
OUTLINE

1 GENERAL PROVISION

- This instruction is one integrated part of the products. You must carefully read the warnings and instructions described in this manual before use the product. All these warnings and instructions will provide you with the important information regarding safe usage and maintenance.
- Properly keep this manual for the reference in the future.
- Careful reading this instruction manual can lead the operator to use the machine correctly and in this case the dealer will provide long-term and effective after-sales services. The producer and dealers will not be responsible for the problems caused by any incorrect operation.

- **Danger**

The process can directly cause the serious damage or death.

- **Warning**

The unsafely process can cause the serious damage or death.

- **Note**

The unsafely process can cause the serious damage or death.

Before connect the power supply and air supply, you should carefully read he manual. Keep the operation

Wheel Balancer User Manual

notes and warning notes on the manual and machine. The related information data and the documents and data in the sales process should be carefully kept. Different machine serial numbers will be equipped with different instruction manual. The operators should pay attention to the effectiveness if the manual.



Danger

You must use the machine in accordance with the requirements specified in the manual. The producer and dealers will not be responsible for the problems caused by any incorrect operation.



Warning

The machine must be operated by the professional personnel. The operator must understand the manual and have taken the professional training. If the nonprofessional personnel operate the machine, it will cause the dangerous of personal injuries and also lead to the damage to the tire and rim.



Notes

The pictures in the manual all comes from the original design structure of the machine. The structure showed in the pictures may be different from the actual structure of the machine. The machine is made for the purpose to give guidance to the personnel with some basis of mechanical and electrical skills. Therefore, the basic processes such as how to fix the bolts may be

omitted. Do not try to letting the personnel without experience operate the machine. If you have any requirement related to this, please ask the dealer to provide the help.

Product main characteristic

1	This balancer software has completely independent intellectual property rights.
2	Double side calibration easy and fast.
3	The shaft can be do self calibration through software, reduce tolerance.
4	The shaft can be idle without any request of wheel weight.
5	Calibration with 14-18 inch wheel
6	Customer can choose 5/10/15g unbalance hide.
7	Self inspection, assistant customer solve technique problem.
8	Adjustable LED light suitable for all kinds of scene.
9	Gram (g) and Ounce (oz) transform; Inch and millimeter transform
10	Operating easy
11	OPT function
12	The software is possible for future update.
13	Main board and display board are integrated easy for after service.
14	Automatic width gage can be installed as optional accessory
15	Automatic adjust balancing speed according the weight of wheel.

Part 1 Main Intruction

1. Technique Data

- Maximum wheel weight:65kg
- Motor power:220w
- Power:110/50HZ
- Balance accuracy: $\pm 1g$
- Balance rotate speed: 200r/min
- 1 standard mode、6 ALU mode、1 Motorcycles mode
- Balance period: 8s
- Rim diameter 10 " ~24 " (256mm~610mm)
- Backside space: <240mm¹
- Working noicy: $\leq 70db$

3. Working condition

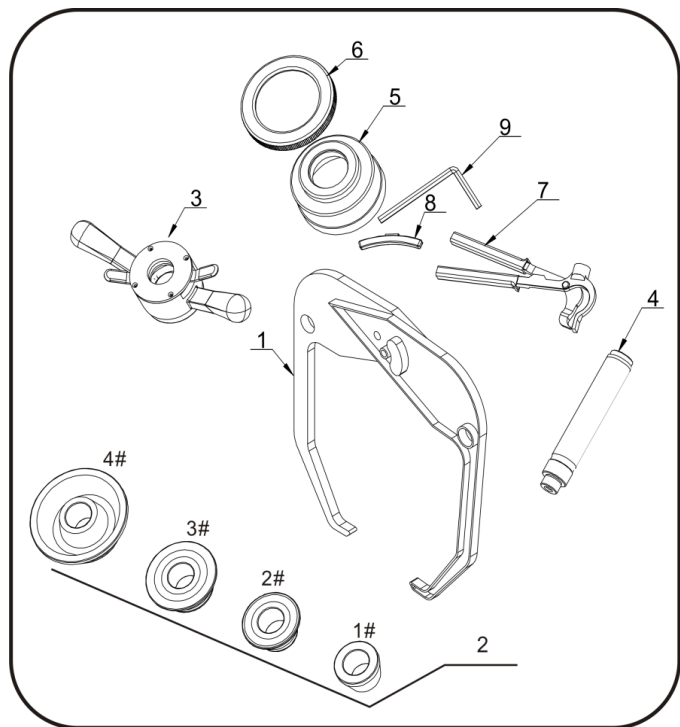
- Temperature: -5~50°C
- Height: $\leq 4000M$
- Relative humidity

Part 2 Installation

1. Unpackage Inspection

According to the actual accessories list check if any missing or damage, if any problem,please contact with supplier.

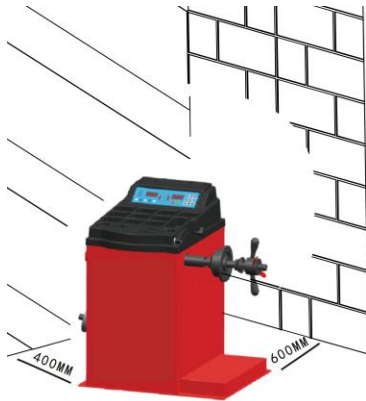
No	Name	Qt
1	Width Gauge measure	1
2	Cone 1	1
	Cone 2	1
	Cone 3	1
	Cone 4	1
3	Quick nut	1
4	Screw shaft	1
5	Reverse Bowl(Optional)	1
6	Reverse Bowl rubber (Optional)	1
7	Weight hummer	1
8	100g Weight	1



9	socket head wrench	1
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2. Mechanical installation

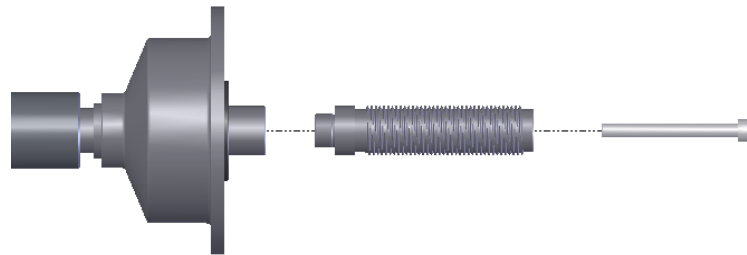
Machine need to be fixed on the smoothly ground in order to avoid big tolerance.



3. Machine must fixed on the ground by big screw.

4. Shaft installation

Use the M10×160 inner hexagon socket screw which is in the accessory box and install the shaft on the main shaft and screw down.





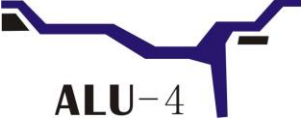

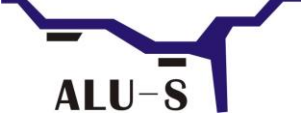



Attention: Please do not let the shaft screw slide together with the wheel when unload the wheel from machine in order to avoid damage the screw

Display Panel



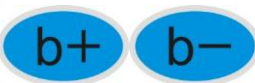

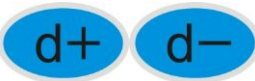







1. Wheel innder display window
2. Inner unbalance position display light
3. Wheel Outside display window
4. Outside unbalance position display light
5. Balancing mode display,This wheel balancer has below balancing mode for use:

Diagram	Balance mode	Operating	Explain
 DYN	Standard	<ol style="list-style-type: none"> 1. Power on 2. Input a,b,d value 3. Start,after turning show result 	Clamping the weight on the wheel edge by both side
 ALU-1	ALU1	<ol style="list-style-type: none"> 1. Power on 2. Input a,b,d value 3. Press ALU button and mode display illume. 4. Start,after turning show result 	Paste the weight on both side of wheel hub
 ALU-2	ALU2	<ol style="list-style-type: none"> 1. Power on 2. Input a,b,d value 3. Press ALU button mode light illume 4. Start,after turning show result 	Clamping weight inside at rim edge,paste weight inside the rim
 ALU-3	ALU3	<ol style="list-style-type: none"> 1. Power on 2. Input a,b,d value 3. Press ALU button mode light illume 4. Start,after turning show result 	Paste weight both inside and outside the rim
 ALU-4	ALU4	<ol style="list-style-type: none"> 1. Power on 2. Input a,b,d value 3. Press ALU button mode light illume 4. Start,after turning show result 	Clamping weight inside at rim edge,paste weight outside the rim
 ALU-5	ALU5	<ol style="list-style-type: none"> 1. Power on 2. Input a,b,d value 3. Press ALU button mode light illume 4. Start,after turning show result 	Paste weight inside edge of rim and clamping weight outside the edge of rim
 ALU-S	ALUS	<ol style="list-style-type: none"> 1. Power on 2. Press ALU button mode light illume 3. Input ①ai ②ae ③ d value 4. Start,after turning show result 	According the position advicing light paste weight at appoint unbalance position

	MOT for motorcycle	<ol style="list-style-type: none"> 1. Power on 2. Input a,b,d value 3. Press ALU button activate Motorcycles mode 4. Start,after turning show result 	Paste weight in the middle of rim
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(H) Button function

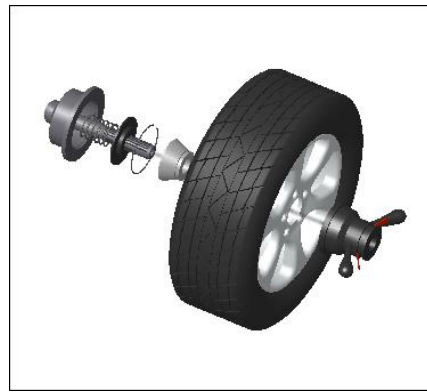
Diagram	Button instruction	Diagram	Button function instruction
	Distance between machine to the wheel		optimization function
	Input width of rim		Balance mode selection
	Input diameter of rim		Combination/Split
	Recalculate balance result		Actual unbalance value display
	Start		Cancel or stop

Part 3.Operating

1. Standard mode operating

1) Wheel installation

★Remove all weight on the wheel, check the air pressure and inspect the central hole condition before install the wheel on the machine. Choose a best way install the wheel,there are 2 ways do the installation:



Attention: Please do not let the shaft screw slide together with the wheel when unload the wheel from machine in order to avoid damage the screw

- 2) Switch on machine
- 3) Input a,b,d value manually
 - A value input: Pull out the gauge read the value from on the gauge, input the data according button **a+** **a-**;
 - **If machine with automatic gauge, pull out the gauge hold it 4 sec, a value will automatic display on the monitor, if result not exact,adjust the value according **a+** **a-****
 - b value input: Use the width measurement gauge in the accessory box, do according the fig 2 read out the result and manually press button **b+** **b-**
 - D value: Read directly from the rim and input or modify according button **d+** **d-**

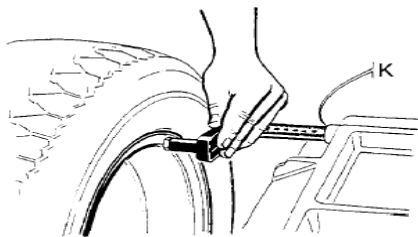


fig. 20b

Fig 1

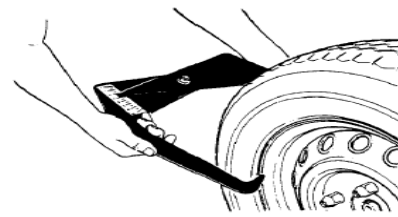


fig. 20a

Fig 2

- 4) Pull down protect cover and press **START** button.
- 5) Monitor display the unbalance weight value,press **FINE** show the actual unbalance value.
- 6) Turning wheel anticlockwise direction until the outside unbalance position light fully illume, the unbalance weight outside the wheel is at 12 o'clock position, put the weight accordingly, see fig 3

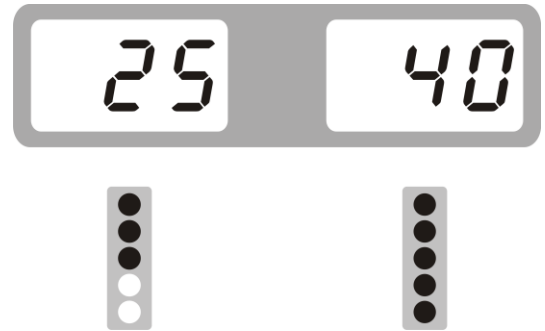
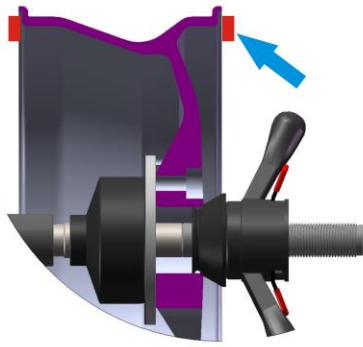


Fig3

7) Turning the wheel clockwise direction until the inner unbalance position light fully illuminate, the unbalance weight inside the wheel is at 12 o'clock position, put the weight accordingly see fig 4

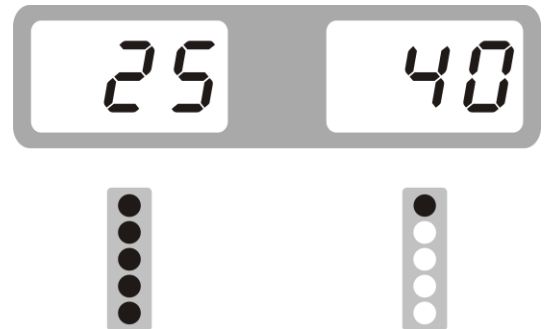
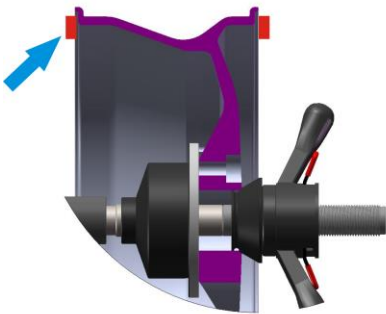


Fig 4

8) Press **START** button after all weight in position, the monitor will show as fig 5 after put all weight on the right position



Fig 5

2. ALU-2 Operating (Paste weight on the rim)(ALU-1,ALU-3 operating are same, only paste the weight in different position)

- 1) Please do the same like upper side description input a,b,d value.
- 2) According the shape of rim press **ALU** choose ALU2 mode;
- 3) Pull down the protect cover and press **START** button running the wheel.
- 4) The monitor show unbalance weight by both side, and press **FINE** check the actual unbalance value.
- 5) Push the wheel anticlockwise direction slowly until the outside unbalance light are illumine, the unbalance weight position locate at 12 o'clock (6H off) or 6 o'clock position (6H on),the weight paste

position selection should according below photo show, paste the weight on the unbalance weight position outside the rim. See fig 6

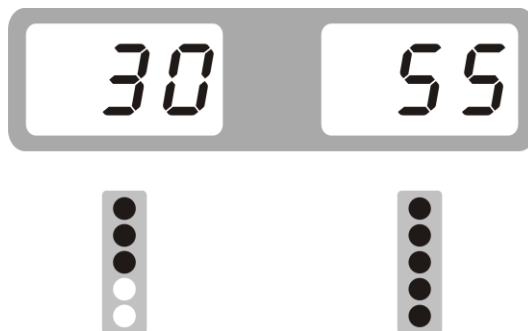
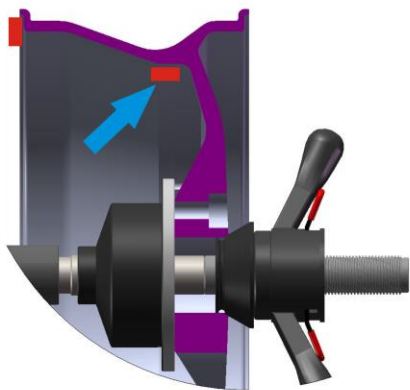


Fig 6

6) Push the wheel anticlockwise direction slowly until the inside unbalance light are illume, the unbalance weight position locate at 12 o'clock (6H off) or 6 o'clock position (6H on), the weight paste position selection should according below photo show, paste the weight on the unbalance weight position outside inside the rim. See fig 7

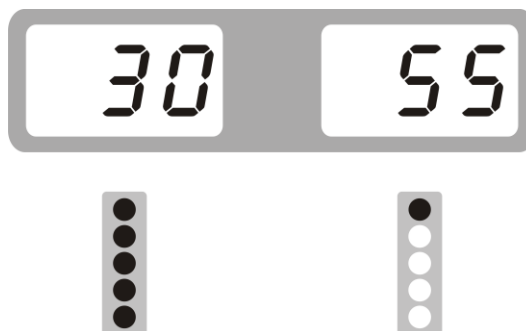
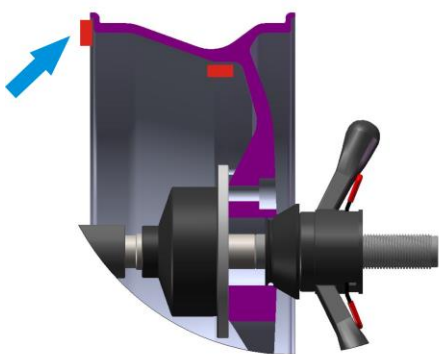


Fig 7

7) Press **START** button after all weight in position, the monitor will show as fig 8 after put all weight on the right position, means balancing successful



Fig8

3. ALU—S Balance mode

★This is a very special mode suitable for special rim, if the normal ALU-1 and ALU-2 mode can not guarantee the balance accuracy, ALU-S mode must use.

1) Input aI, aE, d value

- aI distance value: Pull out the gauge according fig 9 read the value from the gauge and input value through **a+** **a-**
If your machine with automatic gage, pull out the gage and hold on 4 secn, the value will display automaticly,modify the value through **a+ **a-** if the value inaccuracy.**
- aE distance value: Pull out the gauge according fig 9 read the value from the gauge and input value through **a+** **a-**
If your machine with automatic gage, pull out the gage and hold on 4 secn, the value will display automaticly,modify the value through **a+ **a-** if the value inaccuracy.**
- D value: Read directly from the rim and input or modify according button **d+** **d-**

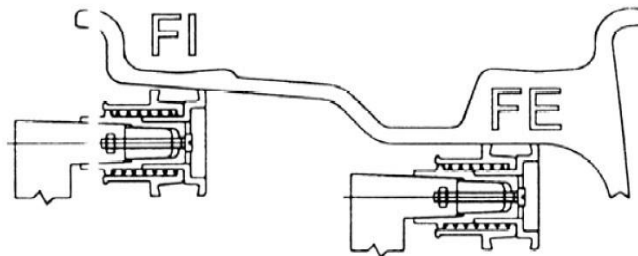


Fig 9

2) Pull down the protect cover and press **START** button shaft start running.

3) 2 types of unbalance result operating way

3. 1 Set up select SLC to OFF

3.2 Push the wheel to anticlockwise direction slowly until the outside unbalance indicator light illumne, the rim unbalance position located at 6 o'clock position, select the weight paste it according the laser indicate line see fig 10

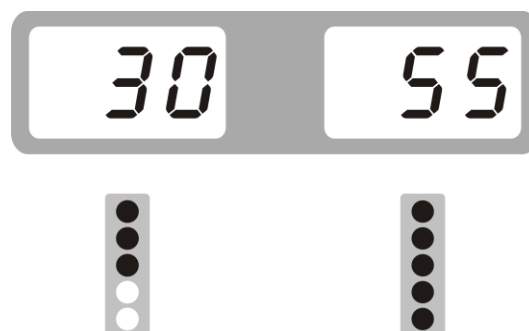
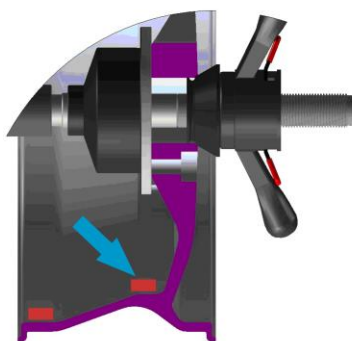


Fig 10

3. Push the wheel to anticlockwise direction slowly until the inside unbalance indicator light illuminate, the rim unbalance position located at 6 o'clock position, select the weight paste it according the laser indicate line see fig 11

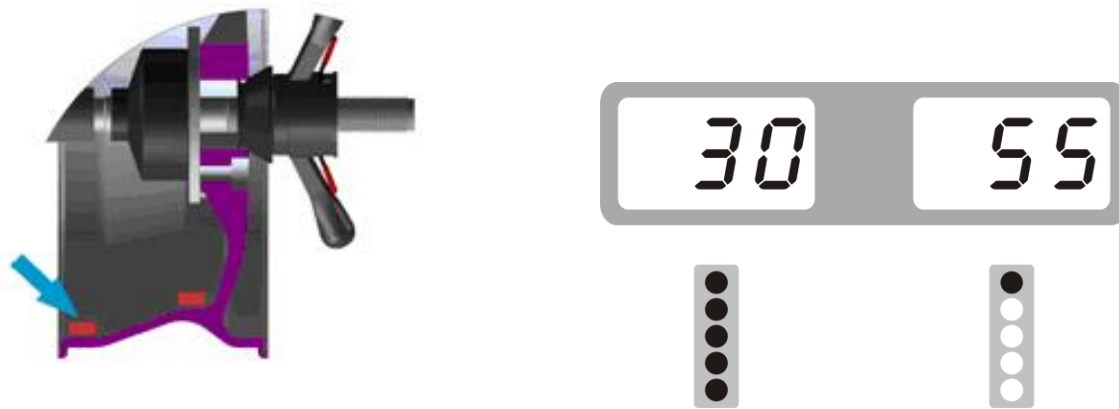


Fig 11

3.4 Press **START** button after all weight in position, the monitor will show as fig 12 after put all weight on the right position, means balancing successful



Fig12

4. Set up SLC ON

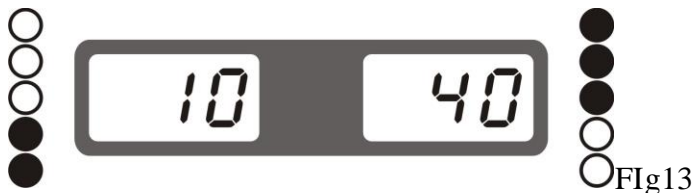


Fig13

4.1 Anticlockwise push wheel slowly until the outside unbalance indicator light all illuminate (Fig 14) ,



Fig 14

4.2 If your machine have automatic gauge, tear off weight put it on the head of gauge (Fig 15 16)

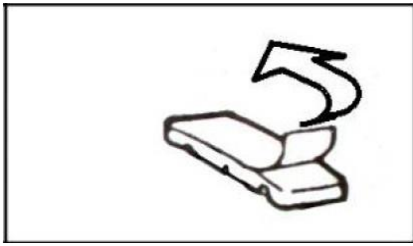


Fig 15

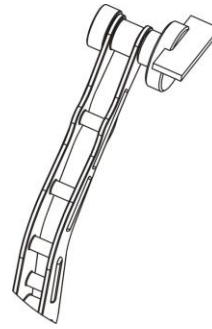


Fig 16

4.3 Pull out the gauge until the outside unbalance position display see Fig17



Fig 17

4.4 Paste the weight at outside unbalance position see Fig18

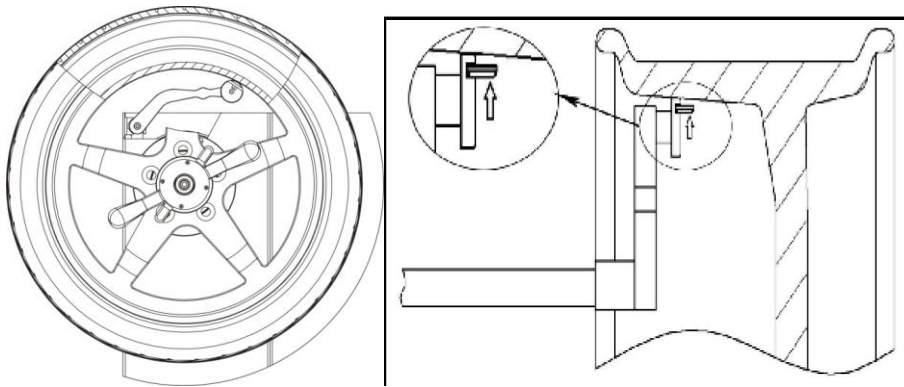


Fig 18

4.5 Anticlockwise push wheel slowly until the inside unbalance indicator light all illness (Fig 19)

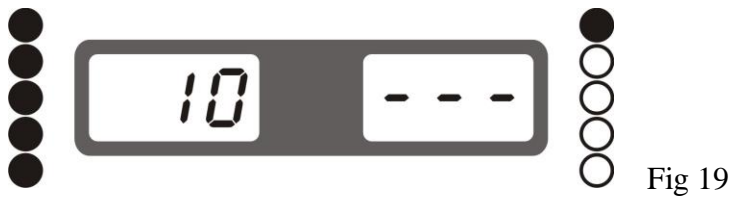


Fig 19

If your machine have automatic gauge, tear off weight put it on the head of gauge see fig 20



Fig 20

4.6 Paste the weight on the wheel see Fig 21

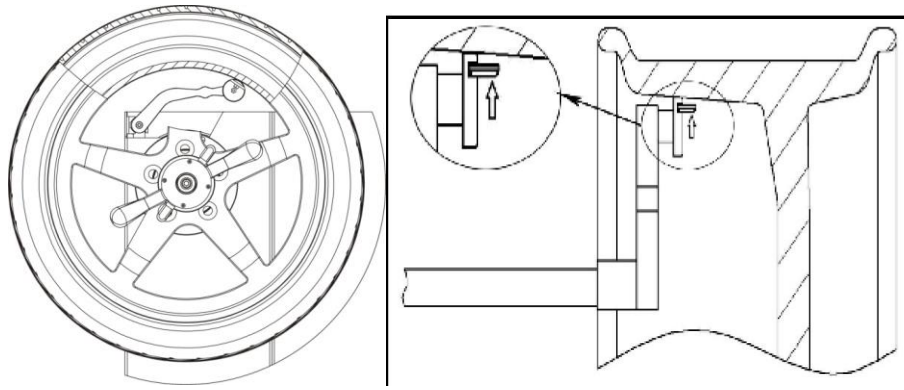


Fig 21

4.7 Pull down the protect cover after paste the weight to the at the right position, press **START** button, appear as fig 22 means the wheel balance finish.



Fig 22

5.ALU – S Balance split mode operating














1	Press F button under ALU-S mode have result	Display >	
2	Press button d+ d- input the rim spoke quantity, then press F button	Display >	
3	Stop one of the rim spoke at 12 O'clock position, press F button	Display >	
4	Anticlockwise turning the wheel slowly until the outside unbalance indicator light SP1 illuminate (Set up SLC position before do this operating decide where is the unbalance position)	Display >	
5	Anticlockwise turning the wheel slowly until the outside unbalance indicator light SP2 illuminate (Set up SLC position before do this operating decide where is the unbalance position)	Display >	
6	Put down the protect cover, press START button, the main shaft stop turning		
Operating successful			

Part 4 100g weight calibration








Remark: 100g weight must exactly correct, otherwise will affect the calibration result!

Install a wheel which both side can hold weight, input the wheel information to the machine



(Recommend size wheel width up to 5.7 inch, diameter 14 inch)




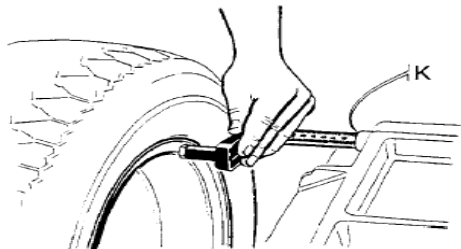


No.	Operating	Display
1	Press and hold button  and Press  button at the same time see display	
2	Put on protect cover, press  button, shaft begin to running, then stop see display	
3	Open protect cover, push wheel turning until display light for outside all on, then put 100g weight on top of wheel outside at 12 o'clock position, close protect cover press  button shaft begin to trun then stop, after stop see display	
4	Open protect cover push wheel turning until display light for inside all on, then put 100g weight on top of wheel inside at 12 o'clock position ,close protect cover press  button shaft begin to run then stop, after stop see display	
5	Display 3 second then back to main display automatic	
6	Remove 100g weight from wheel, press  button, shaft begin to run, after stop push wheel until inside display light all on, put 100g weight at 12 o'clock, press  wheel begin to run	
7	The 100g weight should stop at 6 o'clock position inside means the calibration for inside is correct!	
8	Remove 100g weight from wheel inside, press  button, shaft begin to turn, after stop push wheel until outside display light all on, put 100g weight at 12 o'clock, press  wheel begin to run again	
9	The 100g weight should stop at 6 o'clock position means the calibration for inside is correct!	

2. Distance gauge calibration

 + 	Display >	
Pull out the gauge until 0 position and hold the gauge press  button confirm	Display >	
Pull out the gauge until 15cm and hold the gauge press  confirm	Display >	
Self-Calibration successful		






3. Automatic diameter calibration

3.1 Install a wheel marked the wheel size, input the diameter through button   (eg, a 14 inch wheel, input 14 inch)

 + 	Display >	
Pull out the gauge until the edge of wheel holding	Operate >	 <small>fig. 20b</small>
 button confirm, means calibration finish	Display >	
Calibration successful		

Part 5 Function setting

This wheel balancer include below function, the user can select according their inquire. All function are acquiescent when out factory.

Press  button and press button  at the same time enter to function; press  and  button as modification, press  to next step.

Progress	Display	Function name	Function definition
1		Unbalance hiding	5/10/15g
2		Prompt tone	On/Off
3		Display brightness adjust	1-8 level
4		ALU mode inner gage head paste function	Display "OFF" means unbalance point at 12 O'clock; Display "ON" means the weight paste position
5		Big or small wheel selection	OFF/ON

Part 6 Protect hood setting

Press button and at the same time switch between two mode

No.	Display	Function	Selection Identification
1		Protect hood function "ON"	Put down protect hood machine shaft start rotate
2.		Protect hood function "OFF"	Press machine shaft start rotate

Part 7 Weight unit set up





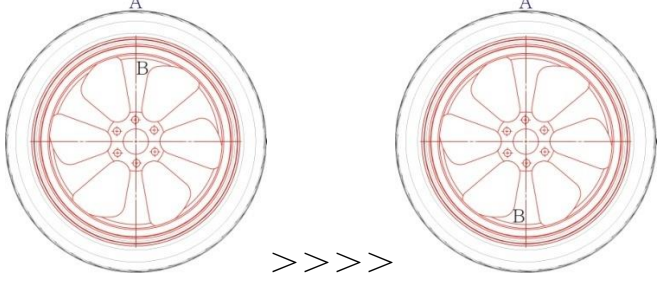


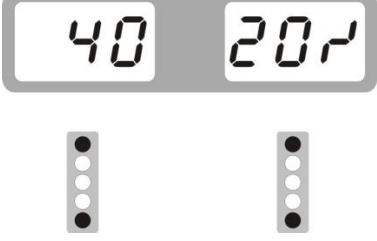
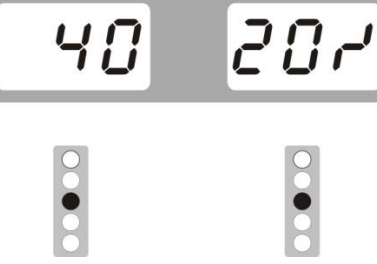
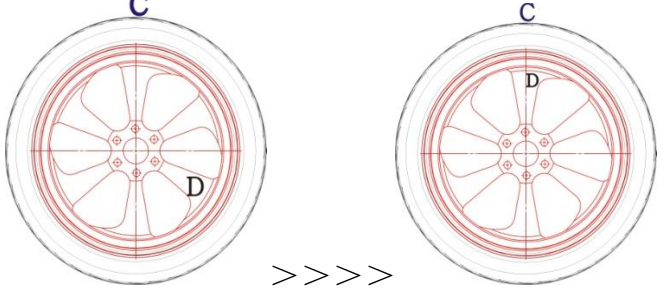

★Press and at the same time switch two weight unit

No.	Display	Function	Option definition
1		Weight unit	Weight result display as unit "g"
2		Weight Unit	Weight result display as unit "OZ"

Part 8 OPT Optimize program

This program use under the unbalance weight too big or rim have some structure damage
According the shape of rim chose the necessary install function and input the rim

Information

1	Press  button	Display >	
2	Pull down the protect cover press  button	Display >	
3	Marking on both tire and rim 180 degree position	Operating >	
4	Operating finish pull down the protect cover press  button	Display >	
5	Search and mark D position on the rim	Display >	
6	Search and mark D position on the rim	Display >	
7	Dismount the D and C position on the rim,mounting them together in one point.	Operating >	
8	Pull down the protect cover and press  button.	Display >	Unbalance weight reduce means successful

Part 9 Service

Machine need doing self-inspection or change damage part when show you below error information:

No	Display	1.Fault phenomenon; 2.Fault description	Solution
1		<ol style="list-style-type: none"> No rotate Rotated 	<ol style="list-style-type: none"> Check or change power board Check or change position sensor or computer board.
2		<ol style="list-style-type: none"> Wheel doesn't lock Position sensor 	<ol style="list-style-type: none"> Fasten wheels Check or change position sensor
3		<ol style="list-style-type: none"> Wheel without air inside Wheel's shape change out of machine standard range 	<ol style="list-style-type: none"> Inflation air to wheel Check wheel
4		<ol style="list-style-type: none"> Position sensor fault CPU problem 	<ol style="list-style-type: none"> Check or change position sensor Check or change CPU board
5		<ol style="list-style-type: none"> Switch fault CPU problem 	<ol style="list-style-type: none"> Check or change switch Check or change CPU board
6		<ol style="list-style-type: none"> Power board fault CPU problem 	<ol style="list-style-type: none"> Check or change power board Check or change
7		<ol style="list-style-type: none"> Customer data lost CPU problem 	<ol style="list-style-type: none"> Do calibration again Check or change CPU board.
8		<ol style="list-style-type: none"> Weight calibration without 100g weight CPU or Power board problem 	<ol style="list-style-type: none"> Do weight calibration again Check or change CPU board Check or change power board
9		<ol style="list-style-type: none"> Switch problem CPU problem 	<ol style="list-style-type: none"> Check or change switch Check or change CPU board
10		<ol style="list-style-type: none"> CPU board crash Power board problem 	<ol style="list-style-type: none"> Check or change switch Check or change power board
11		<ol style="list-style-type: none"> Key locked Piracy software 	Contact with supplier