



User Manual



Vibration Analyser Adash 4300 - VA3 Test Procedure



FW 02.00 BETA
Ref: 19052004 RS

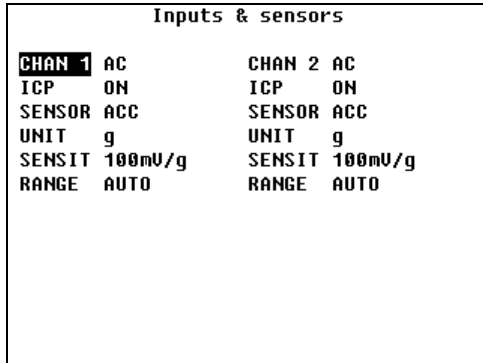
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For further technical and contact information consult www.adash.net, www.adash.cz

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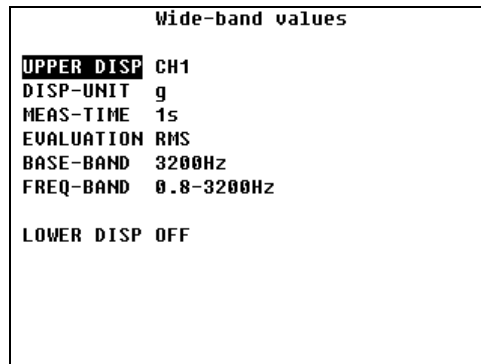
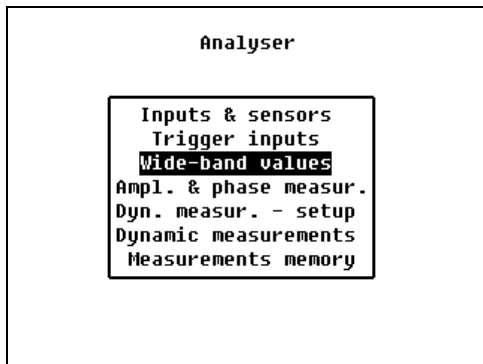
Setup of instrument

1. Switch on the instrument.
2. Select Analyser item from Main menu.
3. Select Inputs & Sensors item
4. Set default sensor as in the picture below

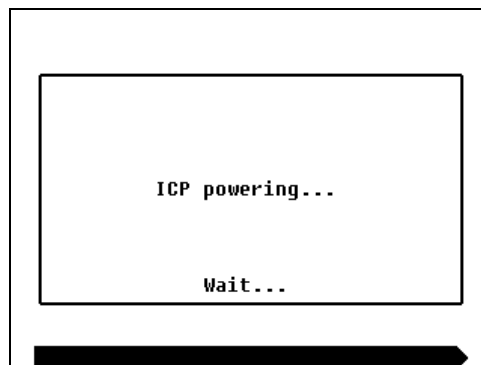
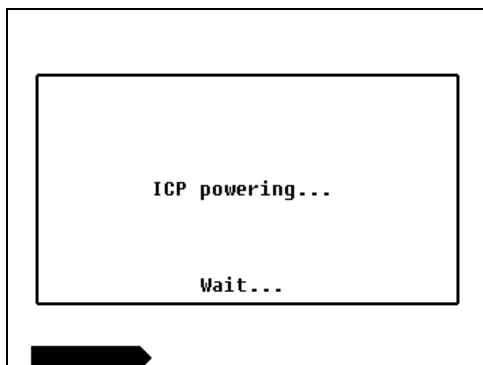


Pic.1: Sensors settings

5. Run a measurement to check that the sensor is being powered

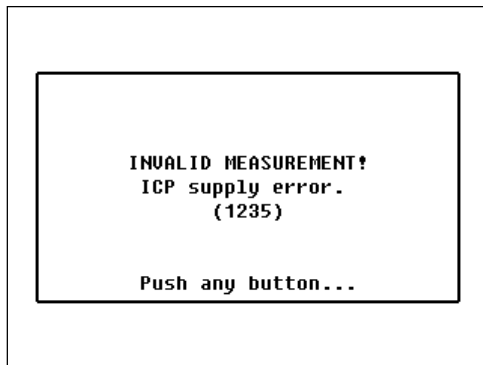


Pic.: Run measurement



Pic.: ICP power on

If ICP power ERROR occurs, then check cable and connector.



Pic.: ICP power of sensor ERROR

When you want to check ICP powering more, then

1. use standard voltmeter
2. connect to voltmeter both pins from MIL connector
3. there must be approx 23.5V DC and 4mA short current when power the bar sweeps across the VA2 screen.

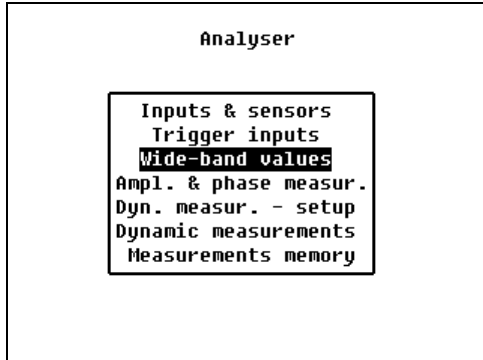
Input signals

For next measurements you need

1. ICP sensor with cable mounted on vibration shaker
2. sine signal excitation with a frequency in the range: 30Hz to 100Hz
3. Output amplitude from sensor :0.25g to 12g

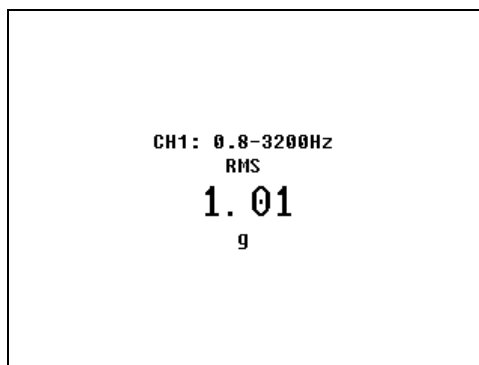
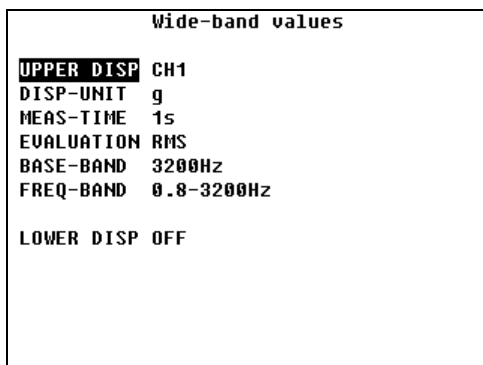
Measurements

1. Connect sensor to instrument
2. Set on sensor 30Hz/1g
3. Select Wide-band values item form Analyser menu



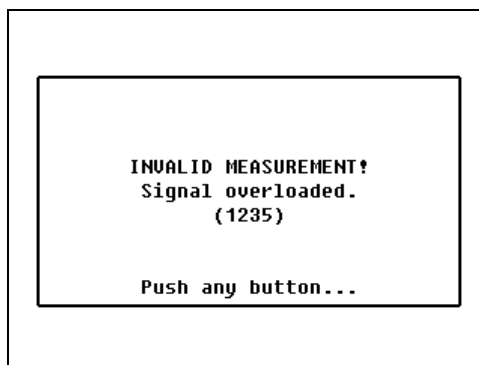
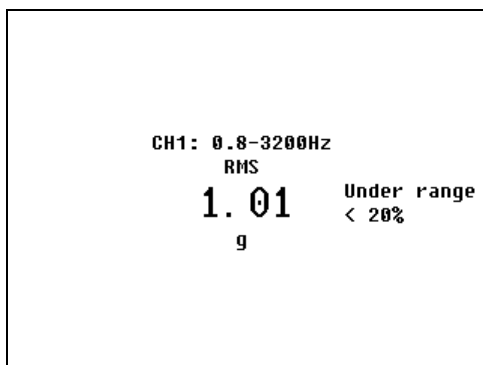
Pic2: Wide-band measurements

4. Select measurement by picture and run it.



Pic.3: Wide-band measurement of 1.0g RMS input

You must view stable value 1.0g without any warnings (underrange, autorange, overload)



Pic.4: Errors

5. Select measurement of ips and run it.

```

Wide-band values
UPPER DISP CH1
DISP-UNIT in/s
MEAS-TIME 1s
EVALUATION RMS
BASE-BAND 3200Hz, HP 10 Hz
FREQ-BAND 10-3200Hz

LOWER DISP OFF
    
```

```

CH1: 10-3200Hz
RMS
2.02
in/s
    
```

Pic.5: Measurement of in/s

For 30Hz and 1g RMS on input you must view stable 2.0ips RMS without any warnings.
Be careful - all values are RMS not PEAK or PEAK-PEAK !!!

6. Tests input signal with amplitude 0.25g, 4.0g and 12g RMS :

```

CH1: 0.8-3200Hz
RMS
0.250
g
    
```

```

CH1: 10-3200Hz
RMS
0.500
in/s
    
```

Pic.6: Measurement of 0.25g RMS input

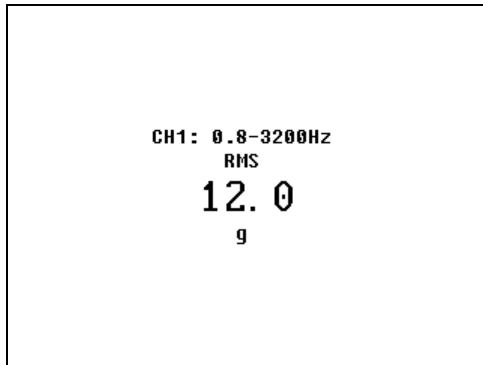
```

CH1: 0.8-3200Hz
RMS
4.01
g
    
```

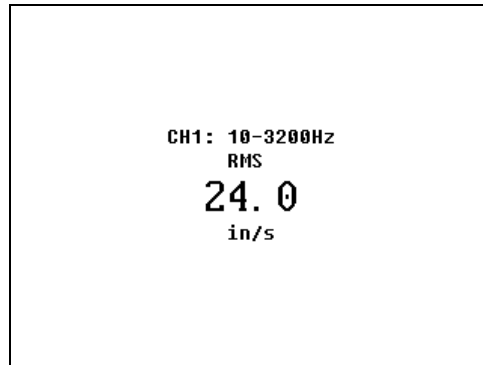
```

CH1: 10-3200Hz
RMS
7.98
in/s
    
```

Pic.7: Measurement of 4.0g RMS input



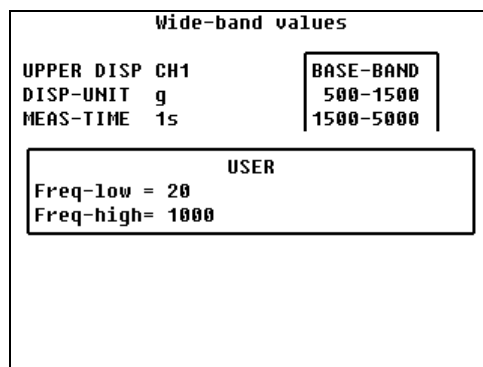
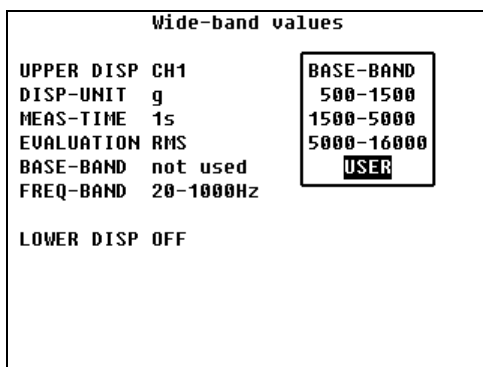
Pic.8: Measurement of 12.0g RMS input



All measurements must be stable with stable signal – no underrange or overload messages.

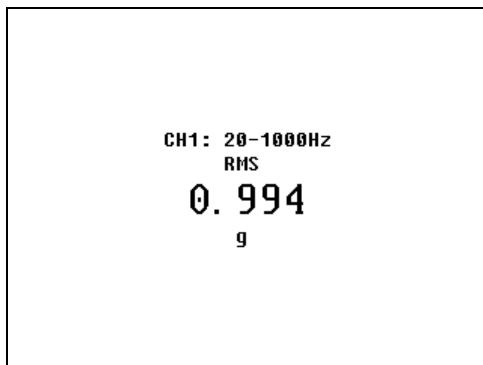
7. Change input signal to 100Hz / 1.00g

8. On instrument set Wide-band measurement in g 20-1000Hz by picture



Pic.9: User freq. band 20Hz-1000Hz

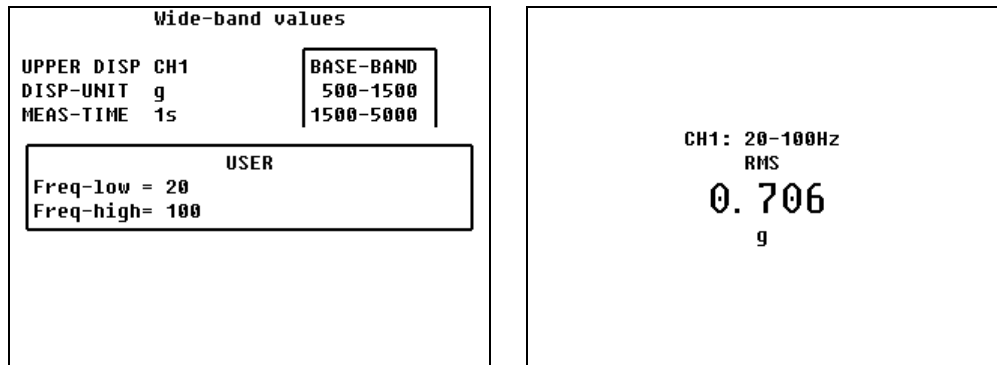
9. Start measurement



Pic. 10: Measurement on 100Hz/1.00g

You must view stable value 1g.

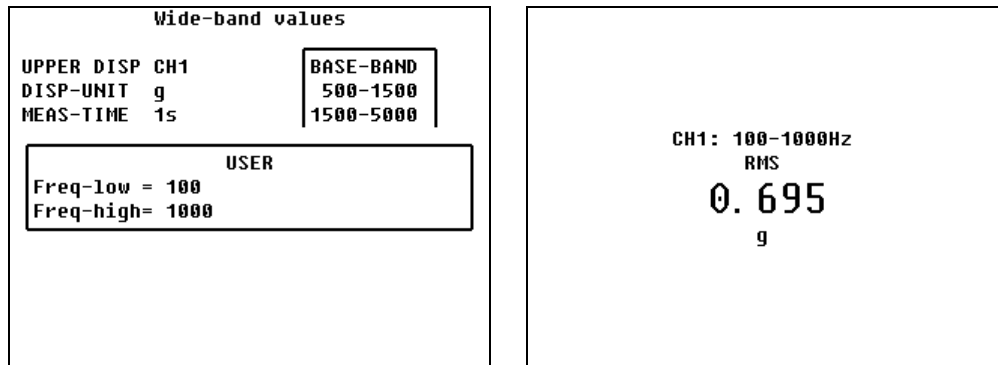
10. Set User freq. band to 20-100Hz and run measurement.



Pic. 11 Measurement on -3dB Low-pass filter

You must view stable value approx. 0.707g - this is -3dB filter cut-off frequency of low-pass filter.

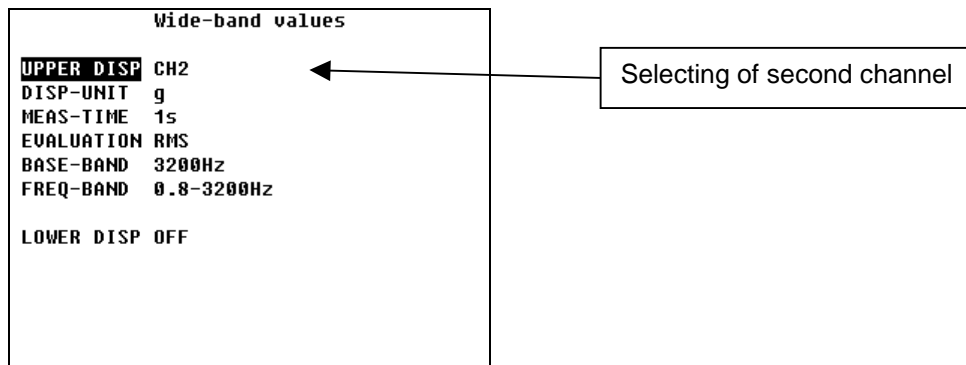
11. Set freq. band 100-1000Hz and run measurement.



Pic.12: Measurement on -3dB High-pass filter

You must view stable value approx. 0.707g - this is -3dB filter cut-off frequency of high-pass filter.

12. You can test second input channel of instrument in the same way, but you must connect input cable to left connector and for display value you must select channel 2.



Pic. 13: Measurement of second channel