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**Sieve Analyser  
SV017**

Impact Test Equipment Ltd  
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User Guide  
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## **SIEVE ANALYSER FEATURES**

### **SIEVE MEMORY**

You can store and recall up to 10 stacks each containing up to 16 sieves and a receiver plus the empty sieves weight.

### **EDIT A STACK**

This allows you to change any sieve within the working stack.

### **RESULTS PRINT OUT**

After the completion of a test, the results are displayed on the screen (sieve aperture, weight retained, weight percentage retained and total sample weight). You then have the option of sending the results to a printer or a PC as a delimited file (data separated by a comma and carriage return/line feed) this format allows you to import the data into a spreadsheet or database.

### **ERROR CHECKING**

During a test, the Sieve Analyser continually checks to ensure each sieve is weighed correctly before it is accepted.

### **STACK AND TEST REFERENCE**

A numeric stack and test reference can be attached to each of the stacks.

## SIEVE ANALYSER SET-UP

- The Sieve Analyser can be plugged into any mains voltage in the range of 100-240 volts AC.
- Ensure the instrument is on a stable vibration and draft free platform.
- Allow the Sieve Analyser approximately 20 minutes to warm up before running a test.

If you have a Scientific printer or you want to connect the Sieve Analyser to a PC, before you run a test you will need to set the destination the results will be sent to, either the printer or PC.

### TO SET THE DESTINATION

Press  Key

Press  Key

Press 1 to send the results to a printer.  
Press 2 to send the results to a PC.

## START UP

After applying power, the display will show the initializing screen. This screen is displayed for approximately 40 seconds while the instrument initializes and carries out a self-check, if there are any problems this will be indicated in the display.

If initialization is successful, the Sieve Analyser will display the Ready Mode screen.

Sieve Analyser Mode indicator	Balance Stability indicator
READY MODE	S
Stack Ref 1 Test Ref 1  <div style="text-align: center;"> <h1>0.00g</h1> <p>Print Weight</p> </div>	



Press Key to  
print on screen  
weight

**\*\*\*Make sure the Balance Stability indicator is stable, if it is flashing this indicates the instrument is ether not on a stable platform or in a draft.**



## ENTERING A SIEVE STACK

### Preparing the stack.

Before you start to enter the stack into the Sieve Analyser, make sure each sieve is clean. You will be asked to enter each sieve aperture, then to weigh the empty sieve, largest aperture first ending with the receiver.


### Entering a stack.

Press  Key

Press  Key then press  to enter a new stack

You are now ready to start entering your stack.

First enter a numeric stack reference, this number will be displayed in the top left hand corner of the display in all modes and printed with the test results.

If you make a mistake, press the  key.

The next screen is going to ask you to enter the sieve aperture, then weigh the empty sieve.

PROGRAM A NEW STACK	STACK SIZE = 1	
ENTER SIEVE SIZE:		
0.00g		
EXIT	RECEIVER	Esc

Type in the sieve aperture then press the



key

If you make a mistake, press the



key and re-enter.

You will now be asked to weigh the empty sieve. Place the sieve on the weigh pan. Wait until you hear two beeps and the screen asks you to remove the sieve.

The screen will now ask you for the next sieve; continue entering the sieve apertures and weighing the empty sieves until all the sieves are entered.

**REMEMBER TO START WITH THE LARGEST APERTURE FIRST, ENDING WITH THE SMALLEST APERTURES.**


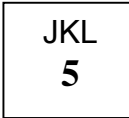
After you have entered and weighed the last sieve, press the key under the display labelled **RECEIVER**. You will now be asked to weigh the empty receiver. Place the receiver on the weigh pan then wait until you hear two beeps and the screen asks you to remove the receiver.

If at any time after you enter a sieve and you have made a mistake, just press the key under the display labelled **Esc**. This will erase the last sieve entered so you can re-enter to correct the mistake.

You have now successfully entered your stack. The display will go back to the stack menu. You can select an option or press the key under the display labelled **Esc**; this will return you to the ready mode screen.

**The stack you have just entered is your working stack if you wish to enter another stack you must first save the stack you just entered. (See saving a stack to memory.)**

## SAVING A STACK TO MEMORY

Press  Key Then press 

Press  Key To save a stack

The screen will display

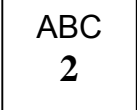
ENTER MEMORY 1-10 TO STORE STACK	
STACK REF	STACK REF
1: EMPTY	6: EMPTY
2: EMPTY	7: EMPTY
3: EMPTY	8: EMPTY
4: EMPTY	9: EMPTY
5: EMPTY	10: EMPTY
Esc	

Pressing the key under the display labelled **Esc**. This will return you to the stack menu.

Enter a number (1-10) to store your working stack, (when you return to this menu the word EMPTY will be replaced with the stack reference number). The display will now go back to the stack menu. You can now select an option or press the key under the display labelled **Esc**, this will return you to the ready mode screen.

## RECALLING A STACK FROM MEMORY

Press  Key then press 

Press  Key to recall a stack

The screen will display

ENTER MEMORY 1-10 TO RECALL STACK	
STACK REF	STACK REF
1: 123	6: EMPTY
2: 456	7: EMPTY
3: EMPTY	8: EMPTY
4: EMPTY	9: EMPTY
5: EMPTY	10: EMPTY
Esc	

Pressing the key under the display labelled **Esc** will return you to the stack menu.


Enter a number (1-10) to recall a working stack. The display will now go back to the stack menu. You can now select an option or press the key under the display labelled **Esc**, this will return you to the ready mode screen.

**The stack you have just recalled is now your working stack.**

## EDITING THE WORKING STACK

This function allows you to change any sieve in the working stack and store its empty weight.

Press  Key then press 

Press  Key to edit the working stack

The screen will display

ENTER SIEVE NUMBER TO BE EDITED █	
TEST REF 1	STACK REF 1
APERTURE	
1:	50.000
2:	40.000
3:	30.00
R:	
RECEIVER	Esc

To change a sieve, enter the sieve number and the display will ask you to enter the new sieve size. If you have selected the wrong sieve, press the key under the display labelled **Esc**. This will return you to the ENTER SIEVE NUMBER TO BE EDITED screen.

After you have entered the new sieve size, the screen will ask you to weigh the new sieve empty. Place the sieve on the weigh pan. Wait until you hear two beeps and the screen asks you to remove the sieve.

After this, the Sieve Analyser will return to the ENTER SIEVE NUMBER TO BE EDITED screen.

Press the key under the display labelled **RECEIVER** to re-weigh the receiver.

At this point you can edit another sieve or press the key under the display labelled **Esc** to return to the stack menu.

**Tip:**


This function is also useful if you need to re-weigh some of the sieves in the stack to update their empty weight. It saves you time from re-weighing the complete stack using the empty sieve function.

## RUNNING A SIEVE TEST

When you run a sieve test, all you will have to do is to place each sieve in turn on the weigh pan starting with the largest, ending with the smallest aperture and finally weighing the receiver. The screen will tell you which sieve to place on the pan.

TO START THE SIEVE TEST:

Press  Key

The screen will ask you to enter a numeric test reference or you can skip this by pressing the  key

**If you do not enter a test reference its value will be incremented by one.**

The screen will now display

W.F.S WEIGH FULL SIEVES		S
Stack Ref 1		
Test Ref 1		
WEIGH SIEVE 50.00		
	0.00g	
EXIT		Esc

Place the sieve on the weigh pan; then wait until you hear two beeps and the screen asks you to remove the sieve.

The screen will now ask you for the next sieve, continue placing each of the sieves on the weigh pan as prompted by the screen.

The test will be completed after the receiver has been weighed.

The Sieve Analyser will now display the results.

Sieve Aperture	Wt Retained (g)	Wt Retained %
50.000	17.76	19.87
40.000	26.86	30.05
30.000	35.76	40.01
Receiver	9.00	10.07
Total Weigh 89.38		
Print	Next/Previous	Esc



This key is only active if you have a printer, see Sieve Analyzer Set-Up. Press this key to print your results.

This key is only active if you have more than 8 sieves in your stack. Pressing this key allows you to scroll through the rest of the sieves in the stack.

Press this key to return to the Ready Mode screen.

When you are weighing the sieves, you can at any time press the key under the display labelled EXIT to abort the test and return to the Ready Mode screen.

If at any time you have made a mistake after you have weighed a sieve, just press the key under the display labelled **Esc**. This will erase the last sieve weighed so you can re-weigh to correct the mistake.

If the sieve you are about to weigh is empty, you can press the CLEAR key to skip to the next sieve.

## WEIGHING EMPTY SIEVES

At some point, the weight of the empty sieves in your stack will change. To maintain accuracy, it is a good idea to re-weigh the sieves in the working stack on a regular basis.

To re-weigh the sieves in the working stack,

Press  Key, then press  to weigh empty sieves

The screen will now display:

W.E.S WEIGH EMPTY SIEVES		S
Stack Ref 1		
WEIGH SIEVE 50.00		
0.00g		
EXIT		Esc

All you will have to do is to place each sieve in turn on the weigh pan starting with the largest, ending with the smallest aperture and finally weighing the receiver. The screen will tell you which sieve to place on the pan.

Place the sieve on the weigh pan then wait until you hear two beeps and the screen asks you to remove the sieve.

The screen will now ask you for the next sieve, continue placing each of the sieves on the weigh pan as prompted by the screen.

When you are weighing the sieves, you can, at any time, press the key under the display labelled EXIT to abort the test and return to the Ready Mode screen.

If at any time you have made a mistake after you have weighed a sieve, just press the key under the display labelled **Esc**, this will erase the last sieve weighed so you can re-weigh to correct the mistake.

## OTHER FUNCTIONS

### REPRINT RESULTS

You can display the results of the last sieve test. This is useful if you need to look at the results again: print another copy or send the results to the PC again.

Press  Key

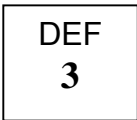
Press  Key

The screen will now display the results as they were at the end of the last test.

## CALIBRATING THE BALANCE

To maintain optimum performance, you should regularly calibrate the instrument  
For this you will need a known standard 5000g weight.

Press  Key

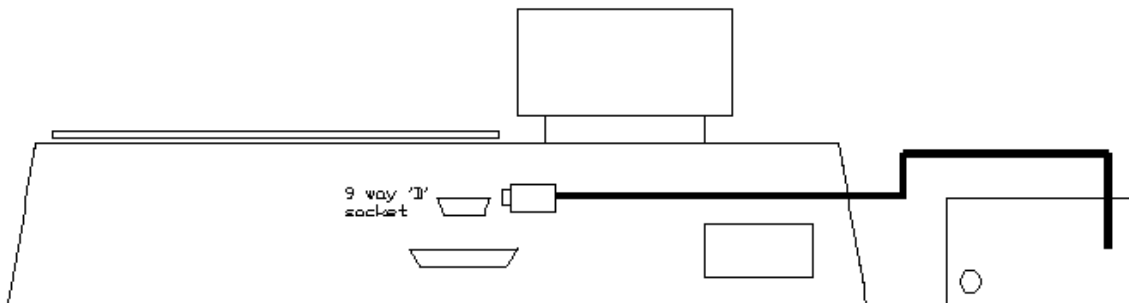
Press  Key

Follow the on screen instructions to calibrate the Sieve Analyser.

## EXTERNAL PRINTER

If you have purchased the optional printer, connect the 9 way 'D' socket to the 9 way plug at the back of the Sieve Analyser. Then apply power to the printer. Make sure you have set the destination as described in the Sieve Analyser Set-Up.

Test the printer by pressing the key under the display labelled PRINT WEIGH, the printer should print the weight displayed on the screen.



## **OPTIONS**

### **PRINTER**

40 column printer for printing a hard copy of the results.  
(Part number # 50000EMB)

### **PC CONNECTION KIT**

Allows the Sieve Analyser to be connected to a PC so that the results at the end of a test can be downloaded as a delimited text file. This file can then be imported into a database or spreadsheet.

### **PC CONNECTION KIT + DATA LOGGING SOFTWARE**

Allows the Sieve Analyser to be connected to a PC. With the data logging software, the results are loaded directly in to your database or spreadsheet in real time. No need to import.