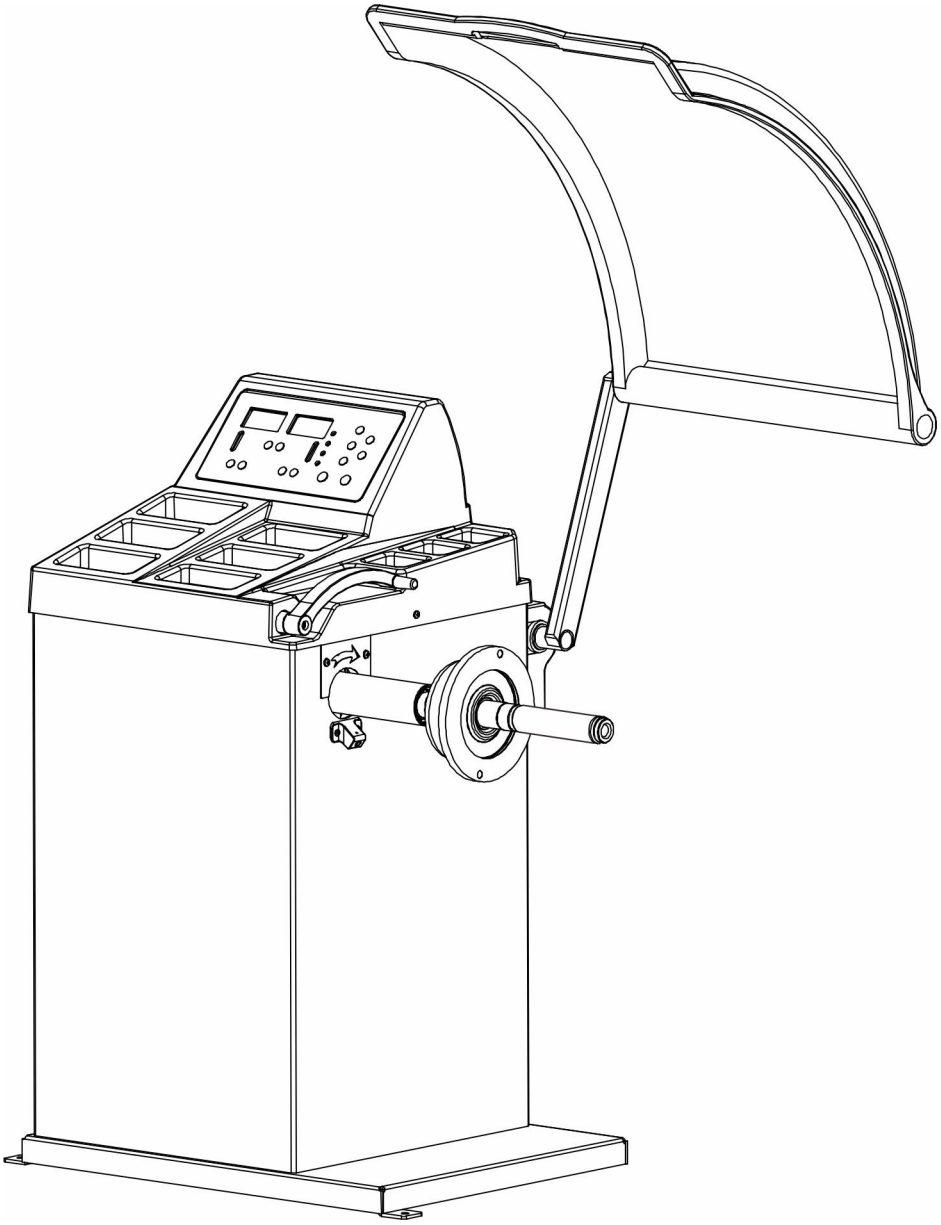
Wheel Balancer Manual

2025



Warning

- This manual is a necessary part of the product. Please read carefully.
- Keep the manual for later use when maintaining the machine.
- This machine can only be used for the designated purposes. Never use it for any other purpose.
- The manufacturer is not responsible for the damage incurred by improper use or use other than the intended purpose.

Precaution

- The equipment can only be operated by qualified personnel with special training. Modification to any components or parts, or use the machine for other purpose without either obtaining the agreement from the producer, or observing the requirement of the instructions may lead to direct or indirect damage to the equipment.

★ The equipment should be installed on the stable ground, not wooden pallet, otherwise not accurate.

- Keep the back panel 0.6M away from the wall for good ventilation. Enough room should be left on both sides for convenient operation.
- Do not put the equipment a place with high temperature or moisture, or near the heating system, water tap, air-humidifier or chimney.
- Avoid lots of dust, ammonia, alcohol, thinner or spraying binder.
- People who are no operating the machines should be kept away when it is used.
- Use appropriate equipment and tools, protective and safety equipment, including eyeglasses, earplugs and working boots.
- Pay special attention to the marks on the machine.
- Do not touch or approach the moving parts by hand during operating.
- Do not remove the safety device or keep it from working properly.

Contents

1. General

1.1. Technical data：

- Max wheel weight：65kg
- Power：0.2kw
- Power supply: 220v;230v;240v;110v;50hz;60hz
- Balancing accuracy：±1g
- 6 balancing modes: DYN, ALU1, ALU2, ALU3 , ST
- Balancing speed：200r/min
- Cycle time：8s
- Rim diameter：10〃～24〃(256mm～610mm)
- Sound pressure level during work cycle：<70db

1.2. Features：

- Balance car wheel or motorcycle wheel according to different mode setting.
- Motorcycle adaptor is default under motorcycle mode.
- Statistic and dynamic balancing, ALU-programs for alloy rims or special shaped
- Self diagnoses, easy to find the problem
- Apply to steel and aluminum alloy rim

1.3. Working environment：

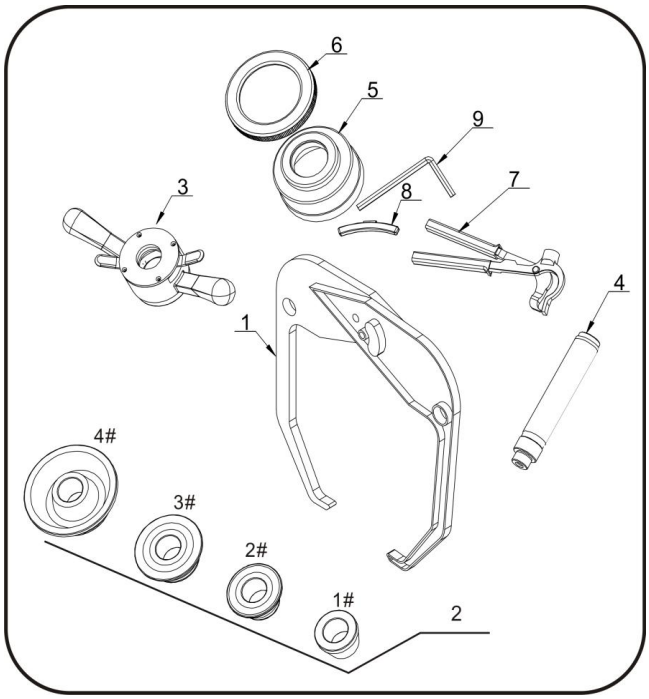
- Temperature：5～50℃
- Height：≤4000m

2． Machine assembly

2.1. Unpack

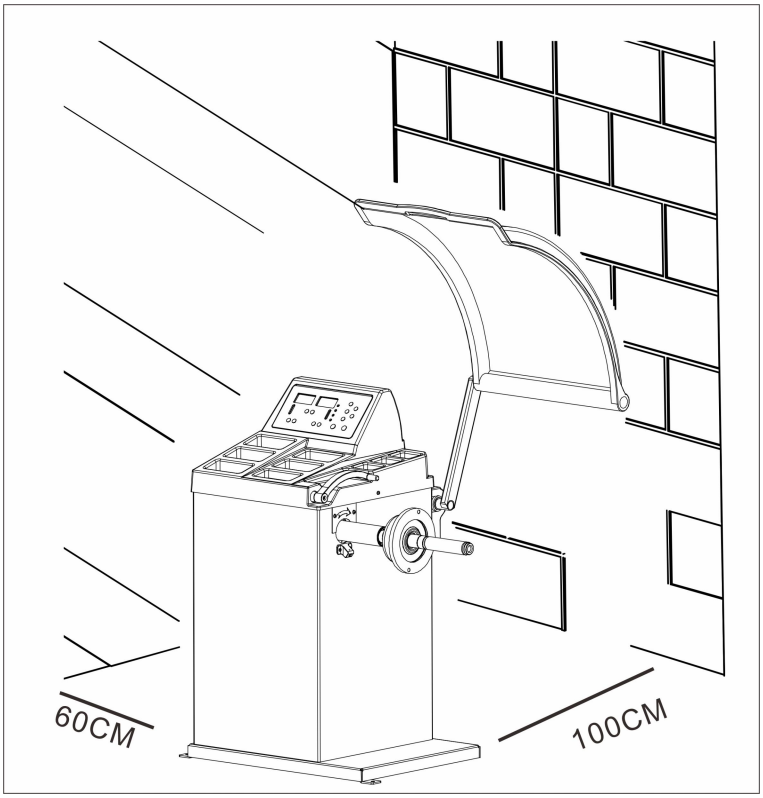
Unpack the carton, check if missing any spare parts.

No.	Item	Qty
1	Width gauge	1
2	Conic No.1	1
	Conic No.2	1
	Conic No.3	1
	Conic No.4	1
3	Quick release nut	1
4	Thread hub	1
5	Bowl for quick nut	1
6	Pad for bowl	1
7	Balancing hammer	1
8	100g weight	1
9	Allen wrench	1



2.2. Install

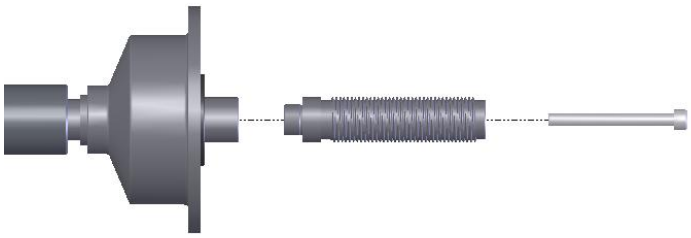
- The equipment should be installed on the stable ground, not wooden pallet, otherwise not accurate.
- Keep the back panel 0.6M away from the wall for good ventilation. Enough room should be left on both sides for convenient operation.



2.3. Fix balancer to floor with screws on the bottom.

2.4. Install adaptor

The wheel balancer is supplied complete with cone type adaptor for fastening wheel with central bore. (see below picture)

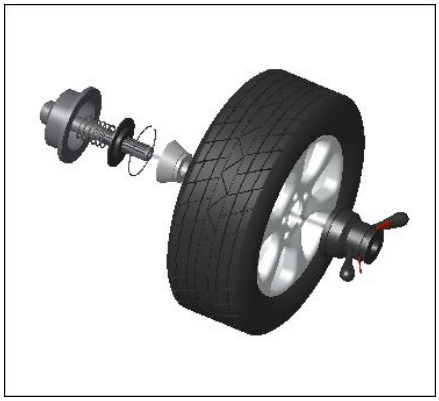


2.5. Install wheel

Clean wheel, take off counterweights, check pressure of wheel.

Choose the way of installation according to the type of wheel.

Main shaft-wheel—suitable cone(small head towards inside)—quick handle nut

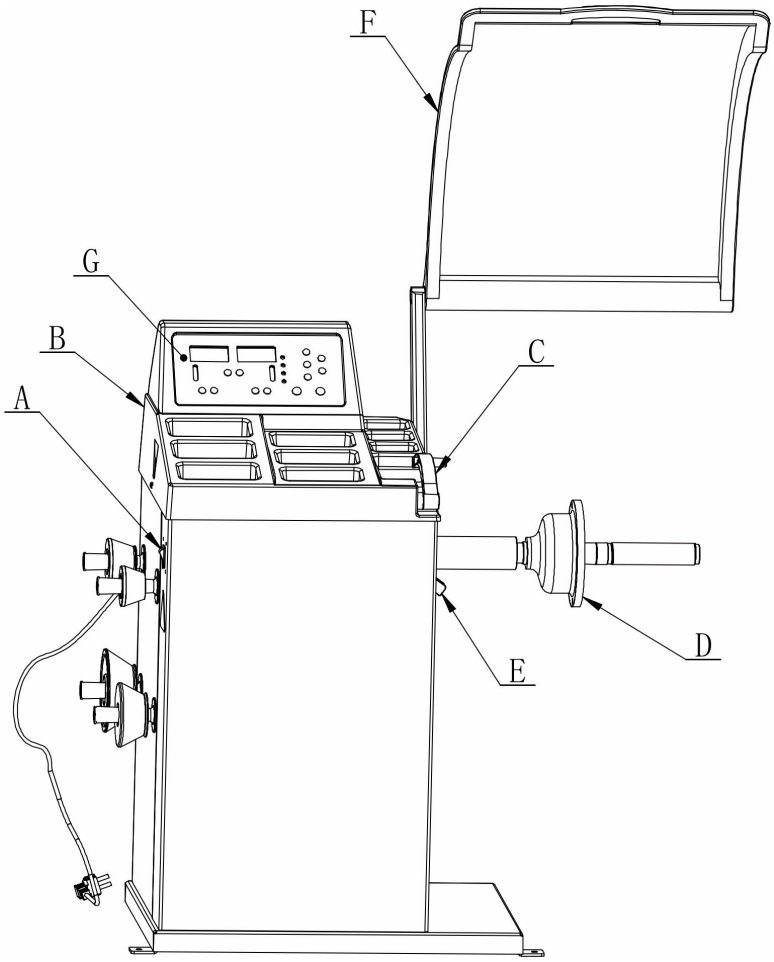


Main shaft-suitable cone(big head towards inside)—wheel—quick handle nut

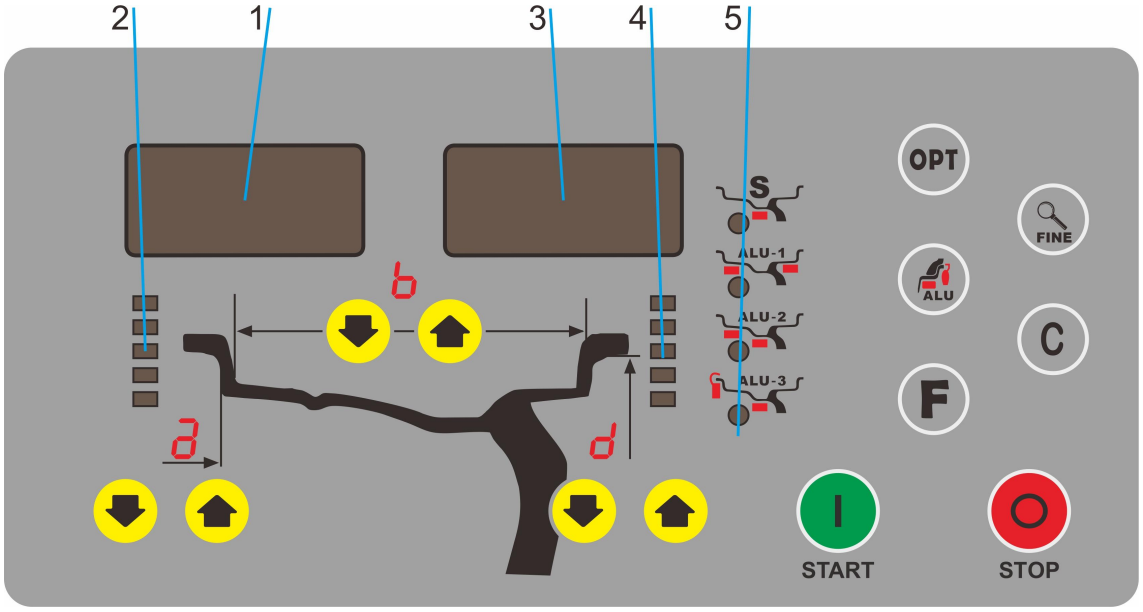
Attention：May add a wheel, and hold the wheel to help install the thread hub. When installing or taking off wheel, do not let wheel move on the shaft, to avoid scratching shaft.

3．Controls and components

No.	Item	Standard/Optional
A	Switch	S
B	Head with tools tray	S
C	Gauge head	S
D	Main shaft	S
E	Laser	S
F	Safe guard	S
G	Keyboard	S

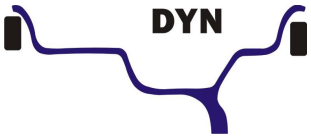
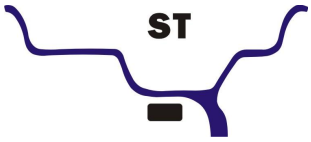


Keyboard (G)

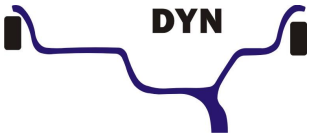
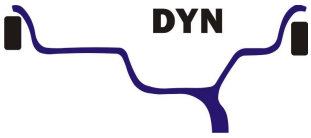
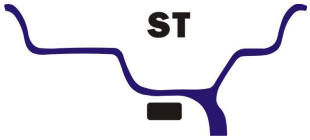
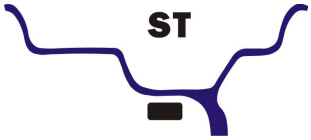


1.inside unbalance value digital display
2.inside unbalance position display
3.outside unbalance value digital display
4.outside unbalance position display
5.balancing mode chosen.

Six balancing modes

Icon	Balancing mode	Operation	Add weights
	Standard/Default	1. Turn on machine 2. Input a,b,d value 3. Start spin, after spin stop	Clip on weights on both sides of rim edge
	Static mode	1. Turn on machine 2. Input a,b,d value 3. Start spin, after spin stop 3. Press F button	Add adhesive weight
	ALU1	1. Turn on machine **2.** Input a,b,d value **3.** Press ALU button, indicator lit up **4.** Start spin, after spin stop	Add adhesive weights on the rim shoulder both sides
	ALU2	1. Turn on machine 2. Input a,b,d value 3. Press ALU button, indicator lit up 4. Start spin, after spin stop	Add adhesive weights on the rim shoulder both sides
	ALU3	1. Turn on machine 2. Input a,b,d value 3. Press ALU button, indicator lit up 4. Start spin, after spin stop	Clip on weight on inside rim edge, add adhesive weight on outside rim shoulder

Pay attention to the unbalanced position to add weight according to the settings

LAS=OFF				LAS=ON		
inside	**Balancing mode**	outside		inside	**Balancing mode**	outside
12 o'clock		**12 o'clock**		**12 o'clock**		**12 o'clock**
12 o'clock		**12 o'clock**		**12 o'clock**		**12 o'clock**
12 o'clock		**12 o'clock**		**6H**		**12 o'clock**
12 o'clock		**12 o'clock**		**6H**		**6H**
12 o'clock		**12 o'clock**		**12 o'clock**		**6H**

Key board (H)

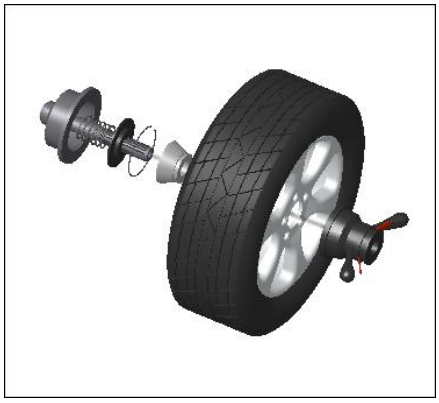
Icon	Function	Icon	Function
a+ a-	Set distance	OPT	Optimization of unbalance
b+ b-	Set rim width	ALU	Selection of "ALU" modes
d+ d-	Set rim diameter	F	Static mode
C	Recalculation	FINE	Unbalance display pitch and threshold
START	Start	STOP	Stop/Cancel

4. Indication and use of wheel balancer

4.1. DYN (Standard/Default) mode

4.1.1. Clean wheel, take off counterweights, check pressure of wheel.Choose the way of installation according to the type of wheel.

Main shaft-wheel—suitable cone(small head towards inside)—quick handle nut

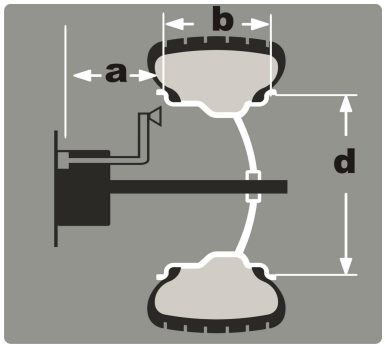


Main shaft-suitable cone(big head towards inside)—wheel—quick handle nut

Attention：May add a wheel, and hold the wheel to help install the thread hub. When installing or taking off wheel, do not let wheel move on the shaft, to avoid scratching shaft.

4.1.2. Turn on machine

4.1.3. Input a b d value



- Move gauge to touch edge of rim (**Fig.1)**, read the value of distance, press **a+** and **a-** to change，set “a” value.
- Use width gauge to read the value of width (**Fig. 2**), press **b+** and **b-** to change, set “b” value.
- Read the value of diameter (marked on the wheel), press **d+** and **d-** set “d” value.

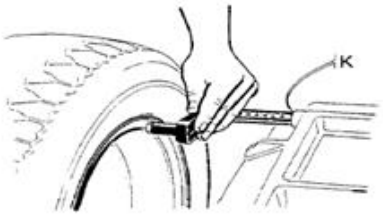


Fig.1

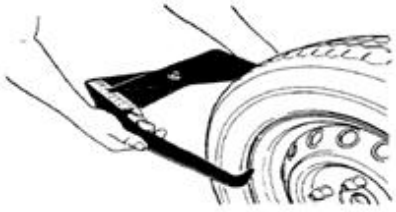


Fig.2

4.1.4. Put down the guard to perform a measuring spin.

4.1.5. In a few seconds the wheel is brought to operating speed and begin measuring unbalance, the unbalance values remain on instruments 1 and 3 when the wheel stopped. Press 

may check the real unbalance value under threshold.

4.1.6. Anticlockwise moving wheel slowly, the displays with right LED's lit up full indicate the correct angular position where to mount the counterweights (12 o'clock position) outside, as **Fig.3**, clip the counterweight.

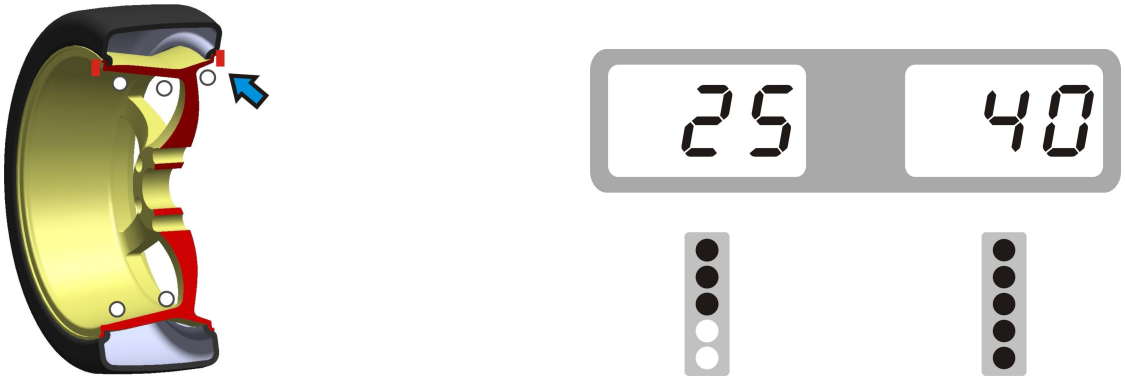


Fig. 3

4.1.7． Anticlockwise moving wheel slowly, the displays with left LED's lit up full indicate the correct angular position where to mount the counterweights (12 o'clock position) inside, as **Fig.4**, clip the counterweight.

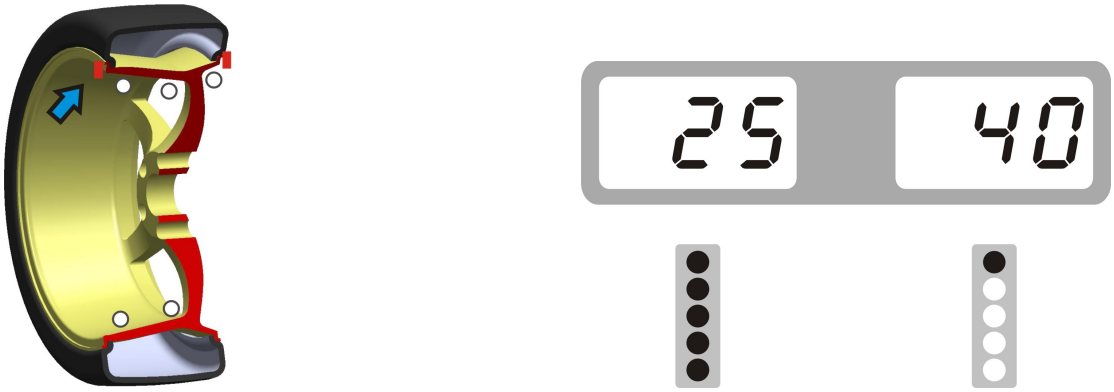


Fig. 4

4.1.8． After finishing clipping the counterweights, put down the guard to perform balancing spin again, if comes out 00 00，means balancing succeed. (**Fig.5**)

Fig. 5

4.2． ALU-2 mode (ALU-1, ALU3 same operation, only the position to add weights different)

4.2.1. Set "a" "d" "b" values

4.2.2. Press 

until ALU2 indicator lit up

4.2.3. Put down the guard to perform a measuring spin.

4.2.4. In a few seconds the wheel is brought to operating speed and begin measuring unbalance, the unbalance values remain on instruments 1 and 3 when the wheel stopped. Press 

may check the real unbalance value under threshold.

4.2.5. Anticlockwise moving wheel slowly, the displays with right LED's lit up full indicate the correct angular position where to mount the counterweights, **(LAS=OFF)12 o'clock , (LAS=ON)6 o'clock position** outside, as **Fig.6**, add the counterweight.

Fig. 6

4.2.6. Anticlockwise moving wheel slowly, the displays with left LED's lit up full indicate the correct angular position where to mount the counterweights, **(LAS=OFF)12 o'clock , (LAS=ON)6 o'clock position** inside, as **Fig.7**, add the counterweight.

Fig. 7

4.2.7. After finishing mounting the counterweights, put down the guard to perform balancing spin again, if comes out 00 00，means balancing succeed. (**Fig.8**)

Fig. 8

5.Self-calibration of wheel balancer

Turn on balancer, install a medium size wheel (13″-16″)which can use clip-on weight, set "a b d" value, then

Do the self-calibration whenever you think the balancer is not accurate. The 100g weight must be accurate.

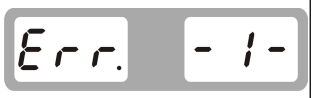
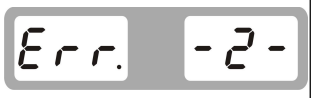
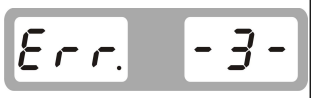
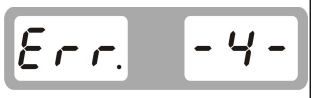
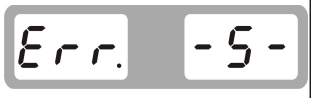
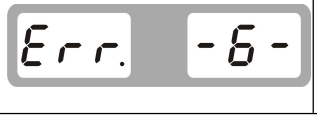
****It is necessary to install the normal car tire ruler head accessories and operate with car tires.****

Step 1	Press F and hold, then press C	comes	CAL. CAL.

Step 2	Put down safe guard to start spin, after spin stop	comes	
Step 3	Open the safe guard and clip a 100 gram weight on the outside 12 o'clock position, put down safe guard to start spin, after spin stop	comes	
Step 4	Open the safe guard and remove the 100g weight from outside then clip it on the inside 12 o'clock position, put down safe guard to start spin, after spin stop	comes	
self-calibration finished			

6. Errors

Various abnormal conditions can arise during machined operation by the microprocessor, if comes the errors, must stop operation, find the reason and the solution according, if the error persists, consult the supplier.

No.	Errors	Reasons	Solution
1		1. No spin 2. Shaft spin	1.If no spin, check or change power board 2.If spin, check or change position pick up board and computer board 3. Adjust position pick up board support
2		1. No wheel or wheel not locked tightly 2. Position pick up board problem	1. Lock tightly 2.Check or change position pick up board
3		1. No enough pressure in wheel 2. Wheel distortion	1.Add proper pressure in wheel 2.Check wheel
4		1. Position pick up board problem 2. Computer board problem	1.Check or change position pick up board 2.Check or change computer board
5		1. Micro switch problem 2. Computer board problem	1.Check or change Micro switch 2.Check or change computer board
6		1. Power board problem 2. Computer board problem	1.Check or change power board 2.Check or change computer board

7	Err. -7-	1. Program lost 2. Computer board problem	1.Self calibration 2.Check or change computer board
8	Err. -8-	1. No add 100g weight during self calibration 2. Computer board problem 3. Power board problem	1. Add 100g weight 2.Check or change computer board 3.Check or change power board
9	OFF OFF	1. Micro switch problem 2. Computer board problem	1.Check or change micro switch 2.Check or change computer board
10	8.8.8. 8.8.8.	1. Computer board problem 2. Power board problem	1.Check or change computer board 2.Check or change Power board
11	--- ---	1. The machine is locked	1. Contact vendor unlock
12	Err. -10	1. Data protection	1. Contact vendor unlock 2. Update data

7. Self- diagnoses

Press F and hold, then press FINE goest to self diagnoses, press ALU to next , press STOP escape

Order	Display	Function	Function normal
1	8.8.8. 8.8.8.	Display	All lit up
2	POS. 63	Position pick up board	Turn the shaft ,POS changes in 0-127
3	66 65	Pressure sensor	Use hand to press main shaft, 4X-4X 6X-6X changes

8. Setting machine

8.1. Machine setting

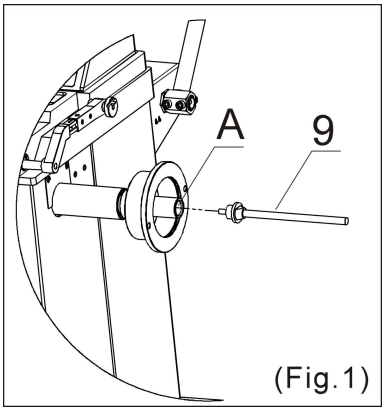
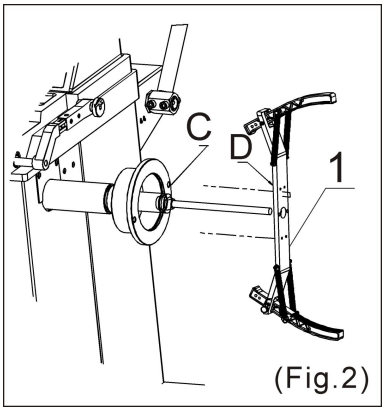
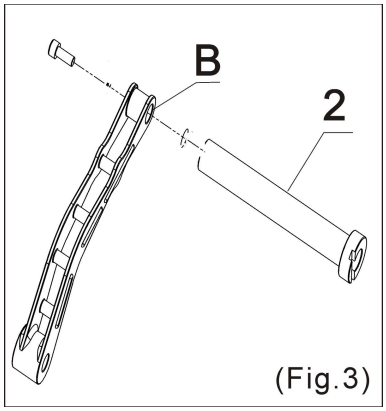
★9.2 Press STOP and hold, then press C goes to set machine, press b+ and b- to change， press a+ to next

Order	Display	function	choice

1	F In. 5	Unbalance display threshold	5/10/15
2	SP. On	Sound	On/off
3	LH. 4	Light	1-8
4	I nh. On	Inch/mm	inch on/inch off
5	Er2. OFF	Tire weight(small tires)	On/off
6	LAS. On	Laser switch	OFF: 12 o'clock ON: 6 o'clock
7	ASt. On	Safe guard on	Put down safe guard to start spin Put down safe guard then press START to start spin
8	Unt. Gr	Unit of weight	Gram/ Ounce
9	tYP. CAr	Tire type operation	CAr：car Boot display [CAr] Sco：Motorcycle Boot display [Sco]

9. Installation of motorcycle adaptor

★9.1 Use the motorcycle adapter for wheel balancer we provide★

Step 1	Step 2	Step 3
		
1. Take off standard thread for car 2. Replace with part No.9 in position A （Fig. 1）	1.Install part No.1 through No.9 2.Lock and fix in position C and D（Fig. 2）	1. Take off the standard gauge head for car 2. Replace with part No.2 in position B （Fig. 3）

★9.2 Press STOP and hold, then press C goes to set machine, press b+ and b- to change， press a+ to next

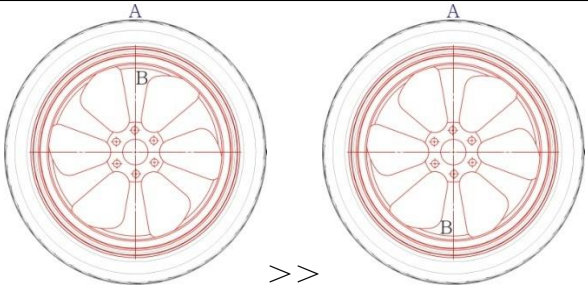
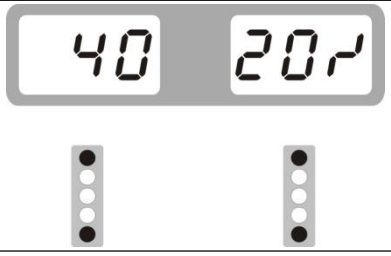
order	Display	Function	Display wheel type after turn on balancer
1		Car wheel	
2		Motorcycle wheel	

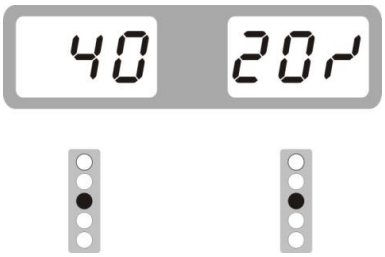
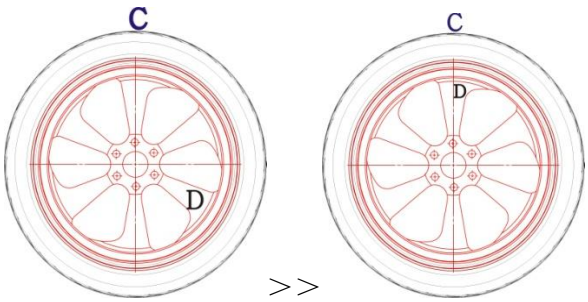
★ “Display wheel type after turn on balancer” means after turn on machine, it comes signal to tell you it is a car mode or motorcycle mode.

10. OPT function

Note: When unbalance value is too much, choose OPT, and operator must be experienced.

Install wheel, input a b d value

1	Press OPT	comes＞	
2	Put down safe guard and press START	comes＞	
3	With the help of tire changer, change the rim and rubber 180 degree	reference ＞	
4	Then put down safe guard and press START	comes＞	
5	Rotate wheel until four indicators lit up (two on both sides, the dark spot in the right side picture), mark the position C with chalk on rubber	reference ＞	

6	Rotate wheel until two indicators lit up (one on both sides, the dark spot in the right side picture), mark the position D with chalk on rim	reference >	
7	With the help of tire changer, change the rim and rubber to make C and D match	reference >	
8	Put down safe guard and press START	comes >	If unbalance is less than before, OPT succeed