

# Multi-Function Vibration Meters Portable Type Precision

**COVER'S**

# VM-6000S



# Contents

1. Warning.....	2
2. Specifications & Functions.....	3
3. Optional Accessories.....	4
4. Function description.....	5
5. Operating description.....	6
5.1- Vibration mode operating.....	6
5.2-QC operating.....	10
6.Measurement mode conversion process.....	21
6.1-QC conversion vibration.....	21
6.2-Vibration conversion QC.....	22
7.Troubleshooting.....	23
8.Product certificate.....	24

# 1.Warning

## Battery:

Please make sure battery in normal work condition, If it is not in the operating voltage range, the instrument itself will exude the warning sound, Please insert the power source supply charge.

## Power Adaptor:

Please make sure of the supply voltage mach with adaptor.

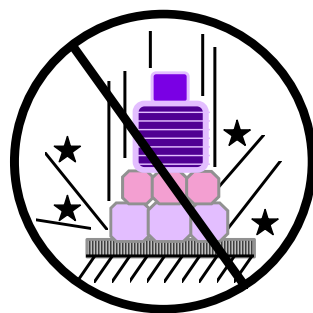
(AC110-220V DC-12V).

## Photo Sensor:

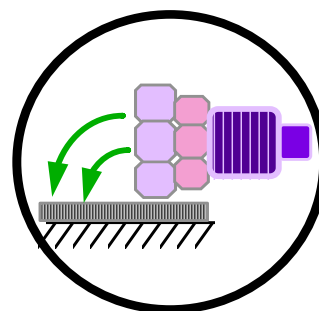
Do not touch or move photo sensor when measuring.

The rpm of wheels must be stable when measuring.

Sensor is precision instrument,avoid collision or fall on the ground.



Incorrect



Correct

## 2. Specifications & Functions

Function	Specification
Vibration Unit	G , mm/sec , $\mu\text{m}$ , in/sec , mil
Vibration Range (100mV/G)	Acceleration : 19.99 G (rms)
	Velocity : 199.9 mm/sec , 7.87 in/sec (0-P)
	Displacement : 1999.9 $\mu\text{m}$ , 78.74 mil (P-P)
Vibration Resolution	Acceleration : 0.01 G (rms)
	Velocity : 0.1 mm/sec , 0.004 in/sec (0-P)
	Displacement : 0.1 $\mu\text{m}$ , 0.004 mil (P-P)
Frequency Range	HPF : 3Hz , 10Hz
	LPF : 1KHz , 10KHz
Measurement Mode	Continuous measurement / QC mode
A/D Resolutions	24bits
Environments	0°C ~40°C
Screen	LCD 128×64 , LED back lights
Power	VAC110V/220V , DC-12V
Batteries	Re-charged ; max 4hr. for continuous
Instrument Size	210×110×40 mm
Instrument weight	400g
Total weight	0.6kg ( including accessories )



## 3.Optional Accessories



VM-6000S Instrumentx1



Vibration sensorx1  
( including MB504 Magnetic Base/Cable )



Power Adaptorx1



Aluminum probex1



※Data transfer software/cable(Optional)

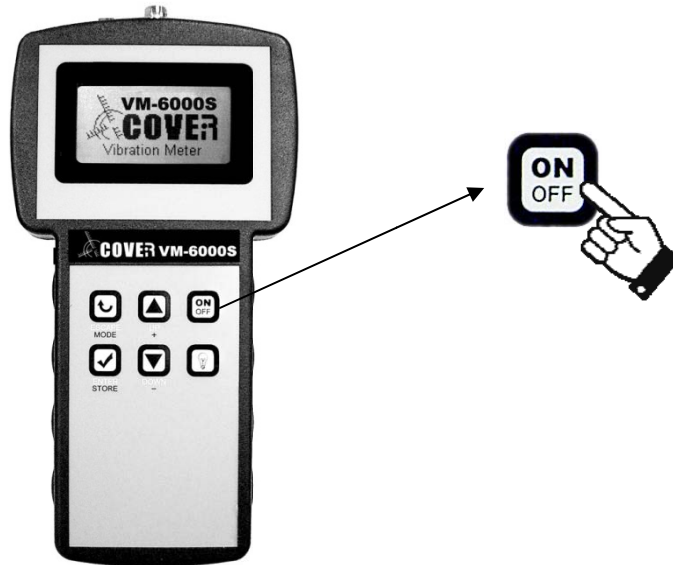
# 4.VM-6000S Function Description



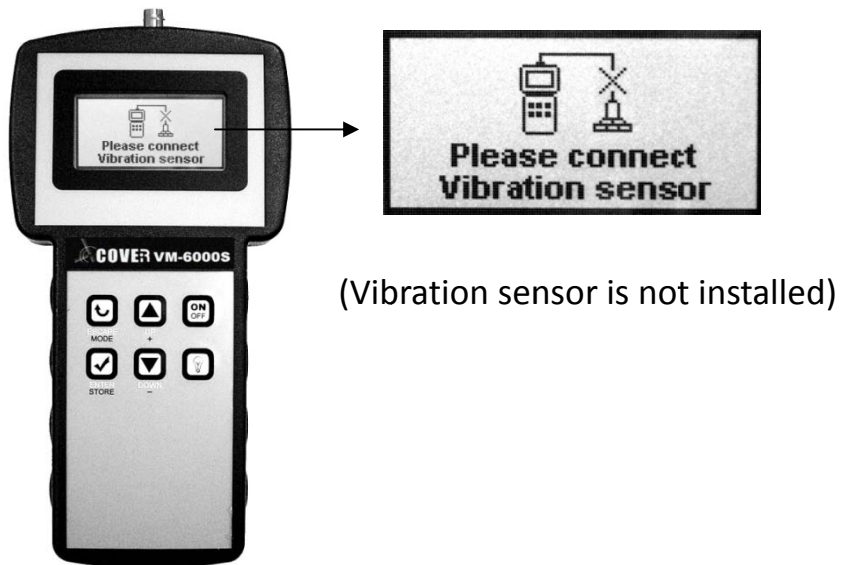
# 5. Operating Description

## 5.1 Vibration Mode (QC conversion vibration P.21)

1.1 Press  Key to enter the boot screen (Press  key about two seconds that is the closure of the power) :



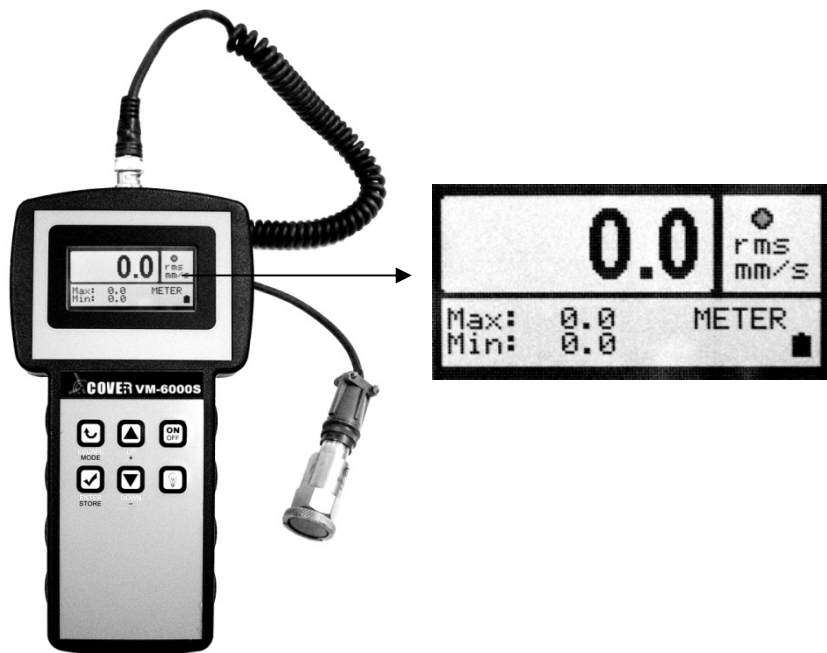
1.2 Main screen :




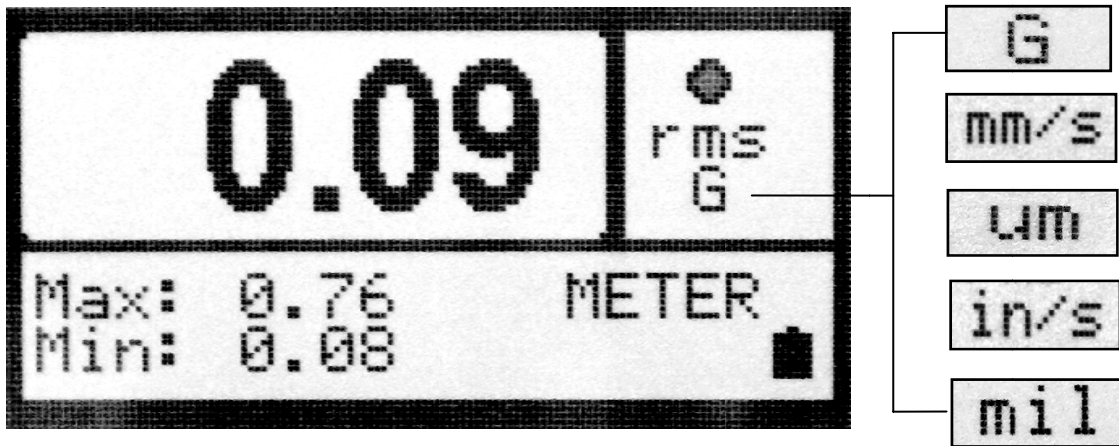
### 1.3 Vibration sensor installed in the host :




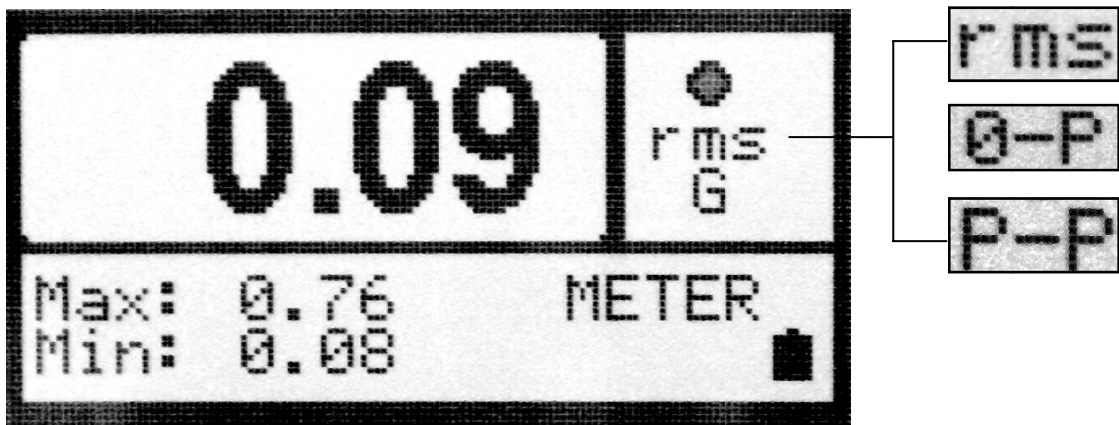
### 1.4 Install the sensor immediately transform the measurement screen :



1.5 Press this  button rapid replacement of five kinds of vibration unit :

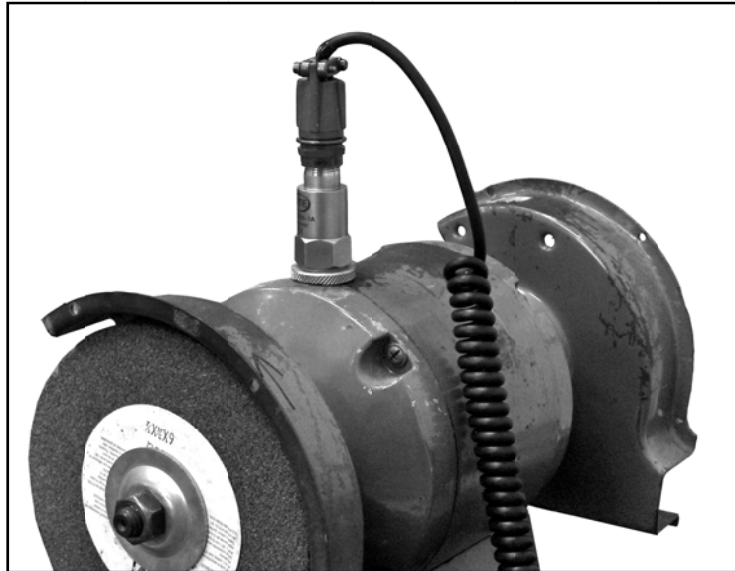


1.6 Press this  button rapid replacement of three kinds of amplitude calculated values

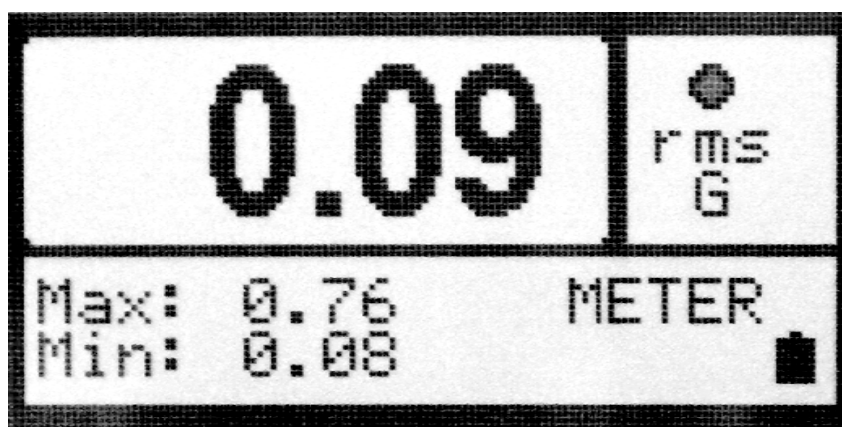


Vibration meter mode it can quickly replace the units and the amplitude of vibration of the calculated value.

1.7 After the achieve of setting, the sensor near spindle in the analytes start measured :





1.8 Press this  button MAX and MIN to zero, and starts analytes begins to measure, when vibration value stable, read and record the measured values of vibration :

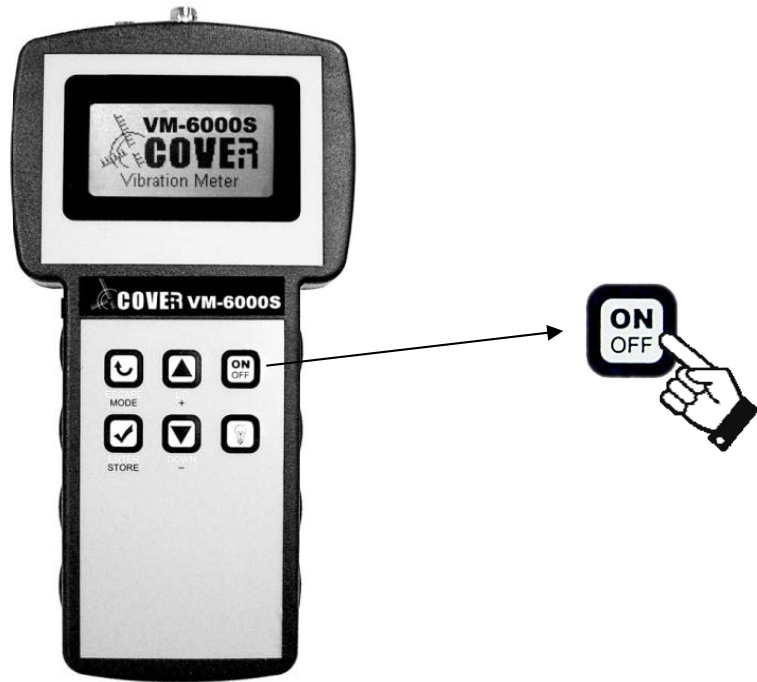


\* Vibration meter mode Press this  button can be MAX and MIN to zero.

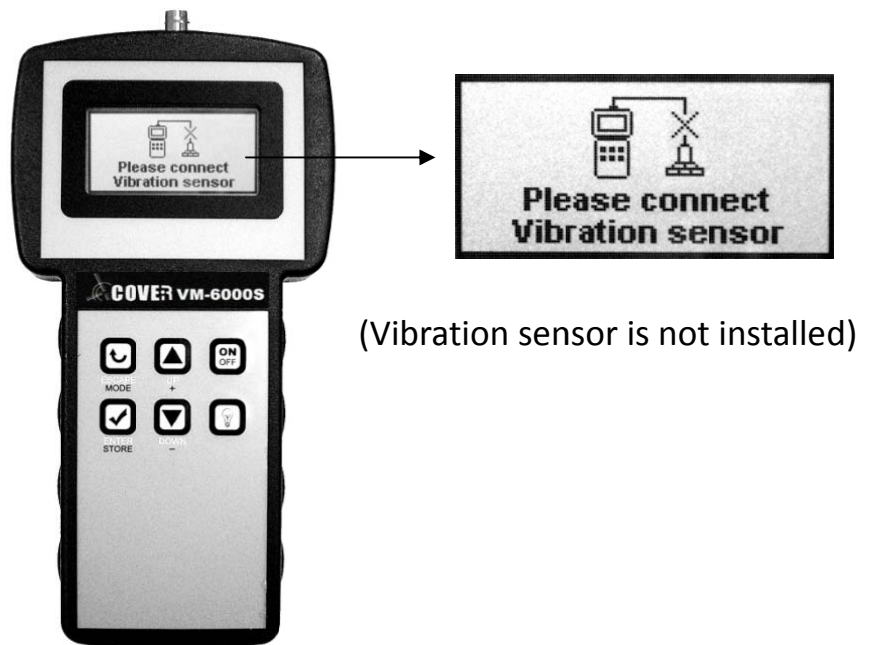


## 5.2 QC operating (Vibration conversion QC P.22)

2.1 Press  Key to enter the boot screen (Press  key about two seconds that is the closure of the power)



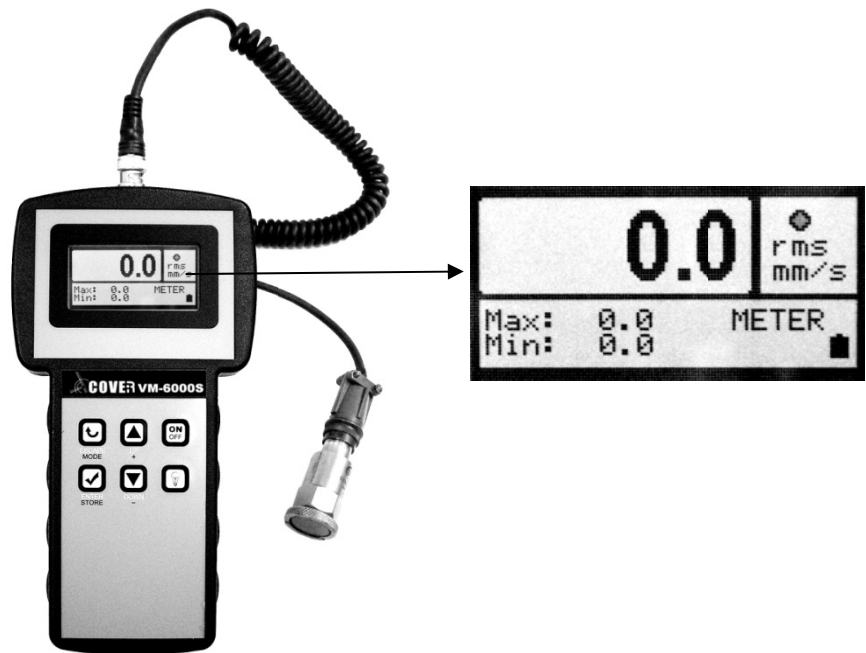
### 2.2 Main screen










## 2.3 Vibration sensor installed in the host :

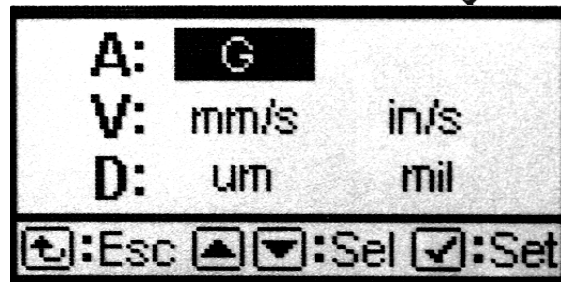
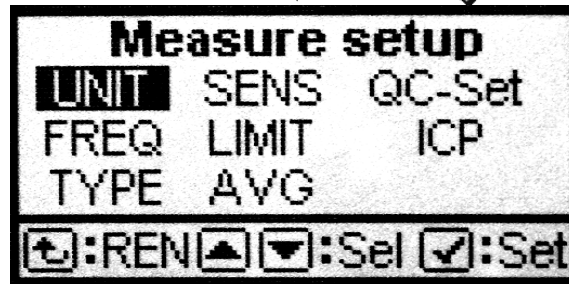
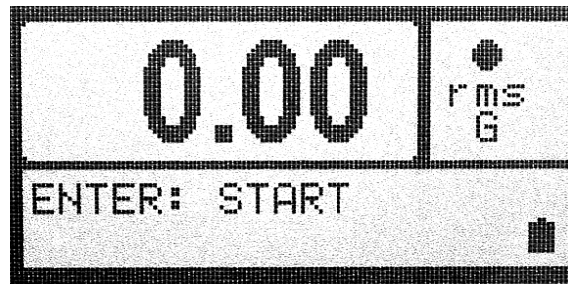









## 2.4 Install the sensor Immediately transform the measurement screen :

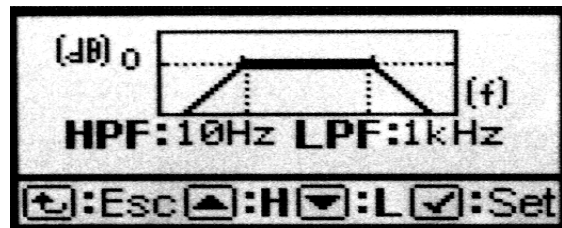
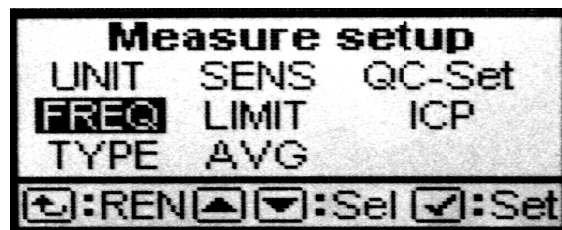











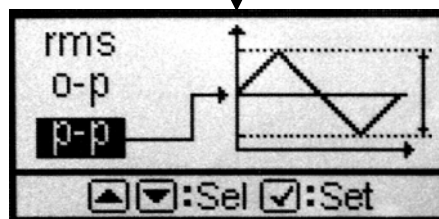
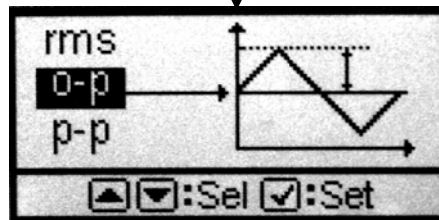
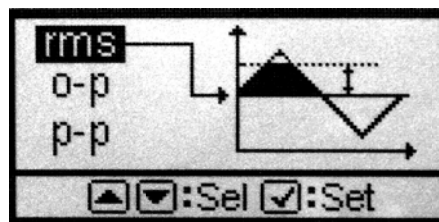
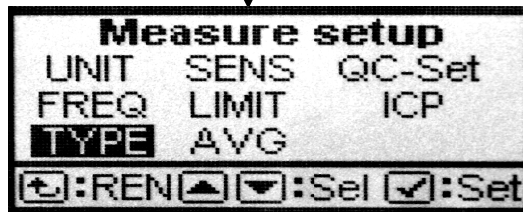
2.5 Vibration unit Setting: Press this  button enter the measurement options, use   select **UNIT**, Press this  button enter to set screen, use   select desired vibration unit, then Press this  button complete the setup.











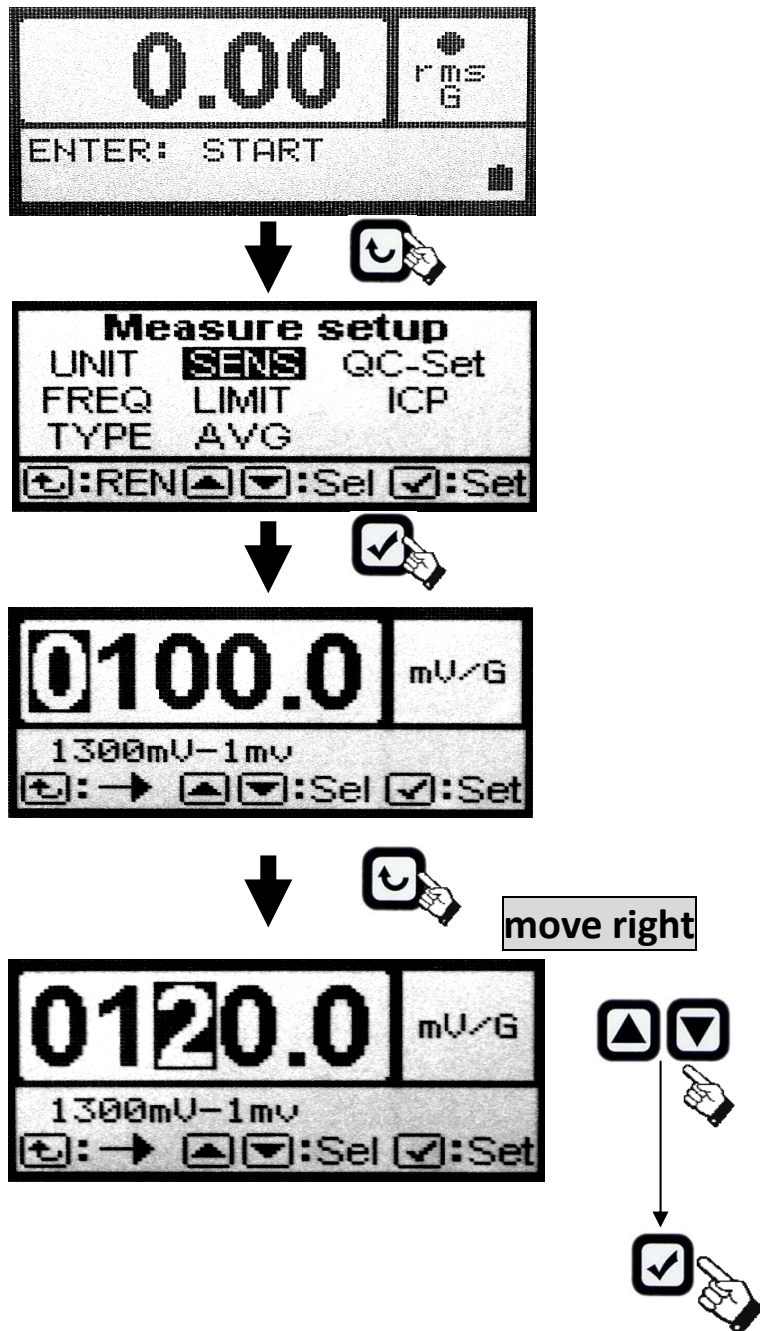
2.6 Filter bandwidth setting: Press this  button enter the measurement options ,use   select **FREQ**, Press this  button enter set screen, use  setting for HPF, use  setting LPF then Press this  button complete the setup.











2.7 Amplitude calculated values setting: Press this  button enter the measurement options, use   select **TYPE**, Press this  button enter set screen, use   setting for amplitude calculated values, then Press this  button complete the setup.

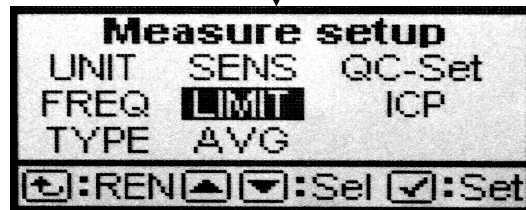
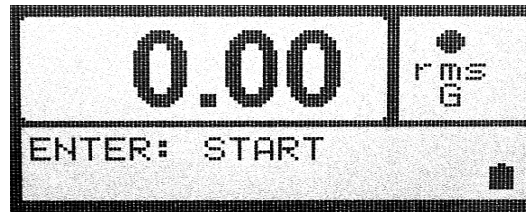


2.8 Sensor sensitivity setting: Press this  button enter the measurement options, use   select **SENS**, Press this  button enter set screen, use  move right, use   set for sensor sensitivity, then Press this  button complete the setup.

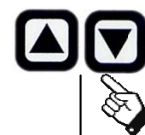
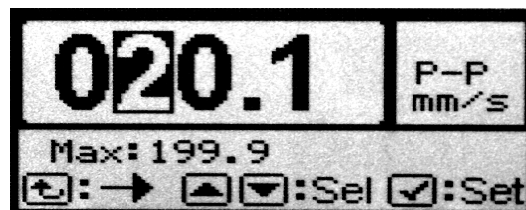




2.9 Vibration QC upper alarm limit: Press this  button enter the measurement options, use   select **LIMIT**, Press this  button enter set screen, use  move right, use   set for upper alarm limit, Press this  button complete the setup.











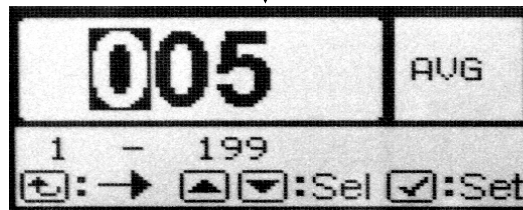
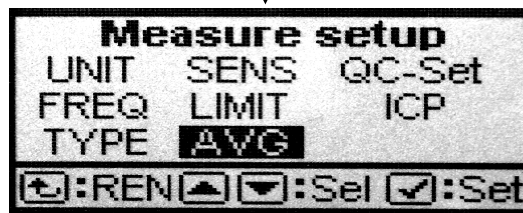
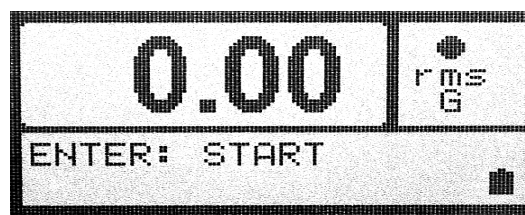
move right



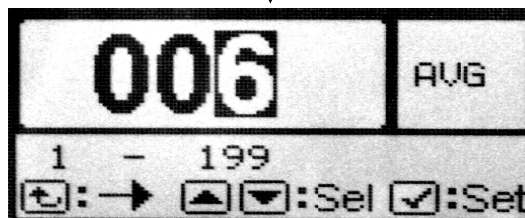
(This is QC mode setting)

## 2.10 Vibration measurement average number of times setting:

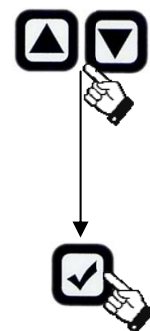
Press this  button enter the measurement options, use   select **AVG**, Press this  button enter set screen, use  move right, use   set for vibration measurement average number of times, Press this  button complete the setup.







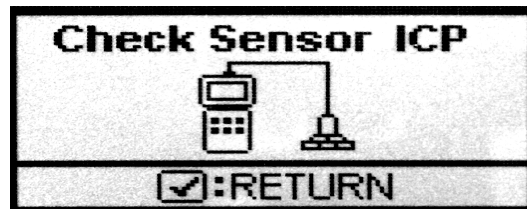
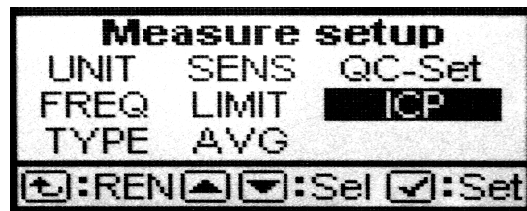
move right



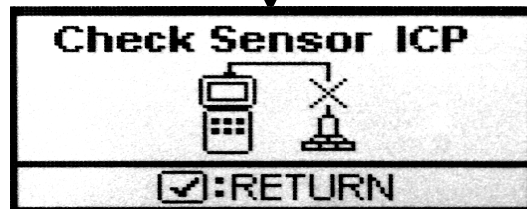
(This is QC mode setting)



2.11 Accelerometer ICP: Press this  button enter the measurement options, use   select ICP, Press this  button enter set screen, accelerometer test whether it is normal.



Correct



mistake

2.12 QC measurement mode: All functions complete setting,

Press this  button to QC measurement start screen,

Confirmation the sensor near spindle in the analytes, Press this

 button start Measurement.



(Confirmation the sensor near spindle in the analytes)



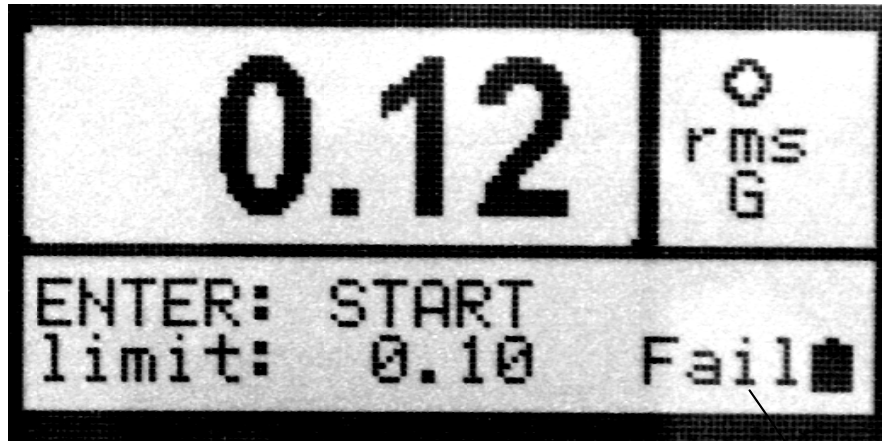
(Press this  button start Measurement)



2.13 QC measurement mode result: Measurement values and

QC vibration values compares, if  $>$  QC vibration values show Fail

not passed, if  $<$  QC vibration values is passably.



If  $>$  QC vibration values

Fail










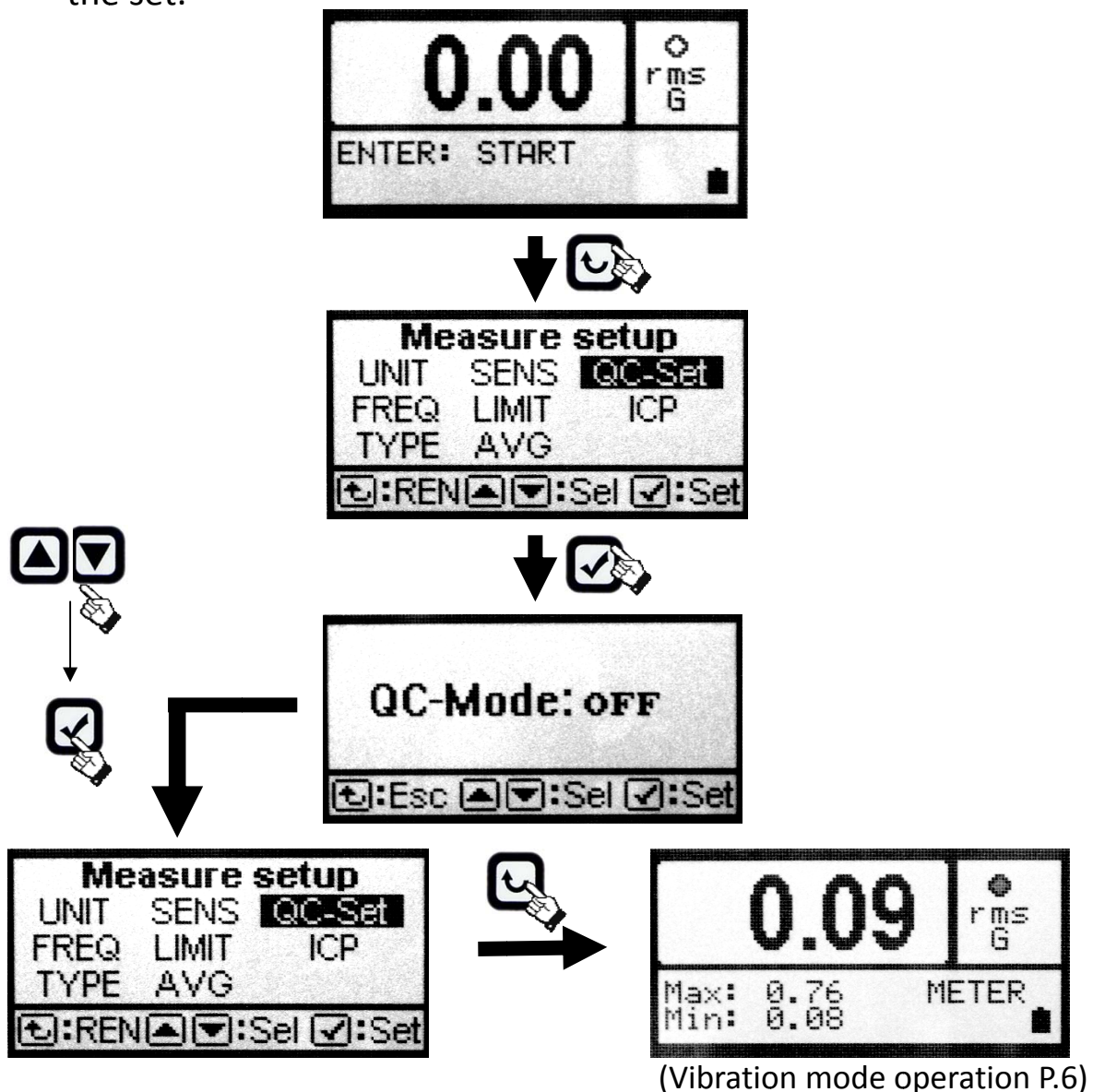
If  $<$  QC vibration values

Pass








## 6.Measurement mode conversion process

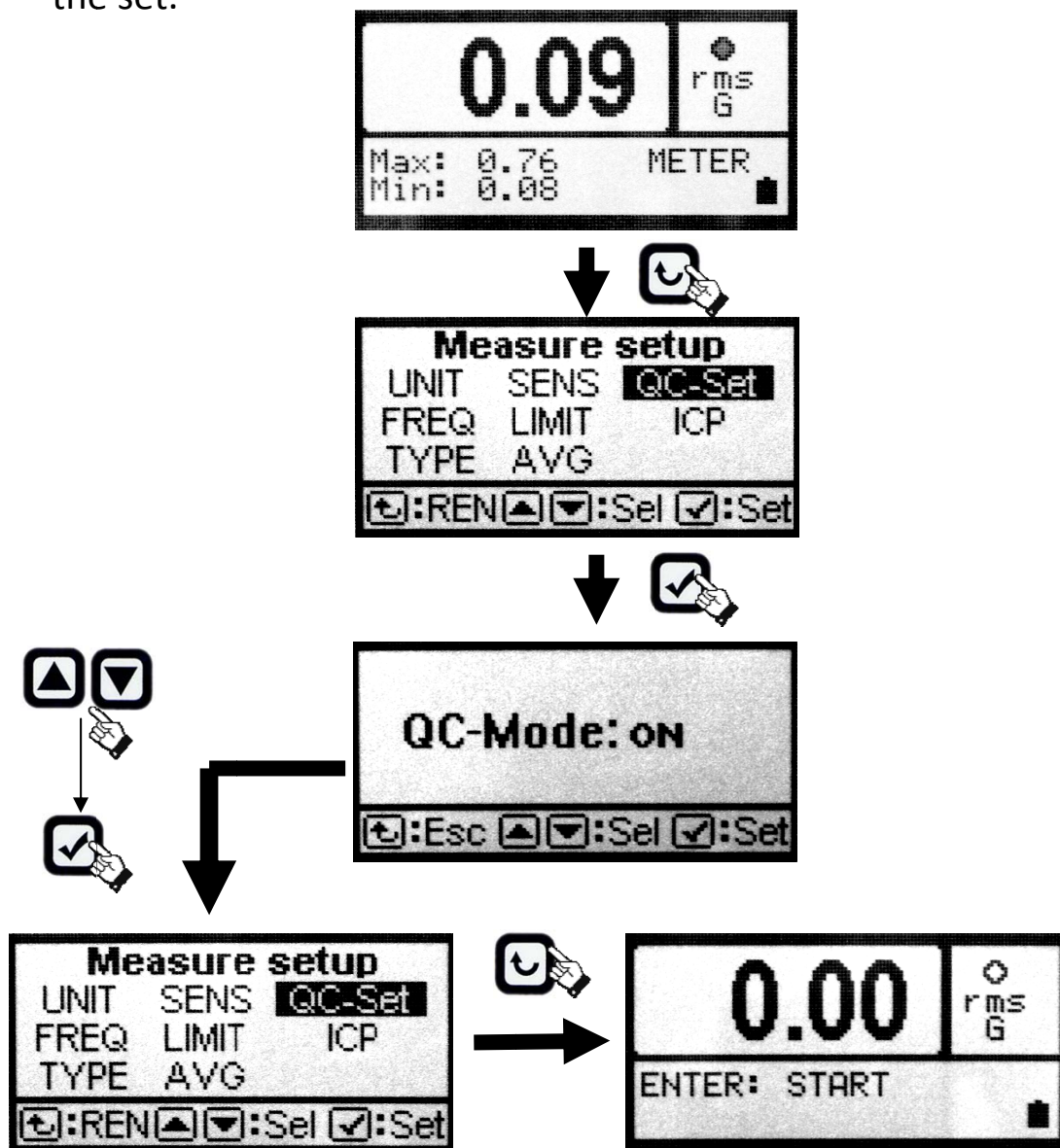
### 6.1 QC conversion vibration:

Enter the measurement screen,press this  button enter the measurement options,use   select **QC-Set**,Press this  button enter system, use   set for QC-Mode show of "OFF",Press this  button hear the "beep beep" to complete the set.



## 6-2 Vibration conversion QC:


Enter the measurement screen, press this  button enter the measurement options, use   select **QC-Set**, Press this  button enter system, use   set for QC-Mode show of "ON", Press this  button hear the "beep beep" to complete the set.



(QC operating P.10)

## 7.Troubleshooting

1. After boot, if the LCD display without any information, please use the random parts transformer, let machines into state of charge, (can also be used while charging side).

2. Battery power is low LCD  display will appear in the lower right corner of drawings. The host will have been issued a "beep -" sound a warning power is too low, at this point can be plugged directly into the power supply to continue to use.

3. Start charging, if the charging symbol does not have any charging display, check whether the transformer used in +12 VDC output connector is the normal contact.

4. After boot, if the vibration meter mode, the LCD displays measured values remain at 0 change, please check the accelerometer is installed correctly.

5. The instrument calibration cycle is recommended once a year, if the measured value is unreasonable, he can contact the original manufacturer or distributor calibration, or repair work.

※ If the subject of intense regulatory speed collisions or in the heat environment, anything is possible than to wait too long to speed up the regulatory characteristics of temporary or permanent change, in which case the whole group of equipment shall be immediately returned to original factory calibration.

# 8.Product Certificate

## CoversPlus International

### Product Certificate

Product Name			
Address			
TEL		FAX	
Model	VM-6000S	Instrument NO.	
Vibration Sensors		Sensors NO.	
Date of purchase		Warranty period	

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 when the man-made or weather reason.
4. If the certificate is missing or not intact, it will not reissue.
5. No seal no effective.
6. Please enclose this certificate when instrument send back for repairing.

**Taiwan Factory:**

**Add:**9F, No.32-1, Lane 450, Sec. 5, Cheng-Gong Rd.,  
Nei-Hu Area, Taipei, Taiwan.

**TEL:** +886-2-26305829

**FAX:** +886-2-2631-0950

**<http://www.coversplus.com.tw>**

**E-mail:** cover@coversplus.com.tw

