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I . Matters needing attention of installation:

A . Name of main components:



Main Body



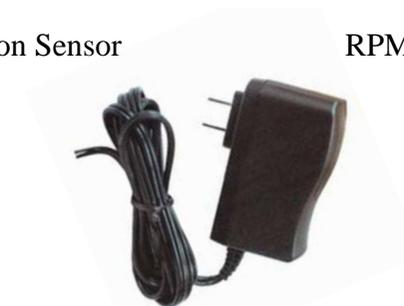
Mounting Frame



Vibration Sensor

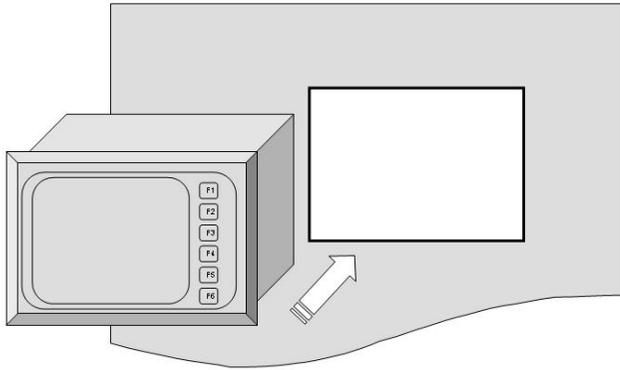


RPM Sensor

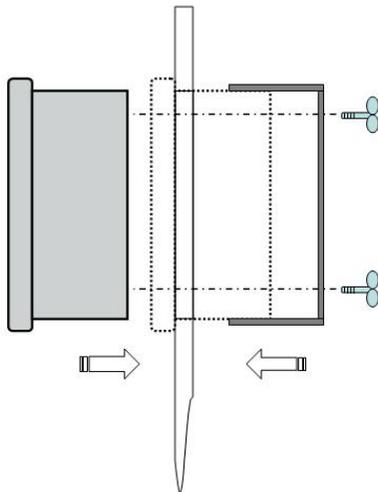


Power Adaptor

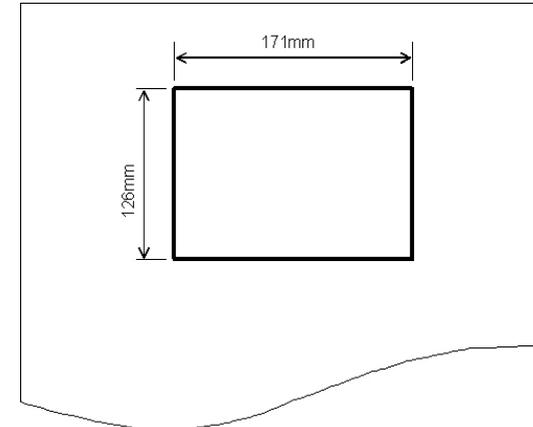
B. Main body installation and system connection:



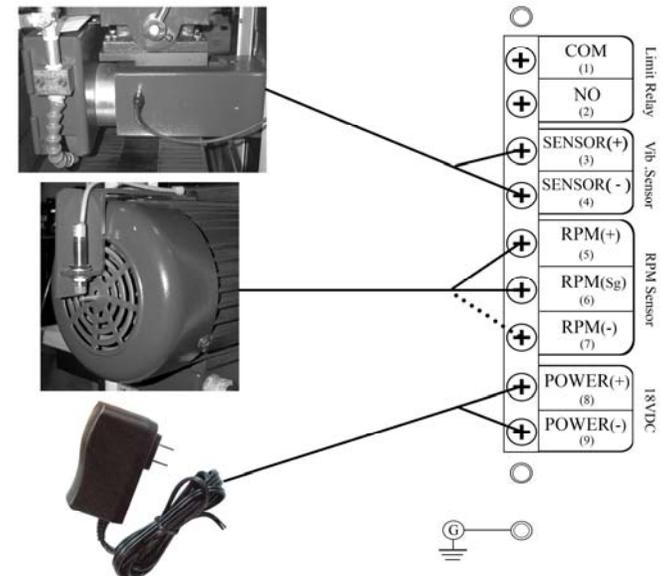
Main Body Installation Diagram (1)



Main Body Installation Diagram (2)



Panel Mount Square Hole Size (171mmX126mm)



System Connection Diagram: Please correctly connect the signal wire to corresponding location according to assigned numbers, as well as it must be on grounding situation.

C . Matters needing attention of installation

i.POWER ADAPTOR:

1. Please confirm used power voltage & frequency match with specification of power adaptor.



ii.RPM SENSOR:

- 1.The location and method of setup(example):

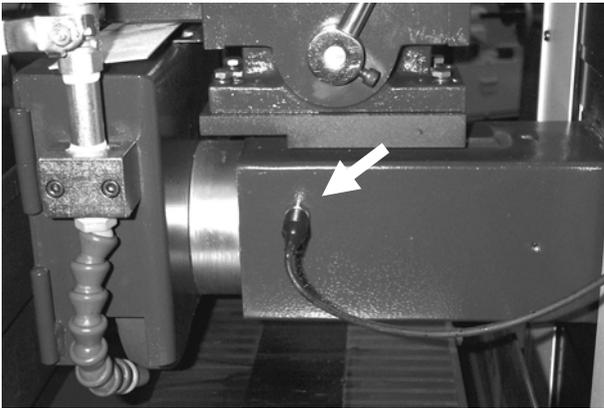
- To utilize the threading tools(ϕ 8mm) to make a thread(long 8mm) in the center hole 60~70mm length /round of motor.
- To choose a steel round bar(ϕ 8mm),and grind off 0.1~0.2mm depth on one top(long 12~15mm), in order to response to rpm sensor then make the thread(6~8mm length) on another top to thread in the center hole of motor,
- To make RPM sensor lock on the bottom of motor with a prop stand, and adjust correctly the red flat(ϕ 12mm) of RPM sensor closer to the outside curve of round bar within 4mm(the distance of rpm sensor), please refer to the installation photo as below.
- To rotate the wheel by hands until the red light spot flash interactively.



RPM Sensor Setup

iii. VIBRATION SENSOR:

1. The vibration sensor need mount more closer to wheel and tightly thread (M6 thread) on outside diameter.
2. Don't install the vibration sensor on wheel cover, because the resonance will affect the balancing precision.
3. Please do neither drop nor shock the vibration sensor location of spindle, please refer to setup photo as below.



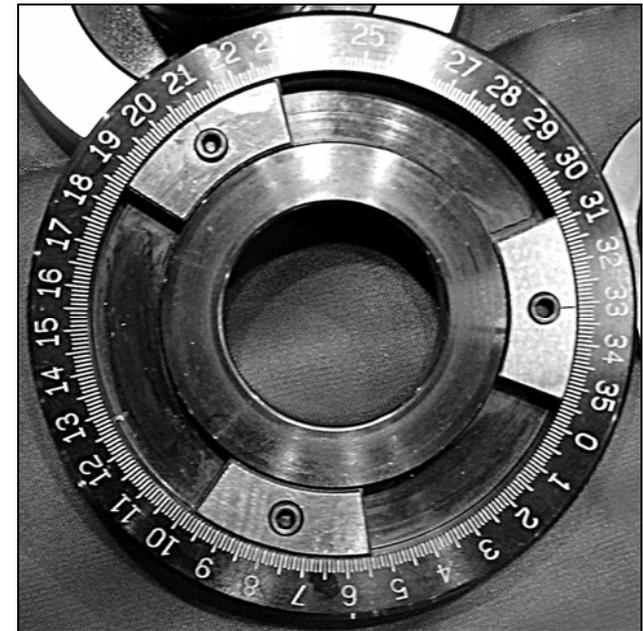
Vibration Sensor Setup



M6 Thread

iv. Other matters needing attention:

1. All signal wire including vibration/rpm sensor must be far away from system power line to avoid interference.
2. For the sake of speedy/precise balancing operations, it's necessary to engrave the angle scales on the flange along with the rotating direction of wheels, please refer to the photo as below.



II 、 Instruction of function flow:

A. Main function instruction:

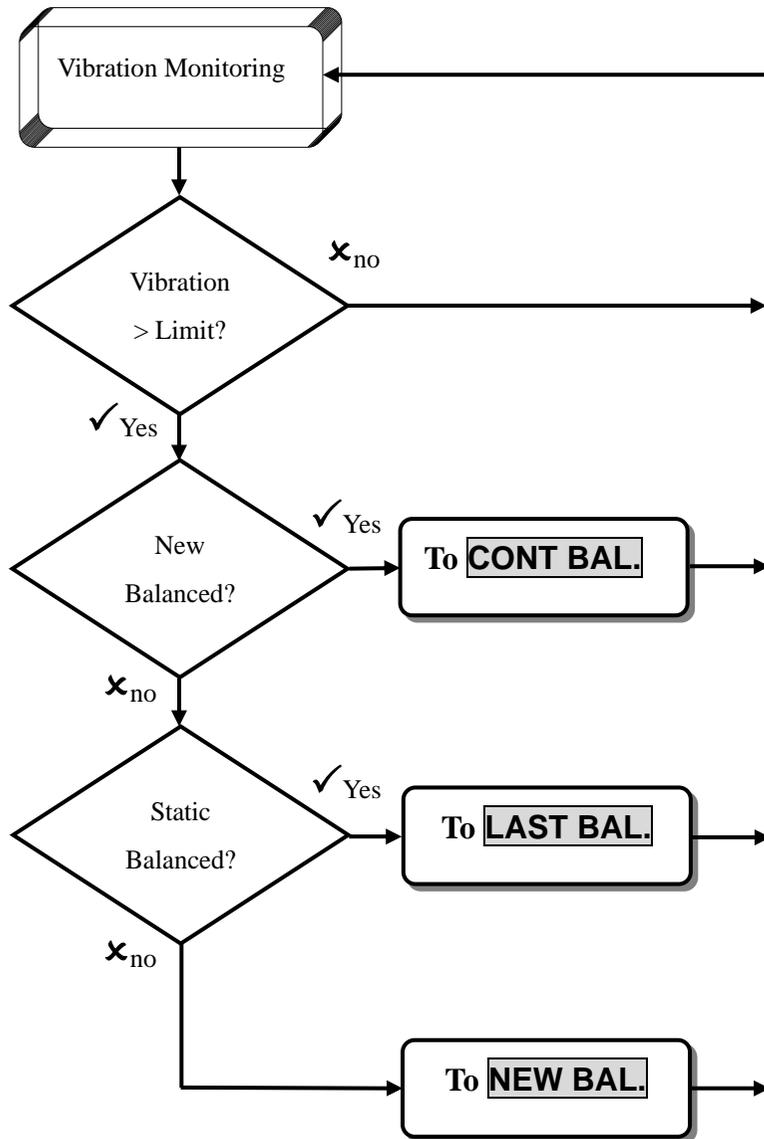
- **VIB. MON.** **F1**:
 - Main body will send out an alarm to remind operator, it need to balance wheel immediately.
- **NEW BAL.** **F2**:
 - To balanced dynamically on line after replace wheel.
- **LAST BAL.** **F3**:
 - To balance dynamically on line after balanced statically off line.
- **CONT BAL.** **F4**:
 - To balance dynamically on line continuously while wheel's balance exceed the initial setup limit.
- **TOL. SET** **F5**:
 - To set up the vibration (in μm) allowable of wheels, when the vibration of wheels is over setup limit, it will give notice to operator to balance wheel immediately.
- **Chinese/中文** **F6**:
 - Switch Language System; Chinese and English could be selected.

B. Function/ Specification Table:

Function	Specification
Accuracy	0.01 μm (@1800 rpm)
Range	0.01~3000 μm (@1800 rpm)
Unit	Displacement (μm / peak-peak)
Phase	0.1°
RPM Range	400~20000 rpm
RPM Sensor	Magnetic Sensor
Vibration Sensor	Accelerometer
CPU	Vortex(32bits)
Display	320x240 dot LCD, LED Back-light
Power	100 ~ 240 VAC 50/60Hz (with adaptor)
Consumption	7W
Temperature	0°C ~ 50°C
Size	177 x 132 x 85 (mm)
Weight	About 1.4kg

C . Function Flow:

i . Operation flow chart:



ii . System Start:

1 . System Start Up:

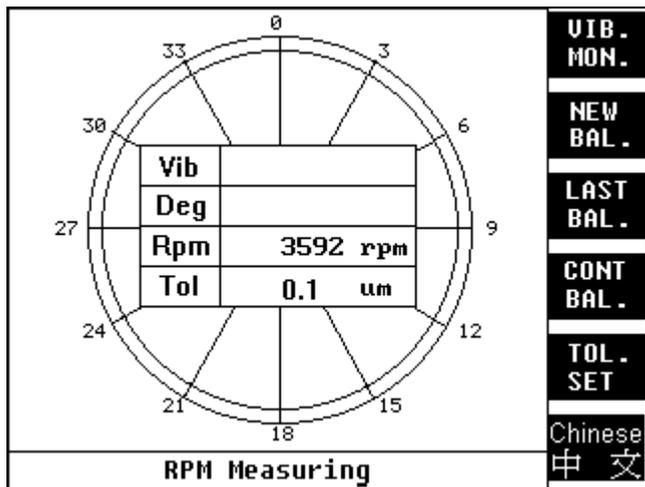


2 . Main menu after system started:

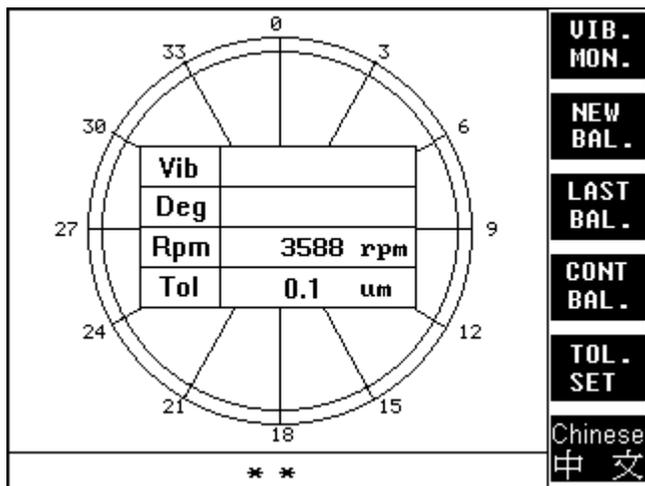
	VIB. MON.	F1
	NEW BAL.	F2
	LAST BAL.	F3
	CONT BAL.	F4
	TOL. SET	F5
	Chinese 中文	F6
WB-7000SI Version 1.00		

iii . Vibration Monitoring:

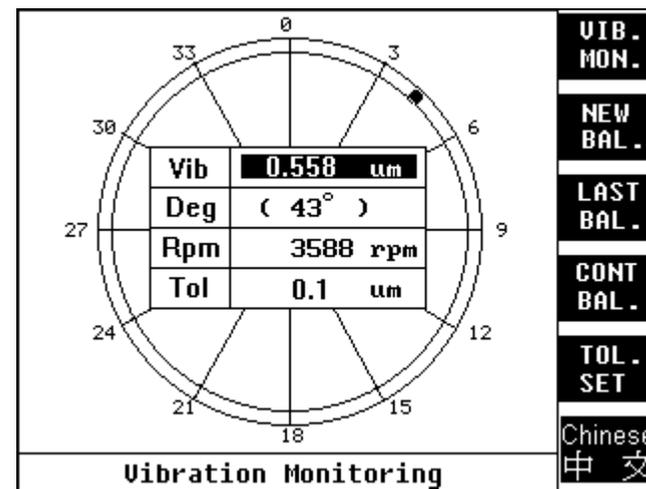
1 . Enter into vibration monitoring mode when wheel started;



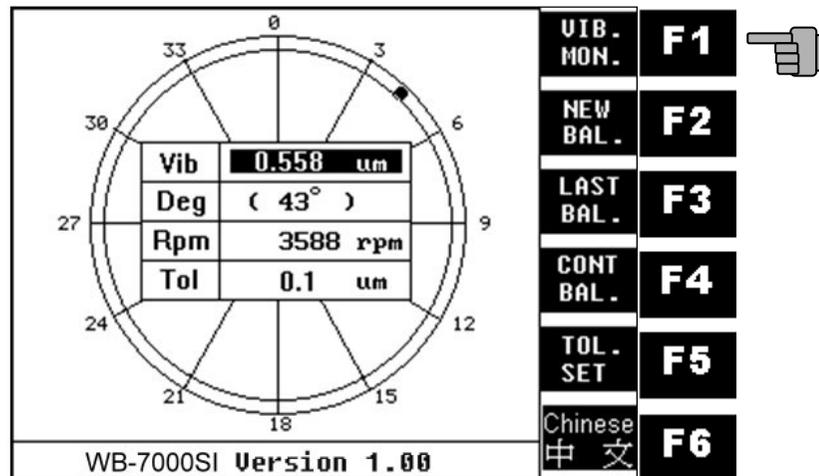
2 . Signal in reading ...;



3. When vibration exceed the initial setup limit, vibration will be inverted to display and beep happened.

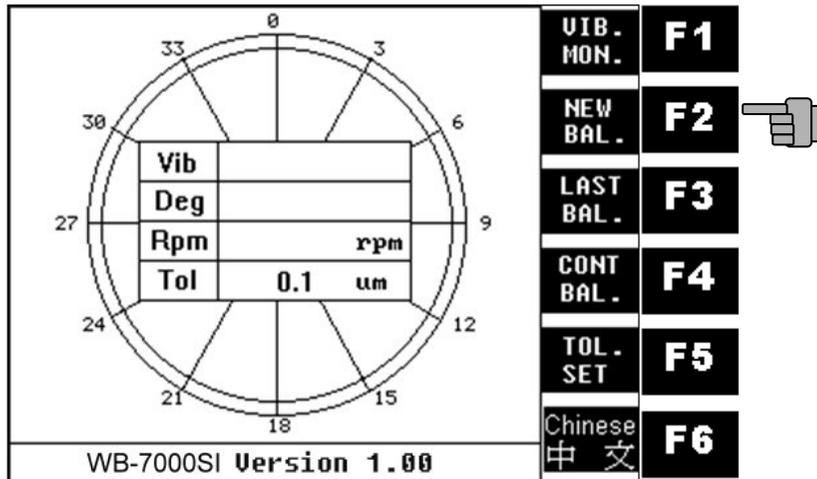


4. Real vibration will be displayed after 10~15 seconds, Vibration monitor is going on proceeding when wheel stoped and start again. Press **F1** key to realize the vibration status during wheel rotating.

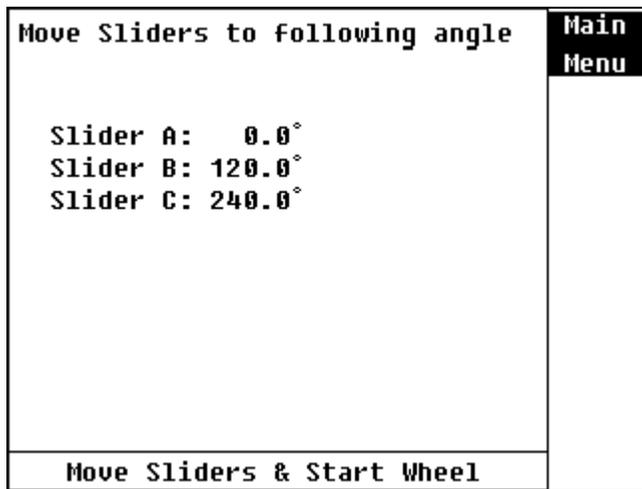


iv . New Balancing:

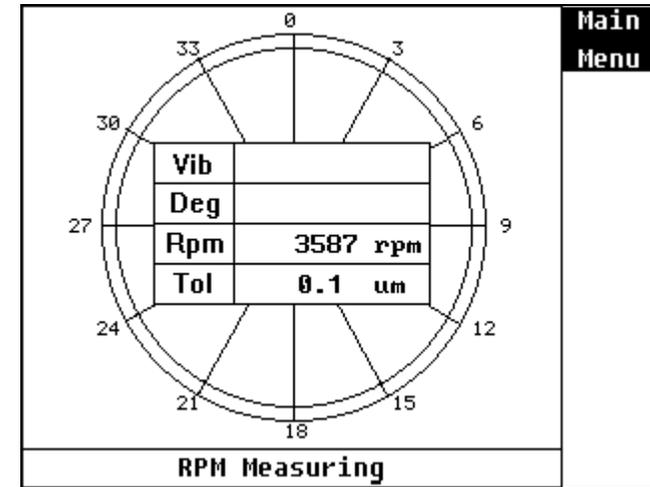
1 . Press **F2** Key to do a new balance;



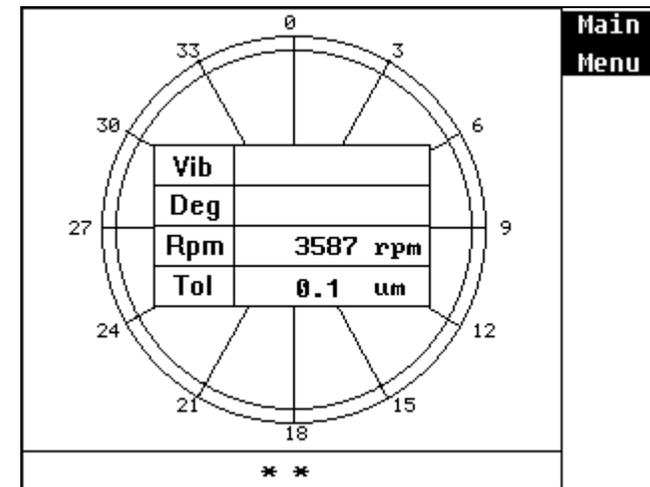
2 . Move sliders to 0°,120°,240° position individually, lock its tightly and start wheel;



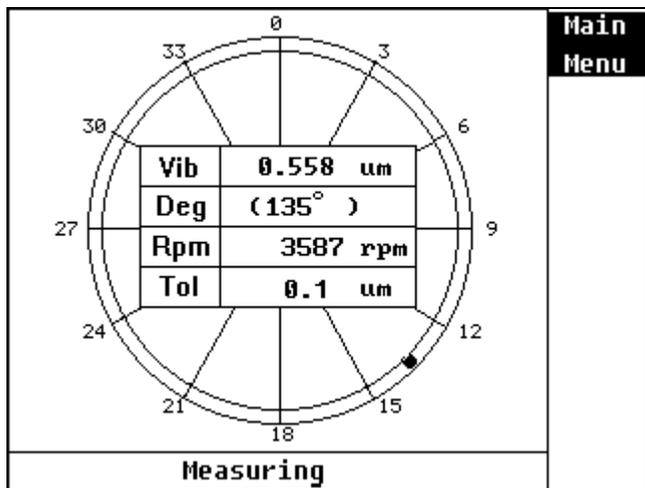
3 . RPM in measuring ...;



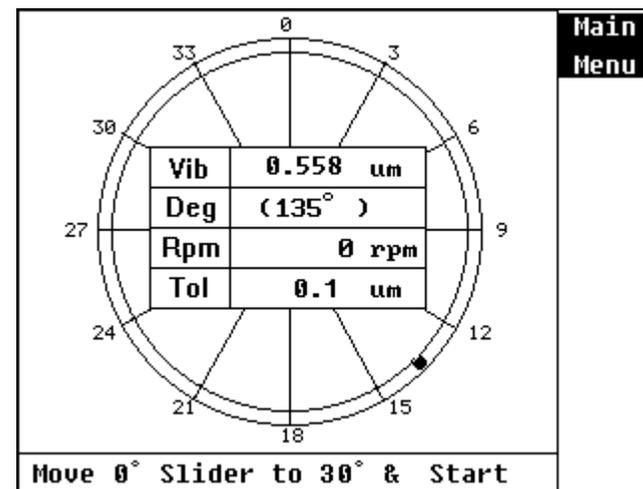
4 . Read signal at the stable rpm status;



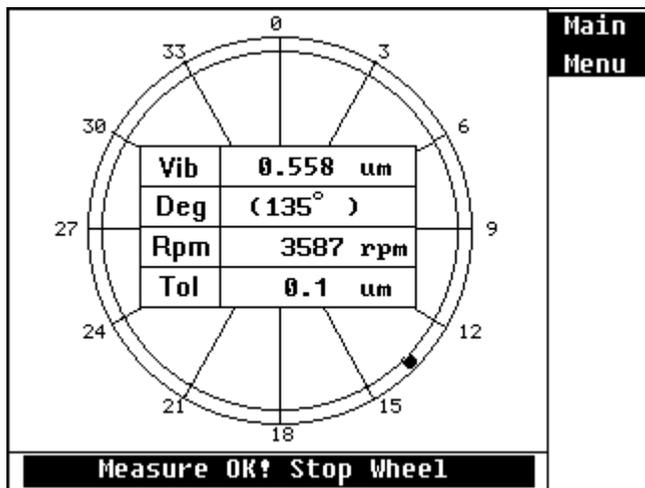
5 . Signal in measuring ...;



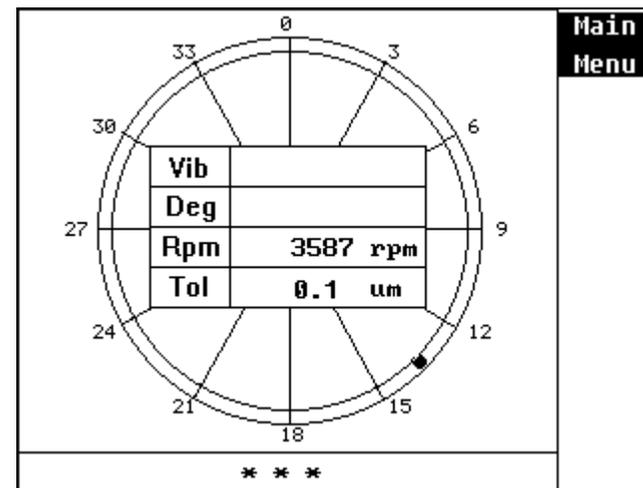
7 . Move slider A form 0° to 30° position, lock it tightly and start wheel;



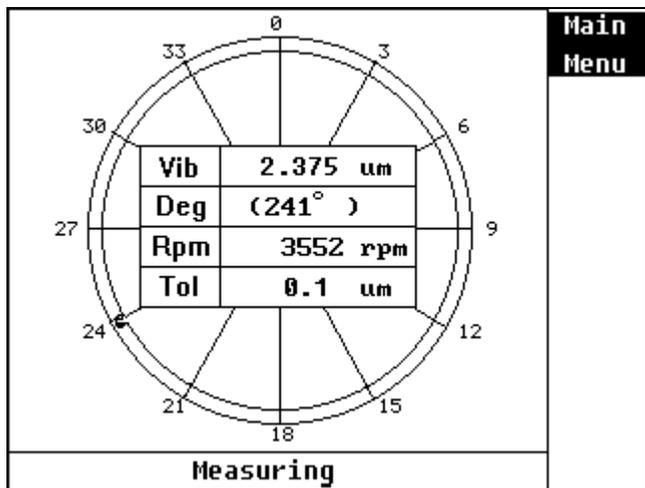
6 . Measurement is finished, stop wheel;



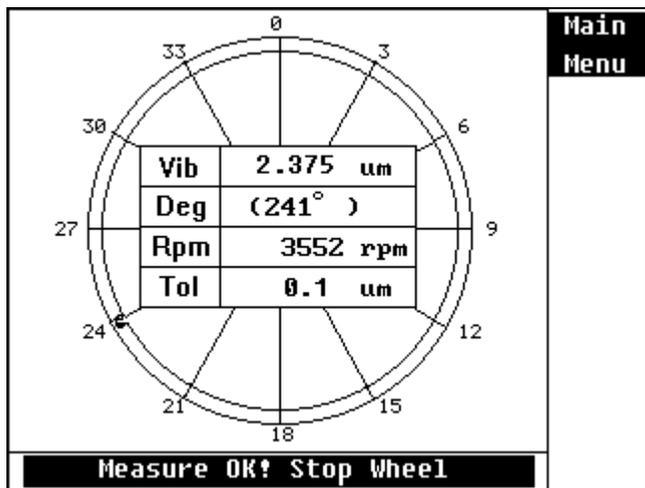
8 . Signal in reading ...;



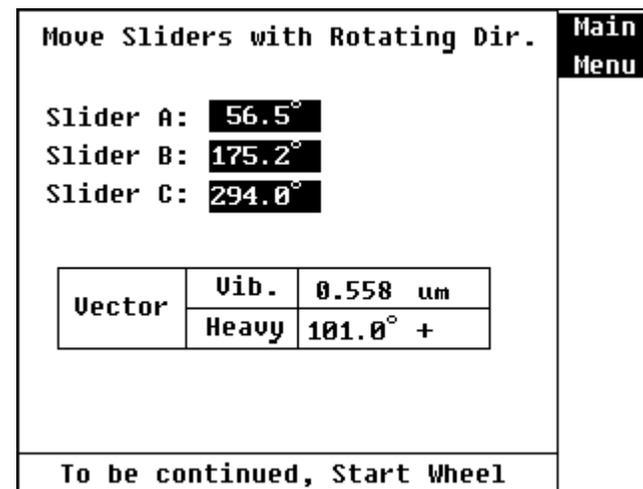
9 . Signal in measuring ...;



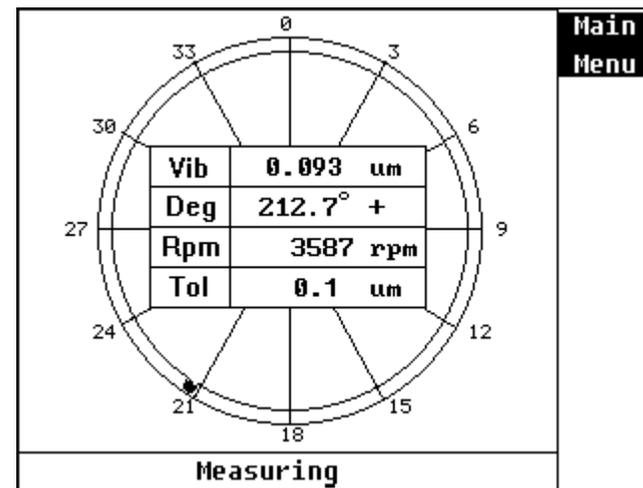
10 . Measurement is finished, stop wheel;



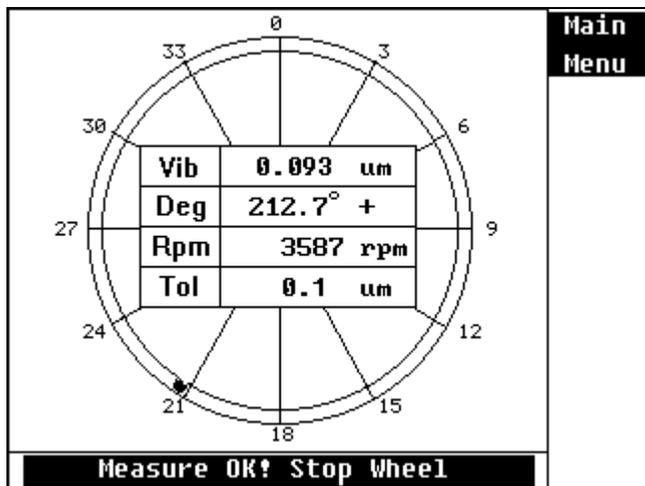
11 . Move sliders to the real position according to the indication, lock its tightly and start wheel;



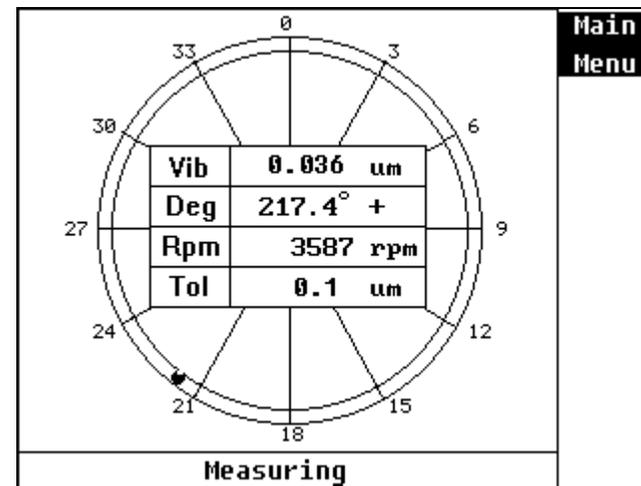
12 . Signal in measuring ...;



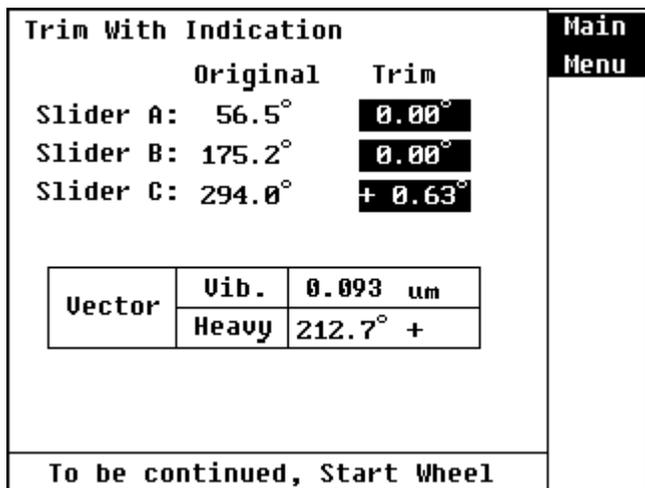
13 . Measurement is finished, stop wheel;



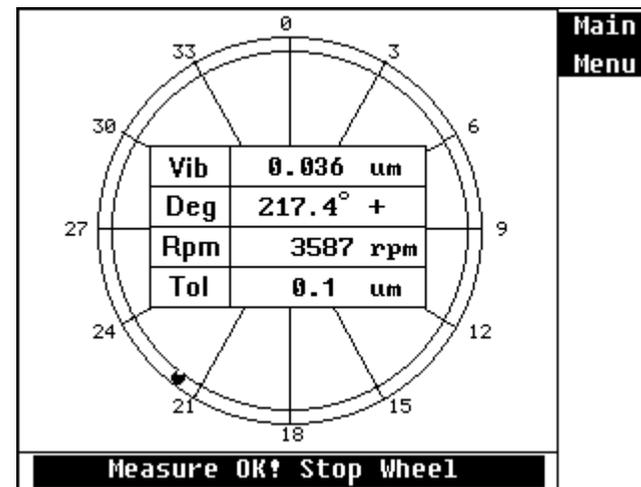
15 . Signal in measuring ...;



14. Trim sliders with indication (Take example for this menu, we only need to trim slider C, move 0.63° added to original angle along the wheel rotating direction), lock its tightly and start wheel;



16 . Measurement is finished, stop wheel;



17. Trim sliders with indication to modify continuously,
 Press **F1** Key to return into the vibration monitoring mode.

Trim With Indication			Main Menu						
	Original	Trim	F1						
Slider A:	56.5°	0.00°	F2						
Slider B:	175.2°	0.00°	F3						
Slider C:	294.0°	+ 0.21°	F4						
<table border="1"> <tr> <td>Vector</td> <td>Vib.</td> <td>0.036 um</td> </tr> <tr> <td></td> <td>Heavy</td> <td>217.4° +</td> </tr> </table>			Vector	Vib.	0.036 um		Heavy	217.4° +	F5
Vector	Vib.	0.036 um							
	Heavy	217.4° +							
To be continued, Start Wheel			F6						

v. Last Balancing:

1. Press **F3** Key to do the last static balance;

	VIB. MON.	F1
	NEW BAL.	F2
	LAST BAL.	F3
	CONT. BAL.	F4
	TOL. SET	F5
	Chinese 中文	F6
WB-7000SI Version 1.00		

2. Input three sliders original angle with cursor keys individually. (F2~F5) press OK key after entered each angle;

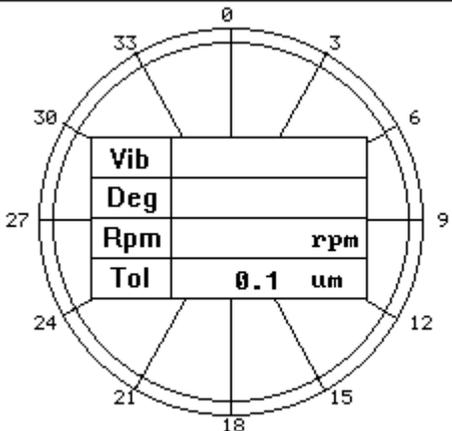
Input three sliders original angle	Return	F1
Slider A: 56.5	↑	F2
Slider B > 120°	↓	F3
Slider C > 240°	←	F4
After enter angle, press OK	→	F5
	OK	F6

3 . Press **F6** Key after finished all three sliders original angle;

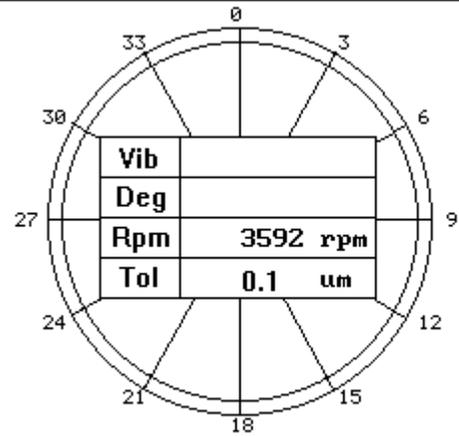
Input three sliders original angle Slider A >56.5° Slider B >175.2° Slider C >294.0° After enter angle, press OK IF OK Press OK or input again	Return	F1
	↑	F2
	↓	F3
	←	F4
	→	F5
	OK	F6



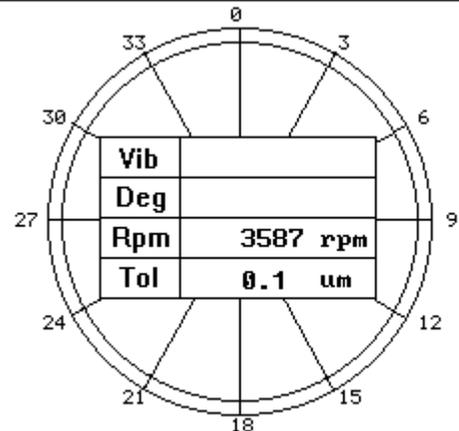
4 . Start wheel;

	Main Menu
Start Wheel	

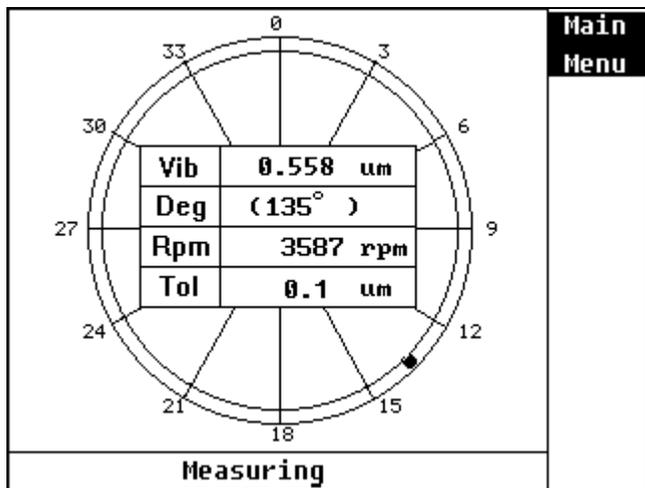
5 . RPM in measuring ...;

	VIB. MON.
	NEW BAL.
	LAST BAL.
	CONT BAL.
	TOL. SET
RPM Measuring	
Chinese 中文	

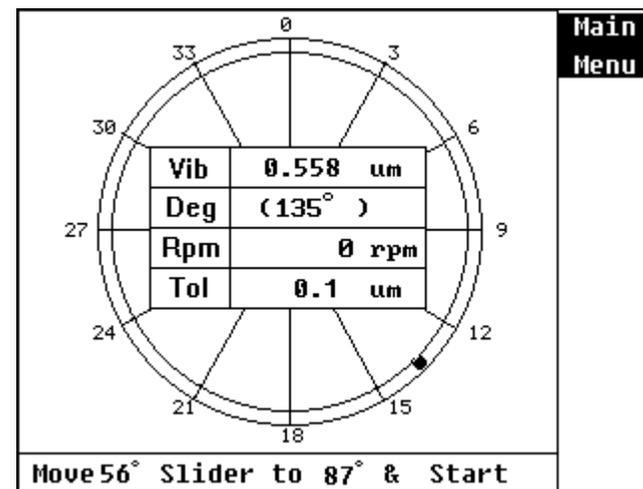
6 . Signal in reading ...;

	Main Menu
**	

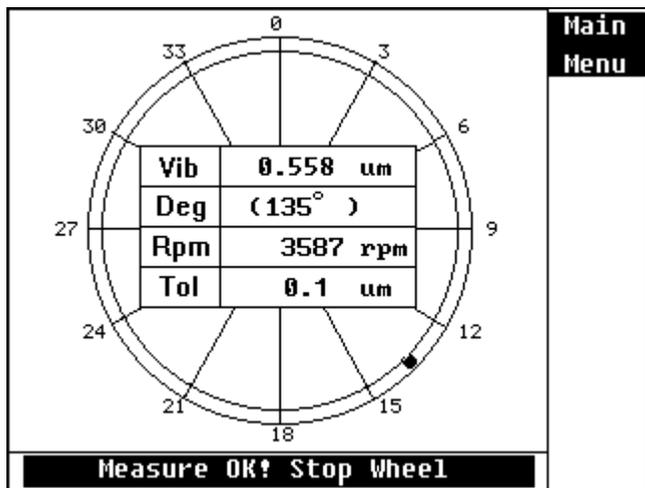
7 . Signal in measuring ...;



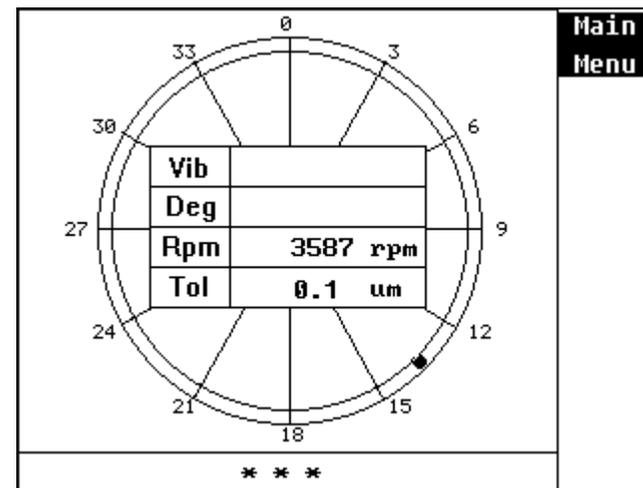
9 . Move slider with indication, lock it tightly and start Wheel;



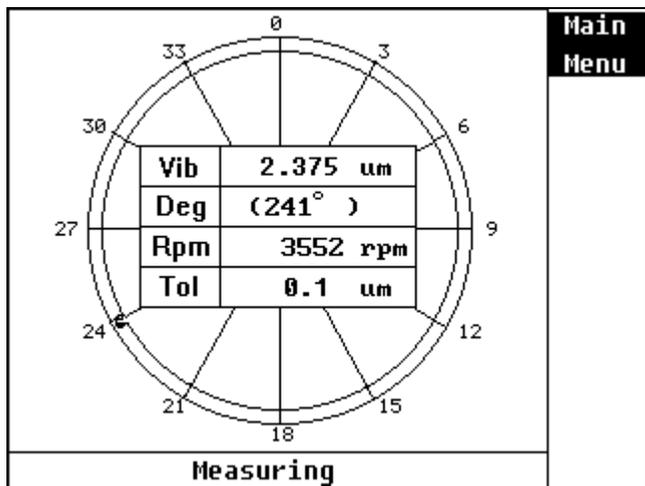
8 . Measurement is finished, stop wheel;



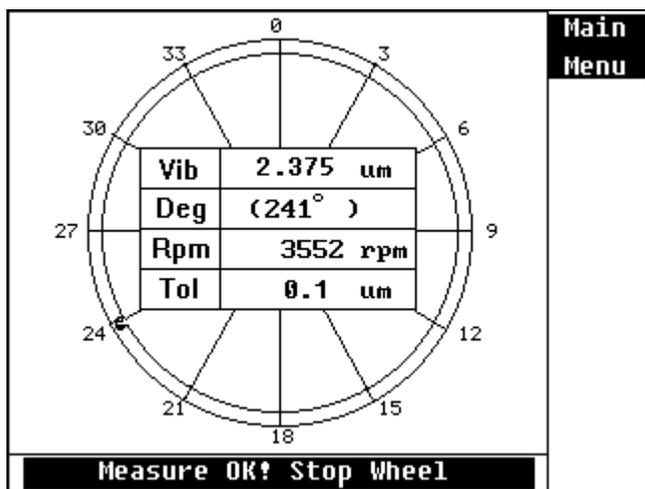
10 . Signal in reading ...;



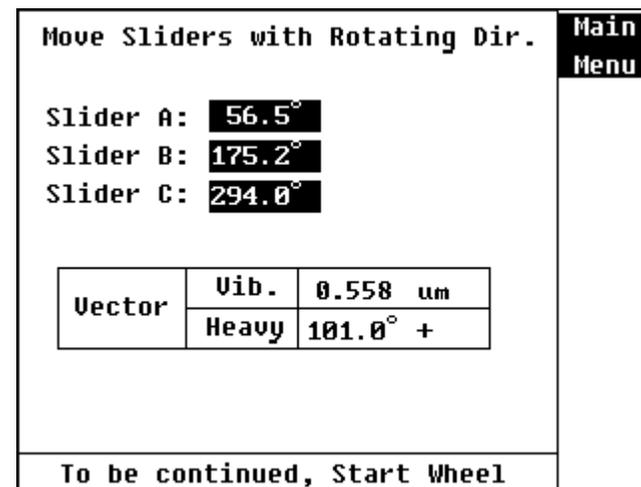
11 . Signal in measuring ...;



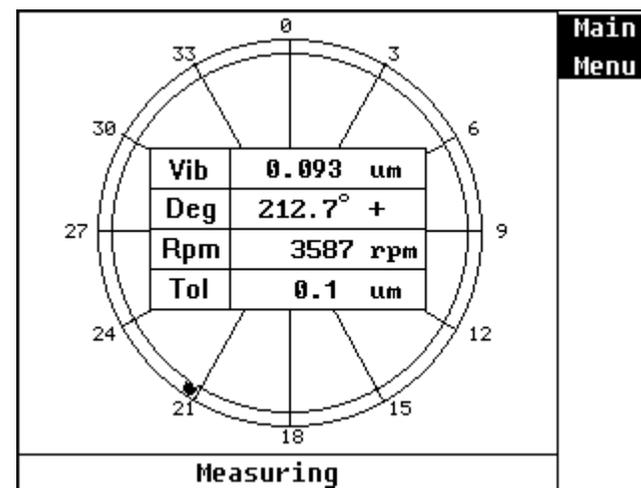
12 . Measurement is finished, stop wheel;



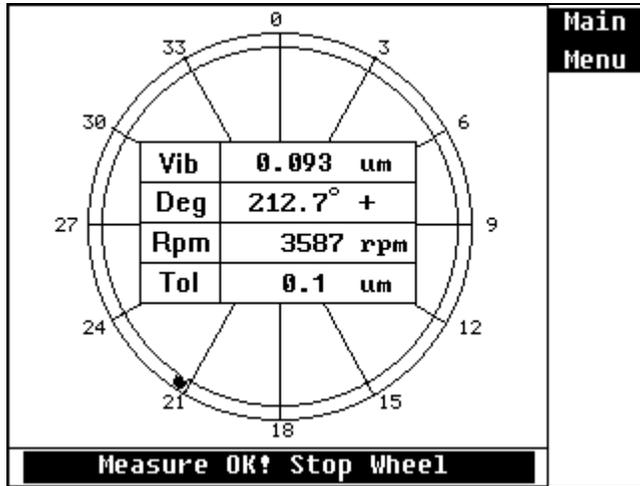
13 . Move sliders to real position with indication, lock its tightly and start wheel;



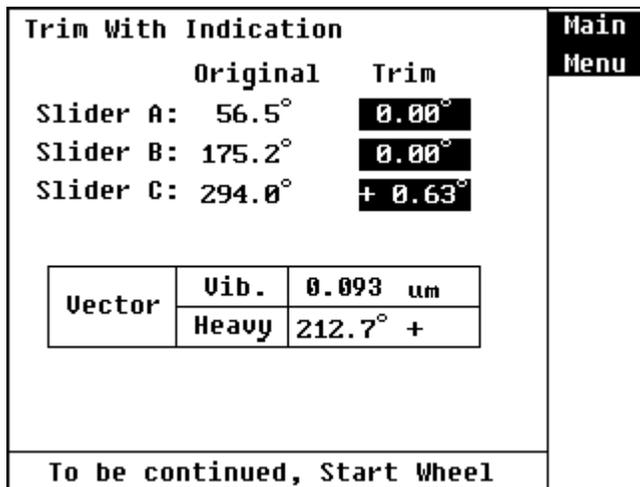
14 . Signal in measuring ...;



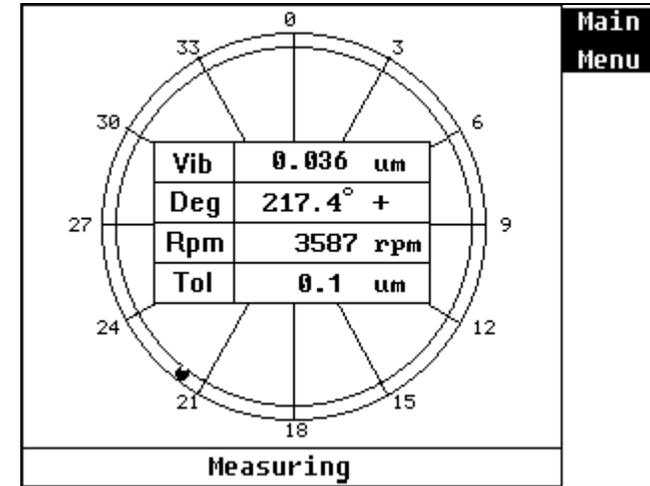
15 . Measurement is finished, stop wheel;



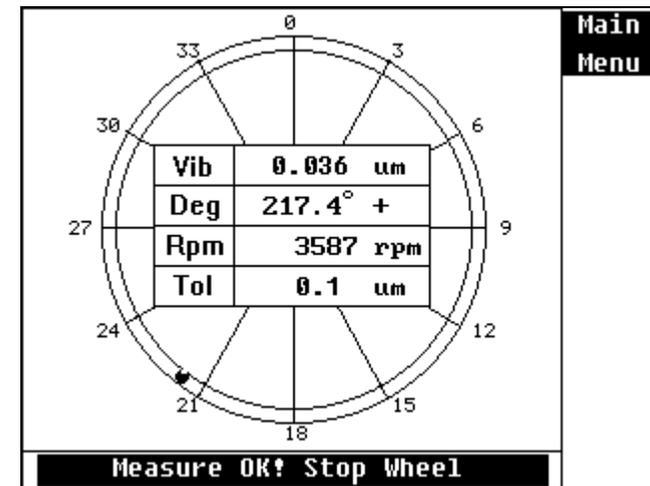
16 . Trim sliders with indication (Take example for this menu, we only need to trim slider C, move 0.63° added to original angle along the wheel rotating direction), lock its tightly and start wheel;



17 . Signal in measuring ...;



18 . Measurement is finished, stop wheel;



19 . Trim sliders with indication to modify continuously,
 Press **F1** Key to return into the vibration monitoring
 mode.

Trim With Indication			Main Menu					
	Original	Trim	F1					
Slider A:	56.5°	0.00°	F2					
Slider B:	175.2°	0.00°	F3					
Slider C:	294.0°	+ 0.21°	F4					
<table border="1"> <tr> <td rowspan="2">Vector</td> <td>Vib.</td> <td>0.036 um</td> </tr> <tr> <td>Heavy</td> <td>217.4° +</td> </tr> </table>			Vector	Vib.	0.036 um	Heavy	217.4° +	F5
Vector	Vib.	0.036 um						
	Heavy	217.4° +						
To be continued, Start Wheel			F6					

vi . Continue Balancing:

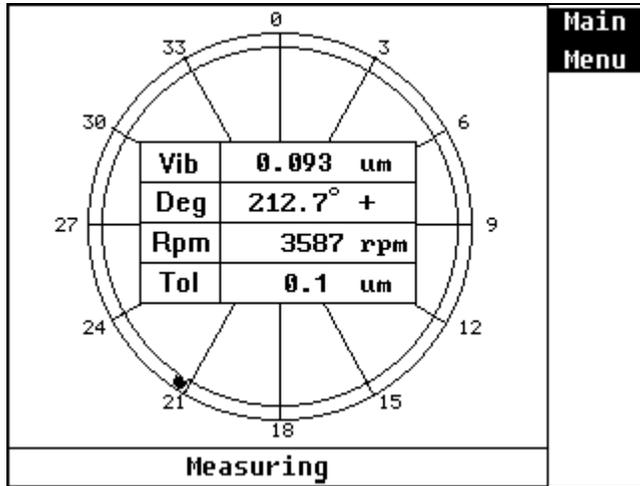
1 . Press **F4** Key to do the continue balancing;

	Vib		VIB. MON.	F1
	Deg		NEW BAL.	F2
	Rpm	rpm	LAST BAL.	F3
	Tol	0.1 um	CONT BAL.	F4
			TOL. SET	F5
			Chinese 中文	F6
WB-7000SI Version 1.00				

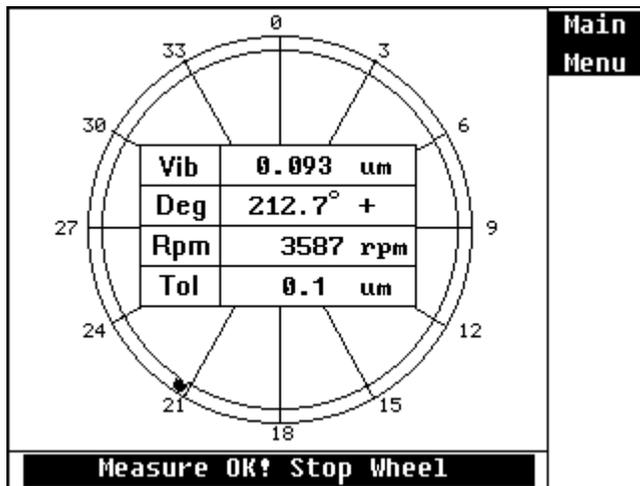
2 . Start wheel;

	Vib		Main Menu
	Deg		
	Rpm	rpm	
	Tol	0.1 um	
To be continued, Start Wheel			

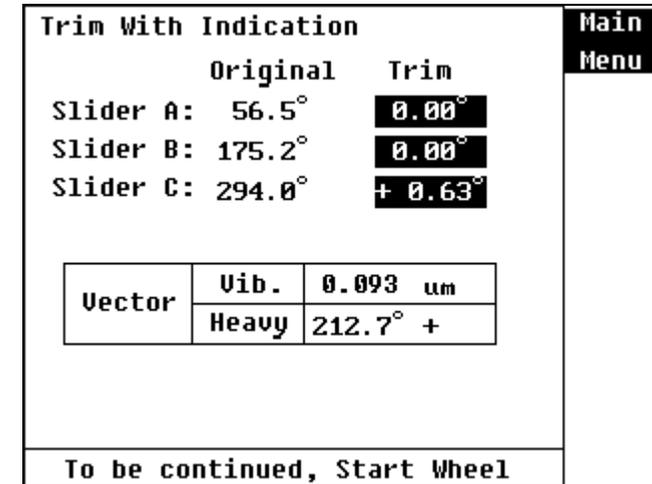
3 . Signal in measuring ...;



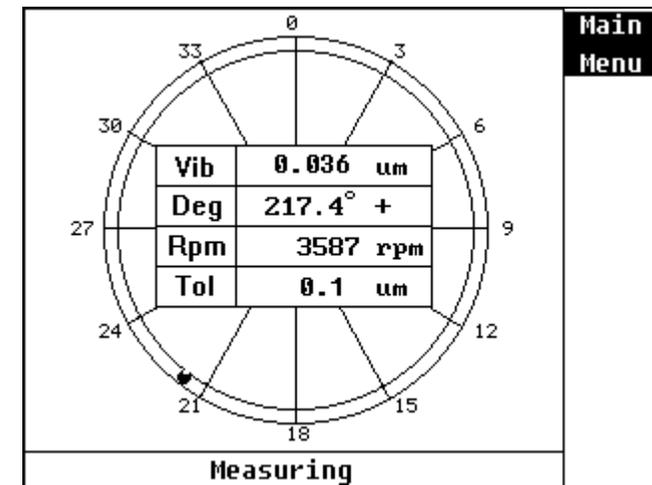
4 . Measurement is finished, stop wheel;



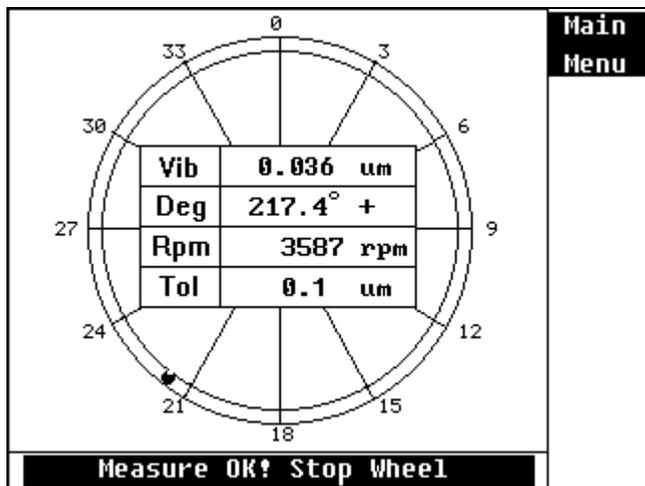
5 . Trim sliders with indication (Take example for this menu, we only need to trim slider C, move 0.63° added to original angle along the wheel rotating direction, lock its tightly and start wheel;



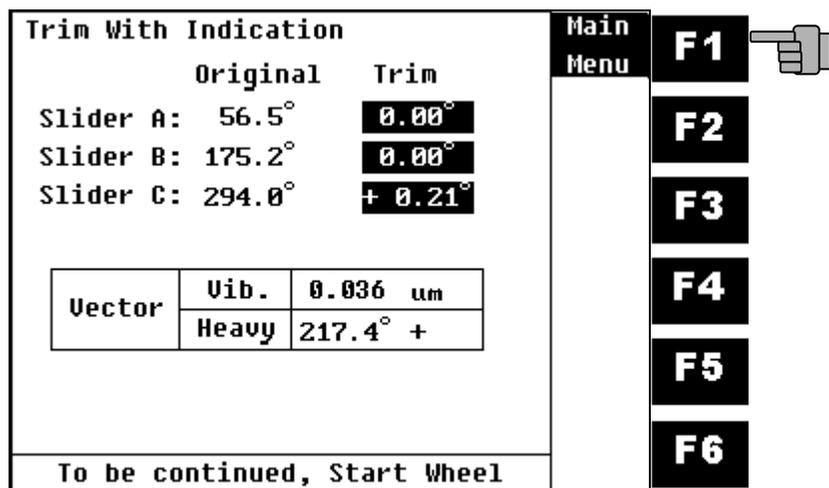
6 . Signal in measuring ...;



7 . Measurement is finished, stop wheel;

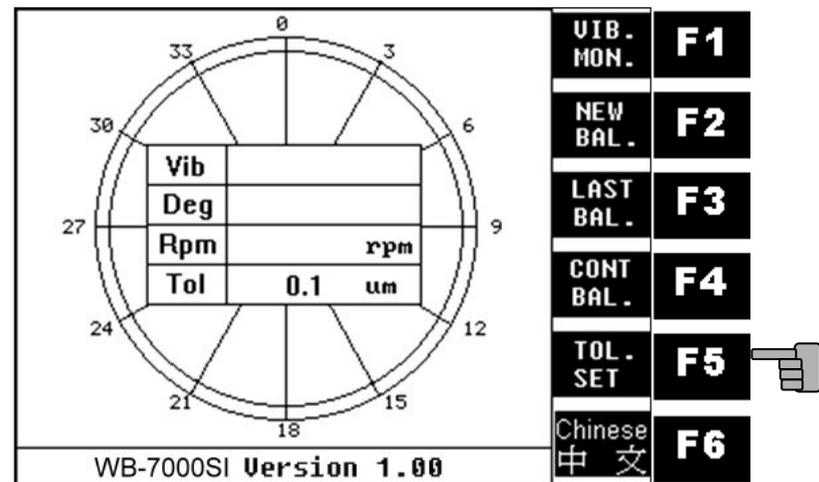


8 .Trim sliders with indication to modify continuously,
Press **F1** Key to return into the vibration monitoring mode.

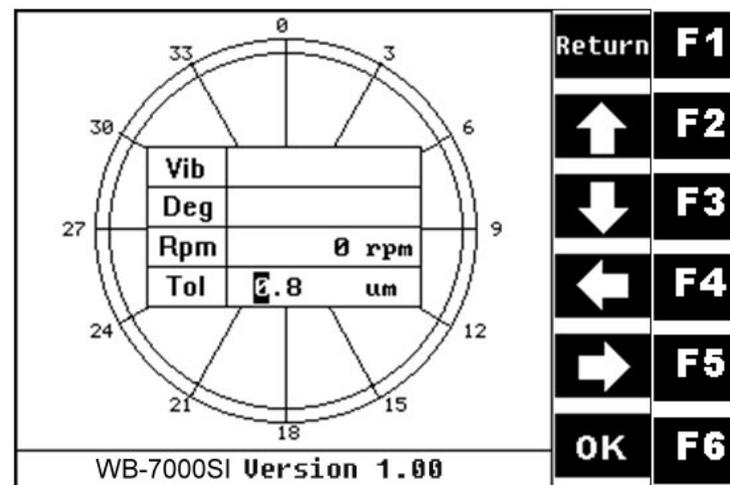


vii . Tolerance Limit Setup:

1 . Press **F5** key to do the tolerance limit setup;

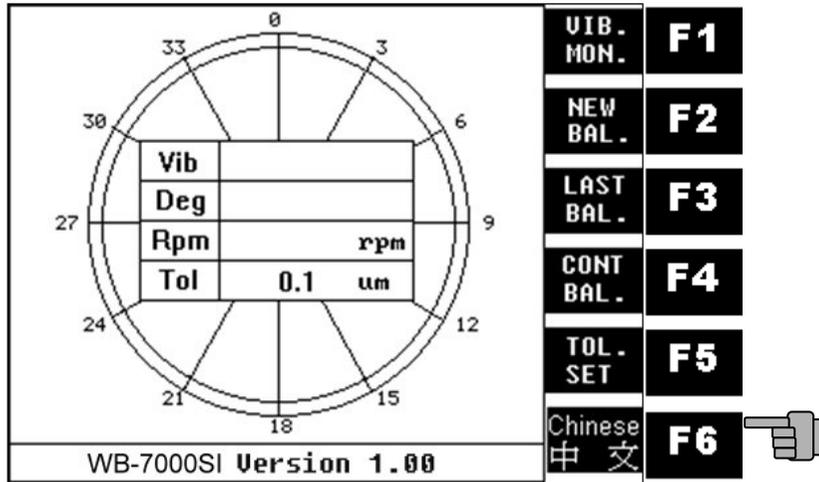


2 . Press **F2~F5** cursor keys to enter into the tolerance limit value, Press **F6** key to save this value;



viii . Language Switch:

3 . Press **F6** key twice to change system language.



III 、 Simple and Easy Troubleshooting:

Problem	Cause	Solution
No Display after turn on Power switch	Power isn't connected	Check power adaptor
	Adaptor is out of order	Contact vendor to change a new one
	Power voltage is mismatch	Check input voltage of adaptor
Can not enter into measuring Procedure	RPM sensor isn't setup appropriately	Set up RPM sensor appropriately
	RPM sensor was loosened	Check and lock it tightly
	RPM sensor is out of order	Contact vendor
Can not measure vibration data	Vibration sensor isn't setup appropriately	Set up Vibration sensor appropriately
	Vibration sensor was loosened	Check and lock it tightly
	Vibration sensor is out of order	Contact vendor
	Grinder rpm is unstable	Check grinder controller

IV、Product Certificate:

CoversPlus International Co.,Ltd.

Product Certificate

Custom			
Address			
Tel		Fax	
Model	WB-7000SI	S/N	
Vib. Sensor	DTE150-1A	Sensor S/N	
Purchase Date		Guarantee Date	

1. The certificate becomes effective with the purchase date and seal by agency.
2. The certificate offer 1 year's guarantee for the quality of instrument, if it is damaged under normal usage as well as no man-made issue.
3. Out of guarantee period, vendor can ask for repair cost because of the man-made or weather reason.
4. If the certificate is missed or not intact, it will not reissue.
5. No seal no effective.
6. Please enclose this certificate when instrument send back for repairing.

CoversPlus International Co.,Ltd.
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<http://www.coversplus.com.cn>
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