V2.00.000
2012-09-10

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Our company shall not be liable for any damages or problems arising from the use of any options or any consumable products other than those designated as original our company products or approved products by our company.
This manual instruction is suitable for truck wheel balancer KWB-811.

This unit is made for the purpose of persons who have special techniques and certifications.

High voltage power!
Dangerous!

To prevent accidents, please pay much attention about hands, body and other parts and keep distance when fix the balance shaft and tire.

Safety Instructions

- 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 held responsible for the damage incurred by improper use or use other than the intended purpose.
- 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.
- This machine should be installed on the stable ground.
- Keep the back panel 0.6m away from the wall for good ventilation. Enough room should be left on both sides of the machine for convenient operation.
- Do not put this machine in a place with high temperature or moisture, or near the heating system, water tap, air-humidifier or furnace.
- Do not put the machine near the window with sunlight. Protect the unit with a curtain, shield or protective cover if necessary.
- Avoid lots of dust, ammonia, alcohol, thinner or spraying binder and away from other electrical machines
- 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 safety marks on the machine.
- Do not touch or approach the moving parts by hand during operating.
- Do not remove the safety device or override it.
- Before operation please ensure the protective cover is in the effective protection status.
- Before moving the machine, contact maintenance personnel.
- The product is better used under the following conditions:

  Temperature: 0℃~50℃

  Relative humidity: ≤80%

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1. Product Instruction

1.1 External Structural Drawing

Fig1

A. Operation Panel
B. Counterweight Container
C. A value Manual Gauge
E. Shaft
F. Threaded End
G. Special Cone
H. Lock Hub Nut and Lever
I. Power Switch
J. Balancer Body
K. Pneumatic Elevator
L. Sliding Car

1.2 Functions

- Dynamic Mode
- Static Mode
- Standard ALU 1, ALU 2, ALU 3, Mode
- ALU S Mode
- OPT(OPTIMIZATION) mode
- Truck /Car Measurement Mode Shift
- Unit Conversion in Different Countries (Areas)
  g/oz, mm/inch
- Self-calibration
- Guard Protection
- Self-check Error and Diagnostics
- Computer controlled wheel pneumatic elevation
- Foot brake fixed start lock and unlock for measurement.

1.3 Specifications

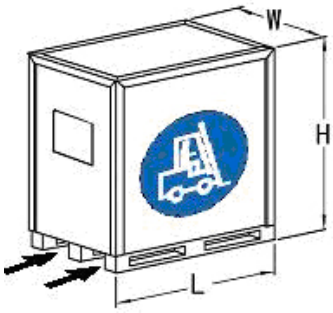
- Power voltage: Single Phase Power Supply: 220V/50Hz or 110V/60Hz
  3-Phase Power Supply: 380V/50Hz or 220V/60 Hz
- Air pressure: 4-8bar
- Protection Class: IP 54
- Power Consumption: 250W
- Max Rotating Speed: 180r/min (car)
  90r/min (truck)
- Cycle Time: Average 8-12s/10-20s
- Measurement Ranges:
  Gauge length: 10 --- 260 mm
  Rim Diameter: 10" — 30"
  Wheel Width: 3" — 20"
  Wheel Diameter: 33" — 51"(840 --1300 mm)
  Wheel weight: <160kg

- Error: ≤±1g (car)
  ≤±10g (truck)
- Noise: ≤70dB
- N.W./G.W.: 283kg/368kg
- Product size: 1220*980*1120mm
- Working Environment: Temperature: 0℃～50℃, Humidity: ≤80%

2. Transportation

The balancer must be transported in the original package and be placed in the specified position.

Use a forklift with corresponding capacity to move the packed machine and the direction of the forklift is shown in Fig 2.



L=1220mm

W=980mm

H=1120mm

Fig2

3. Opening Package

- Check the package. If there are some problems, please do not open it, and contact the supplier and the carrier at once.
- Make sure that the package is not damaged and then open the protection carton and plastic bag. Check the accessory case according to the packing list. Check whether the machine surface is in good condition and whether there is loss or damage to the parts.
- Dismount the bolts on the base and make the balancer steadily rest.
- Please do not use the machine and contact the supplier at once if there are some problems.

4. Machine Installation

4.1 Location

- The machine must be located in the working environment described in 2.3 and the ground should be solid.
- Sockets that match the power supply and motor power described in 2.3 are available nearby.
- Air joints described in 2.3 are available nearby.
- Space for installing is big enough to meet the needs in Fig 3 and ensures each part of the machine to work normally.
- Put up a shelter if placed outdoors.

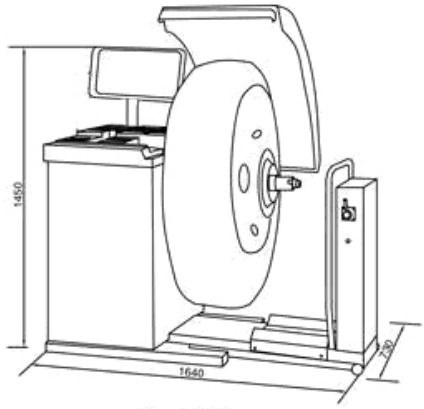


Fig3

4.2 Installing parts

- Shaft. Take out the threaded end and bolts from the accessory case. Mount them firmly according to Fig4.
- Mount the cone on the corresponding arm.

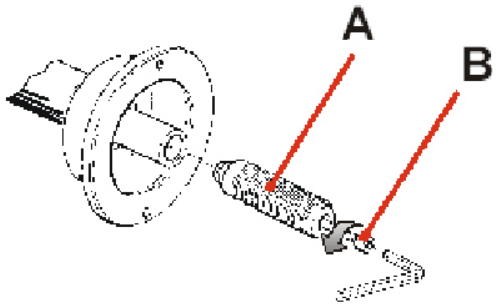


Fig4

4.3 Power Connection

Connect air pipe, adjust air, and make the instructions in the barometer is about 7bar. Put the plug in the socket to finish installing the balancer.

5. Control Unit

Refer to Fig5.

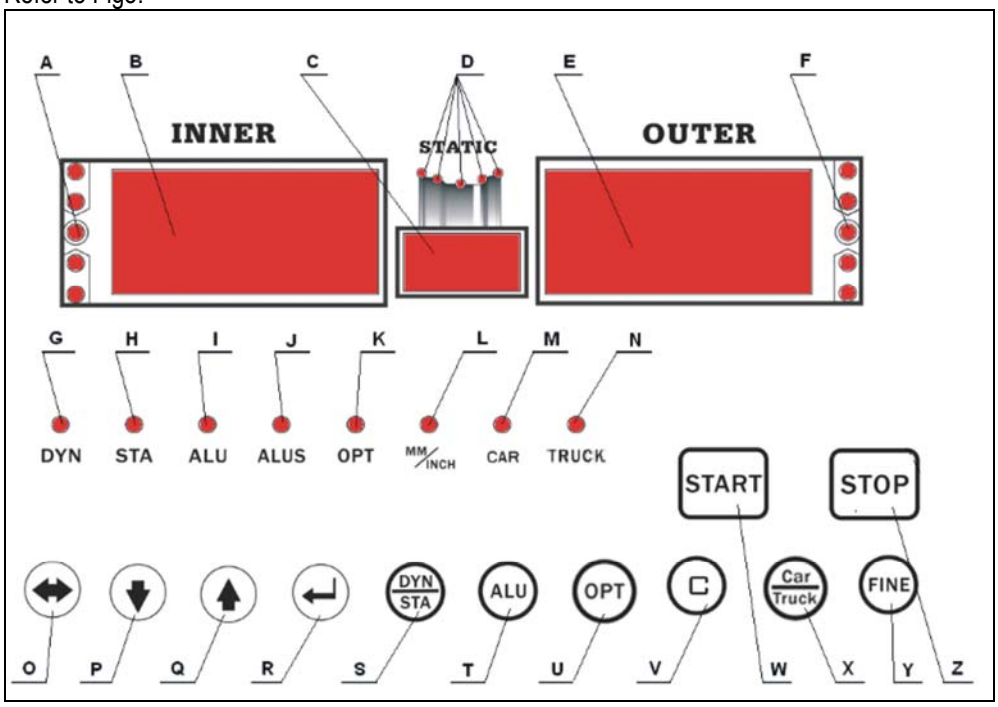


Fig5

A. inside unbalance point

B. inside unbalance display window

C. middle static mode display window

D. sticking and clamping weight position indicator

E. outside unbalance display window

F. outside unbalance point

G. standard dynamic mode indicator

H. static mode indicator

I. ALU mode indicator

J. ALU S mode indicator

K. OPT indicator
L. mm/inch indicator
M. car mode indicator
N. truck mode indicator
O. size input shift key
P. —function key
Q. ＋function key
R. Enter key
S. dynamic/statickey
T. ALU mode key
U. OPT option key
V. unit shift key
W. start key
X. truck/car shift key
Y. fine display key
Z. NO

6. Operating Instructions

6.1 Self-check

When switched on, the system begins self-check and then enters standard dynamic mode measurement (refer to Fig6).

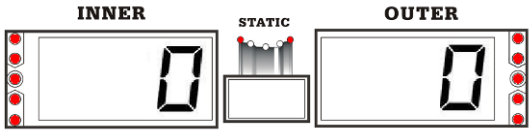


Fig6

6.2 Installing Wheel

Choose the optimal cone for the center hole and mount it on the balancer (refer to Figs 7 and 8). Use the elevator to assist installing if the wheel is too heavy.

The method shown in Fig8 is preferable because it approximates to installing wheel on a real car.

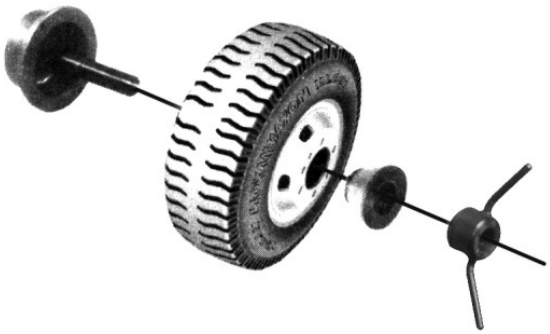


Fig7

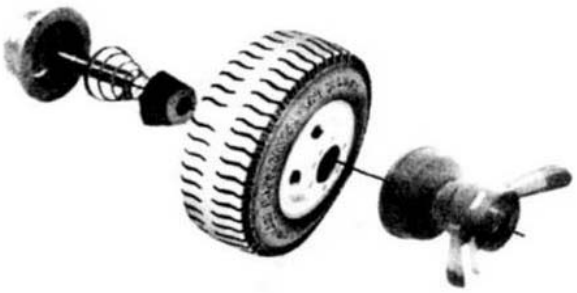


Fig8

6.3 Wheel Parameters Input

Unlike ALU S which needs 4 parameters, other modes need 3 parameters.

Parameter values are shown in Fig9 (dynamic and static modes, ALU 1-3 mode, motorcycle mode) and Fig10 (ALU S mode).

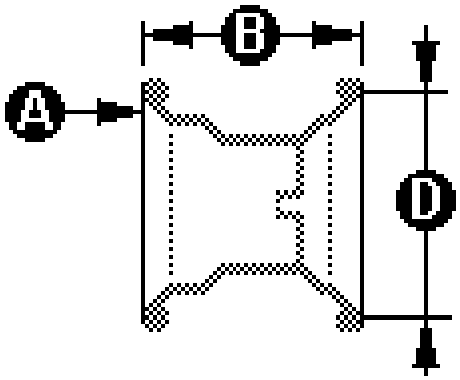


Fig9

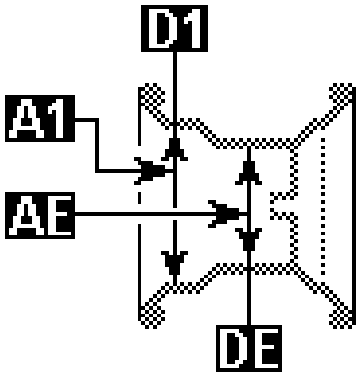


Fig10

Users can finish the parameters input manually (Refer to Fig11, 12).

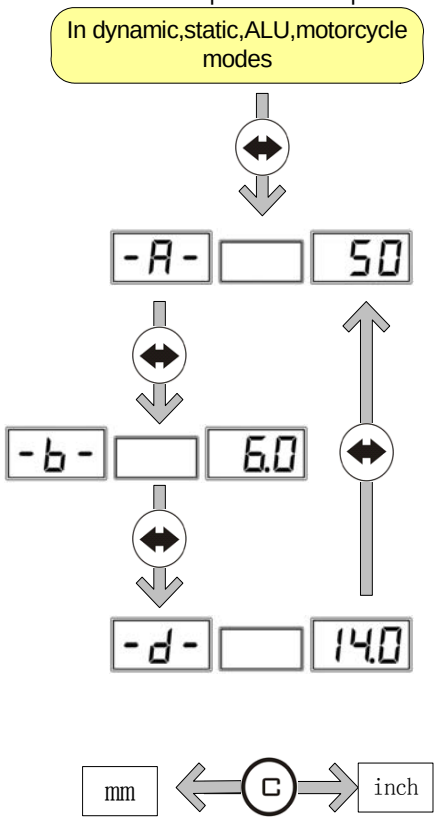


Fig11

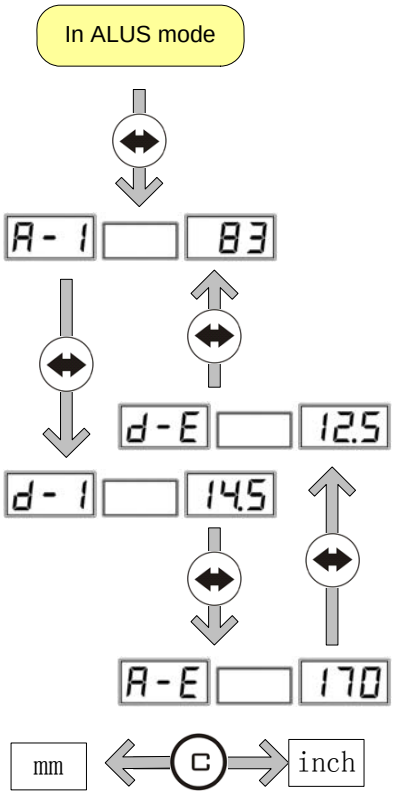


Fig12

6.4 Choose balance modes

The default mode of this equipment is standard dynamic mode.

Choose other modes according to Fig13.

OPT mode is an attached mode.

Opt mode can be operated in dynamic and static modes.

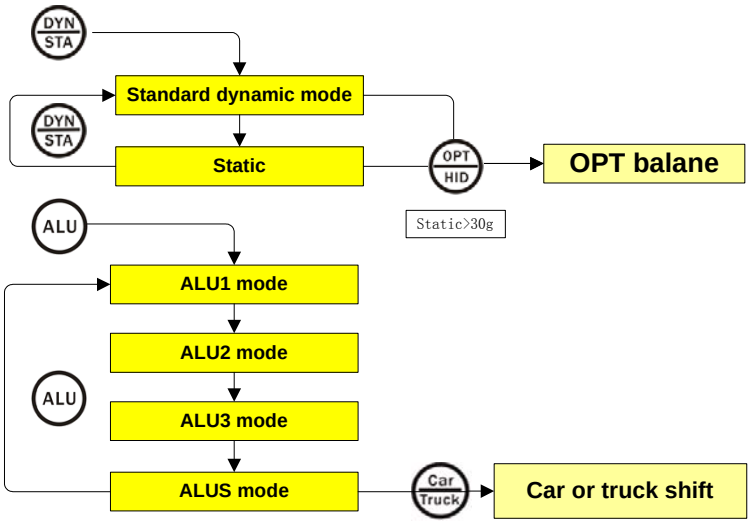


Fig13

6.5 Standard Dynamic Mode

This function can test the amount of unbalance on the inside and outside of a rotating wheel and remove unbalance by finding the correction position and placing counterweight according to the displayed unbalance value.

After the Wheel installation and parameters input, follow the procedure in Fig 14 to start standard dynamic mode.

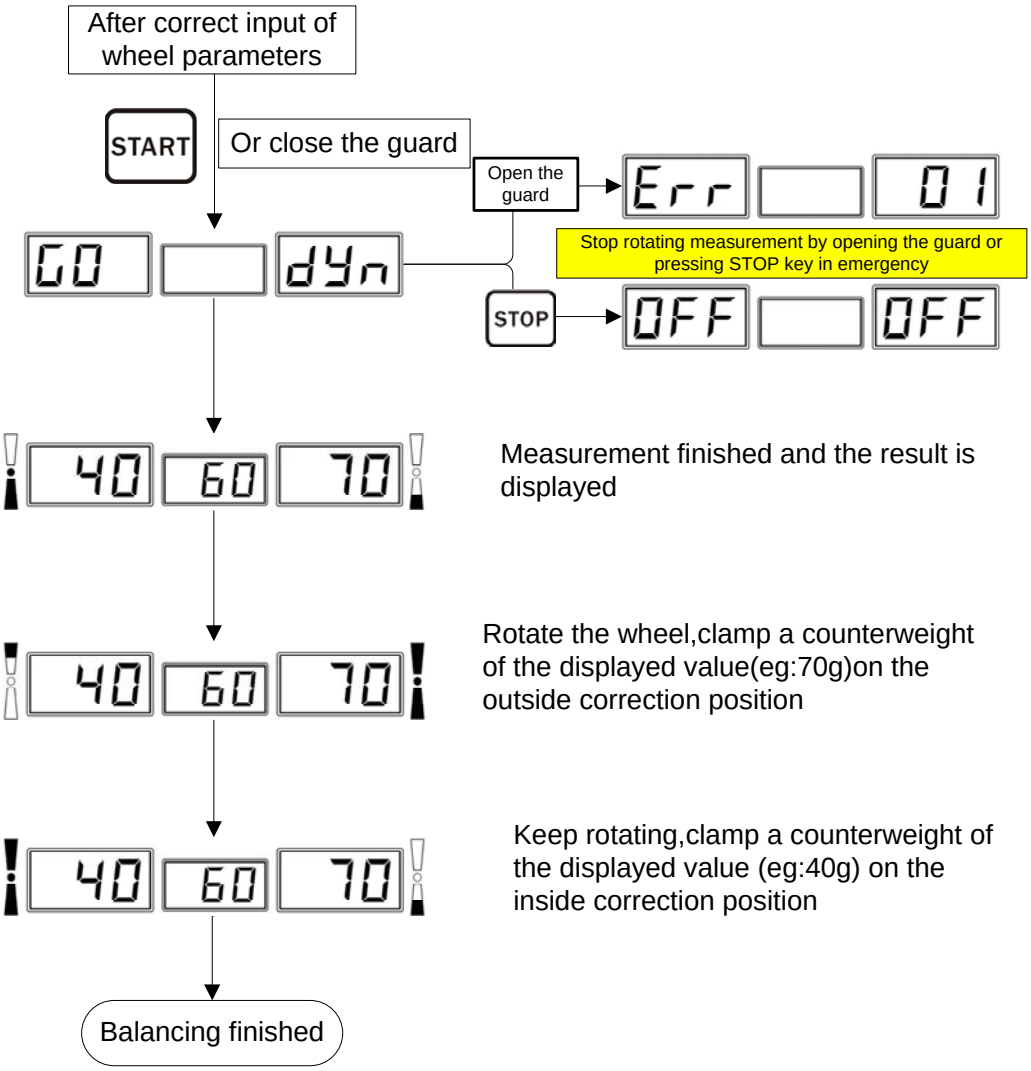


Fig14

Under any measurement mode， pressing foot brake board can lock or unlock the wheel so as to assemble it conveniently

Pressing START key again to automatically unlock and measure.

6.6 Static Mode

After dynamic mode measurement, select static mode directly. The balancer will automatically calculate the result of static mode.

If static mode is done from the very beginning, follow the process below after wheel installation and correct parameters input

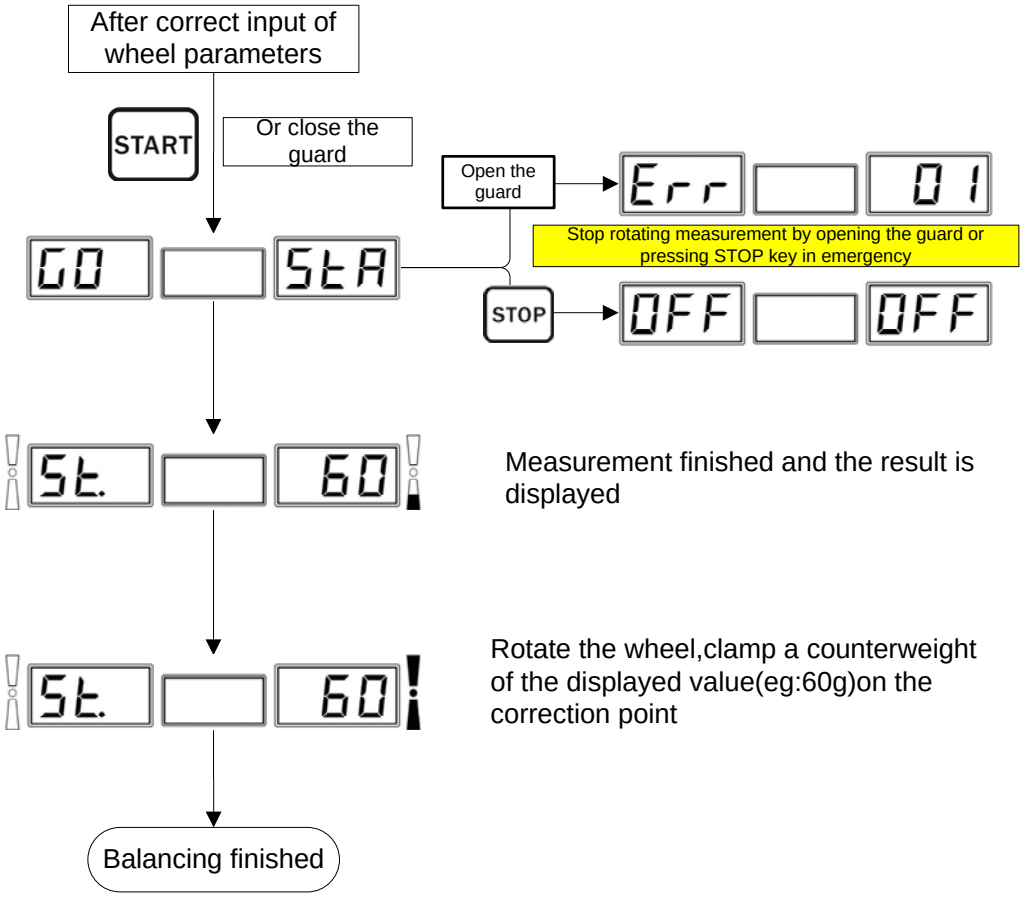


Fig15

6.7 ALU 1----ALU 3 Modes

ALU mode refers to five counterweight sticking modes reduced according to the shapes and sizes of most rims (Fig16).

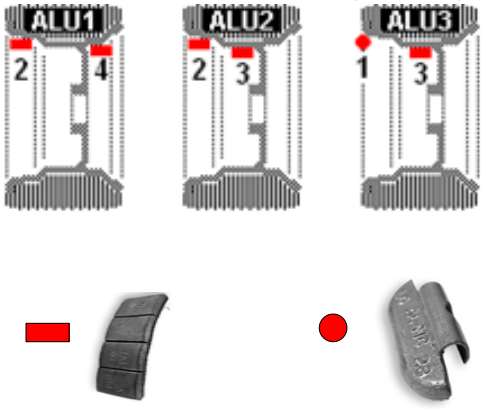


Fig16

The measurement process of ALU is the same as that of standard dynamic mode

After measurement, clamp counterweights at 1 position. At 2, 3 and 4 position, stick counterweights according to Fig17.

A special purpose gauge can also be used to assist in sticking counterweights.

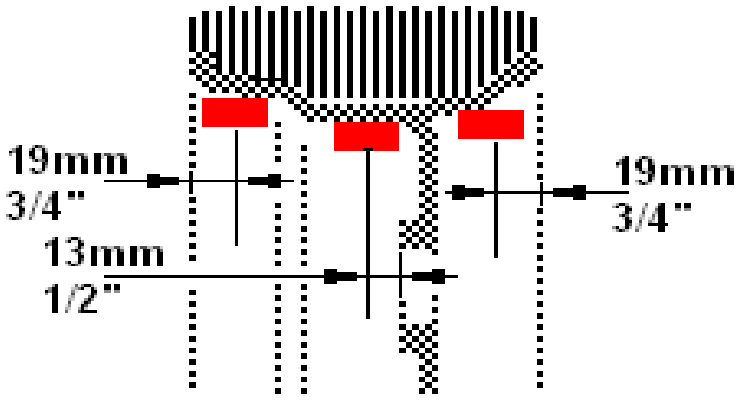


Fig17

6.8 ALU S Mode

Because ALU S inputs the precise size of the correction plane with the aid of automatic gauge, it compensates for ALU mode that ALU 1-3 fail to satisfy, and It is more accurate and easier than the traditional ALU mode (refer to Fig18).

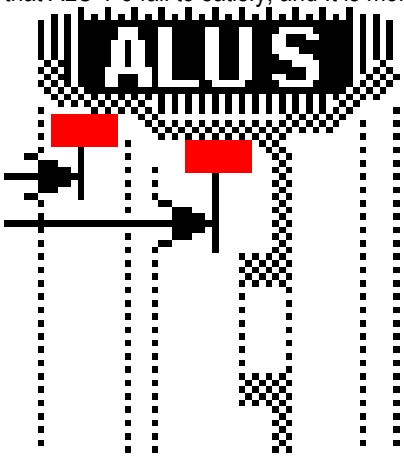


Fig18

6.8.1 ALU S Correction Plane choosing

ALU S has to choose two proper correction planes on both sides of rim. Clean the position to be used to get ready for being stuck.

Mount the wheel and collect parameters.

6.8.2 ALU S Mode Operation

After collecting, close the guard, press START to measure. The process is the same as that of standard dynamic mode. After measurement, the unbalance value is displayed. Referring to the Fig, rotate the wheel to the outside correction plane position shown by the parameters collected, stick counterweight at 12 o'clock.

6.9 OPT Function

OPT function is used to determine the best mating of tire and rim. When doing dynamic and static modes, if the static mode value is greater than OPT value (implied 30g), the system will start optimization.

When optimization is possible, you can press OPT HID key to operate according to Fig19.

When optimization is not possible, display OFFOPT and exit OPT operation.

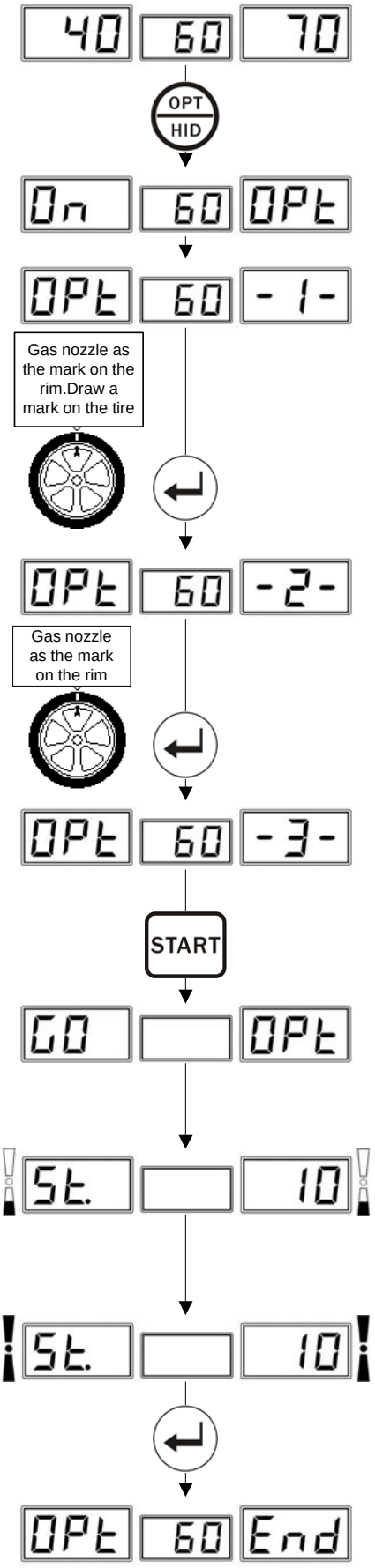


Fig19

Press OPT key to start.

Step 1

Rotate the gas nozzle to 12 o'clock. Press ENTER key to memorize the point. Mark with a chalk a reference mark on the tire.

Step 2

Remove the wheel from the balancer using a tire changer. Align the nozzle and the mark by rotating the tire on the rim by 180 degrees

Step 3

Replace the wheel on the balancer and rotate the gas nozzle to 12 o'clock again.

Press "ENTER" key to memorize.

Step 4

Press START key to start OPT measurement.

After measurement, mark with chalk again on the tire the marked point indicated on the screen.

Use the changer to assemble until the new mark and the gas nozzle coincide. Now the value displayed is the rest value after optimization.

Press EMTER to end optimization.

6.10 System setting

System setting (refer to Fig 20) is used to set options, such as the application control state, the commonly used units of this equipment and so on.

Ways to enter: In any mode, press SET to enter.

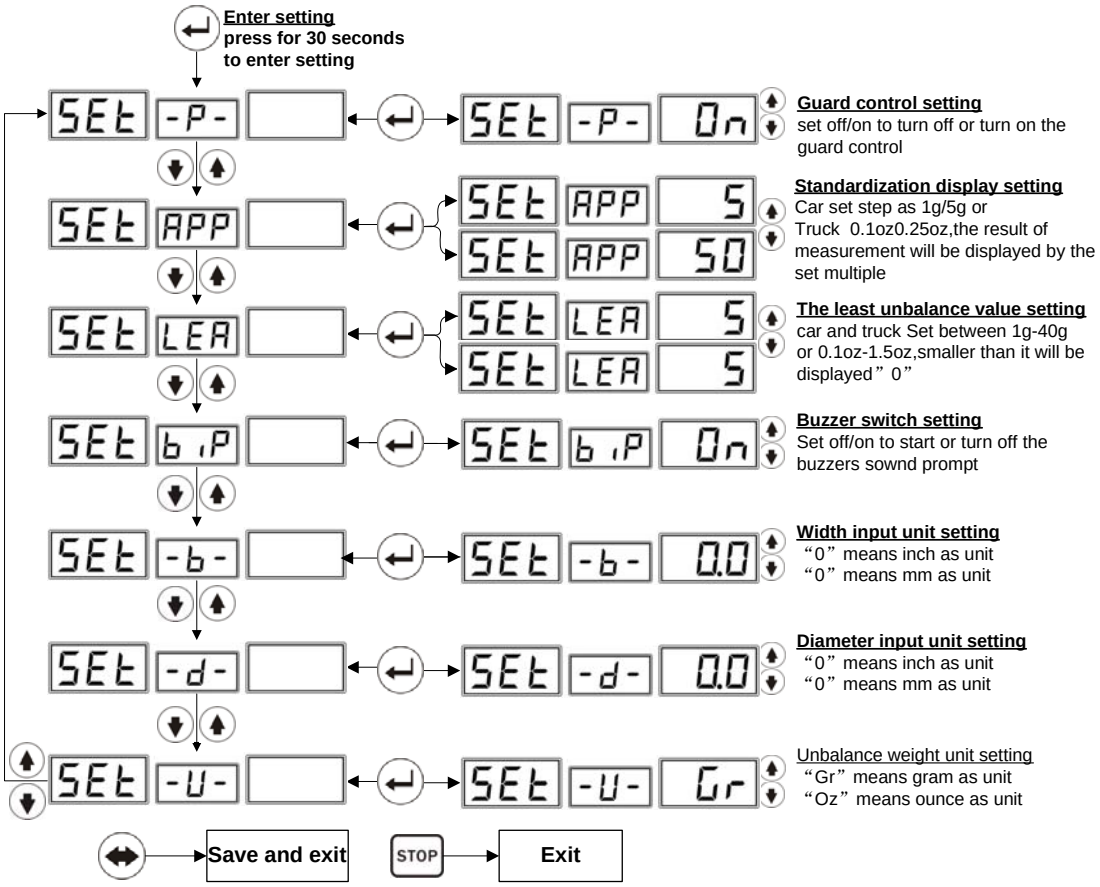


Fig20

6.11 Calibration programs

It is used to initialize the new machine and remove the old equipments' measurement errors caused by total loss from use, parts ageing and replacing, or strong impact.

Calibration procedures must be done under the truck mode and the car mode respectively. Follow Fig21 to start calibration under either mode.

Choose a wheel with small unbalanced value and install it on the balancer. Input the wheel parameters then calibrate it.

Rotate the wheel to calibrate for the first time without placing standard counterweight.

Rotate the wheel to calibrate for the second time by placing a counterweight of 100g at 12o'clock outside of rim.

After measurement automatically store the result of calibration.

After calibration automatically return to the original state.

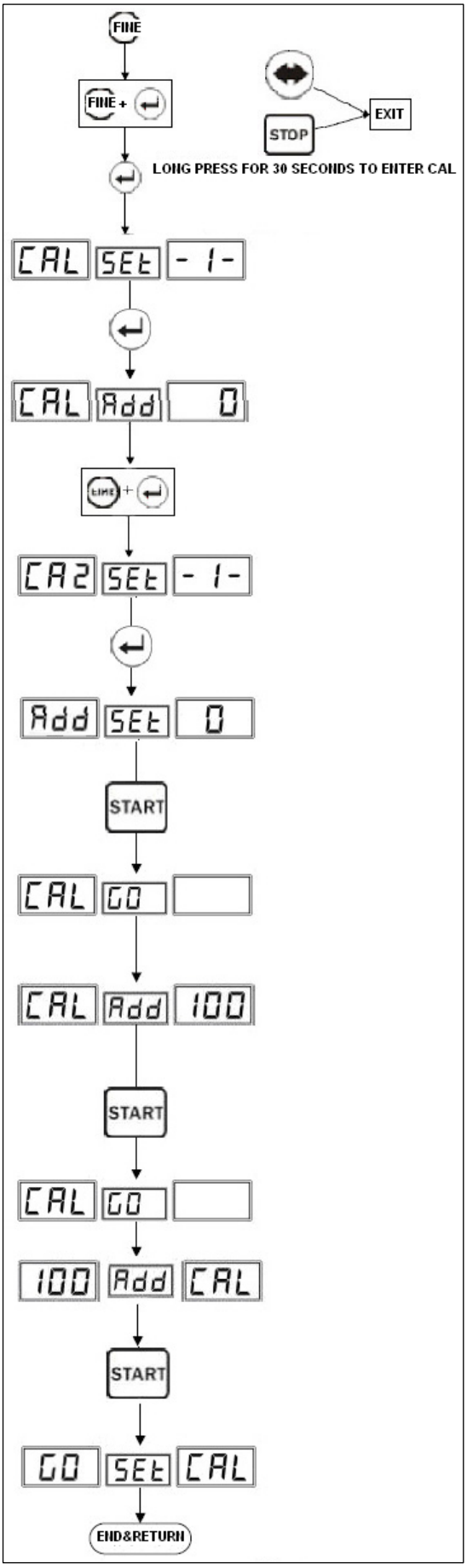


Fig21

7. Error Information and Treatment

It provides the error diagnostics and prompting information of this equipment. Users can judge and deal with problems according to the prompting information and the solutions given in the following form.

prompting information	meaning of the information	solutions
CCC CCC	The result of measurement is beyond the range.	
OFF OFF	System gives the prompt when the STOP key is interrupted accidentally	
Err 01	When the guard is set enabled, press START key without closing it or open the guard artificially while the wheel is in rotating measurement. In either of these two cases, the balancer is braked suddenly and gives the prompt	Close the guard, or turn off the guard function option in setting items. However, because the laws and regulations of safety protection in different countries are not completely the same, we suggest not turning off the guard function option.
Err 02	Prompt is given and measurement is stopped when rotating speed is too low to meet the basic measurement needs,	Problems of the electrical motor shaft or the transmission belts. Check and adjust. Too light load also results in this phenomenon, so please adjust the load weight.
Err 03	The measurement rotation is in wrong direction. This usually will appear in the three-phase motor control balancer due to sequence errors	Adjust the sequence of the three-phase power.
ERR CAL	The machine is not calibrated.	Users calibrate the machine following 6.11
ERS CAL	Factory maintenance error.	Contact the manufacturer.

Appendix I Packing List

SN	Description	Quantity	Picture
1	Wheel Balancer	1set	
2	Plastic protective cover	1 pc	
3	Operation Manual	1 pc	
4	Caliper	1 pc	
5	Flange	2 pc	
6	Cone	6 pc	
7	Pliers	1 pc	
8	Standard Weight	2 pc	
9	Quick nut	1 kit	

CE Declaration of Conformity

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CE Declaration of Conformity

For the following equipment:

(Product Name) Wheel balancer

(Model Designation) KWB-811, KWB-812

is herewith confirmed to comply with the requirements set out in the Council Directive on the Approximation of the Laws of the Member States relating to Low Voltage Directive (2006/95/EC) and Machinery Directive(2006/42/EC). For the evaluation regarding the Directives, the following standards were applied:

EN 60204-1:2006+A1:2009
EN ISO12100-1:2003+A1:2009
EN ISO12100-2:2003+A1:2009
EN ISO14121-1:2007

The following importer/manufacturer is responsible for this declaration:

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Launch Industrial Park, North of Wuhe Rd., Banxuegang, Longgang, Shenzhen, China

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Warranty

THIS WARRANTY IS EXPRESSLY LIMITED TO PERSONS WHO PURCHASE LAUNCH PRODUCTS FOR PURPOSES OF RESALE OR USE IN THE ORDINARY COURSE OF THE BUYER'S BUSINESS.

LAUNCH electronic product is warranted against defects in materials and workmanship for one year (12 months) from date of delivery to the user. This warranty does not cover any part that has been abused, altered, used for a purpose other than for which it was intended, or used in a manner inconsistent with instructions regarding use. The exclusive remedy for any automotive meter found to be defective is repair or replacement, and LAUNCH shall not be liable for any consequential or incidental damages. Final determination of defects shall be made by LAUNCH in accordance with procedures established by LAUNCH. No agent, employee, or representative of LAUNCH has any authority to bind LAUNCH to any affirmation, representation, or warranty concerning LAUNCH automotive meters, except as stated herein.

Disclaimer

THE ABOVE WARRANTY IS IN LIEU OF ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Order Information

Replaceable and optional parts can be ordered directly from your LAUNCH authorized tool supplier. Your order should include the following information:

1. Quantity
2. Part number
3. Item description

Customer Service

If you have any questions on the operation of the unit, please call: 86-755-84528767.

If your unit requires repair service, return it to the manufacturer with a copy of the sales receipt and a note describing the problem. If the unit is determined to be in warranty, it will be repaired or replaced at no charge. If the unit is determined to be out of warranty, it will be repaired for a nominal service charge plus return freight. Send the unit pre-paid to:

Attn: Overseas Department
LAUNCH TECH. CO., LTD.
Launch Industrial Park,
North of Wuhe Rd.,
Banxuegang, Longgang,
Shenzhen, Guangdong, P. R. China.