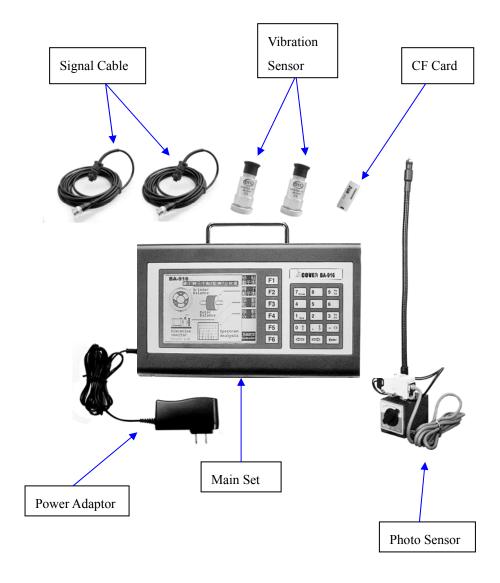
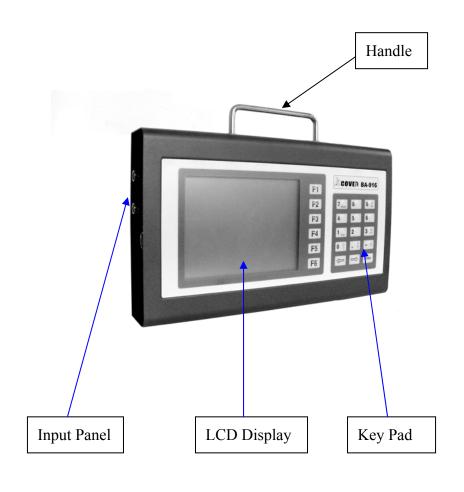
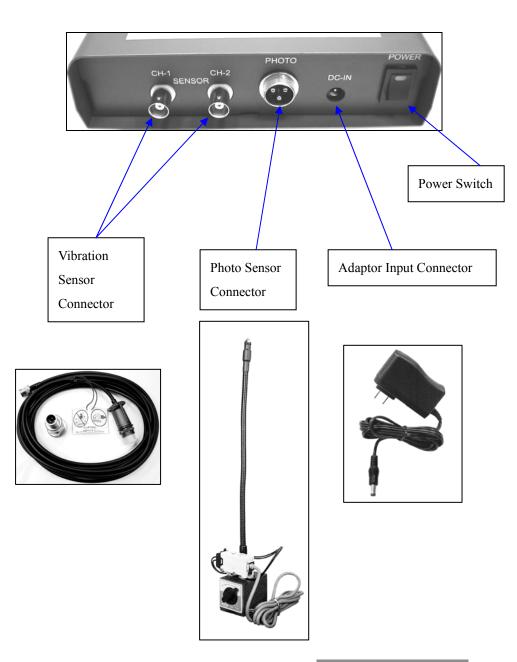
Contents:

l · Installation Guideline:	2
2 · Warning:	6
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1 · Troubleshooting:	60
5 \ Product Certificate:	6

Installation Guideline: PRODUCT Main Parts:

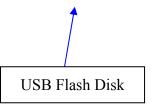






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USB Flash Disk is for Balance DATA storage.

POWER OFF Before Plug & Insert.

Warning:

1.1. Power Adaptor:

1. PLEASE MAKE SURE OF THE SUPPLY VOLTAGE MACH WITH

ADAPTOR.: (100-240VAC 50/60HZ)

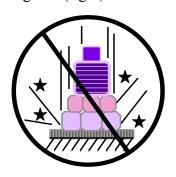


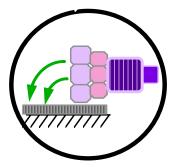
1.2. Photo Sensor:

- 1.2.1. Do not touch or move photo sensor when measuring.
- 1.2.2. The rpm of wheels must be stable when measuring.

1.3. Vibration Sensor:

- 1.3.1. Install vibration sensor near spindle (figure 6), do not install on cover of wheels because the resonance will effect balancing precision.
- 1.3.2. Use rock method to install vibration sensor as shown in figure 1(right). Do not impact the vibration sensor.(left)



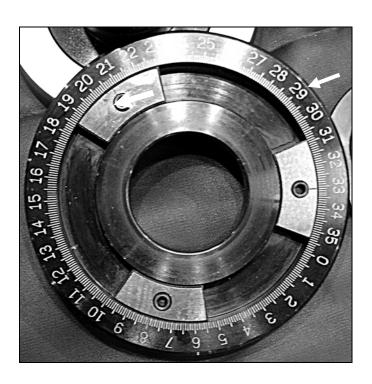


1.3.3. Ring of angle:

1.3.4. Please engrave 360 degree line on flange or paste up degree ring of angle.

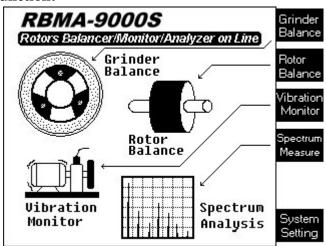
1.4. Slider:

1.4.1. Only suit for three sliders flange.



Operation:

Main Function:



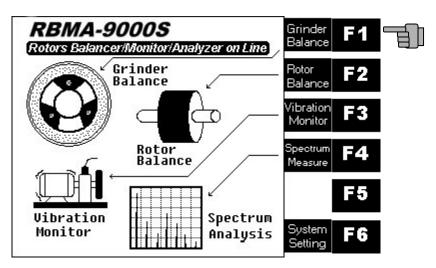
- ◆GrinderBalance: For Grinder Balance that include three sliders.
- ◆Rotor Balance: For any kind of rotor balance. There are single and dual plane balance mode.
- ◆ Vibration Monitor: Real time vibration monitor.
- ◆ Spectrum Measure: Specturm measurement for vibration analysis.
- ◆System Setting: System parameter setting.

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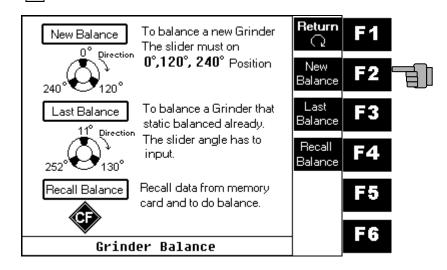
Specification & Functions:

Functions	Specification
Amplitude Resolution	0.1mg , 0.05mm/s , 0.01μm (@1800 rpm)
Amplitude Range	50g (Acceleration)
Vibration Unit	G, mm/s , μm
Phase Resolution	0.1°
RPM Range	400~30000 rpm
RPM Sensor	Laser-Optic
Sensing Range	10mm~400mm
Vibration Sensor	Accelerometer 100mV/g (typical)
Controller (CPU)	32bits
Display	320x240 dot LCD , LED Back-light
Temperature Range	0°C ~ 50°C
Power Consumption	5W
Battery	Li-on Rechargeable Battery
Power	100 - 240 VAC 50/60Hz
Size	283 x 170 x 45 (mm)
Weight	1.4kg (with Battery)

Grinder Balance:

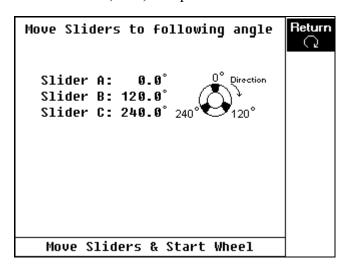


PressF2 to do New Balance.

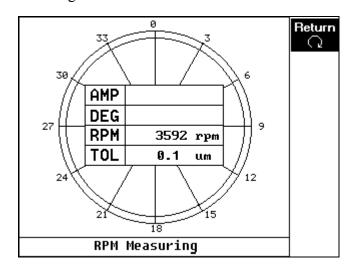


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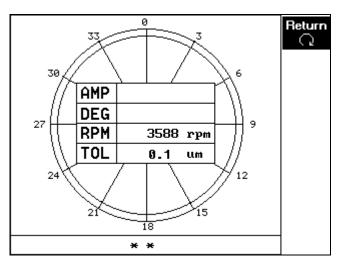
1. Move sliders to 0°,120°,240° position



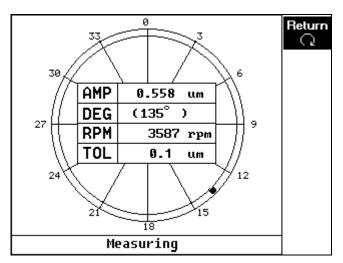
Speed Measuring.



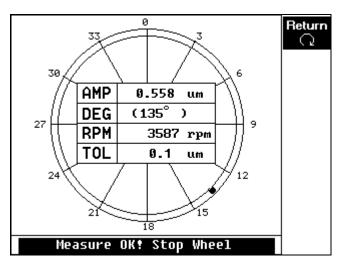
Signal auto ranging.



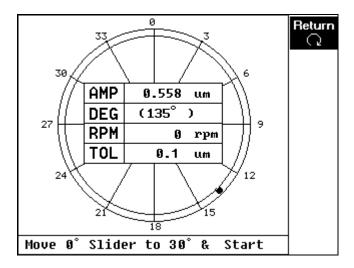
Vibration measuring.



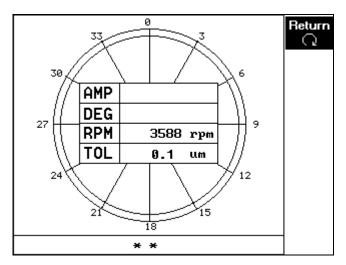
Stop rotor.



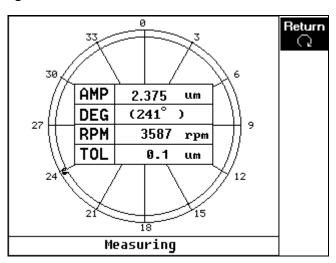
Move 0° slider to 30° and than start wheel.



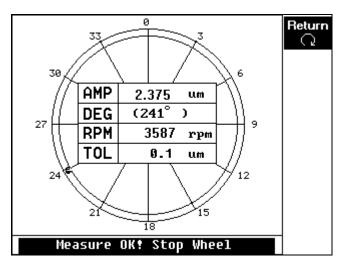
Signal auto ranging.



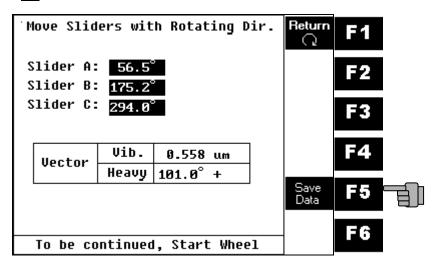
Measuring.



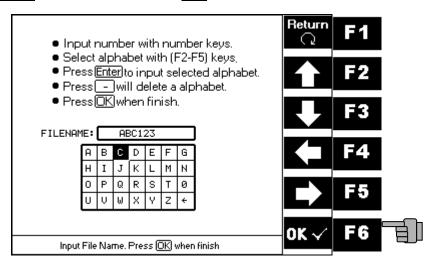
Stop wheel.



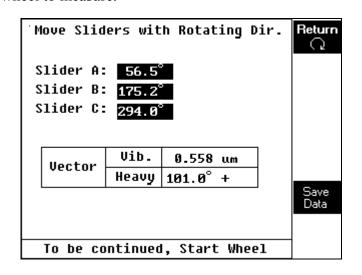
Move sliders with indication, and start wheel to continue balance. Press F5 key to store data into CF card.



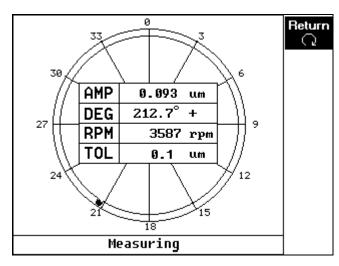
Input filename: Press arrow keys to choice an alphabet and press ENTER key to select it. Press — key will delete an alphabet.



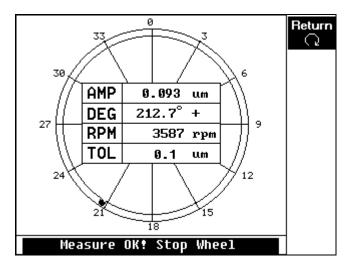
Start wheel to measure.



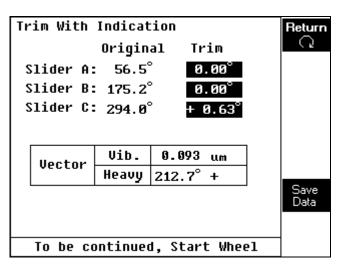
Measuring.



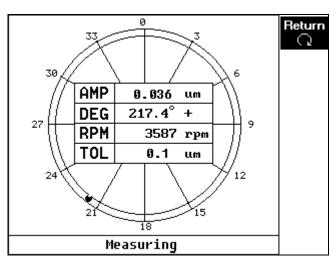
Stop wheel.



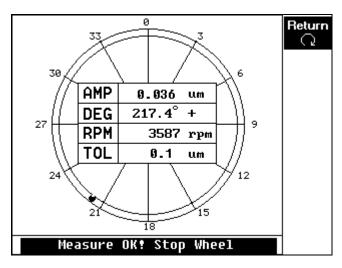
Trim sliders with indication.



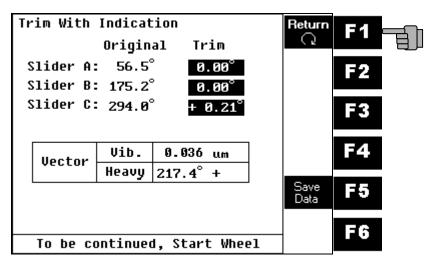
Measuring.



Stop wheel.

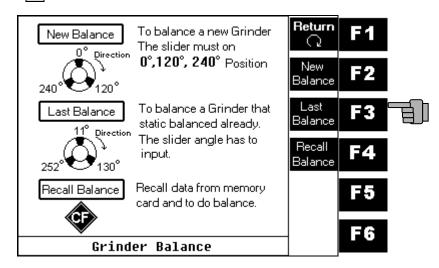


Trim sliders with indication to modify continuously. PressF1 Key to return into the grinder balance menu.

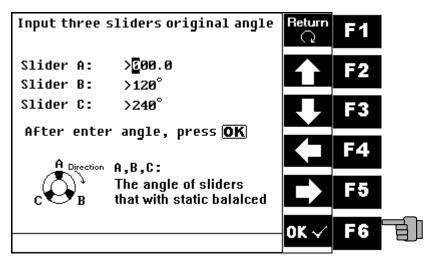


Last Balance:

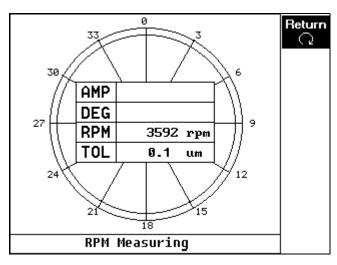
Press F3 to do last balance.



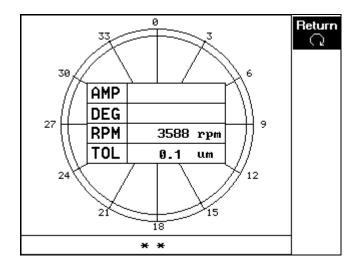
Input three sliders original angle with arrow key. (F2~F5)



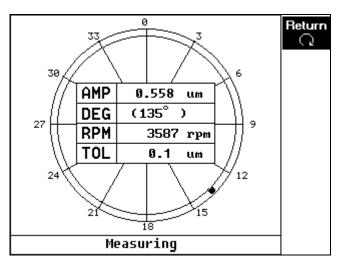
Speed measuring.



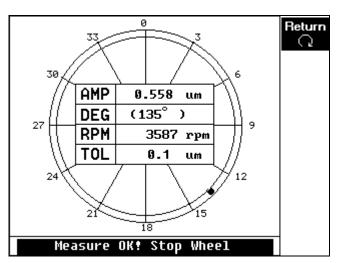
Signal auto ranging.



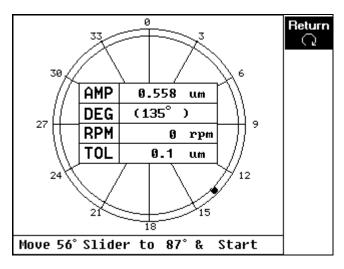
Measuring.



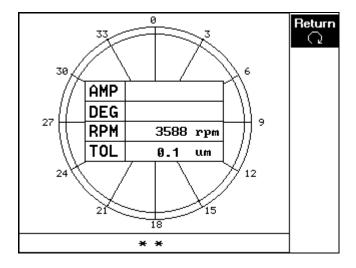
Stop wheel.



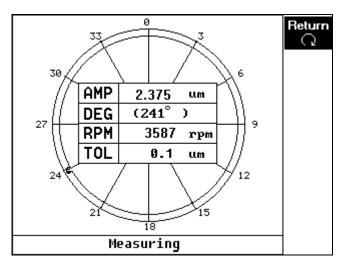
Move a slider according indication.



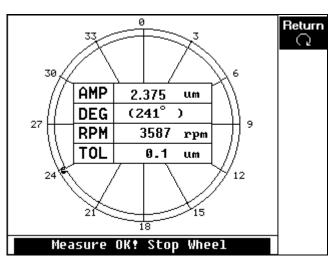
Signal auto ranging.



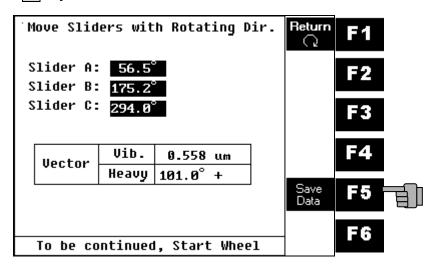
Measuring.



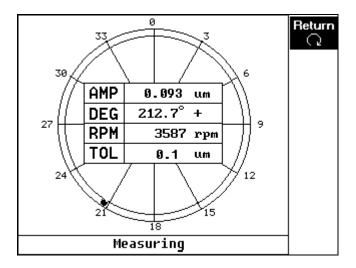
Stop wheel.



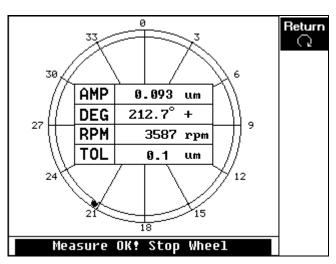
Move sliders with indication, and start wheel to continue balance. Press F5 key to store data into CF card.



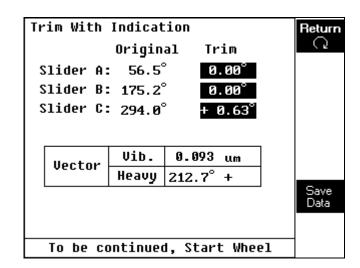
Measuring.



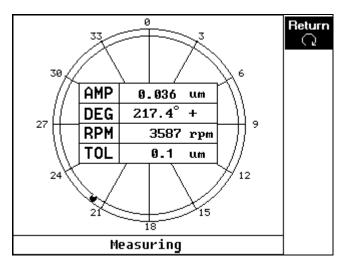
Stop wheel.



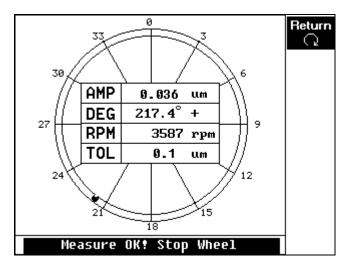
Trim sliders with indication.



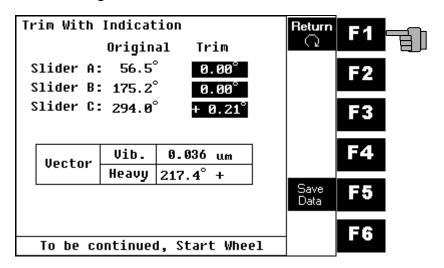
Measuring.



Stop wheel.

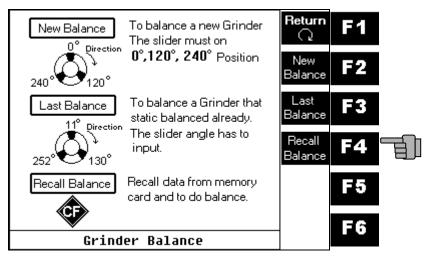


Trim sliders with indication to modify continuously. PressF1 Key to return into the grinder balance menu.

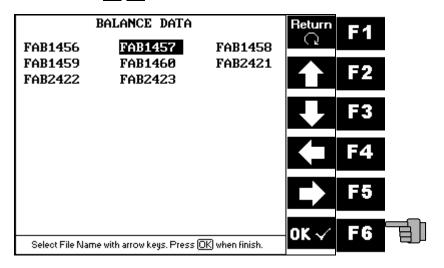


Recall Balance:

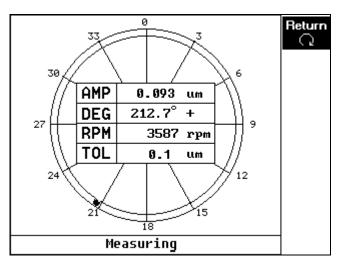
Press F4 key to recall data from CF card and to do balance.



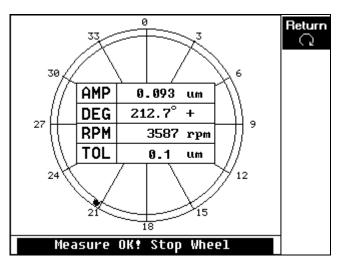
Press arrow keys (F2-F5) to select filename.



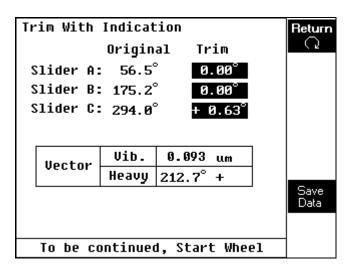
Measuring.



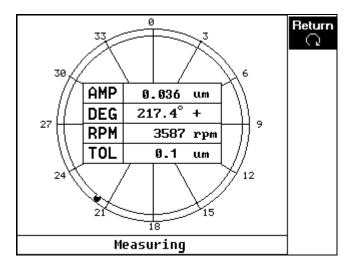
Stop wheel.



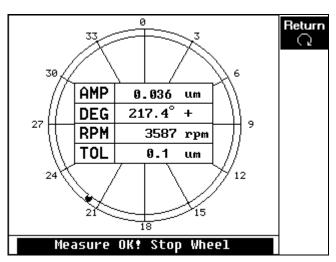
Trim sliders with indication.



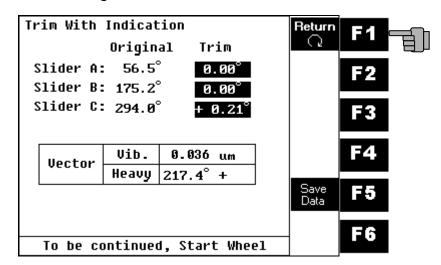
Mesuring.



Stop wheel.

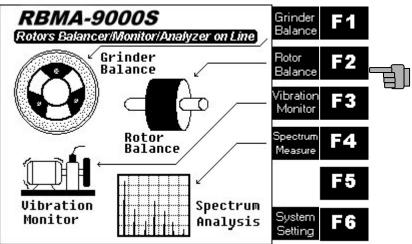


Trim sliders with indication to modify continuously. PressF1 Key to return into the grinder balance menu.

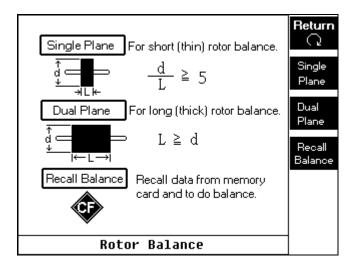


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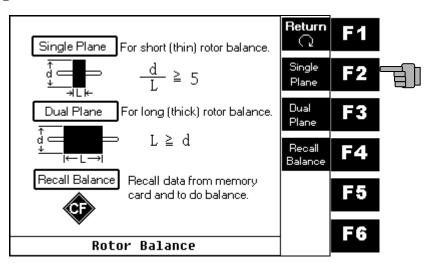
Rotor Balance:



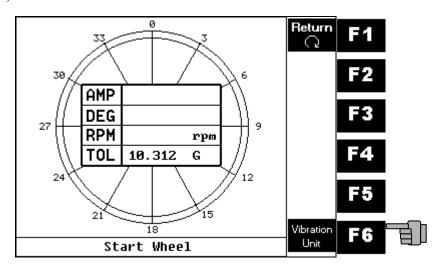
Choice single or dual plane to balance:



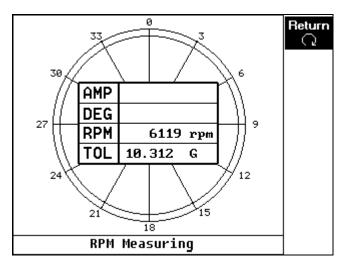
Single Plane Balance:



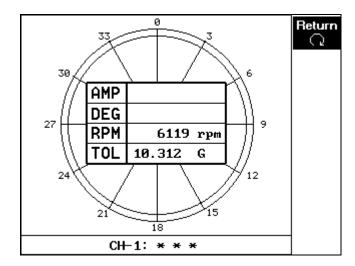
Press F6 key before start rotor to switch vibration unit.(G, mm/s, um)



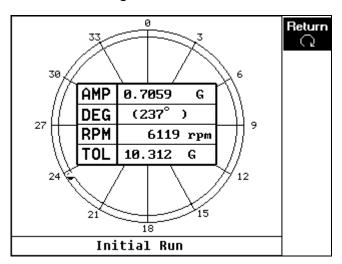
Rotor speed measuring.



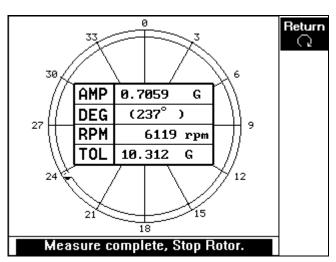
Signal auto ranging.



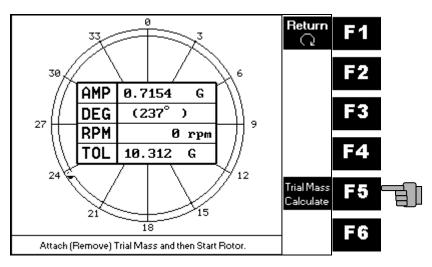
Initial vibration measuring.



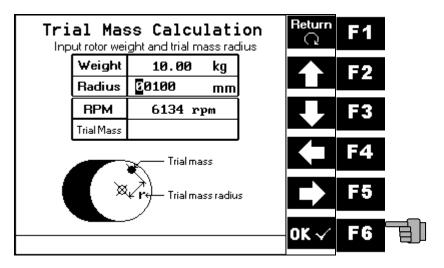
Stop rotor.



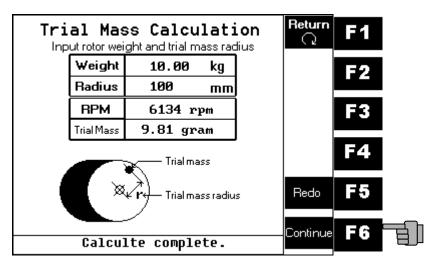
Add(Remove) a mass on(from) plane 1 of rotor. Press F5 key to calculate weight of trial mass.



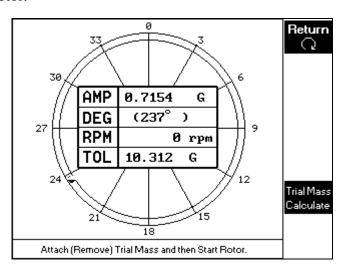
Input weight and radius of rotor.



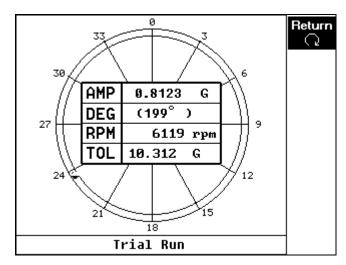
Calculate complete.



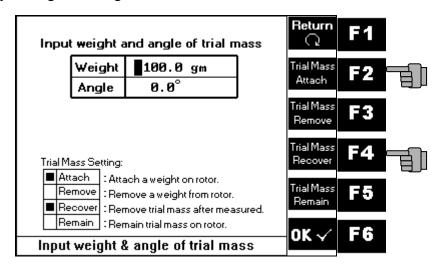
Start rotor.



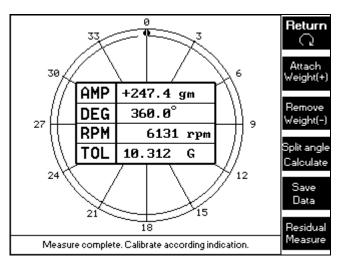
Trial weight measuring.



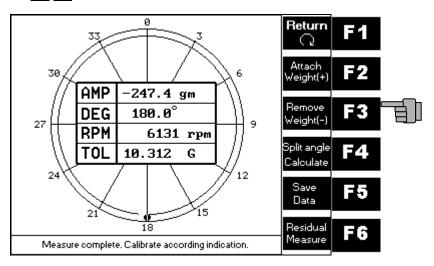
Input weight and angle of trial mass. And set trial mass status.



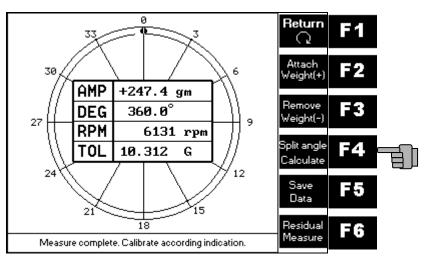
Calibration according indication. Add a 247.4gm mass on 360°.



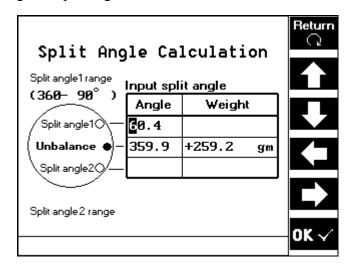
Press F2/F3 key to choice attach or remove weight.



Press F4 to calculate splite angle.

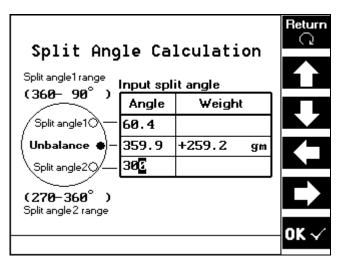


Input angle of split angle 1.

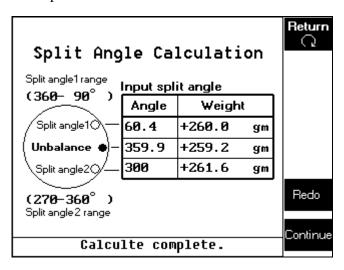


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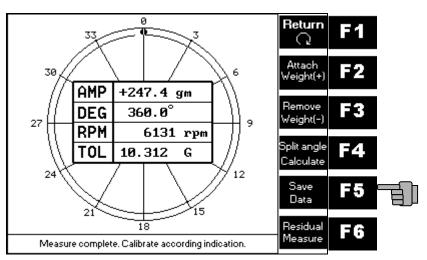
Input angle of split angle 2.



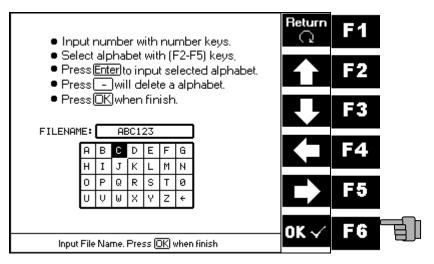
Calculate complete.



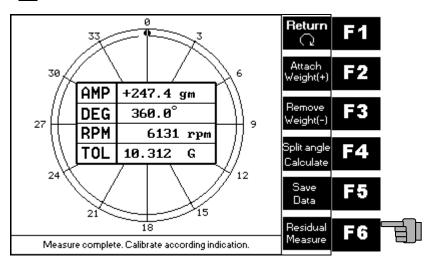
Press F5 key to store data to CF card.



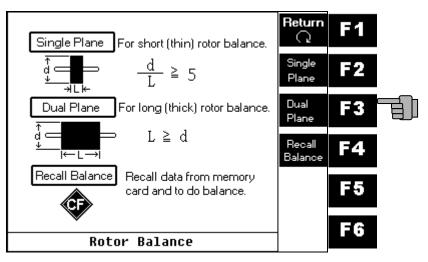
Input filename: Press arrow keys to choice an alphabet and press ENTER key to select it. Press — key will delete an alphabet.



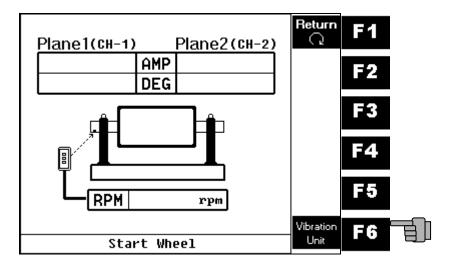
Press F6 key to residual measure.



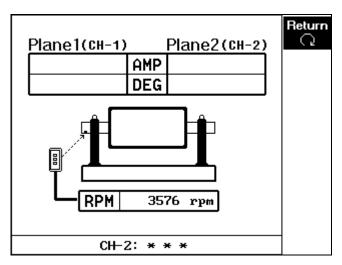
Dual Plane Balance:



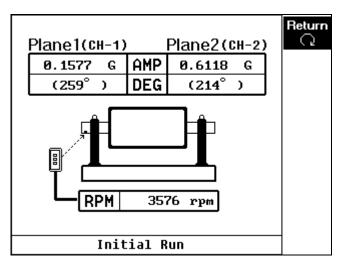
Press F6 key before start rotor to switch vibration unit(G, mm/s, um).



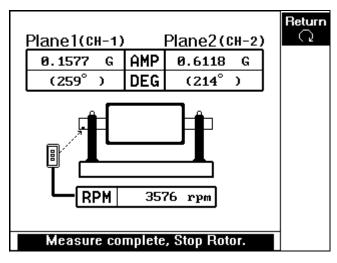
Signal auto ranging.



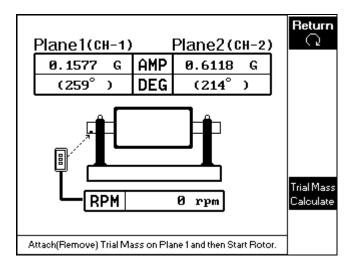
Initial vibration measuring.



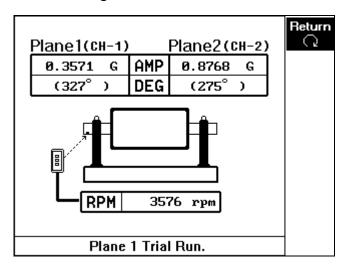
Stop rotor..



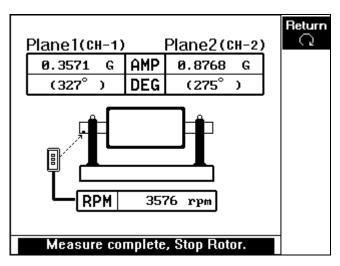
Add(Remove) a mass on(from) plane 1 of rotor. Press F5 key to calculate weight of trial mass.



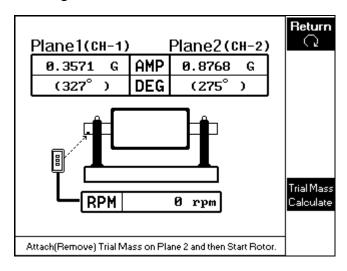
Plane 1 trial measuring



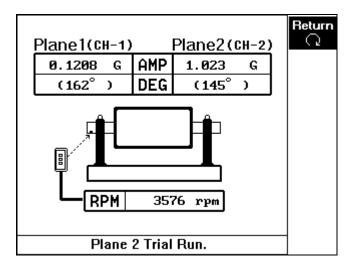
Stop rotor.



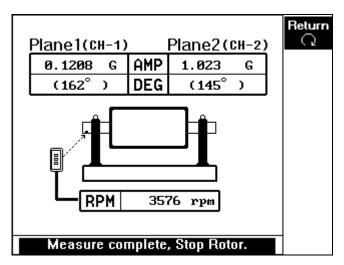
Add(Remove) a mass on(from) plane 2 of rotor. Press F5 key to calculate weight of trial mass.



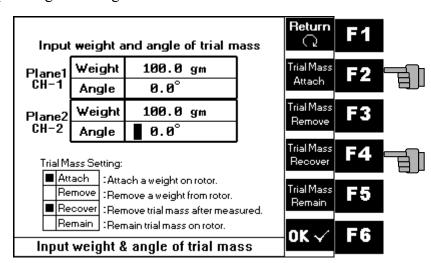
Plane 2 trial measuring.



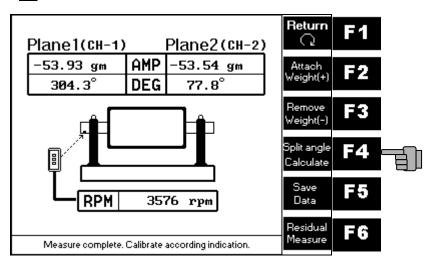
Stop rotor.



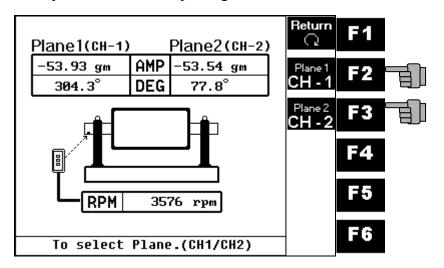
Input weight and angle of trial mass. And set trial mass status.



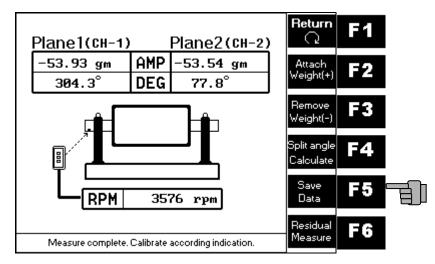
Press F4 key to split angle calculation.



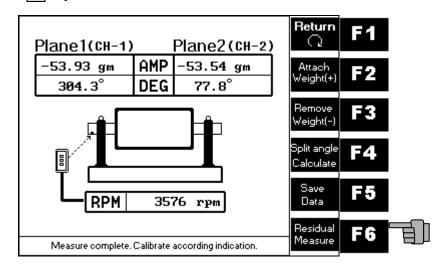
To choice plane for calculate split angle.



Press F5 key to store data to CF card.

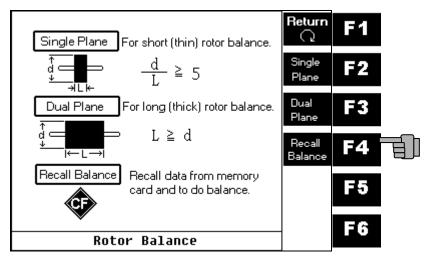


Press F6 key to residual measure.

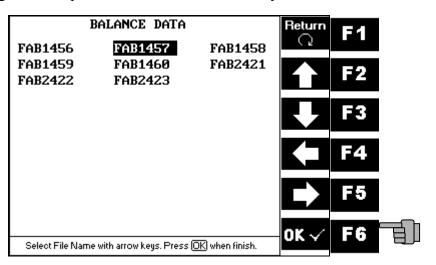


Recall Balance:

Press F4 key to recall data from CF card and to do balance.

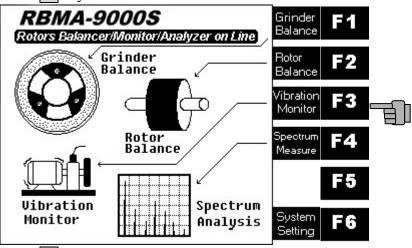


Press arrow keys (F2-F5) to select filename. System will set to single or dual plan measurement automatically.

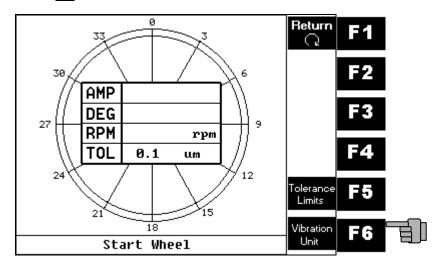


Vibration Monitor:

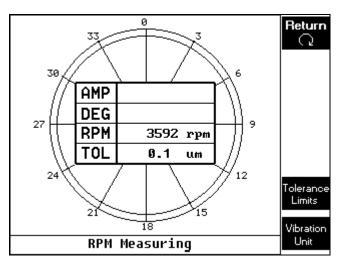
Press F3 key to vibration monitor function



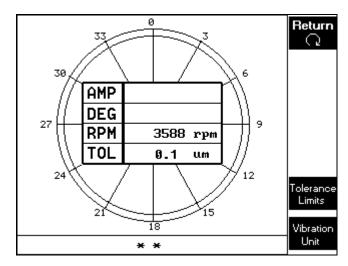
Press F6 key to switch vibration unit.(G,mm/s,um)...



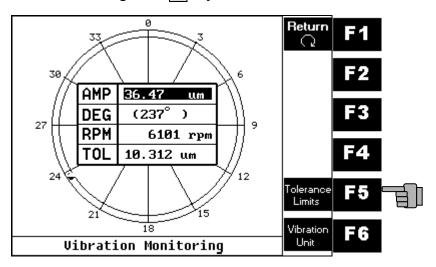
Rotor speed measuring.



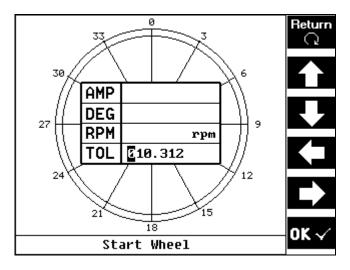
Signal auto ranging.



The vibration value would be inverted when vibration value exceed tolerance setting. Press F5 key to set tolerance.



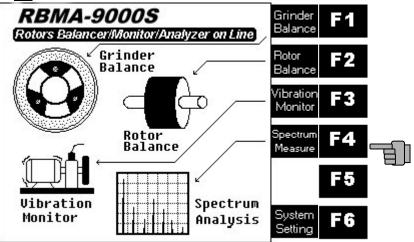
Input tolerance value.



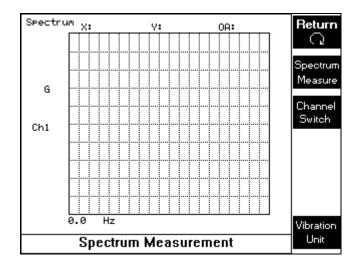
CoversPlus INT'L

Spectrum measurement:

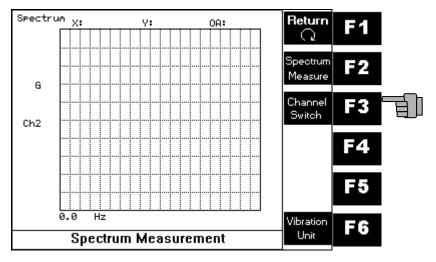
Press F4 key to spectrum measure menu.



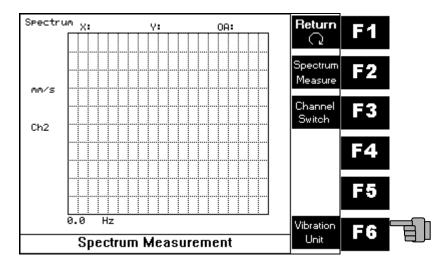
Spectrum Measurement main screen.



Press F3 key to switch measure channel(CH1/Ch2).

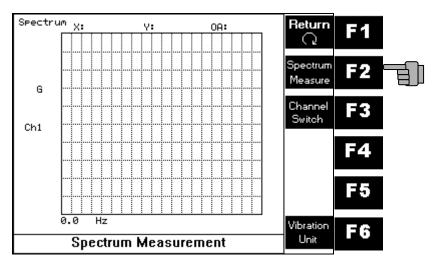


Press F6 key to switch vibration unit.(G,mm/s,um).

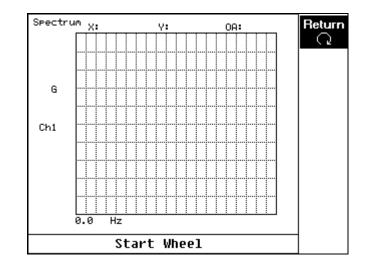


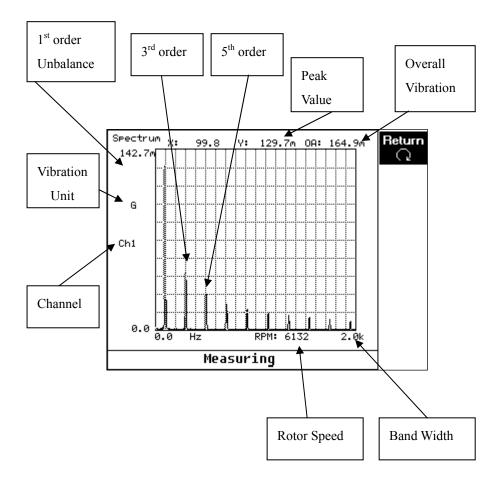
CoversPlus INT'L

Press F2 key to start spectrum measure.



Start rotor to measure.

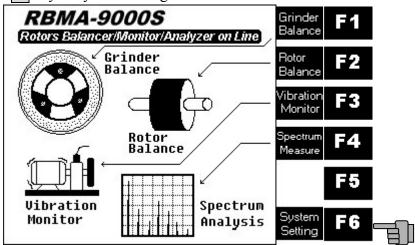




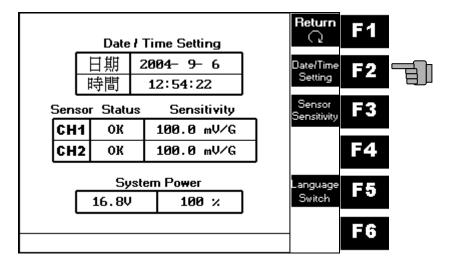
CoversPlus INT'L

SYSTEM SETTING:

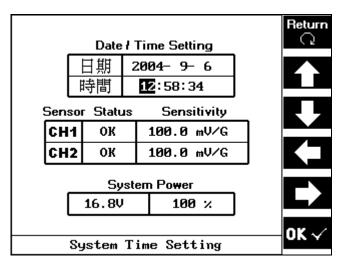
Press F6 key to system setting.



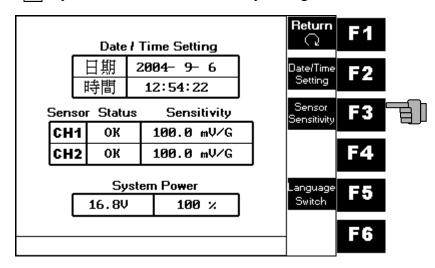
Press F2 key to date & time setting.



Date & time setting.

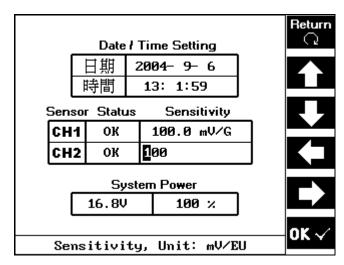


Press F3 key to vibration sensor sensitivity setting.

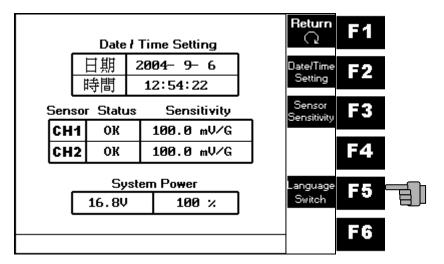


CoversPlus INT'L

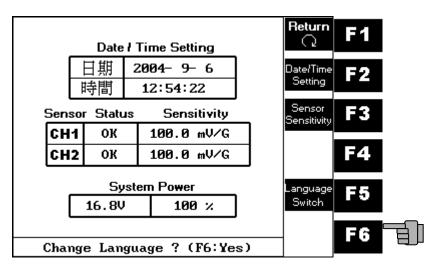
Vibration sensor sensitivity setting.



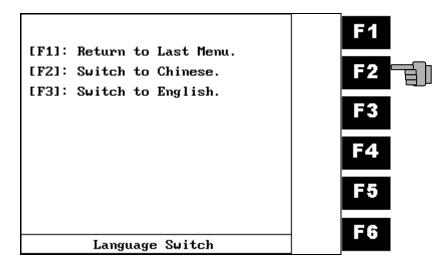
Press F5 key to language switching menu.



Press F6 key to confirm for language switch. (The USB Flash Disk must be inserted in main set already. There are two files KBACHN.EXE and KBAENG.EXE) must be included in USB Flash Disk.



Press F2 key for Chinese and press F3 key for English.



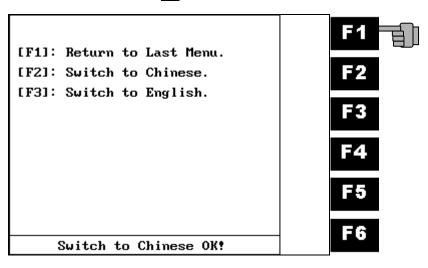
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Language data loading.

[F1]: Return to Last Menu.
[F2]: Switch to Chinese.
[F3]: Switch to English.

Chinese Language Updating...

Language switched. Press F1 key to retuen last menu.



Troubleshooting:

Problem	Cause	Solution
	Power not	Check power
	connected	adaptor
No Display after turn		
on	Adaptor is out	Contact vendor to
Power switch	of order	change a new one
	Power voltage is	Check input voltage
	mismatch	of adaptor
	RPM sensor is not	Plug in RPM sensor
	plug in	
Can not enter into	RPM sensor is not	Setup RPM sensor
measuring	setup ok	again
Procedure	RPM sensor is out	Contact vendor
	of order	
	Vibration sensor is	Plug in vibration
	not plug in	sensor
Can not measure	Vibration sensor is	Place vibration
vibration data	not installed on	sensor on spindle
	spindle	
	Vibration sensor is	Contact vendor
	out of order	
	Grinder rpm is	Check grinder
	unstable	controller

CoversPlus INT'L

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Product Certificate:

CoversPlus International Co.,Ltd.

Product Certificate

Custom			
Address			
Tel		Fax	
Model	RBMA-9000S	S/N	
Vib. Sensor		Sensor S/N	
Purchase		Guarantee	
Date		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.

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