

## 8 REPORTS PRINTING - REPORT

The printed reports of the sound or vibration measurement results in the predefined format can be obtained by means of the **REPORT** list. In order to open the **REPORT** list the user has to:

- press the **<MENU>** push-button,
- select from the main list, using the **<▲>**, **<▼>** (or **<◀>**, **<▶>**) push-buttons, the **REPORT** text (highlight it inversely),
- press the **<ENTER>** push-button.



Display in the main list; the **REPORT** text highlighted (displayed inversely)

In order to obtain the report the user has to connect the instrument to the printer's RS 232 port using the **SV 55** RS 232 interface. This hardware interface is hidden in the Cannon type, 9-pin RS 232 plug-in. On the other end of the **SV 55** interface, which itself looks like a cable, there is the USB Host plug-in. This plug-in should be placed in the USB Host socket of the instrument.

It is also possible to **connect the instrument to the USB port** of a PC using the proper cable. Measurement results can be easy **downloaded to any PC (using USB interface and SvanPC software)** and printed out on the printer attached to a PC.



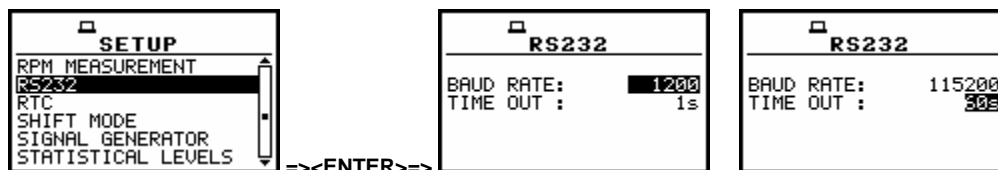
**Notice:** The converter **SV 55** serves as the RS 232 interface. The **SV 55** connection to the **USB Host** socket is detected and after successful detection the headphone icon is switched on. The transmission using the **SV 55** is possible only in the case when the instrument is not connected to a PC with the **USB Device** port.

The **RS232** is the default setting in the **USB-HOST PORT** in the **SETUP** list. Only in this option the USB host controller is awoken and the power consumption is the lower one.



SETUP list with the **USB-HOST PORT** selected and this window with the activated **RS232**

The user has to be sure that the **RS232** is activated (*path: MENU / SETUP / USB-HOST PORT / RS232*) before starting printing reports. Additionally, in the **RS232** list (*path: MENU / SETUP / RS232*) the user has to select the proper speed of the transmission and the parameter called **TIME OUT**.



SETUP list with the **RS232** selected and the exemplary contents of this window

The RS 232 interface transmission (**BAUD RATE**) speed can be selected from the following available values: **1200** (bits / second), **2400** (bits / s), **4800** (bits / s), **9600** (bits / s), **19200** (bits / s), **38000** (bits / s), **57600** (bits / s) or **115200** (bits / s).

The selection is made by means of the <◀>, <▶> push-buttons. The transmission speed should correspond to the one selected in a printer. The other RS 232 transmission parameters are fixed to **8 bits for data, No parity & 1 Stop bit**. The default value of the **TIME OUT** parameter is equal to one but it can be too short period for the printers, which are not too fast. In such case, this parameter has to be increased.

The description of the **SV 55** pin-outs is given in App. C. The printers with the different connections on the RS 232 socket require the special, individual RS 232 – RS 232 cable that should fulfil the suitable wire crossing.

The printers, in which the Centronics interface is available instead of the RS 232 one, can be connected to the instrument by means of the **SV 52** RS 232 – Centronics interface.

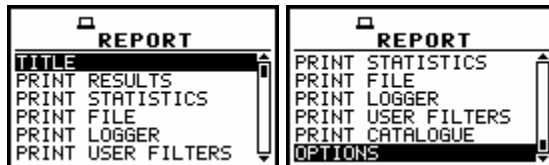
The printers, which have only USB interface, are currently not driven by the instrument.



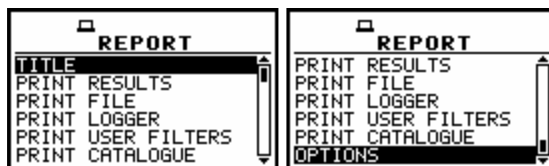
**Notice:** Switch the power off before connecting the instrument to any external device (e.g. a printer or a Personal Computer).

The **REPORT** list contains the following elements:


- TITLE** that enables the user to give the header to the printed report;
- PRINT RESULTS** that enables the user to print out the measurement results on the default printer or to send the measurement results to a PC using SvanPC software and USB interface;
- PRINT STATISTICS** that enables the user to print out the statistics of the measurement results; this position is not available in the case of vibration measurements;
- PRINT FILE** that enables the user to print out on a printer the selected file with the measurement results or to send it to a PC using SvanPC software and USB interface
- PRINT LOGGER** that enables the user to print out on a printer connected directly to the instrument the measurement results in a selected file from the logger or to send it to a PC using SvanPC software and USB interface
- PRINT USER FILTERS** that enables the user to print out on a printer connected directly to the instrument the values of the user filters introduced in the instrument or to send them to a PC using SvanPC software and USB interface;
- PRINT CATALOGUE** that enables the user to print out the catalogue of the files
- OPTIONS** that enables the user to determine the options of the report.




**REPORT windows in SM (SOUND METER) mode**



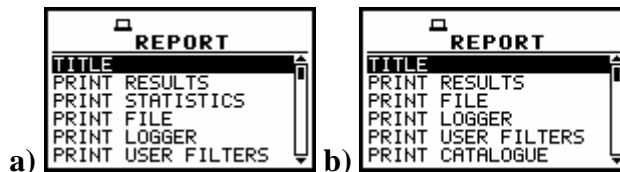
**REPORT windows in the vibration modes**

 **Notice:** All reports are printed in the character format using the ASCII set.

 **Notice:** The abbreviation **SM** mode refers to the both Sound Modes (**SOUND METER** and **VOLTAGE (SOUND)**), **VM** mode refers to the Vibration Modes (**VIBRATION METER** and **VOLTAGE (VIBRATION)**).

### 8.1 Edition of the user's text to be added to the reports - TITLE

The **TITLE** enables the user to edit the text added to the file and to the report to be printed. This operation is performed in the same way as it was described in the case of the **FILE NAME** window. In order to enter the position the user has to select the **TITLE** text in the **REPORT** list, using the <^>, <^> (or <^>, <^> with <SHIFT>) push-buttons and press the <ENTER> one.



**REPORT windows with the TITLE selected in SM (a) and VM (b)**

The text edition is made using the <^>, <v>, <^>, <^> and <SHIFT> push-buttons. The <^>, <^> push-buttons are used for changing the position of the edited character. The number (counted from the beginning of the text) of the edited character is displayed in the first line of the display, in the brackets. The text is limited to 128 characters.



**Displays in the text edition of the report's header**

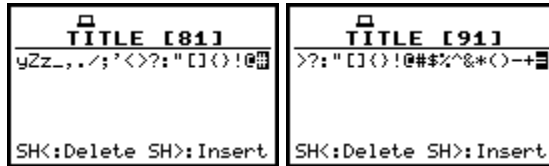
The <^>, <v> push-buttons are used for the selection of the ASCII characters. Digits, small and big letters as well as special characters, all together 91, are available (cf. the view of the displays below). Small and big letters are placed one after another.

Pressing the <SHIFT> and <^> push-buttons causes that the highlighted character is erased from the text (**DEL** function). Pressing the <SHIFT> and <^> causes that the whole text is shifted one position to the right (**INSERT** function).

The window is closed and the instrument returns to the **REPORT** list after pressing the <ENTER> or <ESC> push-button. In the first case, the edited text is saved and will be added to the printed reports. In the latter case newly introduced text or the amendments made in the old one are ignored.



**Displays with all available characters**

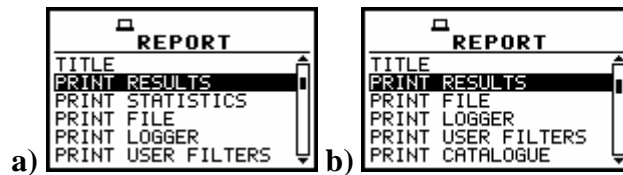


Displays with all available characters (cont.)

## 8.2 Printing of the measurement results - PRINT RESULTS

The **PRINT RESULTS** enables the user to print the report on the attached printer or to send out the report to a PC using the SvanPC software and the USB interface.

In order to enter the position the user has to select the **PRINT RESULT** text in the **REPORT** list, using the <▲>, <▼> (or <◀>, <▶>) push-buttons and press the <ENTER> one.



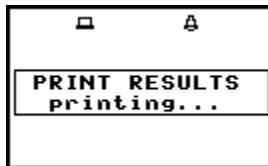
**REPORT** windows with the **PRINT RESULTS** selected in SM (a) and VM (b)

After pressing the <ENTER> push-button the instrument checks its current state. In the case when the measurements are performed, the printing is impossible and the message is displayed.



Display after the attempt to perform an unavailable operation during measurement in progress

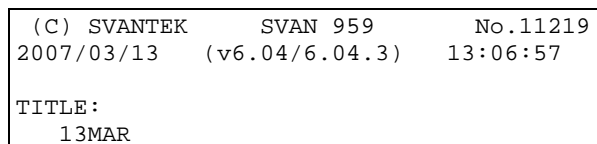
In the case when a measurement was already performed and a result is available, the message presented below is displayed.



Display in the **REPORT** list; the execution of the **PRINT RESULTS**

When the message is on the display, the data are transferred from the instrument to the attached printer. The instrument returns to the **REPORT** list after transferring all data.

The exemplary report printed in A5 format (*path: MENU / REPORT / OPTION / FORMAT A5*) with the **TITLE** "13MAR" (*path: MENU / REPORT / TITLE / 13MAR*) looks as follows:



```

----- SETTINGS -----
Device mode.....: SOUND METER
Input.....: Microphone
Field correction...: FREE
Outdoor filter.....: Off
Device function....: LEVEL METER
LEVEL METER version: 6.04
Meas. start date...: 2007/03/13
Meas. start hour...: 13:01:40
Range.....: 137 dB
Measure trigger....: Off
Logger trigger.....: Off
Repeat cycle.....: Infinity
Start delay.....: 1 s
Integration time...: 1 s
Calibr. factor.....: 0.0 dB
Leq integration....: Linear

Profile:      #1      #2      #3
Filter:       A       C       Z
Detector:     FAST    FAST    FAST
Logger:       None    None    None

----- RESULTS -----

Measurement time: 00:00:01

Prof.:   #1      #2      #3
PEAK    75.5dB    99.2dB    100.7dB
MAX     70.1dB    95.8dB    97.1dB
MIN     70.0dB    95.6dB    96.9dB
SPL     70.1dB    95.8dB    97.1dB
LEQ     70.0dB    95.7dB    97.0dB
SEL     70.0dB    95.7dB    97.0dB
Ld      70.0dB    95.7dB    97.0dB
LEPd    70.0dB    95.7dB    97.0dB
Ltm3    70.1dB    95.8dB    97.1dB
Ltm5    70.1dB    95.8dB    97.1dB

L01     70.9dB    95.9dB    97.9dB
L10     70.9dB    95.9dB    97.9dB
L20     70.8dB    95.8dB    97.8dB
L30     70.7dB    95.7dB    97.7dB
L40     70.6dB    95.6dB    97.6dB
L50     70.5dB    95.5dB    97.5dB
L60     70.4dB    95.4dB    97.4dB
L70     70.3dB    95.3dB    97.3dB
L80     70.2dB    95.2dB    97.2dB
L90     70.1dB    95.1dB    97.1dB

-----

```

**Example of the printed results - A5 format**

The same result's report printed in A4 format is presented below:

```

(C) SVANTEK      SVAN 959      No.11219 2007/03/13      (v6.04/6.04.3)      13:03:07

TITLE:
  13MAR

----- SETTINGS -----

```

```

Device mode.....: SOUND METER
Input.....: Microphone
Field correction...: FREE
Device function...: LEVEL METER
Meas. start date...: 2007/03/13
Range.....: 137 dB
Logger trigger.....: Off
Start delay.....: 1 s
Calibr. factor.....: 0.0 dB
Outdoor filter.....: Off
LEVEL METER version: 6.04
Meas. start hour...: 13:01:40
Measure trigger....: Off
Repeat cycle.....: Infinity
Integration time...: 1 s
Leq integration....: Linear

Profile:   #1   #2   #3
Filter:    A   C   Z
Logger:    None None None
Profile:   #1   #2   #3
Detector:  FAST FAST FAST

```

----- RESULTS -----

Measurement time: 00:00:01

Prof.:	#1	#2	#3
PEAK	75.5 dB	99.2 dB	100.7 dB
MAX	70.1 dB	95.8 dB	97.1 dB
MIN	70.0 dB	95.6 dB	96.9 dB
SPL	70.1 dB	95.8 dB	97.1 dB
LEQ	70.0 dB	95.7 dB	97.0 dB
SEL	70.0 dB	95.7 dB	97.0 dB
Ld	70.0 dB	95.7 dB	97.0 dB
LEPd	70.0 dB	95.7 dB	97.0 dB
Ltm3	70.1 dB	95.8 dB	97.1 dB
Ltm5	70.1 dB	95.8 dB	97.1 dB
L01	70.9 dB	95.9 dB	97.9 dB
L10	70.9 dB	95.9 dB	97.9 dB
L20	70.8 dB	95.8 dB	97.8 dB
L30	70.7 dB	95.7 dB	97.7 dB
L40	70.6 dB	95.6 dB	97.6 dB
L50	70.5 dB	95.5 dB	97.5 dB
L60	70.4 dB	95.4 dB	97.4 dB
L70	70.3 dB	95.3 dB	97.3 dB
L80	70.2 dB	95.2 dB	97.2 dB
L90	70.1 dB	95.1 dB	97.1 dB

-----

**Example of the printed results from the SOUND METER mode (LEVEL METER) - A4 format**

(C) SVANTEK SVAN 959 No.11219 2007/03/13 (v6.04/6.04.3) 13:23:32

TITLE:  
VIBR

----- SETTINGS -----

```

Device mode.....: VIBR. METER
Input.....: Accelerometer
Device function...: 1/3 OCTAVE
Meas. start date...: 2007/03/13
Range.....: 708 m/s2
Ref.level for Vel.: 1 nm/s
Measure trigger....: Off
Repeat cycle.....: Infinity
Integration time...: 10 s
RMS integration....: Linear
Spectrum in logger.: None

```

----- SETTINGS -----

```

Meas. start hour...: 13:12:32
Ref.level for Acc..: 1 um/s2
Ref.level for Dil..: 1 pm
Logger trigger.....: Off
Start delay.....: 0 s
Calibr. factor.....: 0.0 dB
Spectrum filter....: Z

```

```

Profile:      #1      #2      #3      Profile:      #1      #2      #3
Filter:       HP1     HP3     HP10     Detector:     1.0s    1.0s    1.0s
Logger:       None    None    None
-----
RESULTS
-----
Measurement time: 00:00:09

Prof.:      #1      #2      #3
PEAK        26.3    m/s2    26.3    m/s2    26.0    m/s2
P-P         51.9    m/s2    51.9    m/s2    51.3    m/s2
MAX         13.2    m/s2    13.2    m/s2    13.2    m/s2
RMS         11.0    m/s2    11.0    m/s2    11.0    m/s2
VDV         22.6    m/s1.75 22.6    m/s1.75 22.6    m/s1.75

--- 1/3 OCTAVE ---      --- 1/3 OCTAVE ---      --- 1/3 OCTAVE ---

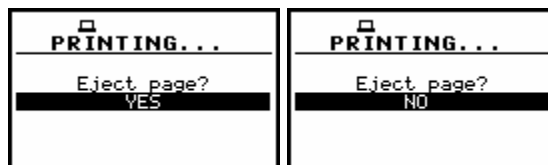
[Hz]  [m/s2]                [Hz]  [m/s2]                [Hz]  [m/s2]
0.80  3.43e-02             25.00 4.90e-03             800.00 9.23e-02
1.00  3.05e-02             31.50 4.37e-03             1000.00 7.33e-02
1.25  5.75e-02             40.00 2.92e-01             1250.00 3.94e-02
1.60  1.07e-01             50.00 1.10e+01             1600.00 2.37e-02
2.00  8.41e-02             63.00 1.45e+00             2000.00 2.21e-02
2.50  1.19e-01             80.00 1.06e-02             2500.00 2.37e-02
3.15  1.04e-01            100.00 6.24e-02             3150.00 1.82e-02
4.00  6.68e-02            125.00 6.53e-02             4000.00 9.77e-03
5.00  7.16e-02            160.00 6.46e-01             5000.00 8.13e-03
6.30  4.22e-02            200.00 5.07e-02             6300.00 6.61e-03
8.00  3.31e-02            250.00 5.50e-01             8000.00 6.76e-03
10.00 2.00e-02            315.00 2.82e-01            10000.00 9.89e-03
12.50 2.02e-02            400.00 2.00e-01            12500.00 1.07e-02
16.00 1.50e-02            500.00 9.02e-02             16000.00 1.20e-02
20.00 9.66e-03            630.00 2.14e-01            20000.00 1.16e-02

----- TOTALS FOR FILTERS -----
Filter Type  CF[dB]  Total
R3          Acc    0.0    1.10e+01 m/s2
HP3         Acc    0.0    1.10e+01 m/s2
HP10        Acc    0.0    1.10e+01 m/s2
-----

```

Example of the printed results from the VIBRATION METER mode (1/3 OCTAVE) - A4 format

The following confirmation question is displayed after the printing, if the **Prompt** parameter was selected in the **EJECT P.** (*path: MENU / REPORT / OPTIONS / EJECT P.*). The user has to answer in this case if the paper in the printer has to be ejected to the new page. The change of the available answers is possible after pressing the <◀>, <▶> push-buttons. The return to the **REPORT** list is performed after pressing the <ENTER> push-button with the possible ejection of the paper to the new page.

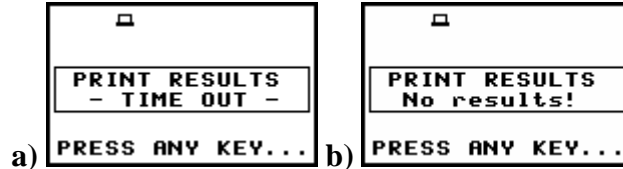


Displays with the confirmation request of the paper ejection

The similar message is displayed after sending out the statistics of the results, the contents of the selected file, the contents of the selected file in the logger and the catalogue of the files

(**PRINT STATISTICS**, **PRINT FILE**, **PRINT LOGGER**, **PRINT USER FILTERS** and **PRINT CATALOGUE**).

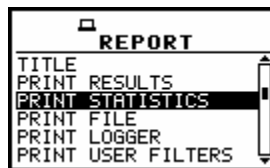
The message about the time limit is displayed in the case when the printer (or a PC) is not connected or there is any other reason that it does not receive the data. The instrument waits for the reaction of the user (any push-button should be pressed except the <SHIFT> and <ALT> one) and after pressing a push-button it returns to the **REPORT** list. Another message is presented and the instrument waits for the reaction of the user in the case when there is no data to be printed.



Displays during the results printing when there is no transfer (a) and no data (b)

### 8.3 Printing of the statistics of sound measurement results - PRINT STATISTICS

The **PRINT STATISTICS** enables the user to print the results of the statistics analysis on the attached printer. This position is not accessible for the vibration measurements. In order to enter the position the user has to select the **PRINT STATISTICS** text in the **REPORT** list, using the <▲>, <▼> (or <◀>, <▶>) push-buttons and press the <ENTER>.



**REPORT** window with the **PRINT STATISTICS** selected

After pressing the <ENTER> push-button the instrument checks its current state. In the case when the measurements are performed, the printing is impossible and the message is displayed.



Display after the attempt to perform an unavailable operation during measurement in progress

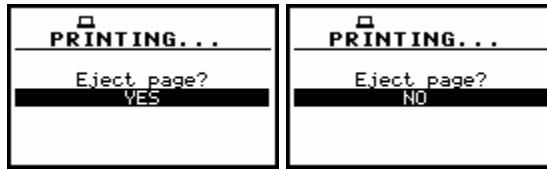
After pressing the <ENTER> push-button, in the case when a measurement was already performed and a result is available, the message is displayed:



Display in the **REPORT** list; the execution of the **PRINT STATISTICS**

When the message is on the display, the data are transferred from the instrument to the attached printer (or PC). The instrument returns to the **REPORT** list when all data are transferred but if the **Prompt** parameter was selected in the **EJECT P.** (*path: MENU / REPORT / OPTIONS / EJECT P.*),

the confirmation question is displayed after the printing. The user has to answer in this case if the paper in the printer has to be ejected to the new page. The change of the available answers is possible after pressing the <◀>, <▶> push-buttons. The return to the **REPORT** list is performed after pressing the <ENTER> push-button with the possible ejection of the paper to the new page.



**Displays with the confirmation request of the paper ejection**

The printed statistics examples (format A5 and A4) are presented below:

```
(C) SVANTEK      SVAN 959      No.11219
2007/03/14      (v6.04/6.04.3)    17:31:06

TITLE:
  10 MAR

----- SETTINGS -----
Device mode.....: SOUND METER
Input.....: Microphone
Field correction...: FREE
Outdoor filter.....: Off
Device function....: 1/1 OCTAVE
Meas. start date...: 2007/03/14
Meas. start hour...: 17:30:50
Range.....: 137 dB
Measure trigger....: Off
Logger trigger.....: LEVEL -
Logger trig.source.: RMS(1)
Logger trig.level..: 100 dB
Trig.'prev'probes..: 0
Trig.'post'probes..: 0
Repeat cycle.....: Infinity
Start delay.....: 0 s
Integration time...: 10 s
Calibr. factor.....: 22.0 dB
Calibration by.....: Sensitivity
Calibration date...: 2007/03/14
Calibration hour...: 16:26:28
Leq integration....: Exponent.
Spectrum filter....: Z
Spectrum in logger.: None

Profile:      #1      #2      #3
Filter:       A       C       Z
Detector:     FAST    FAST    FAST
Logger:       PEAK   MAX     PEAK
              MAX     RMS     MAX
              MIN
              RMS

----- STATISTICS -----
Measurement time: 00:00:05

Profile:      #1      #2      #3
              [dB A] [dB C] [dB]
L01          71.5   69.5   72.5
L02          71.0   69.0   72.0
L03          69.5   67.5   69.5
```

L04	69.0	67.0	69.0
L05	67.5	65.5	68.5
L06	67.0	65.0	68.0
L07	59.5	57.5	60.5
L08	59.0	57.0	60.0
L09	55.5	53.5	57.5
L10	55.0	53.0	57.0
L11	51.5	50.5	53.5
L12	51.0	50.0	53.0
L13	50.5	48.5	52.9
L14	50.0	48.0	52.9
L15	49.7	47.8	52.8
L16	49.5	47.6	52.8
L17	49.2	47.5	52.7
L18	49.0	47.3	52.7
L19	48.9	47.1	52.6
L20	48.9	47.0	52.6
L21	48.9	46.9	52.5
L22	48.9	46.9	52.5
L23	48.9	46.9	52.5
L24	48.9	46.9	52.4
L25	48.8	46.9	52.4
L26	48.8	46.9	52.3
L27	48.8	46.9	52.3
L28	48.8	46.8	52.2
L29	48.8	46.8	52.2
L30	48.8	46.8	52.1
L31	48.8	46.8	52.1
L32	48.7	46.8	52.0
L33	48.7	46.8	52.0
L34	48.7	46.8	52.0
L35	48.7	46.7	51.9
L36	48.7	46.7	51.9
L37	48.7	46.7	51.9
L38	48.6	46.7	51.9
L39	48.6	46.7	51.9
L40	48.6	46.7	51.9
L41	48.6	46.7	51.8
L42	48.6	46.7	51.8
L43	48.6	46.6	51.8
L44	48.6	46.6	51.8
L45	48.5	46.6	51.8
L46	48.5	46.6	51.8
L47	48.5	46.6	51.8
L48	48.5	46.6	51.7
L49	48.5	46.6	51.7
L50	48.5	46.5	51.7
L51	48.5	46.5	51.7
L52	48.4	46.5	51.7
L53	48.4	46.5	51.7
L54	48.4	46.5	51.6
L55	48.4	46.5	51.6
L56	48.4	46.5	51.6
L57	48.4	46.5	51.6
L58	48.3	46.4	51.6
L59	48.3	46.4	51.6
L60	48.3	46.4	51.6
L61	48.3	46.4	51.5
L62	48.3	46.4	51.5
L63	48.3	46.4	51.5
L64	48.3	46.4	51.5
L65	48.2	46.3	51.5
L66	48.2	46.3	51.5
L67	48.2	46.3	51.5
L68	48.2	46.3	51.4
L69	48.2	46.3	51.4
L70	48.2	46.3	51.4
L71	48.1	46.3	51.4

L72	48.1	46.2	51.4
L73	48.1	46.2	51.4
L74	48.1	46.2	51.3
L75	48.1	46.2	51.3
L76	48.1	46.2	51.3
L77	48.1	46.2	51.3
L78	48.0	46.2	51.3
L79	48.0	46.2	51.3
L80	48.0	46.1	51.3
L81	48.0	46.1	51.2
L82	48.0	46.1	51.2
L83	48.0	46.1	51.2
L84	48.0	46.1	51.2
L85	47.9	46.1	51.2
L86	47.8	46.1	51.2
L87	47.8	46.0	51.1
L88	47.7	46.0	51.1
L89	47.6	46.0	51.1
L90	47.6	46.0	51.1
L91	47.5	46.0	51.1
L92	47.5	46.0	51.1
L93	47.4	46.0	51.1

**Example of the printed statistics from the VOLTAGE (SOUND) mode (1/1 OCTAVE) - format A5**

```
(C) SVANTEK      SVAN 959      No.11219 2007/03/13      (v6.04/6.04.3)      13:50:36
```

TITLE:  
Hotel

----- SETTINGS -----

Device mode.....: SOUND METER	Outdoor filter.....: Off
Input.....: Microphone	Meas. start hour...: 13:49:08
Field correction...: FREE	Criterion level....: 80 dB
Device function....: DOSE METER	Exchange rate.....: 3 dB
Meas. start date...: 2007/03/13	Measure trigger....: Off
Range.....: 137 dB	Repeat cycle.....: Infinity
Threshold level....: None	Integration time...: 10 s
Exposure time.....: 08h00	Leq integration....: Linear
Logger trigger.....: Off	
Start delay.....: 0 s	
Calibr. factor.....: 0.0 dB	

Profile: #1 #2 #3	Profile: #1 #2 #3
Filter: A C Z	Detector: FAST FAST FAST
Logger: None None None	

----- STATISTICS -----

Measurement time: 00:00:02

Profile: #1 #2 #3	Profile: #1 #2 #3
[dB A] [dB C] [dB]	[dB A] [dB C] [dB]
L01 62.8 66.8 70.8	L51 56.7 62.3 66.9
L02 62.6 66.6 70.6	L52 56.7 62.3 66.9
L03 62.4 66.4 70.4	L53 56.6 62.2 66.8
L04 62.2 66.2 70.2	L54 56.6 62.2 66.8
L05 62.0 66.0 70.0	L55 56.6 62.2 66.7
L06 61.8 65.8 69.8	L56 56.5 62.1 66.7
L07 61.6 65.6 69.6	L57 56.5 62.1 66.6
L08 61.4 65.4 69.4	L58 56.4 62.0 66.6
L09 61.2 65.2 69.2	L59 56.4 62.0 66.5
L10 61.0 65.0 69.0	L60 56.4 62.0 66.5
L11 59.9 64.8 68.9	L61 56.3 61.9 66.4

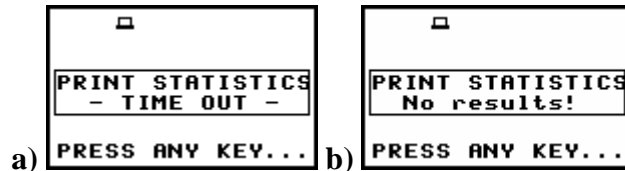
L12	59.8	64.6	68.9	L62	56.3	61.9	66.4
L13	59.7	64.4	68.8	L63	56.2	61.8	66.3
L14	59.6	64.2	68.8	L64	56.2	61.8	66.3
L15	59.5	64.0	68.8	L65	56.2	61.8	66.2
L16	59.4	63.9	68.7	L66	56.1	61.7	66.2
L17	59.3	63.9	68.7	L67	56.1	61.7	66.1
L18	59.2	63.8	68.6	L68	56.0	61.6	66.1
L19	59.1	63.8	68.6	L69	56.0	61.6	66.0
L20	59.0	63.7	68.6	L70	56.0	61.6	66.0
L21	58.9	63.7	68.5	L71	55.8	61.5	65.8
L22	58.9	63.6	68.5	L72	55.6	61.5	65.6
L23	58.8	63.6	68.4	L73	55.4	61.4	65.4
L24	58.8	63.5	68.4	L74	55.2	61.4	65.2
L25	58.7	63.5	68.4	L75	55.0	61.4	65.0
L26	58.7	63.4	68.3	L76	54.9	61.3	64.9
L27	58.6	63.4	68.3	L77	54.8	61.3	64.8
L28	58.6	63.3	68.2	L78	54.7	61.2	64.7
L29	58.5	63.3	68.2	L79	54.6	61.2	64.6
L30	58.5	63.2	68.2	L80	54.5	61.2	64.5
L31	58.4	63.2	68.1	L81	54.4	61.1	64.4
L32	58.4	63.1	68.1	L82	54.3	61.1	64.3
L33	58.3	63.1	68.0	L83	54.2	61.0	64.2
L34	58.3	63.0	68.0	L84	54.1	61.0	64.1
L35	58.2	63.0	68.0	L85	54.0	61.0	64.0
L36	58.2	62.9	67.9	L86	52.9	60.9	63.9
L37	58.1	62.9	67.8	L87	52.8	60.8	63.8
L38	58.1	62.8	67.8	L88	52.7	60.7	63.8
L39	58.0	62.8	67.7	L89	52.6	60.6	63.7
L40	58.0	62.8	67.6	L90	52.5	60.5	63.6
L41	57.8	62.7	67.6	L91	52.4	60.4	63.6
L42	57.6	62.7	67.5	L92	52.3	60.3	63.5
L43	57.4	62.6	67.4	L93	52.2	60.2	63.4
L44	57.2	62.6	67.4	L94	52.1	60.1	63.4
L45	57.0	62.6	67.3	L95	52.0	60.0	63.3
L46	56.9	62.5	67.2	L96	51.8	59.8	63.2
L47	56.9	62.5	67.2	L97	51.6	59.6	63.2
L48	56.8	62.4	67.1	L98	51.4	59.4	63.1
L49	56.8	62.4	67.0	L99	51.2	59.2	63.0
L50	56.8	62.4	67.0				

-----

-----

**Example of the printed statistics from the SOUND METER mode (DOSE METER) - format A4**

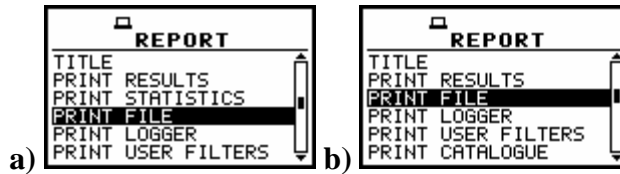
The message about the time limit is displayed in the case when the printer is not connected or there is any other reason that it does not receive the data. The instrument waits for the reaction of the user (any push-button should be pressed except the <SHIFT> and <ALT>) and after pressing a push-button it returns to the **REPORT** list. Another message is presented and the instrument waits for the reaction of the user in the case when there is no data to be printed.



**Displays during the statistics printing when there is no transfer (a) and no data (b)**

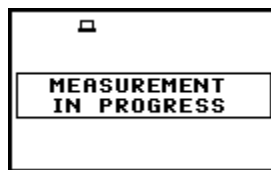
## 8.4 Printing of the measurement results from the selected file - PRINT FILE

The **PRINT FILE** enables the user to print out on a printer connected directly to the instrument the selected file with the measurement results or to send it to a PC using SvanPC software and the USB interface. In order to enter the position the user has to select the **PRINT FILE** text in the **REPORT** list, using the <▲>, <▼> (or <◀>, <▶>) push buttons and press the <ENTER>.



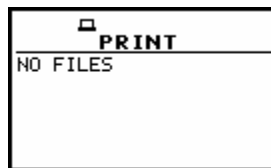
**REPORT windows with the PRINT FILE selected in SM (a) and VM (b)**

After pressing the <ENTER> push-button the instrument checks its current state. In the case when the measurements are performed, the printing is impossible and the message is displayed.



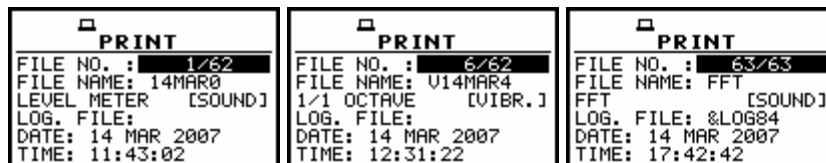
**Display after the attempt to perform an unavailable operation during measurement in progress**

If no files were saved in the instrument's memory then after pressing <ENTER> a special message is displayed and the unit waits for the reaction of the user. In this time any push-button should be pressed except the <SHIFT> and <ALT> one and after pressing a push-button the instrument returns to the **REPORT** list.



**Display in the REPORT list; the PRINT FILE position when no files were saved**

In the consecutive lines of the display the current file number, the total number of the files, the file name, file type, date and time of registration are presented. The change of the current file with the unit step can be done pressing the <◀>, <▶> push-buttons. After pressing the <◀> with <SHIFT> push-button the first file is available and after pressing the <▶> with <SHIFT> push-button - the last one is displayed.



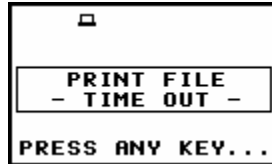
**Displays during the selection of the file to be printed**

The contents of the selected file is sent out to a PC after pressing the <ENTER> push-button. The following message is displayed on the display during the printing:



**Display during the execution of the PRINT FILE operation**

The instrument returns to the **REPORT** list when all data are transferred but if the **Prompt** parameter was selected (*path: MENU / REPORTS / OPTIONS / EJECT P. / Prompt*), the described in the **PRINT RESULTS** message is displayed on the display after the printing. The user has to answer in this case if the Line Feed has to be added to the transferred data. The change of the available answers is possible after pressing the <◀>, <▶> push-buttons. The return to the **REPORT** list is performed after pressing the <ENTER> push-button with the possible Line Feed addition.



**Display during the file sending out when there is no data transfer**

The message about the time limit is displayed in the case when the printer (or PC) is not connected or there is any other reason that it does not receive the data. The instrument waits for the reaction of the user (any push-button should be pressed except the <SHIFT> and <ALT> one) and it returns to the **REPORT** list after pressing a push-button.

The exemplary printed file contents are presented below.

```
(C) SVANTEK      SVAN 959      No.11219
2007/03/13      (v6.04/6.04.3)  15:39:18

File name: VIBR

TITLE:
  EXAMPLE

----- SETTINGS -----

Device mode.....: VIBR. METER
Input.....: Accelerometer
Device function....: 1/3 OCTAVE
Meas. start date...: 2007/03/13
Meas. start hour...: 13:12:32
Range.....: 708 m/s2
Ref.level for Acc..: 1 um/s2
Ref.level for Vel...: 1 nm/s
Ref.level for Dil...: 1 pm
Measure trigger....: Off
Logger trigger....: Off
Repeat cycle.....: Infinity
Start delay.....: 0 s
Integration time...: 10 s
Calibr. factor.....: 0.0 dB
RMS integration....: Linear
Spectrum filter....: Z
Spectrum in logger.: None

Profile:      #1      #2      #3
Filter:      HP1      HP3      HP10
Detector:    1.0s    1.0s    1.0s
Logger:      None    None    None

----- RESULTS -----

Measurement time: 00:00:09
```

```

Prof.:   #1           #2           #3
PEAK    26.3 m/s2   26.3 m/s2   26.0 m/s2
P-P     51.9 m/s2   51.9 m/s2   51.3 m/s2
MAX     13.2 m/s2   13.2 m/s2   13.2 m/s2
RMS     11.0 m/s2   11.0 m/s2   11.0 m/s2
VDV     22.6 m/sX   22.6 m/sX   22.6 m/sX

Remark:  X = 1.75

--- 1/3 OCTAVE ---

      [Hz]   [m/s2]
      0.80  3.43e-02
      1.00  3.05e-02
      1.25  5.75e-02
      1.60  1.07e-01
      2.00  8.41e-02
      2.50  1.19e-01
      3.15  1.04e-01
      4.00  6.68e-02
      5.00  7.16e-02
      6.30  4.22e-02
      8.00  3.31e-02
     10.00  2.00e-02
     12.50  2.02e-02
     16.00  1.50e-02
     20.00  9.66e-03
     25.00  4.90e-03
     31.50  4.37e-03
     40.00  2.92e-01
     50.00  1.10e+01
     63.00  1.45e+00
     80.00  1.06e-02
    100.00  6.24e-02
    125.00  6.53e-02
    160.00  6.46e-01
    200.00  5.07e-02
    250.00  5.50e-01
    315.00  2.82e-01
    400.00  2.00e-01
    500.00  9.02e-02
    630.00  2.14e-01
    800.00  9.23e-02
   1000.00  7.33e-02
   1250.00  3.94e-02
   1600.00  2.37e-02
   2000.00  2.21e-02
   2500.00  2.37e-02
   3150.00  1.82e-02
   4000.00  9.77e-03
   5000.00  8.13e-03
   6300.00  6.61e-03
   8000.00  6.76e-03
  10000.00  9.89e-03

```

**Example of the printed file from the VIBRATION METER mode (1/3 OCTAVE) - format A5**

```
(C) SVANTEK   SVAN 959   No.11219 2007/03/13   (v6.04/6.04.3)   12:50:44
```

```
File name: 02MAR0
Associated logger name: &LOG
```

```
TITLE:
      AIRPORT1
```

```
----- SETTINGS -----
```

```

Device mode.....: SOUND METER
Input.....: Microphone
Field correction...: FREE
Device function....: LEVEL METER
Meas. start date...: 2007/03/02
Range.....: 137 dB
Logger trigger.....: Off
Start delay.....: 1 s
Calibr. factor.....: 0.0 dB
Outdoor filter.....: Off
LEVEL METER version: 6.04
Meas. start hour...: 18:51:52
Measure trigger....: Off
Repeat cycle.....: Infinity
Integration time...: 1 s
Leq integration....: Linear

Profile:      #1      #2      #3
Filter:       A       C       Z
Logger:       PEAK    PEAK    PEAK
              MAX     MAX     MAX
              MIN     MIN     MIN
              RMS     RMS     RMS

Profile:      #1      #2      #3
Detector:     FAST    FAST    FAST

----- RESULTS -----

Measurement time: 00:00:01

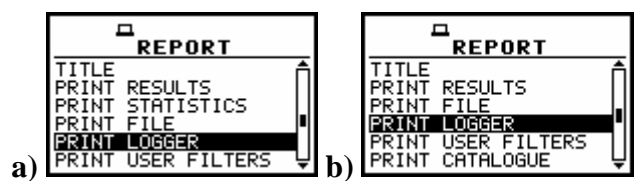
Prof.:      #1          #2          #3
PEAK        67.4 dB     71.3 dB     77.5 dB
MAX          49.0 dB     62.0 dB     70.3 dB
MIN          47.2 dB     58.9 dB     64.3 dB
SPL         49.0 dB     62.0 dB     70.3 dB
LEQ         48.1 dB     60.4 dB     66.6 dB
SEL         48.1 dB     60.4 dB     66.6 dB
Le          53.1 dB     65.4 dB     71.6 dB
LEPd        48.1 dB     60.4 dB     66.6 dB
Ltm3        49.0 dB     62.0 dB     70.3 dB
Ltm5        49.0 dB     62.0 dB     70.3 dB

L01         49.9 dB     62.9 dB     69.9 dB
L10         49.0 dB     62.0 dB     69.5 dB
L20         48.7 dB     61.5 dB     69.0 dB
L30         48.5 dB     61.0 dB     68.0 dB
L40         48.2 dB     60.7 dB     67.0 dB
L50         48.0 dB     60.5 dB     65.5 dB
L60         47.7 dB     60.2 dB     65.0 dB
L70         47.5 dB     60.0 dB     64.0 dB
L80         47.2 dB     58.6 dB     63.6 dB
L90         47.0 dB     58.3 dB     63.3 dB
    
```

Example of the printed file from the SOUND METER mode (LEVEL METER) - format A4

### 8.5 Printing of the logger results - PRINT LOGGER

The **PRINT LOGGER** enables the user to print out on a printer connected directly to the instrument the measurement results in a selected file from the logger or to send them to a PC using SvanPC software and USB interface. In order to enter the position the user has to select the **PRINT LOGGER** text in the **REPORT** list, using the <▲>, <▼> (or <◀>, <▶>) push buttons and press the <ENTER>. This option is currently under development - **Function not available** text appears on the display.



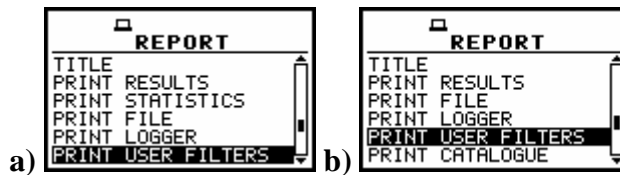
REPORT windows with the PRINT LOGGER selected in SM (a) and VM (b)



PRINT LOGGER window opened - Function not available message

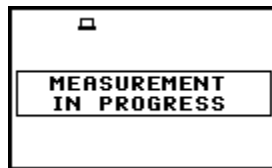
## 8.6 Printing of the coefficients of the user filters - PRINT USER FILTERS

The **PRINT USER FILTERS** enables the user to print out the values of the user filters introduced in the instrument: **S1**, **S2**, **S3**.



REPORT windows with the PRINT USER FILTERS selected in SM and VM

In order to enter the position the user has to select the **PRINT USER FILTERS** text in the **REPORT** list, using the **<^>**, **<v>** (or **<^>**, **<v>**) push buttons and press the **<ENTER>**. After pressing the **<ENTER>** push-button the instrument checks its current state. In the case when the measurements are performed, the printing is impossible and the message is displayed.



Display after the attempt to perform an unavailable operation during measurement in progress

The selection of the **USER FILTER** is made by means of the **<^>**, **<v>** push buttons.



PRINT USER FILTERS windows; the user filter selection

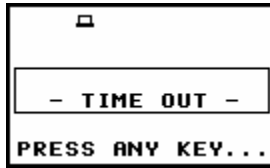
The contents of the selected file is sent out to the attached printer (or to a PC) after pressing the **<ENTER>** push-button. The following message is displayed on the display during the printing:



Display in the REPORT list; the execution of the PRINT USER FILTERS

When the message is on the display, the data are transferred from the instrument to the attached printer (or PC). The instrument returns to the **REPORT** list after transferring all data.

In the case when the printer or PC is not connected or there is any other reason that it does not receive the data the message about the time limit is displayed. The instrument waits for the reaction of the user (any push-button should be pressed except the <SHIFT> and <ALT>) and after pressing a push-button it returns to the **REPORT** list.



**Display during the file transfer from the logger when there is no data transfer**

The exemplary **USER FILTER** coefficients printed in A4 format look as follows:

```

(C) SVANTEK      SVAN 959      No.11219 2007/03/15   (v6.04/6.04.3)   15:36:53

Sound meter mode filter

----- S1 -----          ----- S1 -----          ----- S1 -----
      [Hz]      [dB]              [Hz]      [dB]              [Hz]      [dB]
0.80      -INF                25.00     40.0              800.00     10.0
1.00     -100.0              31.50     50.0              1000.00     0.0
1.25     -90.0               40.00     60.0              1250.00    -10.0
1.60     -80.0               50.00     70.0              1600.00    -20.0
2.00     -70.0               63.00     80.0              2000.00    -30.0
2.50     -60.0               80.00     90.0              2500.00    -40.0
3.15     -50.0              100.00    100.0             3150.00    -50.0
4.00     -40.0              125.00     90.0              4000.00    -60.0
5.00     -30.0              160.00     80.0              5000.00    -70.0
6.30     -20.0              200.00     70.0              6300.00    -80.0
8.00     -10.0              250.00     60.0              8000.00    -90.0
10.00      0.0               315.00     50.0             10000.00  -100.0
12.50     10.0              400.00     40.0              12500.00   -INF
16.00     20.0              500.00     30.0              16000.00   -INF
20.00     30.0              630.00     20.0              20000.00   -INF

-----
    
```

**Example of the printed coefficients of the user filter S1- format A4**

```

(C) SVANTEK      SVAN 959      No.11219
2007/03/15   (v6.04/6.04.3)   15:49:07

Sound meter mode filter

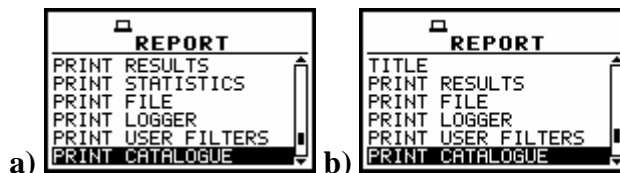
----- S2 -----          ----- S2 -----
      [Hz]      [dB]              [Hz]      [dB]
0.80      -INF                160.00     1.0
1.00      -INF                200.00     1.0
1.25      -INF                250.00     1.0
1.60      -INF                315.00     3.0
2.00       0.0               400.00     3.0
2.50       0.0               500.00     3.0
3.15       0.0               630.00     1.0
4.00       0.0               800.00     1.0
5.00       0.0              1000.00     1.0
6.30       0.0              1250.00     1.0
8.00       0.0              1600.00     1.0
10.00      0.0              2000.00     0.0
    
```

12.50	0.0	2500.00	0.0
16.00	0.0	3150.00	0.0
20.00	0.0	4000.00	0.0
25.00	0.0	5000.00	0.0
31.50	0.0	6300.00	0.0
40.00	0.0	8000.00	0.0
50.00	0.0	10000.00	-INF
63.00	0.0	12500.00	-INF
80.00	0.0	16000.00	-INF
100.00	1.0	20000.00	-INF
125.00	0.0		
-----			

Example of the printed coefficients of the user filter S2 - format A5

## 8.7 Printing of the file's catalogue - PRINT CATALOGUE

The **PRINT CATALOGUE** enables the user to print the catalogue of the files stored in the instrument on the attached printer. In order to enter the position the user has to select the **PRINT CATALOGUE** text in the **REPORT** list, using the <▲>, <▼> (or <◀>, <▶>) push buttons and press the <ENTER>.



**REPORT** windows with the **PRINT CATALOGUE** selected in **SM** (a) and **VM** (b)

After pressing the <ENTER> push-button the instrument checks its current state. In the case when the measurements are performed, the printing is impossible and the message is displayed.



Display after the attempt to perform an unavailable operation during measurement in progress

After pressing the <ENTER> push-button the following message is displayed:



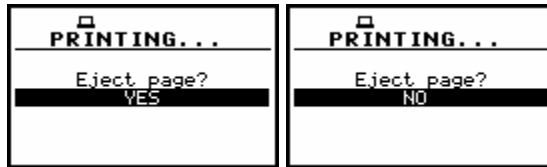
Display in the **REPORT** list; the execution of the **PRINT CATALOGUE**

When the message is on the display, the data are transferred from the instrument to the attached printer.

The instrument returns to the **REPORT** list after transferring all data but if the **Prompt** parameter was selected in the **EJECT P.** (*path: MENU / REPORT / OPTIONS / EJECT P.*), the confirmation question is displayed after the printing. The user has to answer in this case if the paper in the printer has

to be ejected to the new page. The change of the available answers is possible after pressing the <◀>, <▶> push-buttons.

The return to the **REPORT** list is performed after pressing the <ENTER> push-button with the possible ejection of the paper to the new page.



**Displays with the confirmation request of the paper ejection**

The exemplary printed catalogue is presented below.

```

(C) SVANTEK      SVAN 959      No.11219 2007/03/13      (v6.04/6.04.3)  14:32:06

CATALOGUE CONTENTS                                     Number of files: 19

Name      Mf   Length   Date      Time      Name      Mf   Length   Date      Time
02MAR0    <S1>   466      07/03/02  18:51    02MAR1    <S1>   466      07/03/02  18:52
02MAR2    <S1>   466      07/03/02  18:52    02MAR3    <S1>   466      07/03/02  18:52
02MAR4    <S1>   466      07/03/02  18:52    02MAR5    <S1>   466      07/03/02  18:52
05MAR0    <V1>   384      07/03/05  13:11    HOTEL     <V1>   384      07/03/05  13:13
HOTEL1    <Ve>   3622     07/03/05  13:14    06MAR0    <V1>   384      07/03/06  14:49
06MAR1    <V1>   384      07/03/06  14:55    HOTEL2    <S1>   470      07/03/06  16:49
12MAR0    <V1>   386      07/03/12  16:45    13MAR     <S1>   470      07/03/13  13:02
VIBR      <Vt>   490      07/03/13  13:14    VOL       <So>   516      07/03/13  13:37
DOSE      <Sd>   470      07/03/13  13:50    13MAR2    <S1>   470      07/03/13  13:59
13MAR3    <S1>   470      07/03/13  14:02
-----
    
```

**Example of the printed catalogue - format A4**

The same catalogue printed in A5 format looks as follows:

```

(C) SVANTEK      SVAN 959      No.11219
2007/03/13      (v6.04/6.04.3)  14:29:10

CATALOGUE CONTENTS
Number of files: 19

Name      Mf   Length   Date      Time
02MAR0    <S1>   466      07/03/02  18:51
02MAR1    <S1>   466      07/03/02  18:52
02MAR2    <S1>   466      07/03/02  18:52
02MAR3    <S1>   466      07/03/02  18:52
02MAR4    <S1>   466      07/03/02  18:52
02MAR5    <S1>   466      07/03/02  18:52
05MAR0    <V1>   384      07/03/05  13:11
HOTEL     <V1>   384      07/03/05  13:13
HOTEL1    <Ve>   3622     07/03/05  13:14
06MAR0    <V1>   384      07/03/06  14:49
06MAR1    <V1>   384      07/03/06  14:55
HOTEL2    <S1>   470      07/03/06  16:49
12MAR0    <V1>   386      07/03/12  16:45
13MAR     <S1>   470      07/03/13  13:02
VIBR      <Vt>   490      07/03/13  13:14
VOL       <So>   516      07/03/13  13:37
DOSE      <Sd>   470      07/03/13  13:50
13MAR2    <S1>   470      07/03/13  13:59
    
```

```

13MAR3  <S1>  470  07/03/13  14:02
-----

```

Example of the printed catalogue - format A5

When the catalogue of the files is empty (the measurement results were not saved), the instrument returns to the **REPORT** list without any reaction.

```

      □
-----
PRINT CATALOGUE
- TIME OUT -
-----
PRESS ANY KEY...

```

Display during the catalogue printing when there is no data transfer

## 8.8 Selection of the printing options - OPTIONS

Using the **OPTIONS** the user can select the format of the listing (**FORMAT**), can control the way the paper is ejected in the printer (**EJECT P.**). In order to enter the position the user has to select the **OPTIONS** text in the **REPORT** list, using the <^>, <v> (or <^>, <v>) push-buttons and press the <ENTER>.

```

a)      □      b)      □
REPORT  REPORT
PRINT STATISTICS  PRINT RESULTS
PRINT FILE        PRINT FILE
PRINT LOGGER      PRINT LOGGER
PRINT USER FILTERS  PRINT USER FILTERS
PRINT CATALOGUE  PRINT CATALOGUE
OPTIONS           OPTIONS

```

REPORT windows with the OPTION selected in SM (a) and in VM (b)

### 8.8.1 Selection of the format of the print out - FORMAT

The **FORMAT** enables the user to select the format of the listing (**A4** and **A5** options are available). In order to confirm the selection the <ENTER> push-button has to be pressed. After this confirmation, the **OPTIONS** sub-list is closed. In order to ignore any changes made in the **OPTIONS** sub-list the user has to press the <ESC> push-button.

```

      □      □
OPTIONS  OPTIONS
-----  -----
FORMAT : A4  FORMAT : A5
EJECT P.: None  EJECT P.: None

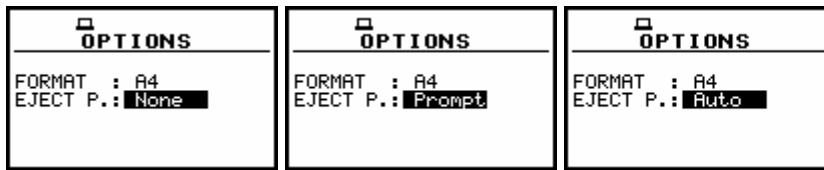
```

OPTIONS windows; the selection of the format

### 8.8.2 Controlling the paper ejection after print out - EJECT P.

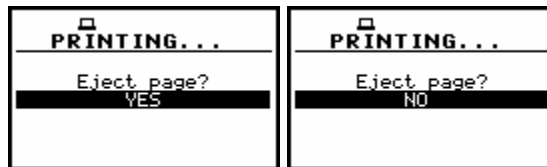
The **EJECT P.** enables the user to control the ejection of the paper after the listing is done. The following options are available: **Prompt** (the instrument asks whether to eject the page after printing report, statistics or catalogue), **Auto** (after printing, the paper is ejected) and **None** (the paper is not ejected after printing). In particular, it is possible to have one result after another using the **None** or **Prompt** options.

In the **EJECT P.** position any change is performed by means of the <◀>, <▶> push-buttons. In order to confirm the selection the <ENTER> push-button has to be pressed. After this confirmation, the **OPTIONS** sub-list is closed. In order to ignore any changes made in the **OPTIONS** sub-list the user has to press the <ESC> push-button.



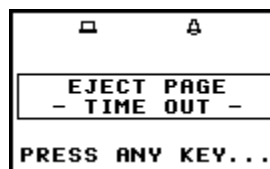
**OPTIONS windows; the selection of the paper ejection**

The request is displayed after the printing of the measurement results, the statistics of the results, the contents of the selected file, the contents of the selected file in the logger and the catalogue of the files (**PRINT RESULTS, PRINT STATISTICS, PRINT FILE, PRINT LOGGER, PRINT USER FILTERS, PRINT CATALOGUE**) if the **Prompt** parameter was selected in the **EJECT P.** position of the **OPTIONS** sub-list. The user has to answer in this case if the paper in the printer has to be ejected to the new page. The change of the available answers is possible after pressing the <◀>, <▶> push-buttons. The return to the **REPORT** list is performed after pressing the <ENTER> push-button with the possible ejection of the paper to the new page.



**Displays with the request for the confirmation of the paper ejection**

The message about the time limit is displayed in the case when the printer is not connected or there is any other reason that it does not eject a paper. The instrument waits for the reaction of the user (any push-button should be pressed except the <SHIFT> one) and after pressing a push-button it returns to the **REPORT** list.



**Display after a printing when there is not possible to eject a paper**