TRUCK WHEEL BALANCER

CATALOGUE

1、 Operating instruction

- Operators of must be professionally trained. Incorrect calibration operations can lead to inaccurate measurements.
- The operating environment shall comply with the provisions of this manual
- The cover must be set in an effective protection state
- Transportation or operation must follow the operation manual.The factory shall not be responsible for any damage caused by any breach of operation
- Beyond the scope of use of the equipment may damage the equipment, and the measurement accuracy cannot be guaranteed.
- If the user disassembles the safety device of the machine in violation of the safety rules and damages it, the manufacturer will immediately cease its safety commitment to the machine.

2、Description of products

2.1 Outline drawing

Pic 1

A. control panel
B. plastic cover
C. measuring ruler of A value
D. safety cover(optional)
E. shaft
F. screw rod
G. cone
H. fixed nut and special wrench
I. main switch
J. body
K. pneumatic lifting equipment
L. sliding car
M. direction switch

2.2 major function

- Dynamic balance
- Static balance
- Standard balance model of ALU1, ALU2 and ALU3
- truck/car measure the mode conversion function
- Unit conversion function G/OZ, mm/inch conversion
- Self-calibration function
- Protective function of protective cover
- Fault diagnosis function

2.3 technical parameters

- voltage：220 V / 50 Hz/1ph or 220 V / 60 Hz
- Protection grade: IP 54
- power：550W
- MAX rotation speed：200 r/min (car tire)
  90 r/min (truck tire)
- Running time：8-14s
- Measuring range：

  Steel ring diameter： 10” — 28”

  Tire width： 3” — 20”

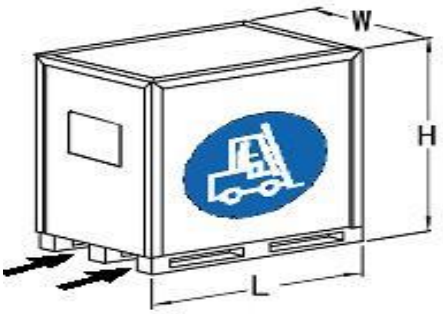
  Tire diameter：< 1200 mm

  Tire weight： < 150kg

- Measurement error：≤±1g （car tire）
  ≤±10g （truck tire）
- Operating noise：≤75dB
- Net weight：217kg
- Working environment: temperature range -20℃～50℃，Relative humidity range≤85%

3、 transportation

The wheel balancer must be transported in its original packaging and placed in accordance with the location indicated on the packing case.
The packed machine must be moved by the forklift truck with corresponding lifting capacity. The insertion direction of the forklift truck shall refer to Figure 2.



PIC 2

4、open the package

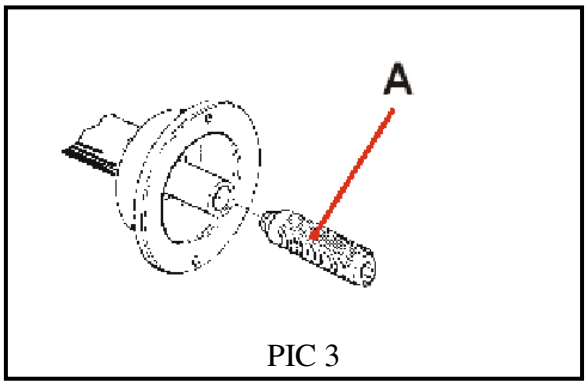
- Check whether the package is in good condition. If in doubt, please do not remove the package and contact the supplier and freight forwarder immediately.

- Open the protective cartons and plastic bags on the premise of ensuring the goods are undamaged.Check the accessory boxes item by item according to the packing list details to check whether the machine surface is in good condition and whether the parts are defective.
- Remove the fixing bolts of bottom Angle and bottom plate and place the balancing machine smoothly.
- If you have any questions, please do not use the machine and contact the supplier immediately.

5、machine assembling

5.1 Installation space

- Requirements meet 2.3 working environment requirements, and the ground is solid and vibration-free.
- There is a power outlet nearby that matches the 2.3 power voltage and power requirements.
- There is a joint matching 2.3 air source requirements.
- The installation space shall meet the requirements to ensure the normal operation of all parts of the machine without any restrictions.。
- If the machine is installed outdoors, it is necessary to build a protective shelter.



PIC 3

5.2 Component assembly

- Balance shaft assembly.Take out the lead screw in the accessory box and assemble firmly by hand as shown in Figure 3.
- The cone is hung on the corresponding hang rod.

6、Control panel

See Figure 4

A. Indicate the position of inside unbalance
B. Inside unbalance display screen
C. Outside unbalance display screen
D. Indicate the position of outside unbalance
E. Unbalance value size setting key
F. Return key
G. The Min. value indicator key
H. A、B、D value key

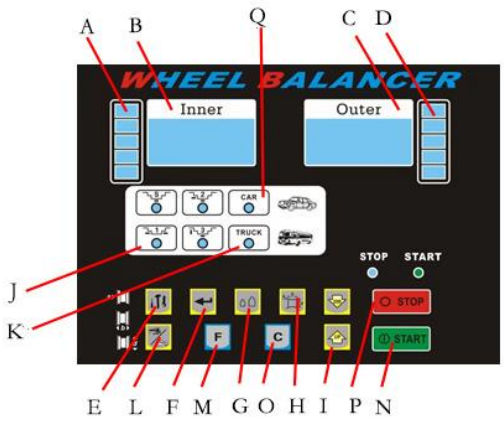


Fig 4

I. A、B、D value adjustable key

J. Indicate the balancing method

K. Large car balance indicator light

Q. Car balance indicator light

L. Large car /carconversion key

M. ALU balancing method selection key

N. N. Start key

O. O. G/OZ selection key

P. P.Stop key

7. Standard mode operation

1）Wheel Mounting

★Check and clean the dust and mud and if there are foreign bodies, such as metal and stone, clipped on the surface of the tire. And also check the air pressure of the tire is according with the specified value. Check if there are deformation on the rim positioning surface and installation hole.，select the methods according to the different conditions.

（FIG.5）

FIG 5

Main shaft—wheel （direction of the rim installation surface is inside）—cone（small size head inside）—quick nut

NOTE：When mount and demount the wheel ,do not slide the wheel on the main shaft to avoid scratches.

2）Turn on the power switch

3）Input a b d Value

- Distance(a)value：pull the scale to the position as in FIG.6，read this value from measuring scale, press  then input the value manually through   . FIG 7

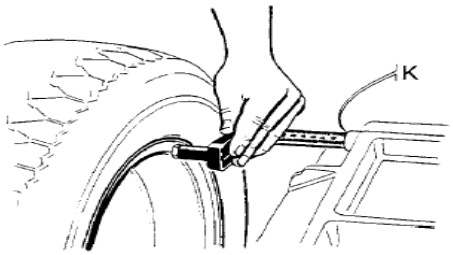


FIG 6

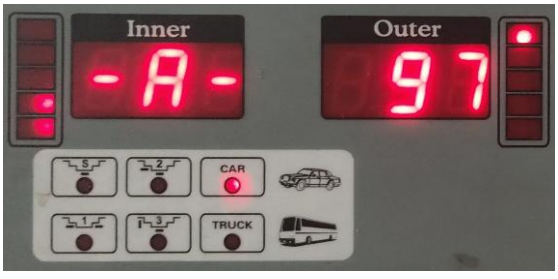


FIG 7

- width（b）value：read it directly from the rim or measure it by equipped caliper as in FIG 8,press  input the value manually through   FIG .9

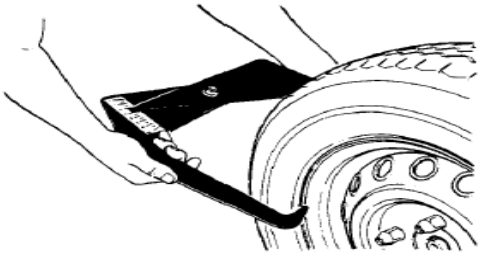


FIG.8

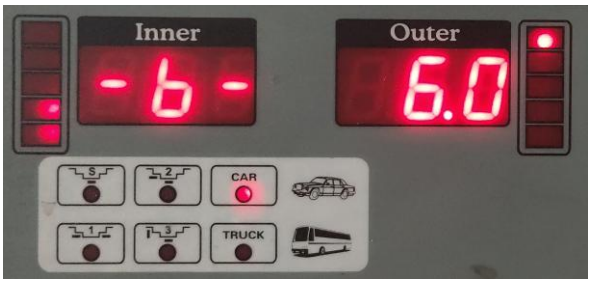


FIG.9

- Diameter（d）value：read it directly from the rim,Press  and input the value manually through   .FIG.10

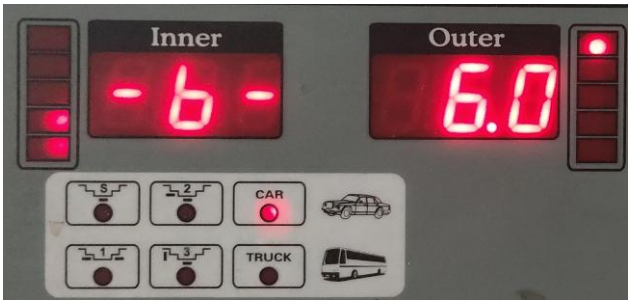


FIG.10

4）put down the hood or press START key to rotate the wheel

5）After the wheel stops, the digital light displays unbalanced weight，Press  key to read actual unbalance weight.

6）Slowly rotate the tire counterclockwise by hand until the indicator light outer is all on. At this time, the highest point (12 o 'clock) of the outer rim is the correct point of the unbalance. Add corresponding weight lead at this position. See FIG.11

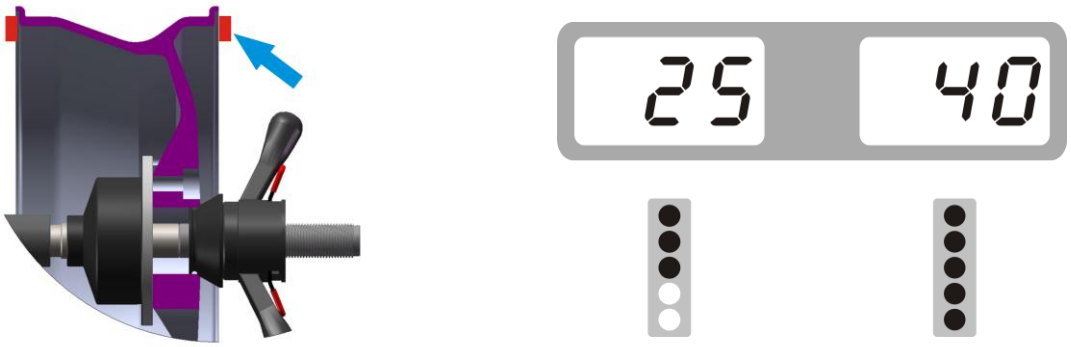


Fig.11

7）Slowly rotate the tire counterclockwise by hand until the indicator light inner is all on. At this point, the highest point (12 o 'clock) on the inner rim is the correct point of unbalance. Add corresponding weight lead at this position. FIG .12

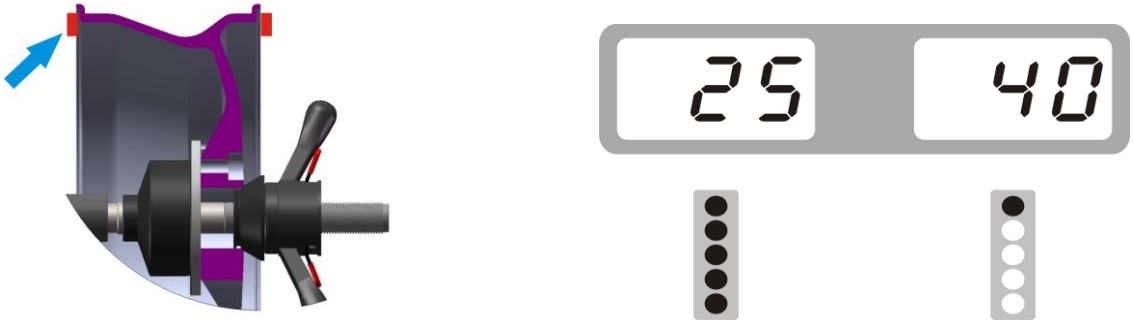


Fig.12

8）After the weight lead is all placed on，press START key to rotate the wheel，if no mistake during operation, FiG . 5 will be shown, which indicates that the dynamic balance is successful

Fig13

8. ALU-3 balance mode (stick on the rim)(ALU-1，ALU-2 are the same operation, only the sticky positin is different)

1）Pls. refer to the above mentioned way of measuring a、b、d, three values.

2）According to shape of rim, press F key to light on ALU2.

3）Pls. put down the hood or press START key to rotate the wheel

4)After the wheel stops, the digital light displays the unbalanced weight，press key to check the actual unbalanced weight.

5）Turn the wheel slowly with the hand counterclockwise, until the outside unbalance indicator lights are all on, at rim outside the point of 12 o 'clock is the position for unbalance .unblance calibration position are as shown in below pictures. Paste corresponding balance weight on the outside of the wheel rim. FIG.14

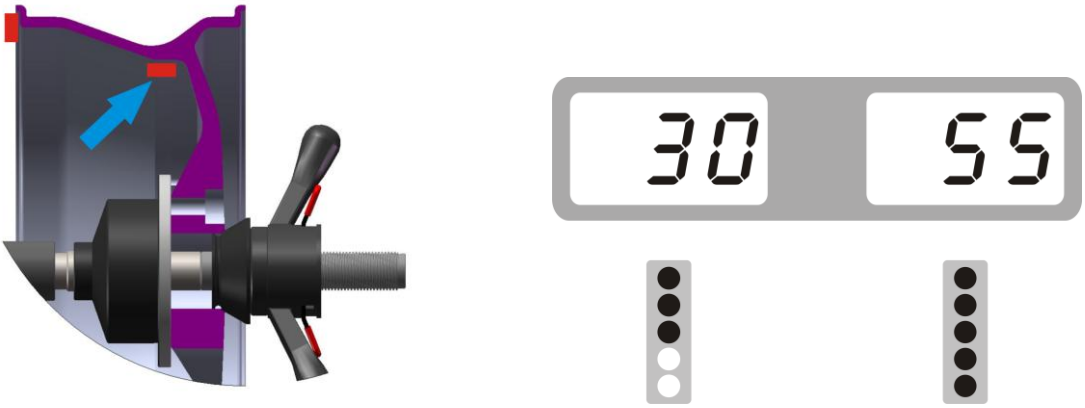


Fig.14

6）Slowly rotate the tire anticlockwise by hand until the inner imbalance indicator light is on. At this time, the 12 o'clock position on the inner side of the rim is the point for correcting the unbalance. Select the front side of the balance block according to below icon. Paste corresponding weight to the correction plane on the inner side of the spoke of the steel ring, as shown in Fig. 15.

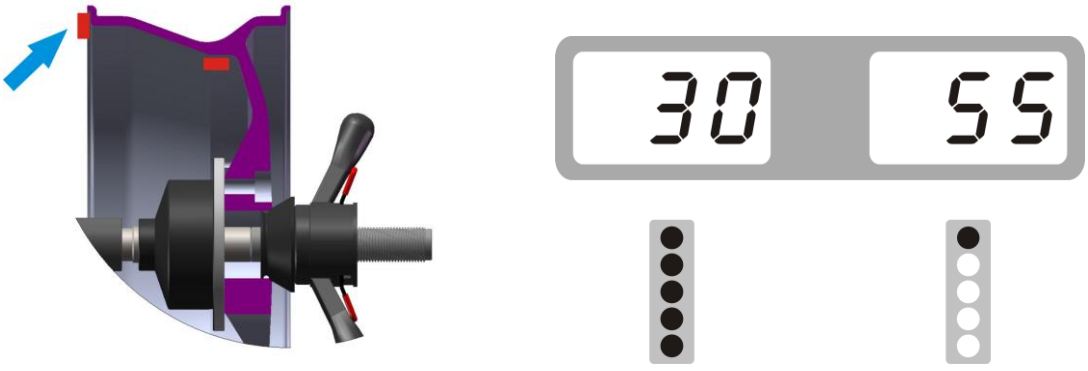


Fig.15

7）After placing the balance weight or pressing the start key, the wheel will rotate. If the operation is correct, the status shown in Fig. 16 will be displayed, indicating that the balance is successful.

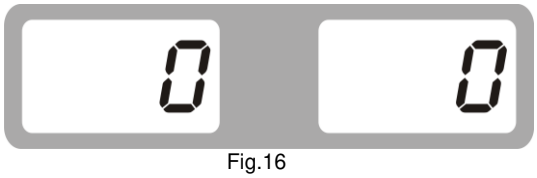


Fig.16

9 Static balance

After the dynamic balance testing is finished, select enter the static balance directly, and the static balance result will be automatically converted by the machine.

Start to do static balance test from the beginning should be carried out after the tire is loaded and the parameters are correctly input according to the following process

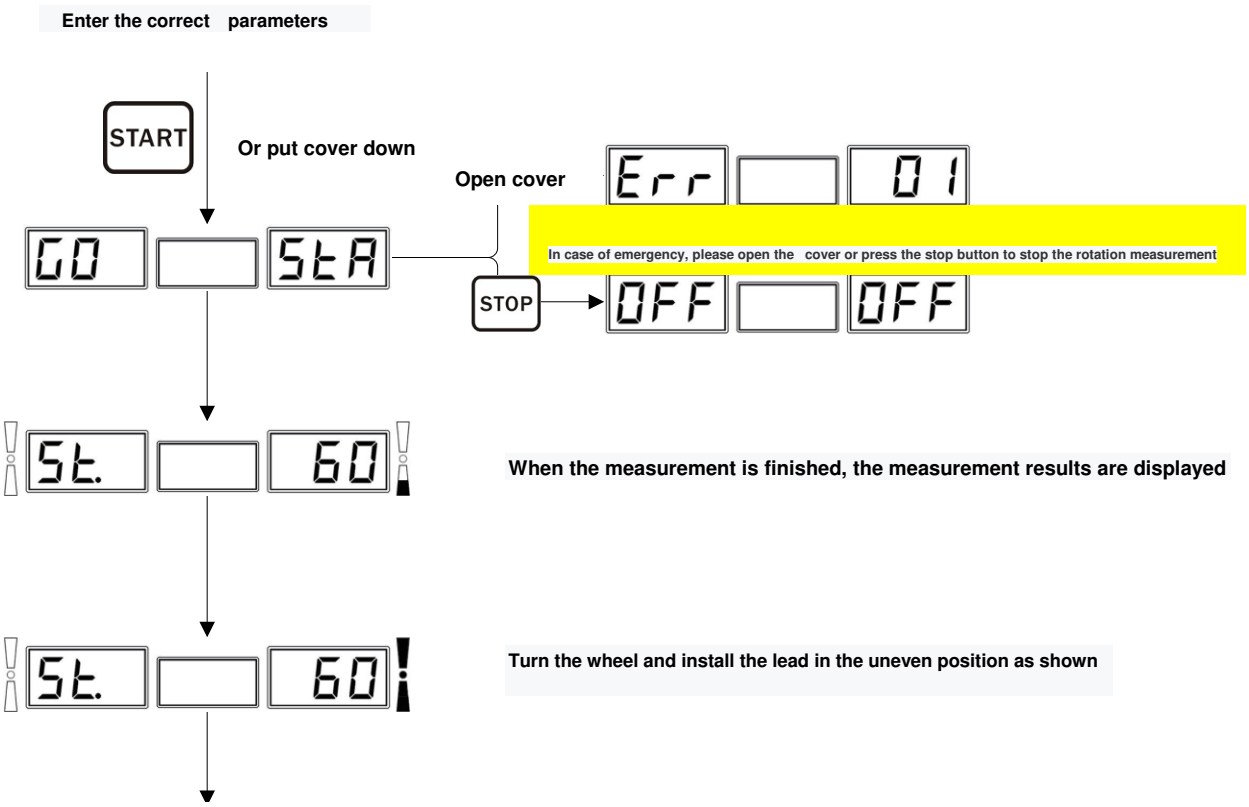


Fig.17

10.ALU1 — ALU3 balance

Alu balancing is an approximate induction of three kinds of lead sticking balancing methods based on the shape and size of most rims (Fig. 18)

After Alu is selected, the testing process is the same as the standard dynamic balance.

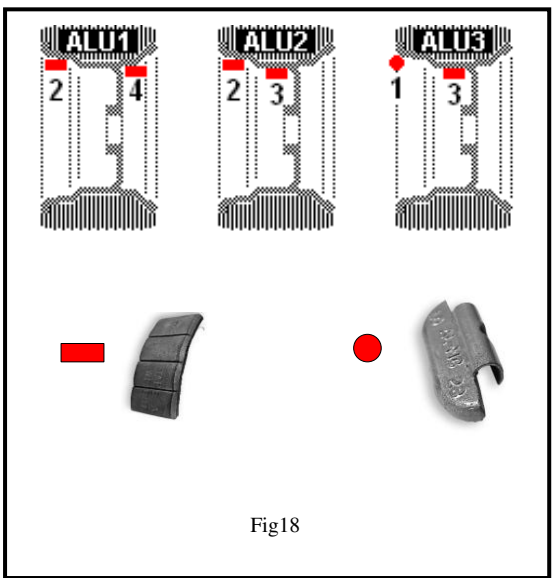


Fig18

After the test, the balance lead should be clamped on the flange at point 1, and the lead should be sticked on the rim if at points 2, 3 and 4,see fig. 18.

The special ruler can also be used to assist finishing lead pasting.

11 Calibration procedure

It is used for the initialization of the new machine, and also can be used for the equipment using for a period of time to eliminate the measurement error caused by the accumulated wear of the system, aging of parts, replacement or severe impact.

The calibration procedure must be carried out by two modes: truck mode and car mode. By truck mode or car mode, first press button , then press button to enter the calibration procedure. Fig.19

Fig.19

Select a tire with small unbalance value and install it on the balancer. After inputting the tire parameters correctly, press START or put down the hood to rotate the wheel. The display is shown in Fig. 20.

Fig.20

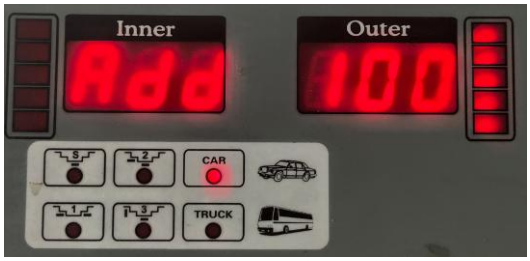


Fig.21

When it stops, it is shown as fig.21. Put 100 grams of lead on the outside of the rim at 12 o'clock, then press START or put down the hood, and the wheel rotates. The display is shown as in Fig. 20 / 22

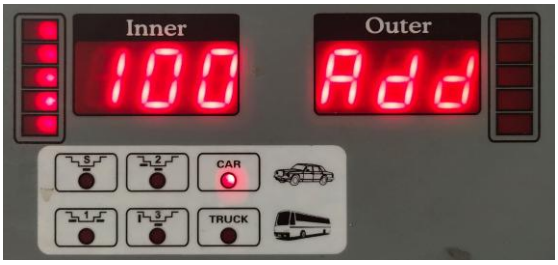


Fig.22

After the tire stops, Fig. 22 shows that 100 grams of lead is placed on inside of the rim at 12 o'clock，then press START or put down the hood，wheel rotates. It is shown as fig.23.

Fig.23