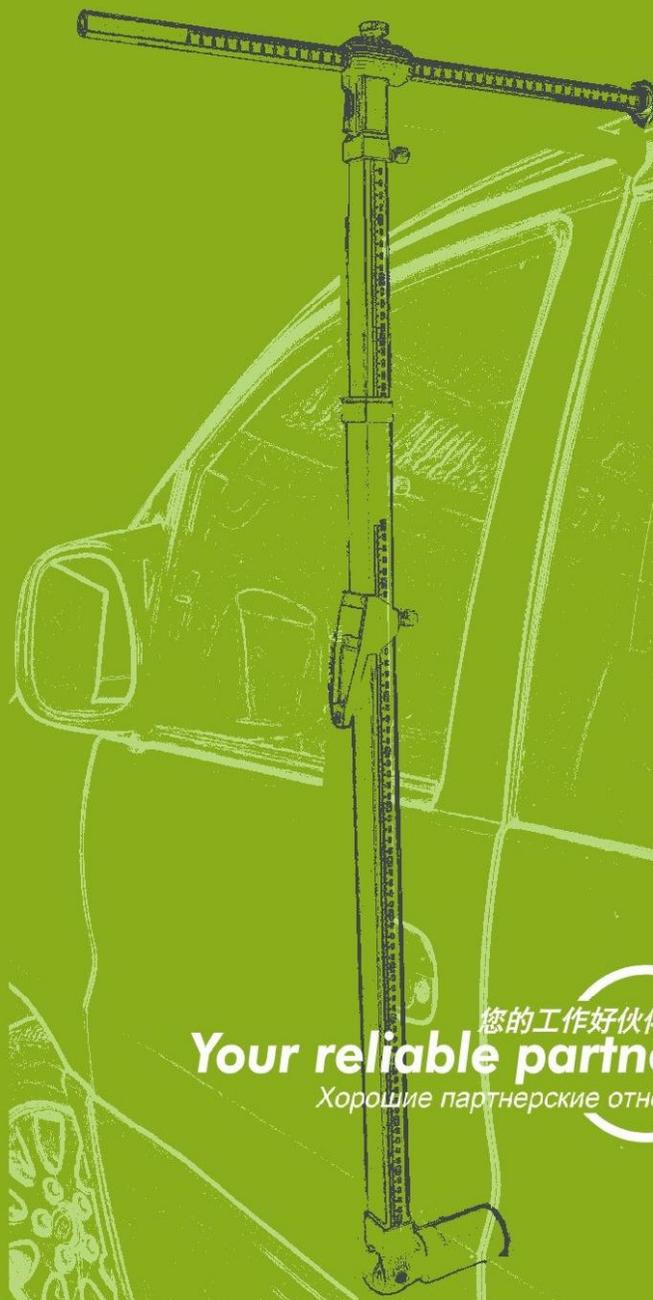# MEASURE

M5 USER MANUAL

Your reliable partner

您的工作好伙伴

Хорошие партнерские отношения с клиентами

MEASURE **M5**

MEASURE **M7**

M3

Contents

Chapter One: Brief Introduction

Thank you for purchasing MEASURE SYSTEM. This introduction can tell you how to use it correctly thus to make your measurement more accurate.

MEASURE system is a kind of portable, accurate, economical as well as practical measuring instrument which is often used in auto body repair, sheet metal welding, and machinery repair including various structures. Only with one person, it can be operated to measure auto body, engine room, luggage root, auto chassis and wheelbase accurately with no obstacle.

MEASURE'S STRENGTH:

- Small, light and easy to operate. Only one person can handle it and finish measurement in very short time.

- There are three parts of precision aluminum tube equipped with collars and bearings which are especially made by mould thus to make little sliding space. The scale is carved by laser, which guarantees high precision.

- It is equipped with magnetic probe which can automatically center and adsorb. Centering is more precise and operation is more convenient.

- There are three measuring tubes of different length. They can help you to measure without obstacle both in length direction and in height direction, besides you can read the number directly.

- The measuring scope of length is from 250mm to 2230mm and from 250mm to 2950mm, and the measuring height is 430mm.

- We provide various measuring tips from 8mm to 28mm, tip holder, small, medium and large cone measuring tips. There are 20 kinds in total in order to meet all the needs of various models.

Chapter Two: Safety caution

● Please read this brochure carefully before using and make sure that you can operate it correctly.

● The main ruler is made of aluminum, so please be careful and do not put heavy objects on it.

● Please keep it away from fire, paint, rubber, asphalt and all other erosive substance. If you spill paint or other erosive liquid on it inadvertently, please wash it with water immediately and wipe it clean.

● After using, please pull the magnetic probe out gradiently instead of vertically in order to avoid hurting people.

Chapter Three: Spare parts list and name

This telescopic auto dimension measuring system is designed for measuring the auto frame dimensions according to the auto dimension data while repairing the damaged vehicles. It is equiped with a magnetic probe which can help to hold the ruler steadily to the auto frame.

Spare parts list:

NO.	PICTURE	INTRODUCTION	QTY.
1		M5 Main rule (250mm-2950mm) M3 Main rule (250mm-2230mm)	1
2		Guide rule (20mm-450mm)	1
3		Guide rule (20mm-340mm)	1
4		Guide rule (20mm-155mm)	1
5		Pin	1
6		Magnetic probe	1
7		Lengthen probe	1
8		8mm probe	1
9		10mm probe	1
10		12mm probe	1
11		14mm probe	1

NO.	PICTURE	INTRODUCTION	QTY.
12		15mm probe	1
13		16mm probe	1
14		17mm probe	1
15		18mm probe	1
16		19mm probe	1
17		20mm probe	1
18		21mm probe	1
19		22mm probe	1
20		24mm probe	1
20		25mm probe	1
21		26mm probe	1
22		28mm probe	1

| NO.	PICTURE	INTRODUCTION	QTY.
23		90°probe connector	1
24		Mini-taper	1
25		Middling-taper	1
26		Grand-taper	1

Chapter Four: User manual
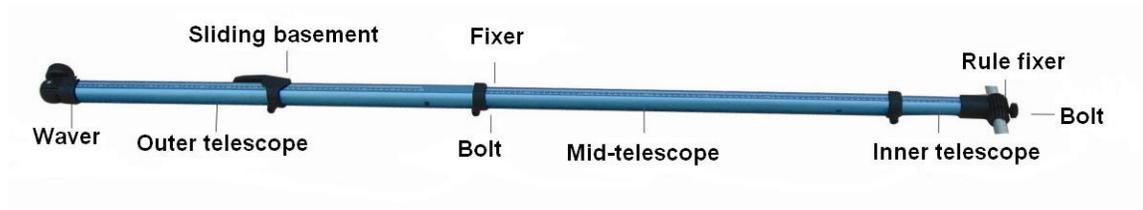
I. Distance between 250~1140mm（M3:250~900mm）.
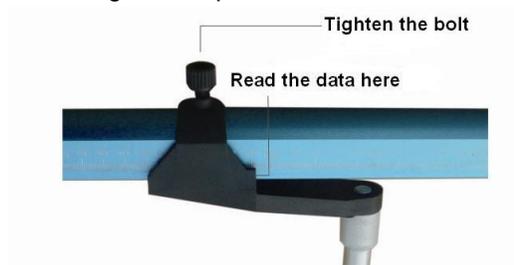   If the measuring distance is in the range of 250mm-1140mm（M3:250~900mm）:
    i.   Open the box, take out the "Main rule",
    ii. Chose a "Guide rule" and "Probe" according to the height and the hole/nut. Insert the "Probe" into the small scale end of the "Guide rule". Aim the probe towards the to-be-measured points.
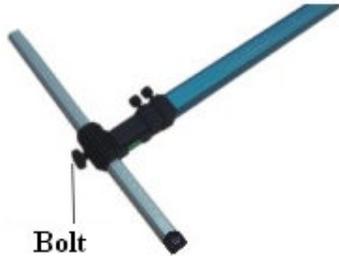

    iii. Screw down the "Pin" into the "Sliding base" of the "Main rule".
    iv. Put the "Probe" and the "Pin" into the two points of the measuring distance (the diameter of the measuring hole should be≤14mm). Observe the gradienter, adjust the height of the "Guide rule". Tighten the bolt when the bleb is in the middle.
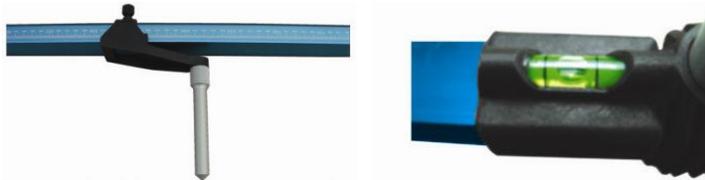
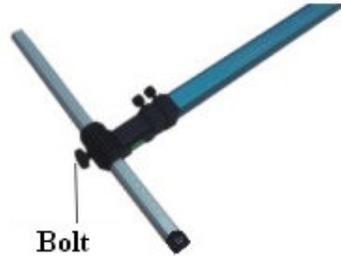   v.   Horizontal distance reading: as the picture .

    vi. To calculate the height between the two points. like the picture shows:
         $h_。 = X-10-Y$ For example: X=140mm; Y=150mm;
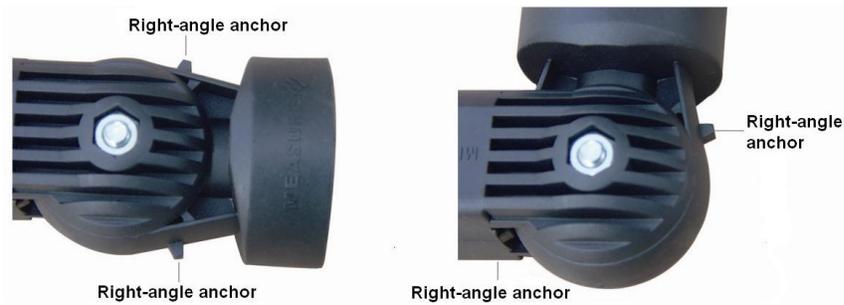 $h_。 = 140-10-150 = -20mm$. The height distance between the two holes is 20mm.
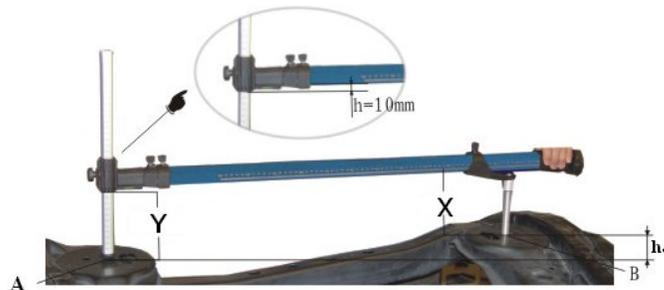
II. Distance between 1140~2050mm（M3:900~1570mm）.

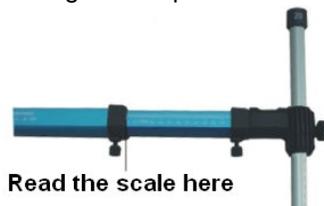   If the measuring distance is in the range of 1140 mm -2050mm (M3:900 mm -1570mm):

  i.   Open the box, take out the "Main rule",

  ii.   Chose a "Guide rule" and "Probe" according to the height and the hole/nut. Insert the "Probe" into the smaller scale end of the "Guide rule". Aim the probe towards the to-be-measured points.

Bolt

  iii.   Insert the "Magnetic probe" into the "Waver"，and then rotate it until reach the "Right-angle anchor". Then adsorb the "Magnetic probe" into the measuring point.


  iv.   Draw out the "Mid-telescope" rule and then tighten the bolt of the "outer telescope" rule.

  v.   Observe the gradienter, adjust the height of the "Guide rule". Tighten the bolts when the bleb is in the middle.

  vi.   Horizontal distance reading: as the picture.

Read the scale here

  vii.   To calculate the height between the two points. like the picture shows:

      $h_。$ =X-h (h=88mm). For example: X=110mm;

      $h_。$ =110-88=22mm. The height distance between the two holes is 22mm.
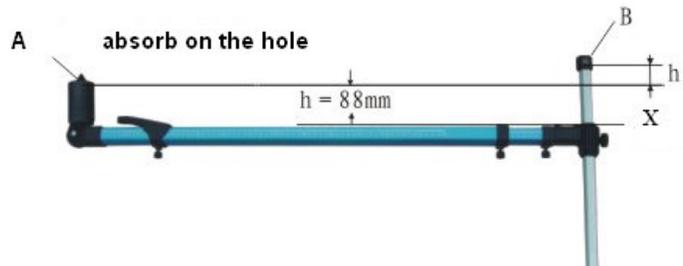
III. Distance between 2050~2950mm (M3:1570~2230mm).

    If the measuring distance is in the range of 2050mm-2950mm:

  i.   Open the box, take out the "Main rule",

ii.　　Chose a "Guide rule" and "Probe" according to the height and the hole/nut. Insert the "Probe" into the smaller scale end of the "Guide rule". Aim the probe towards the to-be-measured points.

Bolt

iii.　　Insert the "Magnetic probe" into the "Waver"，and then rotate it until reach the "Right-angle anchor". Then adsorb the "Magnetic probe" into the measuring point.

Right-angle anchor

Right-angle anchor

Right-angle anchor

Right-angle anchor
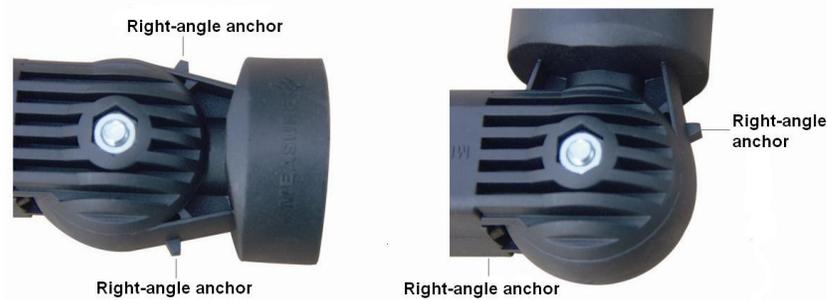
iv.　　Draw out the "Mid-telescope rule" until the "Telescope anchor" pop up; draw out the "Inner telescope rule" according to the measuring distance.

v.　　Observe the gradienter, adjust the height of the "Guide rule". Tighten the bolts when the bleb is in the middle.

vi.　　Horizontal distance reading: like the picture shows.

Telescope anchor flip out　　　　　　Read the scale here

vii.　　Same with approach: (II, vii)

IV.　To get across a barrier.

If the barrier between the two point is higher than 90mm, the "Lengthened probe" will be used. The method of horizontal distance reading is the same. And the method of calculating the height between the two points is the same with approach: (II, vii).

h。=X-h (h=148mm)　h=88+60=148mm.

60mm — Lengthen probe
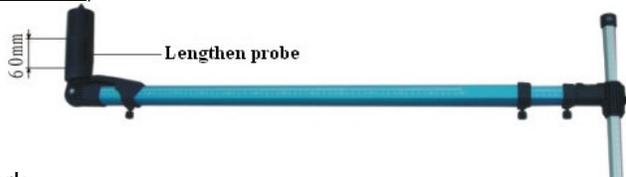
V.　Finsh the work.

Compare the auto dimension with the original data. Record the data which will guide your work during straightening work. Then clean the rule and put it back into box.

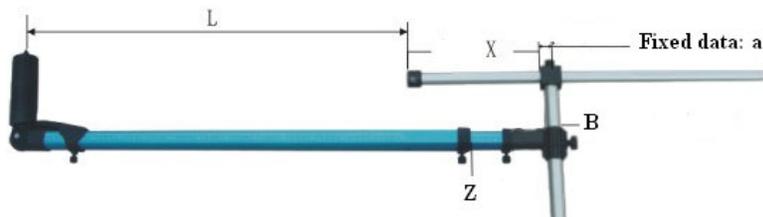Remarks: Measure is equipped with an extra "90°rul e connector", ensures all direction compare measuring.

90°rule connector

Horizontal distance reading: as the picture shows. Read the date of X,Y. Calculate the data of "L":

L=Z-X-a (a=15mm).

If the "Probe" is heading to right hand: L=Z+X+a (a=15mm).

To calculate the height between the two points.

h。=B-h (h=88mm or 148mm just like approach "II vii")
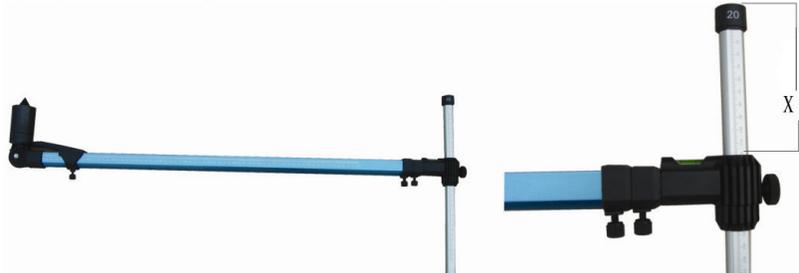
Chapter Five: How to use probes and tapers

I. 8~28mm "Probe".

   i. How to read the horizontal distance: just read the "Main rule".

   ii. How to calculate the height distance between the two points: the same with approach "II vii".

      a) If use the "Magnetic probe": The "Rule" scale "X1" minus the length of Magnetic probe (88mm) equals the height between the two points.


      b) If equipped with lengthened magnetic probe, the "Rule" scale "X_1" should minus 148mm (the length of one "Lengthen probe" is 60mm), it equals the height distance between the two points.

Lengthen probe

II. About Tapers.

   i. How to read the horizontal distance: just read the "Main rule".

   ii. How to calculate the height distance between the two points ($h_。$): When using tapers instead of probes, the way of calculating is different. The diameters of the holes are different, so reading from the "Guide rule" is not exactly. If want to measure the distance exactly to 1~2millimeter，we need to use a ruler to measure the distance between the hole plane to the scale where the "Guide rule" should be read. So we get the data "X_2". Calculate according to the formula:
$h_。 = X_2 - h$ (h=88mm). For example: X_2=75mm, $h_。$ =75-88=-13mm
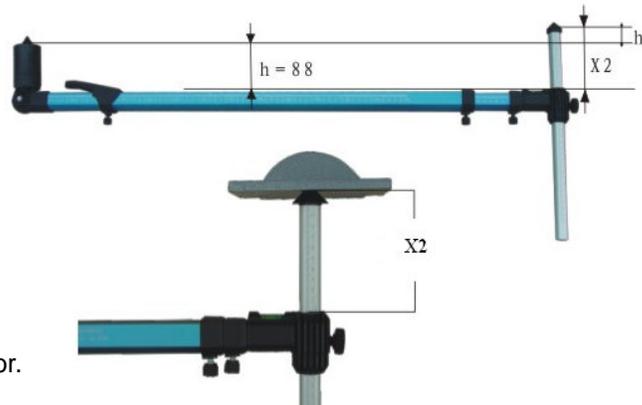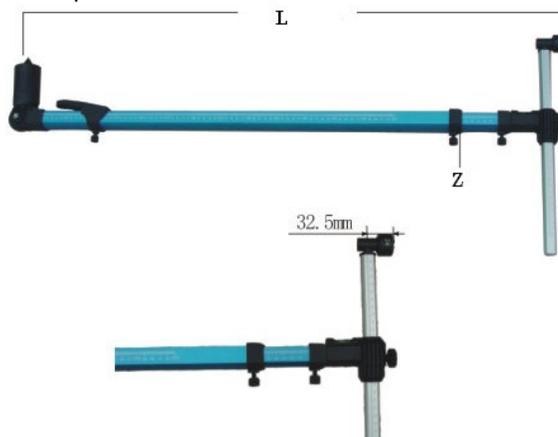

III. 90°probe connector.

   This "90°probe connector" is designed for measuring two points which are on two perpendicular planes. See the picture. When calculating the height distance between the two points, calculate with the formula: $h_。 = X_1 - h$ (X_1 can be read directly on the rule, h=93mm).

   Remarks: h=93mm here, because we add a "90°probe connector", it should be 88mm+5mm=93mm.

   i. How to read the horizontal distance: when the "90°probe connector" is connected with a

8~28mm probe, see following pictures. Calculate with formula: L=Z-32.5mm (32.5mm is a fixed data, see picture). For example: the main rule reads 1000mm, the real distance between two points is: L=1000.00-32.50=967.50mm

ii. When the probe heading towards right like the picture shows, use the formula: L=Z+32.5mm (32.5mm is a fixed data, see picture). For example: the main rule reads 1000mm, the real distance between two points is: L=1000.00+32.50=1032.50mm
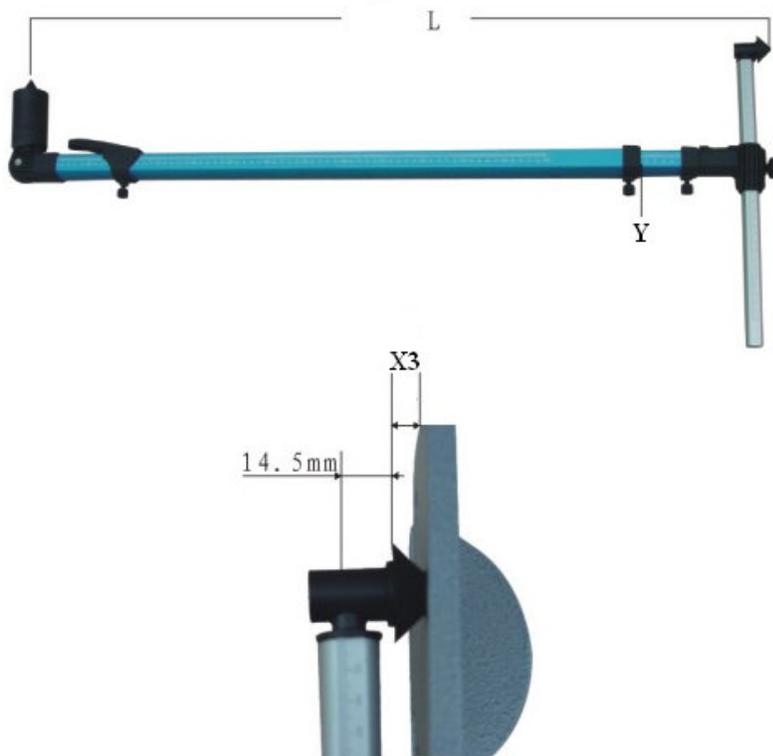
iii. When a "90°probe connector" is connected with a "Taper", we need to measure the hole plane to the scale of the "Guide rule" where should be read. See pictures below. L=Y-X-14.5 (14.5mm is a fixed data like the picture show). For example:the mail rule reads 1000mm and X=6mm. Then L=1000.00-14.50-6.00=979.5mm
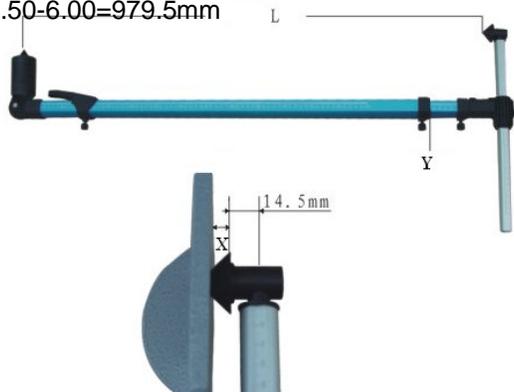
iv. If like the pictures below, the formula should be: $L=Y+X_3+14.5$

For example: Y=1000mm, X_3=6mm, L=1000+6+14.5=1020.5mm

Chapter Six: Some examples of the Measure

	Auto frame measurement	

	A、B、C pole measurement.	

	The engine room and baggage boot measurement.	

	Auto chassis Measurement.	

	Wheelbase measurement.	
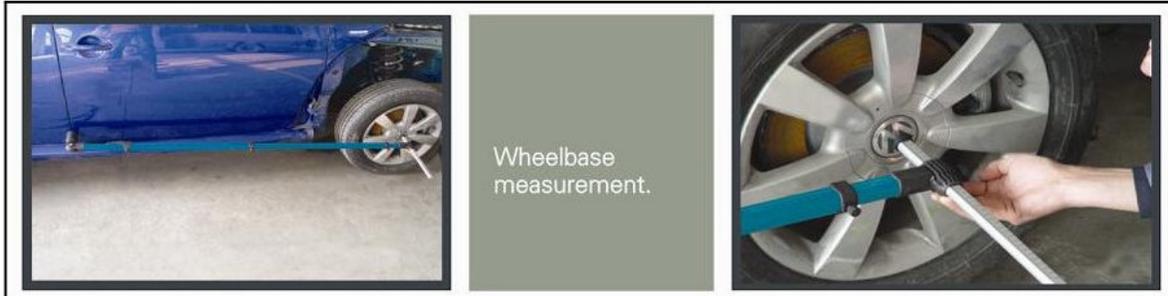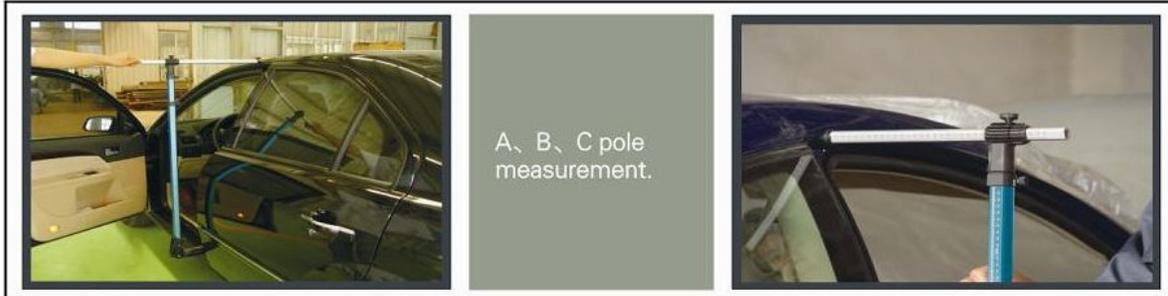
Chapter Eight: Certificate of quality & Guarantee card

<div style="border:3px double black;padding:20px;">

Certificate of quality

The MEASURE system is quality passed. Hereby certificate.

QUALITY **PASSED**

Model：_____

Number：_____   **Checker**：_____

</div>

Chapter Nine: About the Guarantee

We sincerely thank you for using MEASURE system. It is our great obligation to provide you high-quality products and after-sale service, and fully protect your consumer rights. Thus, we will implement the following standard warranty terms of service, according to state's relevant provisions.

I.   Service Guarantee:

We guarantee all our MEASURE system "Repair freely within one year, guarantee repairing support for whole life".

II.   Exchange guarantee:

Within a period of one month since buying, we will exchange the same model of products only in the circumstance of bad quality of the products itself.

III.   Repairing Guarantee

i.   Under the circumstance of normal usage, we guarantee one year of repairing guarantee free of charge and whole life repair (only cost will be collected).

ii.   If the appearance of the products occurred to be damaged or changed by usage, the guarantee terms will not cover.

iii.   The "Certificate of quality" and "Guarantee card" will be required when the customers ask for guarantee service.

IV.   Under the following circumstance the "Certificate of conformity" will be out of validity.

i.   The user lost or alters the buying warrant or Certificate of conformity.

ii.   The products is miss-used or damaged by force majeure like Flood, Fire, Earthquake and Lightning Strike;

iii.   The products is not maintained, stored or installed according to the User manual;

iv.   The products has been tear down or refit by people without warranty;

v.   The appearance of the product is totally tear down or damaged.