EVERET

*ALL FOR AUTO*

# ITEM NO:EE-3828

## USER MANUAL


**FOLLOW THE INSTRUCTIONS CAREFULLY TO GRANT THE MACHINE A CORRECT FUNCTION AND LONG SERVICE LIFE.**

**KEEP THE MANUAL NEAR THE MACHINE ALL TIME AND MAKE SURE ALL USERS HAVE READ THIS.**

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## 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
- 9 balancing modes: DYN, ALU1, ALU2, ALU 3，ALU 4，ALU5，ALUS1, ALUS2, ST
- Balancing speed：200r/min
- Cycle time：8s
- Rim diameter：10〃～24〃(256mm～610mm)
- Sound pressure level during work cycle：<70db

## 1.2. Features：

- Distance and diameter value input automatically
- Laser helped 9 o'clock position indication under ALU-S 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：

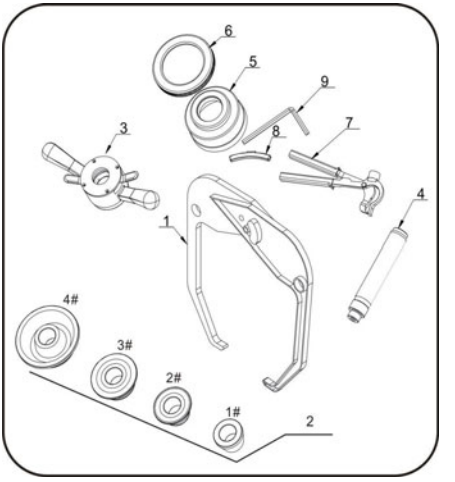
- Temperature：5～50℃
- Height：≤4000m

# 2． Machine assembly

## 2.1. Unpack

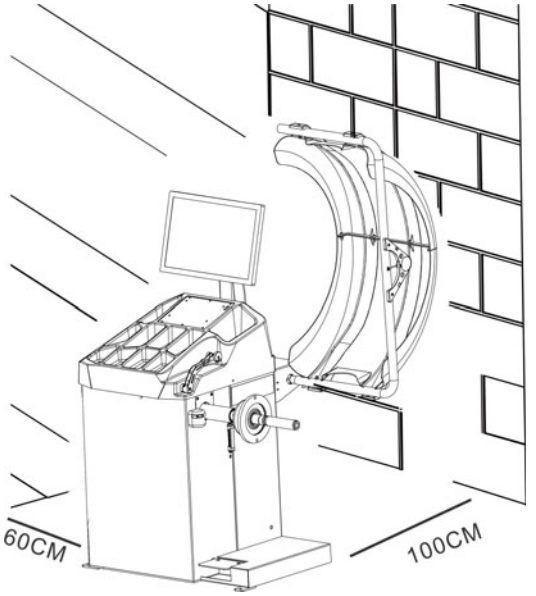
Unpack the carton, check if missing any spare parts.

| 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.

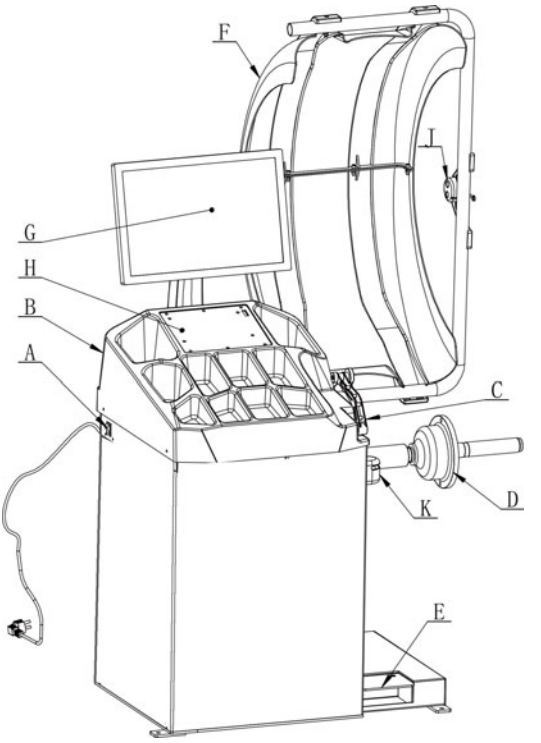
Main shaft-wheel—suitable cone( small head towards inside)—quick handle nut

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** | Cover with tool tray | **S** |
| **C** | Gauge head | **S** |
| **D** | Main shaft | **S** |
| **E** | Pedal breaker | **S** |
| **F** | Safe guard | S |
| **G** | Screen | S |
| **H** | Key board | S |
| **J** | Width Gauge | S |
| **K** | LASER | S |



**Screen (G)**

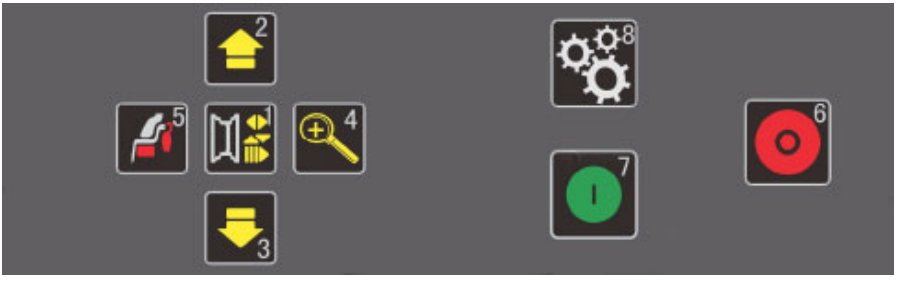

1. Inside amount of unbalance
2. Outside amount of unbalance
3. Balancing mode
4. Operating unit
5. Inside unbalance position indicator
6. Outside unbalance position indicator
7. Illustrated unbalance position
8. Function buttons to choose
9. Automatic lock

**Eight balancing modes**

| inside | Icon | outside | Balancing mode | Operation | Add weights |
|---|---|---|---|---|---|
| 12 o'clock |   | 12 o'clock | Default | 1.Turn on machine<br>2.Input a,b,d value<br>3.Start spin, after spin stop | Clip on weights on both sides of rim edge |
| 9 o'clock |   | 9 o'clock | ALU1 | 1. Turn on machine<br>2. Input a,b,d value<br>3. Press ALU button, indicator lit up<br>4. Start spin, after spin stop | Add adhesive weights on the rim shoulder both sides |
| 12 o'clock |   | 9 o'clock | ALU2 | 1. Turn on machine<br>2. Input a,b,d value<br>3. Press ALU button, indicator lit up | Clip on weight on inside rim edge, add adhesive weight on outside rim shoulder |

| | | | | | |
|---|---|---|---|---|---|
| | | | | 4. Start spin, after spin stop | |
| 9 o'clock |  | 12 o'clock | ALU3 | 1. Turn on machine<br>2. Input a,b,d value<br>3. Press ALU button, indicator lit up<br>4. Start spin, after spin stop | Add adhesive weights on the rim shoulder both sides |
| 12 o'clock |  | 12 o'clock | ALU4 | 1. Turn on machine<br>**2.** Input a,b,d value<br>**3.** Press ALU button, indicator lit up<br>**4.** Start spin, after spin stop | Clip on weight on inside rim edge, add adhesive weight on outside rim shoulder |
| 9 o'clock |  | 12 o'clock | ALU5 | 1. Turn on machine<br>2. Input a,b,d value<br>3. Press ALU button, indicator lit up<br>4. Start spin, after spin stop | Add adhesive weight on inside rim shoulder, clip on weight on outside rim edge |
| 12 o'clock |  | 12 o'clock | Static mode | 1. Turn on machine<br>2. Input a,b,d value<br>3. Press F button<br>3. Start spin, after spin stop | Add adhesive weight |
| 9 o'clock |  | 9 o'clock | ALUS-1 | 1. Turn on machine<br>2. Input aI,aE,d value<br>3. Start spin, after spin stop | Add adhesive weights on the two positions gauge head touch |
| 12 o'clock |  | 9 o'clock | ALUS-2 | 1. Turn on machine<br>2. Input aI,aE,d value<br>3. Start spin, after spin stop | Add adhesive weights on the two positions gauge head touch |

**Key board**




| Icon | Function | Icon | Function |
|---|---|---|---|

| | | | |
|---|---|---|---|
| | Input rim data | | Selection of “ALU” modes |
| | Data add key | | Stop/Cancel/ brake |
| | Data reduction key | | Start |
| | Unbalance display pitch and threshold | | Setting |

**Key combination function**

| Icon | Function | Icon | Function |
|---|---|---|---|
| | Inch / mm conversion | | Weight self calibration |

**Special functions (e.g. assembly)**

| Icon | Function | Icon | Function |
|---|---|---|---|
| | Automatic brake switch / can be used to load and unload tires | | Looking for imbalances |

# 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

Turn on machine, choose right way to install wheel according to the type of wheel. Set “a” “b” “d” values:

- Set “a” value： move the gauge to measuring position as illustrated as Fig.1, hold the gauge still in

position for approx. 4 seconds, successful memorization is given, then return the gauge to position 0.(The value measured in automatic mode appear on the display). Or press and and to change.

- Set “b” value：set nominal diameter “b” marked on the wheel or use the width gauge to measure the value of ”b” as Fig.2a, then press and and to change. If the balancer is with optional automatic width ruler, put down the plastic guard as Fig.2b, until there is a sound, means successful memorization is given, then release the gauge.
- Set “d” value： this value measured in automatic mode same time as “a” value setting, or press and and to change.

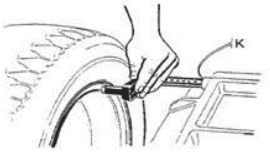



Fig.1

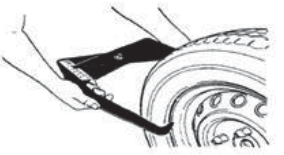


Fig.2 a

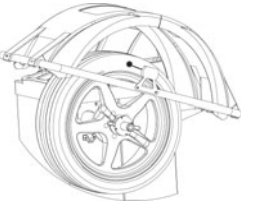
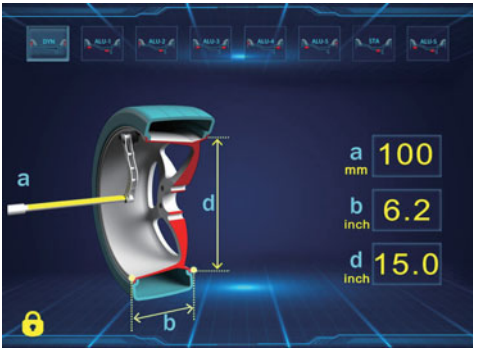


Fig.2 b




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 2 when the wheel stopped. (Press may check the real unbalance value under threshold.)

4.1.6. The left LED lit up full, clip weight on 12 o’clock position (Fig.3)

4.1.7.Press or to find the unbalance position on outside,when the wheel stopped, the right LED lit up full, clip weight on 12 o’clock position (Fig.4)


Fig.3


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-1 mode (ALU-1, ALU2, ALU 3，ALU 4，ALU5, same operation, only the position to add weights different)**

4.2.1. Set “a” “d” “b” values

4.2.2. Press  until ALU1 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 2 when the wheel stopped. (Press  may check the real unbalance value under threshold.)

4.2.5. The left LED will lit up full and the laser will indicate the correct angular position where to mount the counterweights, 9 o’clock position outside, as Fig.6, add the counterweight.


Fig. 6

4.2.6. Press  or  to find the unbalance position on outside,when the wheel stopped, the displays with right LED's lit up full and the laser will indicate the correct angular position where to mount the counterweights, 9 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

### 4.3. ALU－S mode

**This mode is used for special rim, if ALU1/ALU2 can not be used, you should choose ALUS mode.**

Input aI, aE, d value

- Set “aI”: pull gauge out let the gauge head touch the position for 4 seconds(as figure below), may press and and and to change
- Set “aE”: pull gauge out let the gauge head touch the position for 4 seconds(as figure below) ，may press and and and to change
- Set “dI”: read from rim, usually no need to operate, when input aI, dI will input automatically,or may press and and and to change
- Set “dE”: read from rim,usually no need to operate, when input aE, dE will input automatically, may press and and and to change

Touch pisition for inout aI

Touch pisition for inout aE

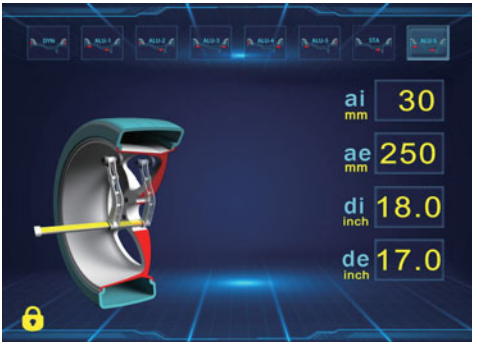



Fig. 9

Put down the guard to perform a measuring spin.

**4.3.1. 9o’clock position to add weight**

**Laser indication operation**

When the wheel stopped, the left LED lit up full, add weight on 9o’clock position follow the laser indication (Fig.10)


Fig. 10

Press  or  to find the unbalance position on outside,when the wheel stopped, the right LED lit up full, add weight on 9 o'clock position follow the laser indication (Fig.11)


Fig. 11

After finishing mounting the counterweights, put down the guard to perform balancing spin again, if comes out 00 00，means balancing succeed. (Fig.12)


Fig. 12

### 4.4. ALUS split function

**Note: Only ALU-S mode can use this function. And Operator must be experienced.**

| | | |
|---|---|---|
| 1 |  | In ALU-S mode, press |
| 2 |  | Press and to input the numbers of spokes, then press |

| | | |
|---|---|---|
| 3 |  | Keep the next spoke( either direction is ok) on the position of 12 o'clock, press  |
| 4 |  | Anticlockwise rotate wheel by hand slowly, until the outside SP1 lit up full, add the adhesive weight |
| 5 |  | Anticlockwise rotate wheel by hand slowly, until the outside SP2 lit up full, add the adhesive weight |
| 6 |  | Anticlockwise moving wheel slowly, the displays with left lit up full indicate the correct angular position where to mount the counterweights, 9 o'clock position inside |

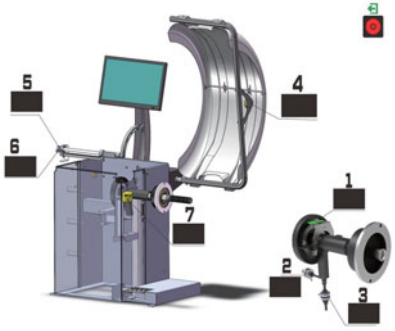
| | | |
|---|---|---|
| 7 |  | Put down safe guard and press , after spin stop |
| SP succeed | | |

## 5.Machine Setting and Self-calibration

Press goes to set machine, press and to change， Confirmation of entry

## 5.1Self diagnosis

| | | |
|---|---|---|
| press keys to enter. select and Select |  | press keys to enter |




| Order | Function | Function normal |
|---|---|---|
| 1 | Position pick up board | POS changes in 0-127 |
| 2 | Pressure sensor | Use hand to press main shaft, 4X-4X 6X-6X changes |
| 3 | Pressure sensor | Use hand to press main shaft, 4X-4X 6X-6X changes |
| 4 | Width potentiometer | left window data is 327-340, turn ruler to another direction, data changes |
| 5 | Diameter potentiometer | left window data is 327-340, turn ruler to another direction, data changes |
| 6 | Distance potentiometer | Left window data is 327-340, when pull gauge out, the data changes |
| 7 | Laser Indicator | There is a digital angle change. See if the indication is turning? |
| PS:When enter self diagnosis,Press  twice to access the manual and video functions,then will come 5.1.2 as follows | | |

### 5.1.2 User manual and video functions

Press  and  to choose, press the  key to enter, and exit through  .

| | |
|---|---|
|  | Customer's manual |
|  | English description |
|  | Operation video |

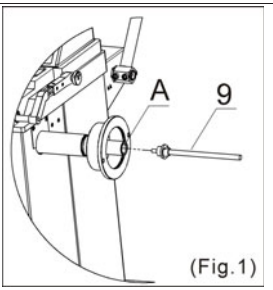
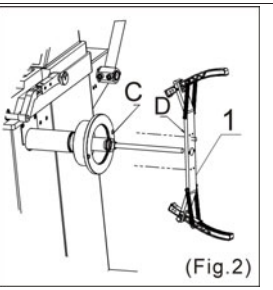
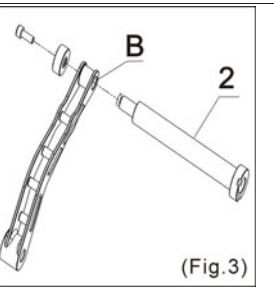
## 5.2 Machine setting

| | | |
|---|---|---|
| press keys to enter. select and Select |  | press keys to enter |


| Order | Display | Function | Function normal |
|---|---|---|---|
| 1 |  | Unit of weight | and for modification, for the next item |
| 2 |  | Unbalance display threshold | and for modification, for the next item |
| 3 |  | Rim type | and for modification, for the next item |

### 5.2.1. Motorcycle adaptor install

★Use the motorcycle adapter for wheel balancer we provide★

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

| 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.

### 5.3 Rim distance gauge calibration

| | | |
|---|---|---|
| press  keys to enter. select  and  Select |  | press  keys to enter |

| | | | |
|---|---|---|---|
| 1 |  | operation＞ | pull gauge to position “0” and hold, press  |
| 2 |  | operation＞ | pull gauge to position “15” and hold, press  |
| 3 |  | operation＞ | Calibration finished |

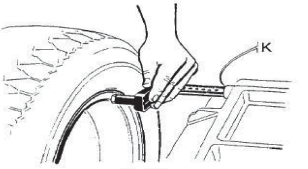
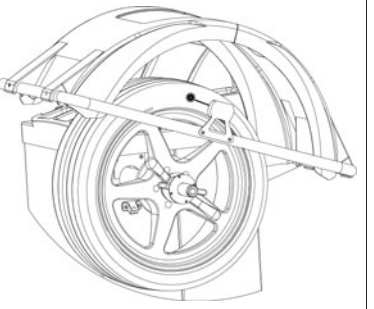
5. 4 Radar **Calibration of width gauge (**No tyres need to be installed**)**

| | | |
|---|---|---|
| press keys to enter. select and Select |  | press keys to enter |

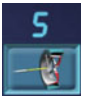
| | | | |
|---|---|---|---|
| 1 |  Keep the shield in position | omes＞ |  |
| Width gauge calibration finished | | | |

### 5.4.1 Width compensation for Radar

Tire installation required note (known tire width)

| | | | |
|---|---|---|---|
| 1 | A value must be entered | explain＞ |   fig. 20b |
| 2 | We're aiming the radar at the tires | explain＞ |  |
| 3 |  | explain＞ | Press + / at the same time to modify the known tire width |
| Put down the key to save automatically | | | |

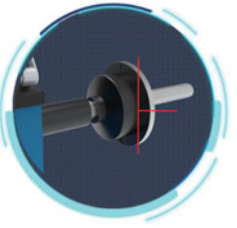
**5.5.Calibration of diameter gauge**(Install a tire)

| | | |
|---|---|---|
| press keys to enter. select and Select |  | press keys to enter |

| | | | |
|---|---|---|---|
| 1 |  | operation＞ | Enter diameters by and , then press keys to confirm. |
| 2 |  | operation＞ | move gauge to touch the edge of rim and keep still, press keys to confirm. |
| 3 |  | operation＞ | Calibration finished |

**5.6 Calibration of laser**

| | | |
|---|---|---|
| press keys to enter. select and Select |  | press keys to enter |

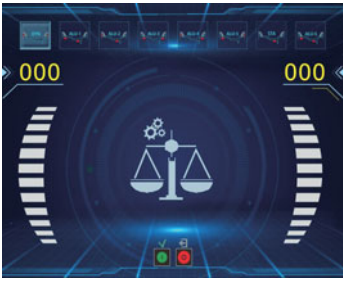
| | | | |
|---|---|---|---|
| 1 |  | operation＞ |  keys to confirm. |
| 2 |  | operation＞ | By  and  , the laser is aligned |
| 3 |  | operation＞ |  keys to confirm. |
| 4 |  | operation＞ | Calibration finished |

## 5.7. Self-calibration of weight

5.7.1 Self-calibration of wheel balancer

5.7.2 Turn on balancer, install a medium size wheel (14″-18″)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.

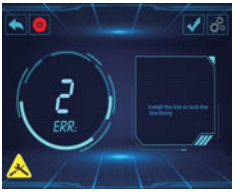
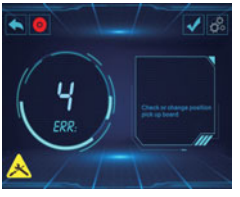
| | | |
|---|---|---|
| press  keys to enter. press  and  to select |  | press  keys to enter |

| | | | |
|---|---|---|---|
| 1 |  | operation＞ | Put down safe guard to start spin, after spin stop |
| 2 |  | operation＞ | 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 |
| 3 |  | operation＞ | Open the safe guard and remove the 100gram weight from outside then clip the 100 gram weight on the inside 12 o’clock position, put down safe guard to start spin, after spin stop |

| | | | |
|---|---|---|---|
| 4 |  | operation＞ | 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.

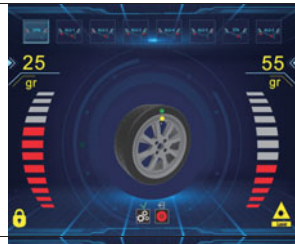
| No. | Errors | Reasons | Solution |
|---|---|---|---|
| 1 |  | 1. No spin<br>2. Shaft spin | 1. If no spin, check or change power board<br>2. If spin, check or change position pick up board and computer board<br>3. Adjust position pick up board support |
| 2 |  | 1. No wheel or wheel not locked tightly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

| | | | |
|---|---|---|---|
| 5 |  | 1. Micro switch problem<br>2. Computer board problem | 1.Check or change Micro switch<br>2.Check or change computer board |
| 6 |  | 1. Power board problem<br>2. Computer board problem | 1.Check or change power board<br>2.Check or change computer board |
| 7 |  | 1. Program lost<br>2. Computer board problem | 1.Self calibration<br>2. Check or change computer board |
| 8 |  | 1. No add 100g weight during self calibration<br>2 . Computer board problem<br>3. Power board problem | 1. Add 100g weight<br>2.Check or change computer board<br>3.Check or change power board |
| 9 |  | emergency stop | return |
| 10 |  | Data protection | 1. Contact vendor unlock<br>2. Update data |

## 7. OPT function

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

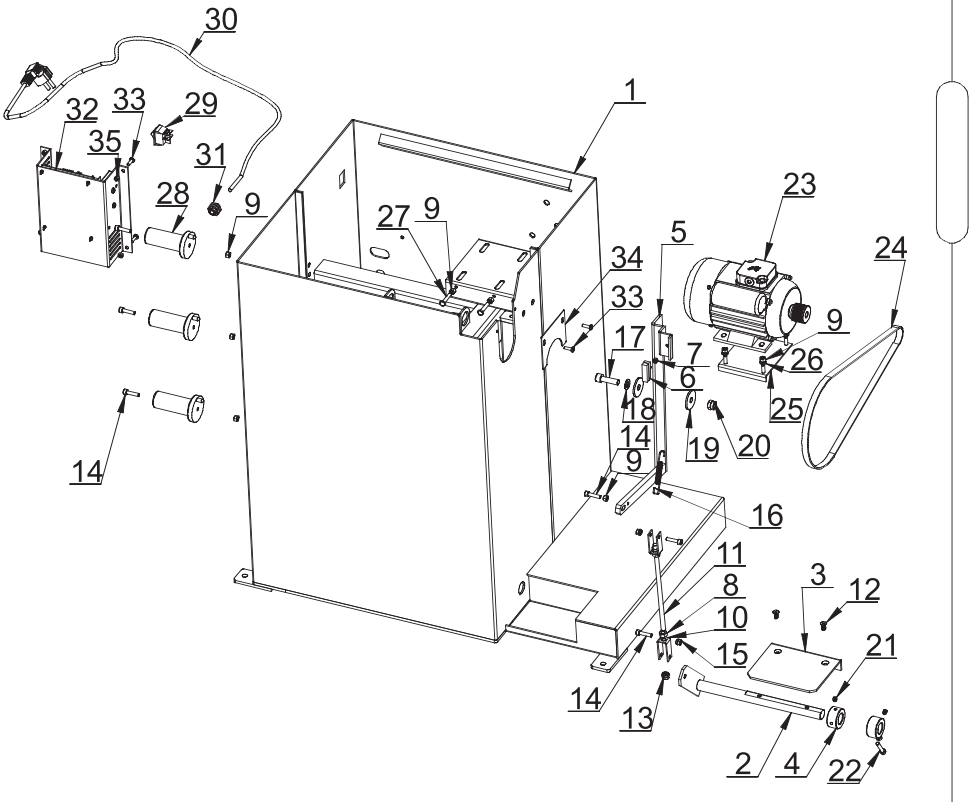
Install wheel, input a b d value

| | | | |
|---|---|---|---|
| 1 | Press  | comes> |  |
| 2 | Put down safe guard and press  | comes> |  |
| 3 | With the help of tire changer, change the rim and rubber 180 degree | reference> |  |
| 4 | Then put down safe guard and press  | 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> |  |

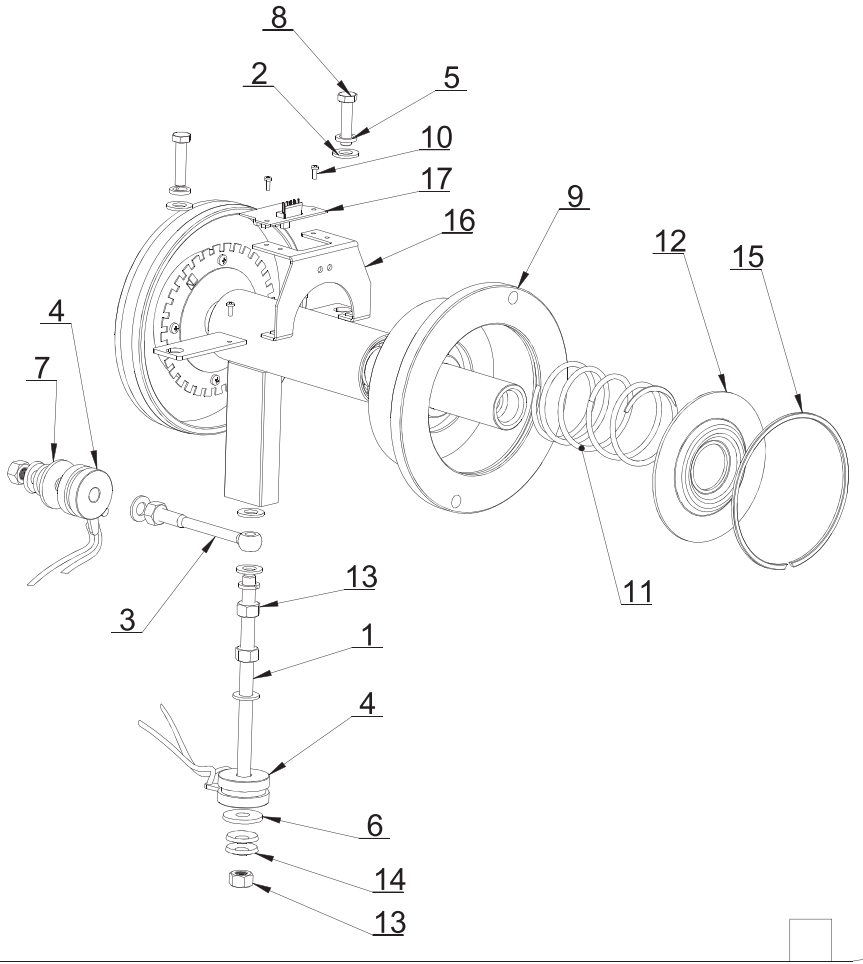
| | | | |
|---|---|---|---|
| 6 | Press  and  Rotate wheel until two indicators lit up (one on both sides, the dark spot in the right side picture), mark the position D with chalk on rim | reference＞ |  |
| 7 | Press  with the help of tire changer, change the rim and rubber to make C and D match | reference＞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

## 8.Spare parts list and exploded drawings

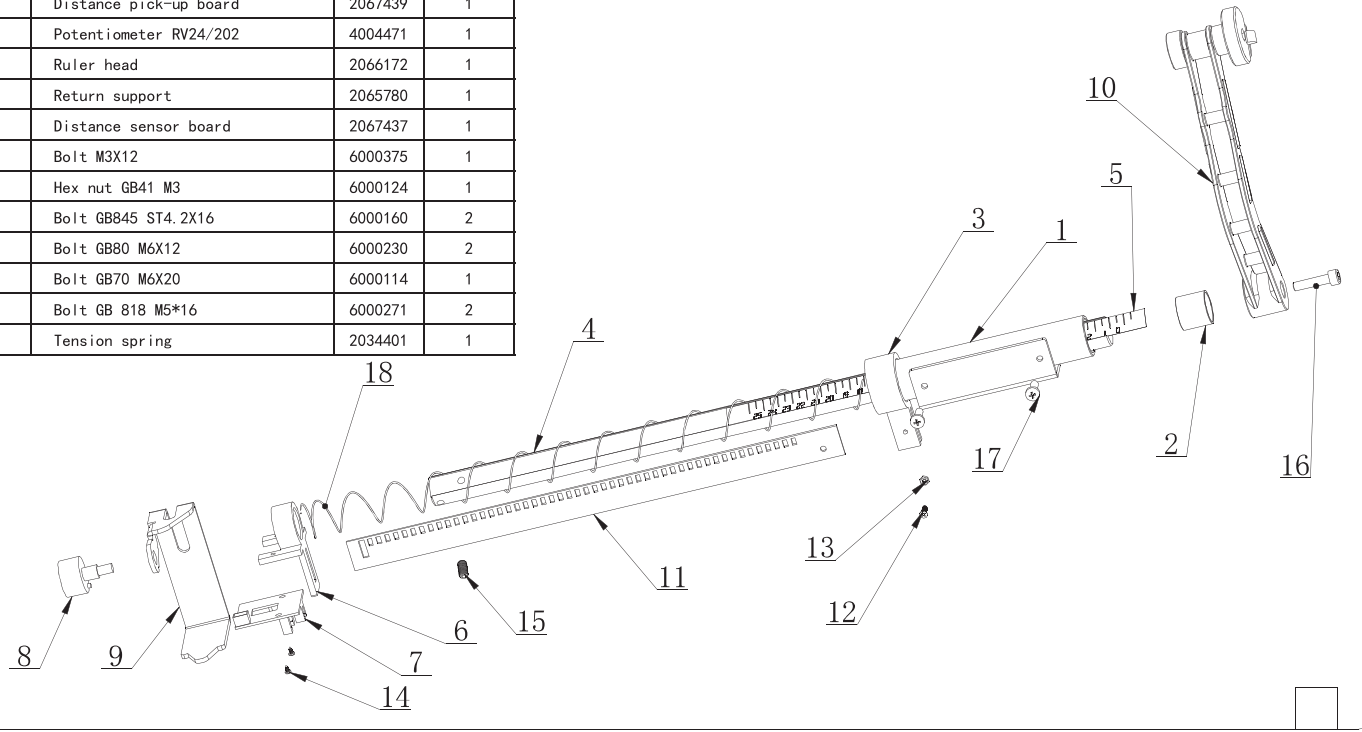
| ITEM NO | DESCRIPTION | PART NO. | Q'TY |
|---|---|---|---|
| 1 | Body | 2064814 | 1 |
| 2 | Foot lever | 2064939 | 1 |
| 3 | Brake pedal | 2064962 | 1 |
| 4 | Brake ring | 2064941 | 2 |
| 5 | Brake lever | 2064944 | 1 |
| 6 | Brake pads | 3005142 | 1 |
| 7 | Hex nut GB41 /M4 | 6000341 | 1 |
| 8 | Hex nut GB41 /M8 | 6000127 | 2 |
| 9 | Hex nut GB41 /M6 | 6000309 | 11 |
| 10 | Connecting | 2064942 | 2 |
| 11 | Connecting rod | 2065534 | 1 |
| 12 | Bolt GB2673 M6X12 | 6000417 | 2 |
| 13 | Hex nut GB889 /M8 | 6000148 | 2 |
| 14 | Bolt GB70 /M6X25 | 6000294 | 6 |
| 15 | Hex nut GB41 /M6 | 6000233 | 2 |
| 16 | Tension spring | 2010701 | 1 |
| 17 | Bolt GBT70 M10X60 | 6000289 | 1 |
| 18 | Flat washer GB95/Φ10 | 6000134 | 1 |
| 19 | Flat washer GB95 /Φ38x10x3 | 2037401 | 2 |
| 20 | Hex nut GB889 M10 | 6000143 | 1 |
| 21 | Bolt GB80 M6X12 | 6000230 | 2 |
| 22 | Bolt GB70/M6X35 | 6000207 | 1 |
| 23 | Motor MY6324 | 4003001 | 1 |
| 24 | Belt 380J5 | 6000171 | 1 |
| 25 | Fixed seat | 2034501 | 1 |
| 26 | Flat washerΦ6 | 6000138 | 4 |
| 27 | Bolt GB70/M6X30 | 6000120 | 2 |
| 28 | Holder | 2034301 | 3 |
| 29 | Power Switch | 4000801 | 1 |
| 30 | Plug | 4001901 | 1 |
| 31 | Cable glands | 4002201 | 1 |
| 32 | Power box | 2065781 | 1 |
| 33 | Bolt GB818 M5X16 | 6000271 | 4 |
| 34 | Small side plate | 2043601 | 1 |
| 35 | Hex nut GB41 /M6 | 6000125 | 4 |



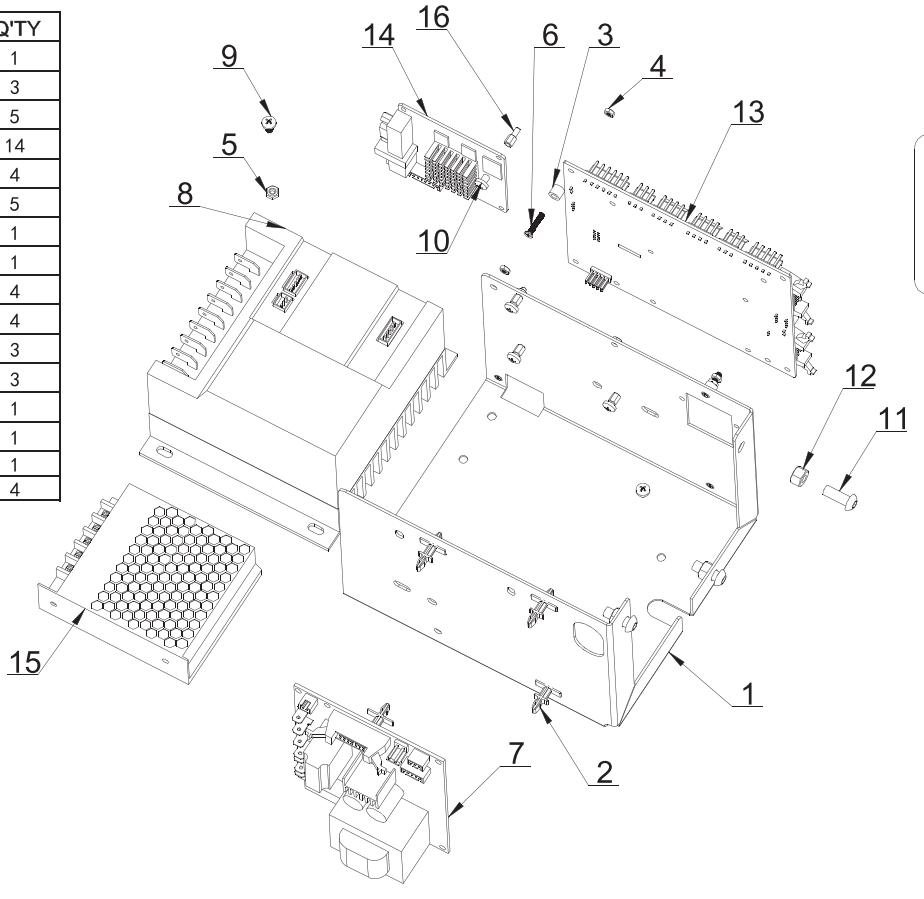
| ITEM NO | DESCRIPTION | PART NO. | Q'TY |
|---|---|---|---|
| 1 | Screw M10X160 | 6000201 | 1 |
| 2 | Flat washerGB95/Φ10 | 6000134 | 6 |
| 3 | Horizontal screw M10X160 | 6000176 | 1 |
| 4 | Pressure sensor | 4001701 | 2 |
| 5 | Spring washer GB93/Φ10 | 6000197 | 3 |
| 6 | Spring washer GB93Φ30x10x3 | 2052501 | 1 |
| 7 | Spring washer GB93Φ38x10x3 | 2037401 | 1 |
| 8 | Screw GB5783 M10X25 | 6000184 | 2 |
| 9 | Complete axle | 2032901 | 1 |
| 10 | Bolt GB818/M4X10 | 6000267 | 4 |
| 11 | Tower spring | 2042801 | 1 |
| 12 | Plastic lid | 3005013 | 1 |
| 13 | Hex nut GB41 M10 | 6000336 | 5 |
| 14 | Copper backing | 6000159 | 4 |
| 15 | Retaining ring | 2067389 | 1 |
| 16 | Support | 2034001 | 1 |
| 17 | Position pick-up board | 5000401 | 1 |



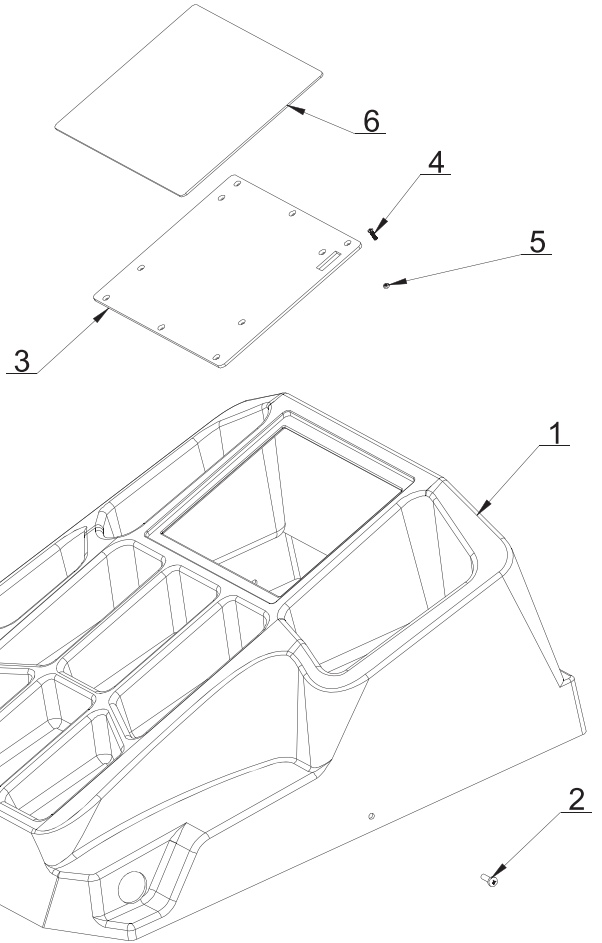
| ITEM NO | DESCRIPTION | PART NO. | Q'TY |
|---|---|---|---|
| 1 | Shaft | 2064812 | 1 |
| 2 | Plastic sleeve | 2064398 | 1 |
| 3 | Distance sensor board | 2067562 | 1 |
| 4 | Alumi num ruler | 2046301 | 1 |
| 5 | Footage number | 5001388 | 1 |
| 6 | Distance pick-up board | 2067563 | 1 |
| 7 | Distance pick-up board | 2067439 | 1 |
| 8 | Potentiometer RV24/202 | 4004471 | 1 |
| 9 | Ruler head | 2066172 | 1 |
| 10 | Return support | 2065780 | 1 |
| 11 | Distance sensor board | 2067437 | 1 |
| 12 | Bolt M3X12 | 6000375 | 1 |
| 13 | Hex nut GB41 M3 | 6000124 | 1 |
| 14 | Bolt GB845 ST4.2X16 | 6000160 | 2 |
| 15 | Bolt GB80 M6X12 | 6000230 | 2 |
| 16 | Bolt GB70 M6X20 | 6000114 | 1 |
| 17 | Bolt GB 818 M5*16 | 6000271 | 2 |
| 18 | Tension spring | 2034401 | 1 |

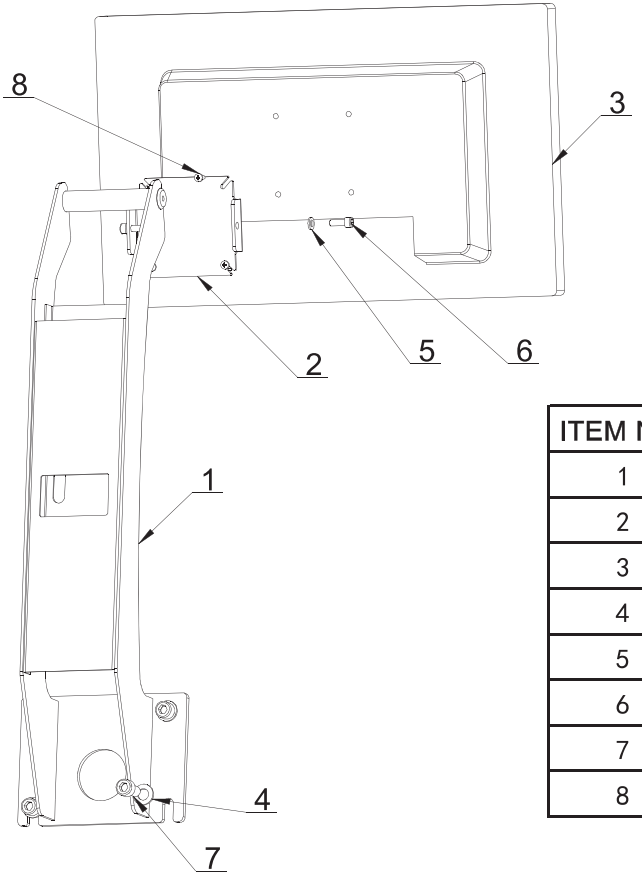


| ITEM NO | DESCRIPTION | PART NO. | Q'TY |
|---|---|---|---|
| 1 | Power box | 2066379 | 1 |
| 2 | Support | 4004380 | 3 |
| 3 | Support | 4004389 | 5 |
| 4 | Hex nut GB41 M3 | 6000124 | 14 |
| 5 | Hex nut GB41 M4 | 6000341 | 4 |
| 6 | Bolt GB819 M3X15 | 6000375 | 5 |
| 7 | Electric power board | 5001443 | 1 |
| 8 | Driving module | 5001444 | 1 |
| 9 | BoltGB818 M4X12 | 6000267 | 4 |
| 10 | BoltGB818 M3X5 | 6000513 | 4 |
| 11 | Bolt GB70 M6X16 | 6000407 | 3 |
| 12 | Hex nut GB41 M6 | 6000309 | 3 |
| 13 | Computer bard | 5001441 | 1 |
| 14 | VGA display card | 5001442-01 | 1 |
| 15 | Display card power supply | 4004507 | 1 |
| 16 | Support | 6000512 | 4 |



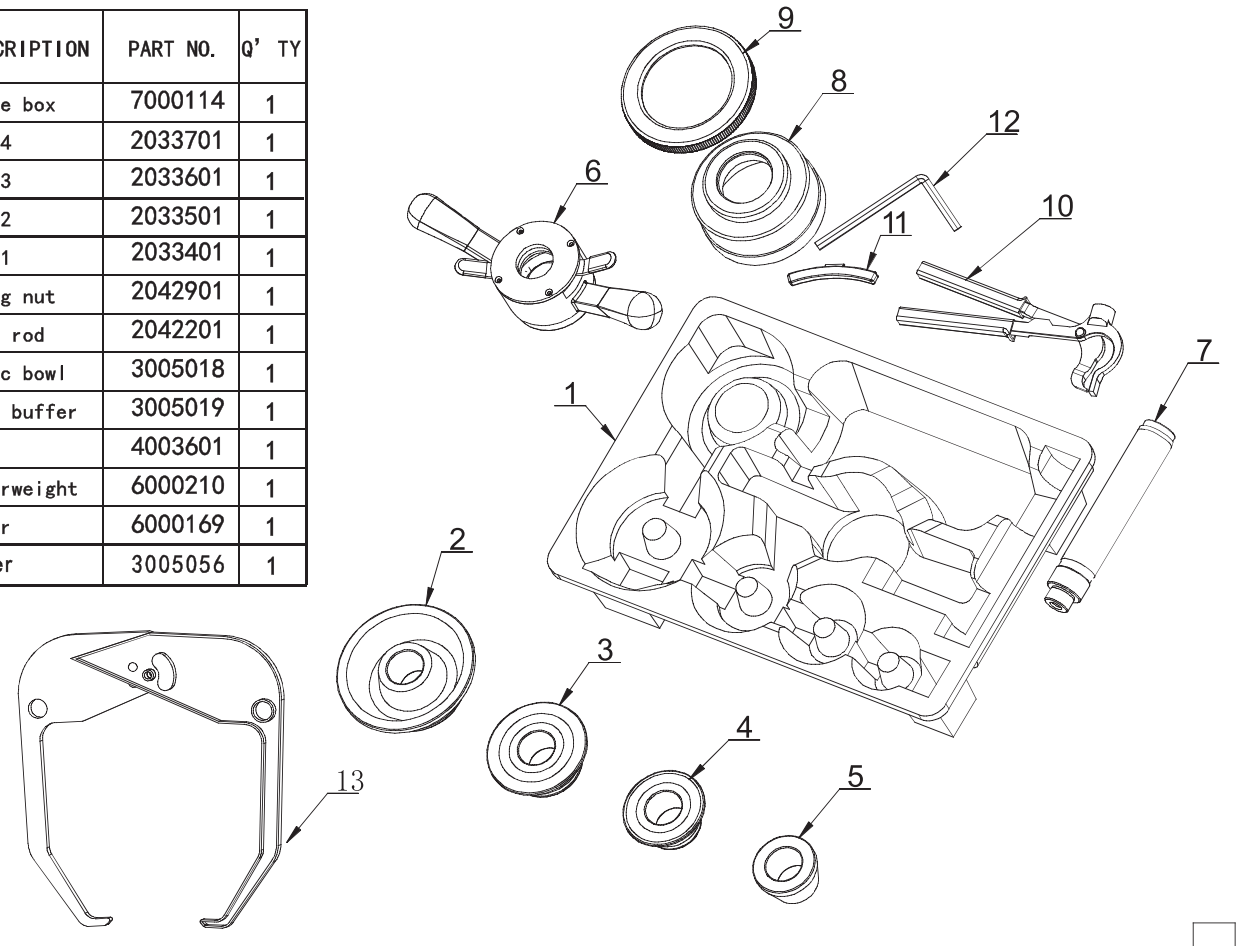
| ITEM NO | DESCRIPTION | PART NO. | Q'TY |
|---|---|---|---|
| 1 | Head with Tools Tray | 3005394 | 1 |
| 2 | Bolt GB818/ M5X16 | 6000271 | 3 |
| 3 | Fix Plate | 2066356 | 1 |
| 4 | Bolt GB819/M3X16 | 6000374 | 4 |
| 5 | Hex nut GB41 M3 | 6000124 | 4 |
| 6 | Key board | 5001439 | 1 |



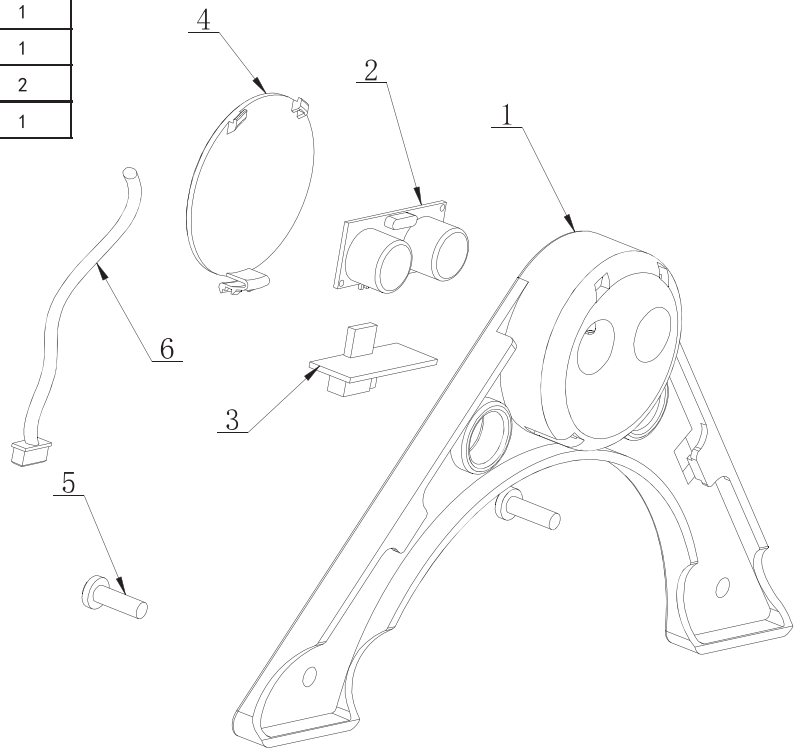



| ITEM NO | DESCRIPTION | PART NO. | Q'TY |
|---|---|---|---|
| 1 | Display bracket | 2066527 | 1 |
| 2 | Display mounting plate | 2066520 | 1 |
| 3 | Display | 5001445 | 1 |
| 4 | flat washer Φ10 | 6000134 | 4 |
| 5 | flat washer Φ6 | 6000138 | 5 |
| 6 | Bolt M6X20 | 6000114 | 2 |
| 7 | Bolt M10X25 | 6000184 | 1 |
| 8 | Bolt M4X8 | 6000267 | 4 |

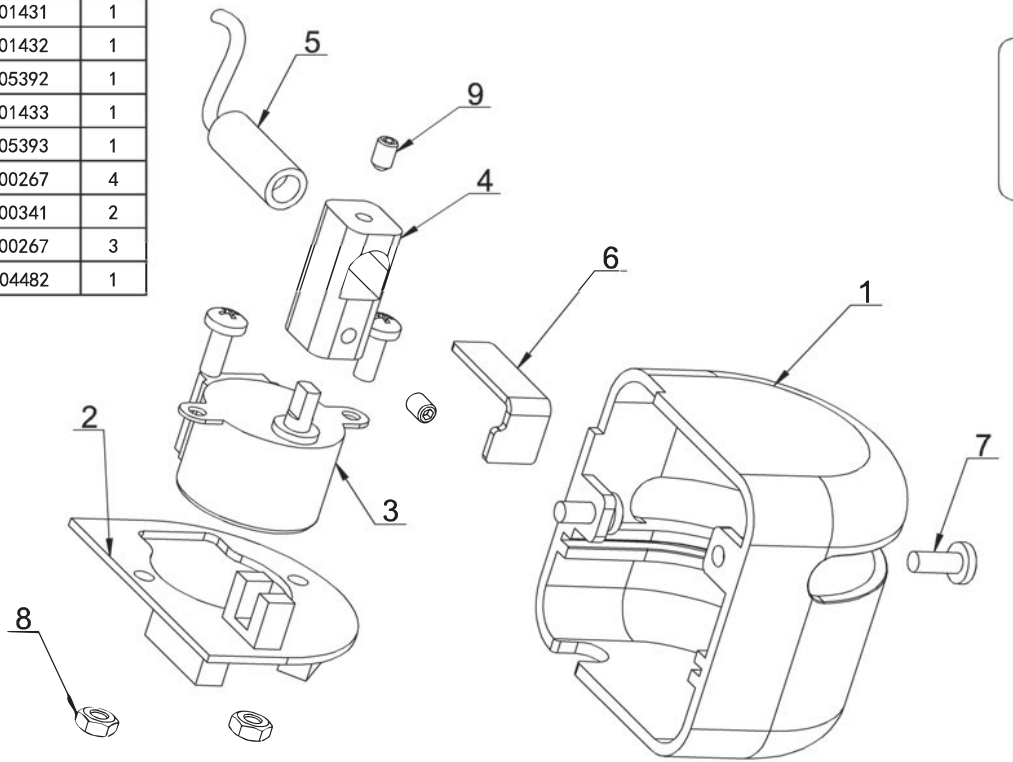
| ITEM NO | DESCRIPTION | PART NO. | Q' TY |
|---|---|---|---|
| 1 | Package box | 7000114 | 1 |
| 2 | Conic 4 | 2033701 | 1 |
| 3 | Conic 3 | 2033601 | 1 |
| 4 | Conic 2 | 2033501 | 1 |
| 5 | Conic 1 | 2033401 | 1 |
| 6 | Locking nut | 2042901 | 1 |
| 7 | Thread rod | 2042201 | 1 |
| 8 | Plastic bowl | 3005018 | 1 |
| 9 | Rubber buffer | 3005019 | 1 |
| 10 | Hammer | 4003601 | 1 |
| 11 | Counterweight | 6000210 | 1 |
| 12 | Spanner | 6000169 | 1 |
| 13 | Caliper | 3005056 | 1 |



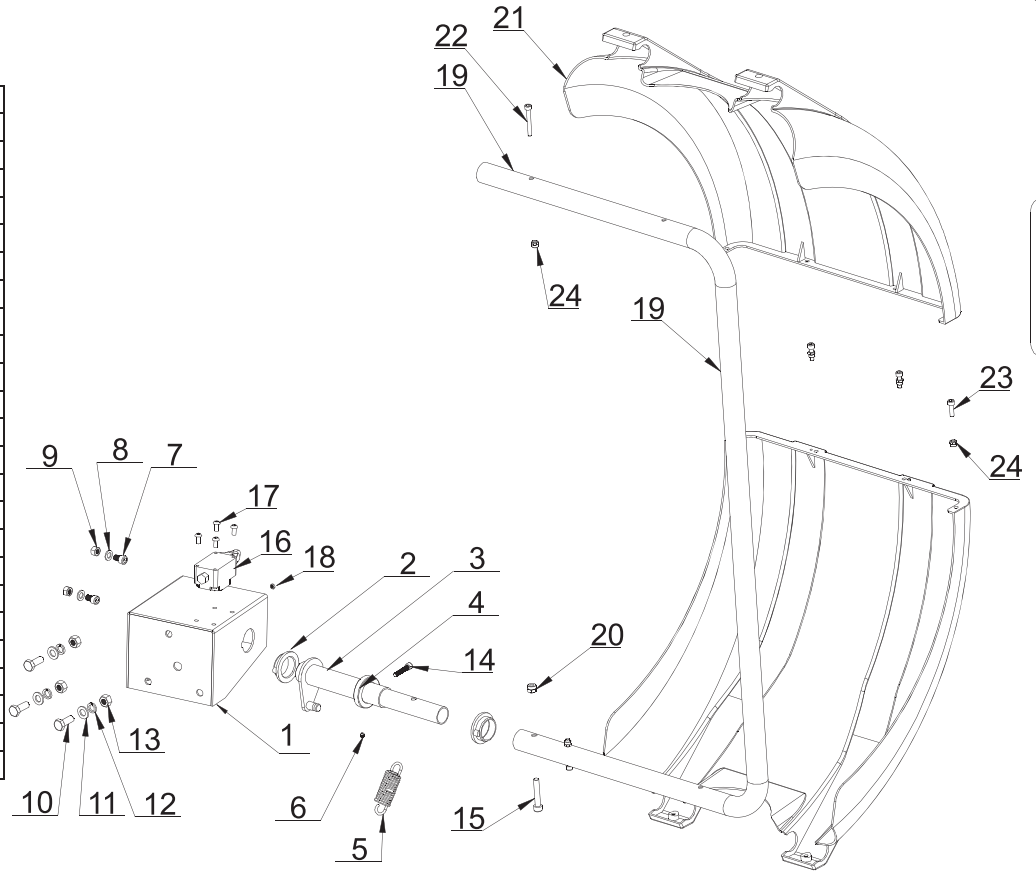
| ITEM NO | DESCRIPTION | PART NO. | Q'TY |
|---|---|---|---|
| 1 | Radar housing | 3005423A | 1 |
| 2 | Radar ranging module | 2067613 | 1 |
| 3 | Radar control board | 2067614 | 1 |
| 4 | shell | 3005423B | 1 |
| 5 | Bolt GBT818 M5X16 | 6000271 | 2 |
| 6 | Radar control line | 4002209 | 1 |



| ITEM NO | DESCRIPTION | PART NO. | Q'TY |
|---|---|---|---|
| 1 | Protective shell | 3005391 | 1 |
| 2 | Laser Control Board | 5001431 | 1 |
| 3 | (28BYJ-48)motor | 5001432 | 1 |
| 4 | Laser Fixed Bracket | 3005392 | 1 |
| 5 | Cross Laser Head | 5001433 | 1 |
| 6 | Control Zero | 3005393 | 1 |
| 7 | Bolt GB818 M4X10 | 6000267 | 4 |
| 8 | Hex nut GB41 M4 | 6000341 | 2 |
| 9 | Bolt GB80 M4X8 | 6000267 | 3 |
| 10 | The signal line | 4004482 | 1 |



| ITEM NO | DESCRIPTION | PART NO. | Q'TY |
|---|---|---|---|
| 1 | Protection box | 2043701 | 1 |
| 2 | Plastic ferrule | 3002301 | 2 |
| 3 | Shaft | 2036601 | 1 |
| 4 | Ferrule | 2034201 | 1 |
| 5 | Tension spring | 2053501 | 1 |
| 6 | Bolt GB80/M6X10 | 6000130 | 1 |
| 7 | Bolt GB70/M8X20 | 6000102 | 2 |
| 8 | washer GB95/Φ8 | 6000142 | 2 |
| 9 | Hex nut GB41 M8 | 6000127 | 2 |
| 10 | Screw GB5783 M10X25 | 6000184 | 3 |
| 11 | washer GB95/Φ10 | 6000134 | 3 |
| 12 | Spring washer GB93/Φ10 | 6000197 | 3 |
| 13 | Hex nut GB41 M10 | 6000123 | 3 |
| 14 | Bolt GB5783 M6X35 | 6000207 | 1 |
| 15 | Bolt GB70 M8X45 | 6000435 | 1 |
| 16 | Micro switch | 4004496 | 1 |
| 17 | Bolt GB818 M6X12 | 6000478 | 4 |
| 18 | Hex nut GB41 M4 | 6000341 | 0 |
| 19 | Bend pipe | 2033301 | 1 |
| 20 | Hex nut M8 | 6000127 | 1 |
| 21 | Plastic cover (0716) | 3002501 | 2 |
| 22 | Bolt GB70 M6X45 | 6000435 | 2 |
| 23 | Bolt GB70 M6X20 | 6000114 | 4 |
| 24 | Hex nut M6 | 6000309 | 6 |

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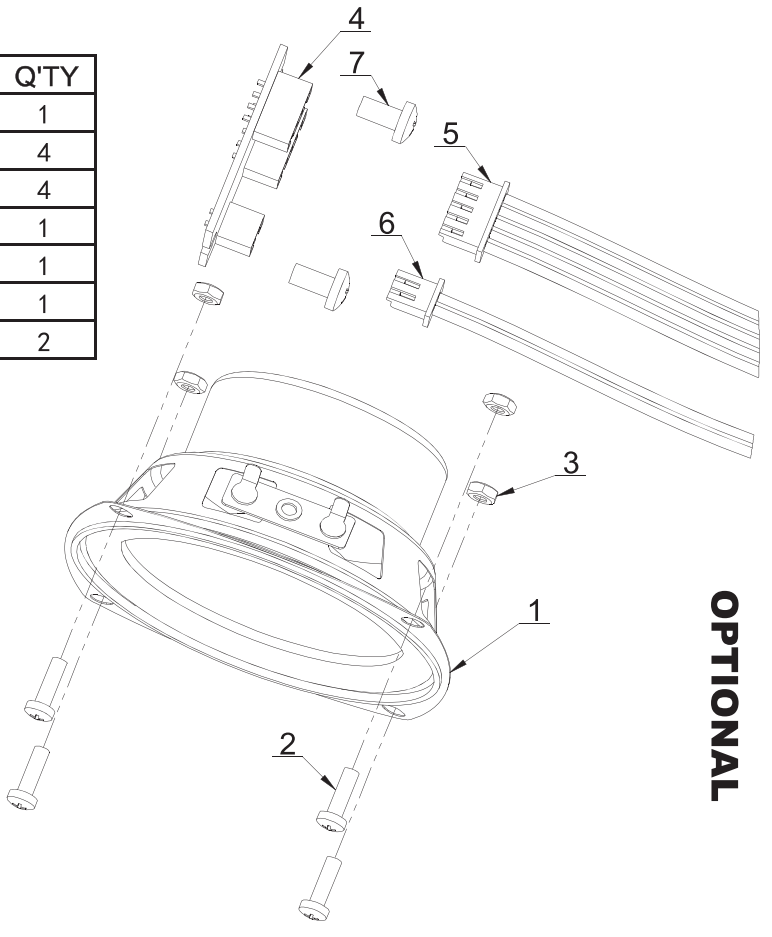
| ITEM NO | DESCRIPTION | PART NO. | Q'TY |
|---|---|---|---|
| 1 | Speaker | 2066466 | 1 |
| 2 | Bolt GB818 M3*15 | 6000510 | 4 |
| 3 | Hex nut GB41 M3 | 6000124 | 4 |
| 4 | Voice control board | 2066469 | 1 |
| 5 | The signal line | 4004488 | 1 |
| 6 | Speaker Cable | 2066470 | 1 |
| 7 | Bolt GB818 M4*8 | 6000393 | 2 |




OPTIONAL