument itself) are damaged.



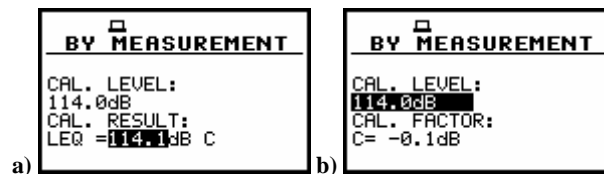
Notice: During the calibration measurement, the external disturbances (acoustic noise or vibrations) should not exceed the value of 100 dB.

4. Press the <ENTER> push-button in order to accept the measurement result.


After pressing the <ENTER> push-button the calibration factor is calculated, stored and displayed (cf. next Figure).



Notice: The user has to press the <ESC> push-button in order to quit the calibration procedure without saving the calibration factor.



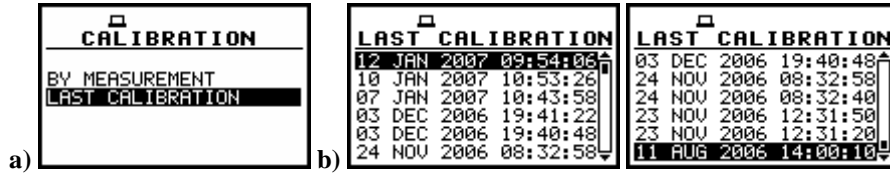
View of the displays after the measurements (a) and after the acceptance of the value of the calibration factor (b)



Notice: The calibration factor is always added to the results of sound level measurements and sound analysis.

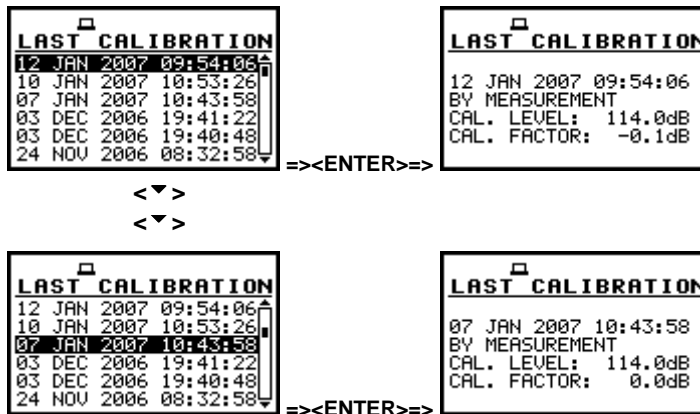
4.2.2 History of the calibration - LAST CALIBRATION

In order to enter the **LAST CALIBRATION** window in which up to last ten calibration records are remembered, the user has to select the proper text in the **CALIBRATION** window using the <^>, <v> push-buttons and press the <ENTER> one.



View of the displays in the **CALIBRATION** window, the **LAST CALIBRATION** text selected (a) the **LAST CALIBRATION** window opened with ten calibration records (b)

In order to review the calibration record, the user has to select the required line in the **LAST CALIBRATION** window using the <^>, <v> push-buttons and press the <ENTER> one. The opened window contains the date and time of the performed calibration measurement, the way the calibration was done (**BY MEASUREMENT**), the desired calibration level (**CAL. LEVEL**) and the obtained calibration factor (**CAL. FACTOR**).



View of the displays with the **LAST CALIBRATION** records

In the case when the calibration measurements were not performed, the **LAST CALIBRATION** window does not contain any records. The contents of this window is cleared after the **CLEAR SETUP** operation.



View of the display with the empty **LAST CALIBRATION** window