



WHEEL BALANCER

USER MANUAL

WB-953-UL/CSA

Pls read this manual before operation

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IMPORTANT SAFETY INSTRUCTIONS

1. Read all instructions.
2. Do not operate equipment with a damaged cord or if the equipment has been dropped or damaged – until it has been examined by a qualified service person.
3. Do not let a cord hang over the edge of the table, bench, or counter or come in contact with hot manifolds or moving fan blades.
4. If an extension cord is necessary, a cord with a current rating equal to or more than that of the equipment should be used. Cords rated for less current than the equipment may overheat. Care should be taken to arrange the cord so that it will not be tripped over or pulled.
5. Always unplug equipment from electrical outlet when not in use. Never use the cord to pull the plug from the outlet. Grasp plug and pull to disconnect.
6. Let equipment cool completely before putting away. Loop cord loosely around equipment when storing.
7. To reduce the risk of fire, do not operate equipment in the vicinity of open containers of flammable liquids (gasoline).
8. Keep hair, loose clothing, fingers, and all parts of body away from moving parts.
9. To reduce the risk of electric shock, do not use on wet surfaces or exposed to rain.
10. Use only as described in this manual. Use only manufacturer's recommended attachments.
11. ALWAYS WEAR SAFETY GLASSES. Everyday eyeglasses only have impact resistant lenses, they are not safety glasses.
12. To reduce the risk of injury, close supervision is necessary when this product is used around children. (Pertains to cabinets only.)
13. To reduce the risk of electric shock or fire, never overload receptacles. Refer to markings for the proper load on receptacles.

SAVE THESE INSTRUCTIONS

1. INTRODUCTION

The purpose of this manual is to provide the owner and operator of this machine with a set of safe and practical instructions for the use and maintenance of the wheel balancer.

If such instructions are carefully followed, the machine will offer you the levels of efficiency and duration. The following paragraphs define the levels of danger regarding the machine.



DANGER: REFERS TO IMMEDIATE DANGER WITH THE RISK OF SERIOUS INJURY OR DEATH.



WARNING: DANGERS OR UNSAFE PROCEDURES THAT CAN CAUSE SERIOUS INJURY OR DEATH.



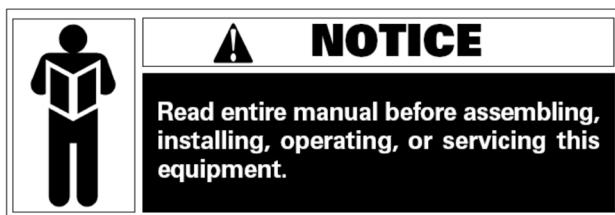
CAUTION: DANGERS OR UNSAFE PROCEDURES THAT CAN CAUSE MINOR INJURIES OR DAMAGE TO PROPERTY.



IMPORTANT: REMINDERS AND SPECIAL NOTES

Read these instructions carefully before using the machine. Keep this manual and the illustrated materials supplied with the equipment in a folder near the place of operation so as to allow the machine operators to consult the documentation at any time.

The manual is only to be considered valid for the machine serial number and model stated on the attached nameplate.



The instructions and information described in this manual must always be complied with; the operator will be held responsible for any operation not specially described and authorized in this manual.

Some of the illustrations contained in this booklet have been taken from pictures of prototypes: standard production machines may differ slightly in certain respects. These instructions are for the attention of personnel with basic mechanical skills. We have therefore condensed the descriptions of each operation by omitting detailed instructions regarding, for example, how to loosen or tighten the fixing devices. Do not attempt to perform operations unless properly qualified or with suitable experience. If necessary, please contact an authorized Service Center for assistance.

UNPACKING:



Take the utmost care when unpacking, assembling, lifting, and setting up the machine as indicated below. Failure to observe these instructions can damage the machine and compromise the operator's safety.

Remove the original packing materials after positioning them as indicated on the packaging.



All regulations in force concerning safety at work must be complied with when choosing the installation position. In particular, the machine must only be installed, and operated in protected environments where there is no risk of exposure to dripping water.



For the correct and **Safe Operation of the Machine**, the **Lighting Level** in the place of use should be a **minimum of 300 lux**.

Environmental operating conditions must comply with the following requirements:

- Relative humidity ranging from 30% to 80% (without condensation)
- Temperatures range from 0° to +50°C.

SAFETY REGULATIONS:



Failure to comply with the instructions and danger warnings can cause serious injuries to the operator or other persons. Do not operate the machine until you have read and understood all the **Danger & Warning** notices in this manual.

The correct use of this machine requires a qualified and authorized operator. This operator must be able to understand the manufacturer's written instructions, be suitably trained and be familiar with the safety procedures and regulations. Operators are forbidden to use the machine under the influence of alcohol or drugs that could affect his/her physical and mental capacity.

ESSENTIAL SAFETY CONDITIONS:

- Read and understand the information and instructions described in this manual.
- Have thorough knowledge of the features and characteristics of the machine.
- Keep unauthorized persons well clear of the working area.
- Make sure the machine is installed in compliance with all relevant standards & regulations in force.
- Ensure machine operators are suitably trained, capable of using the machine correctly & safely and are adequately supervised during work.
- Do not touch any electrical lines and/or the inside of electric motor(s) or any other electrical equipment before making sure the unit has been powered off.
- Read this manual carefully and learn how to use the machine correctly and safely.
- Always keep this user manual in a place where it can be readily available for reference.



Do not remove or deface the **DANGER, CAUTION, WARNING, or INSTRUCTION Decals**. Replace any missing or illegible decals. If any decals have become detached or damaged, contact the dealer or distributor to obtain replacements.

Observe the unified industrial accident prevention regulations relating to high voltages and rotating machinery whenever the machine is in use or being serviced.

Any unauthorized changes or modifications made to the machine automatically release the manufacturer from any liability in the case of damage or accidents resulting from such changes or modifications.



WEAR PROTECTIVE GLOVES



READ OPERATION MANUAL



WEAR PROTECTIVE GLASSES



POWER OFF THE ELECTRICAL SOURCE OF MACHINE DURING MAINTENANCE

MEANING OF DECALS:



LIGHTNING SYMBOL: POSITIONED ON THE BACK OF MACHINE, INDICATES POWER SUPPLY CABLE, AND WARNS THE USER TO PAY ATTENTION TO HIS SAFETY.

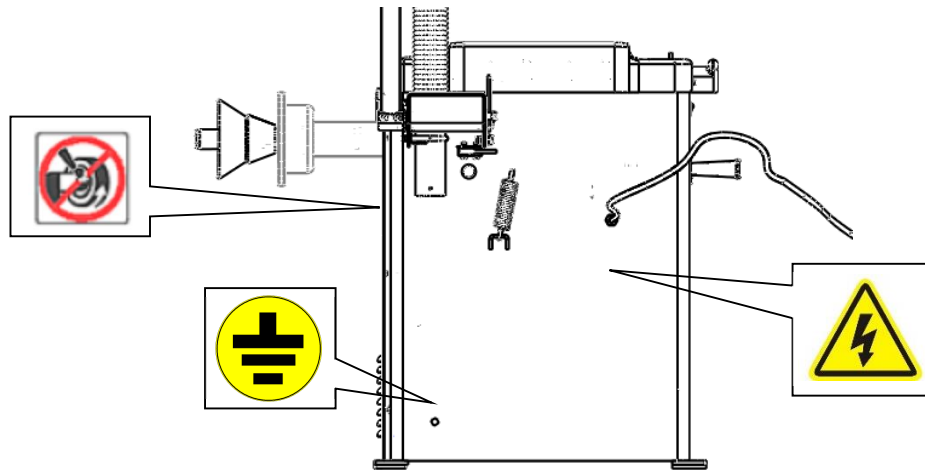


WARNING FOR ROTATING MACHINE PART: POSITIONED NEXT TO THE BALANCING SHAFT, REMINDS USER THAT THIS IS A ROTATING PART AND THEREFORE DANGEROUS AND SHOULD NOT BE TOUCHED WITH THE HANDS. THE ARROW INDICATES THE ROTATION DIRECTION.



GROUNDING SYMBOL: POSITIONED ON THE REAR LEFT SIDE OF THE MACHINE, INDICATES WHERE TO CONNECT THE GROUND WIRE.

DECALS LOCATIONS DIAGRAM:



CERTIFICATION COMPLIANCES:

WB-953-UL/CSA WHEEL BALANCER



#E115745

CERTIFIED TO FOLLOWING STANDARDS

- **Garage Equipment:**
UL 201, 3rd Edition, Rev April 2023
- **Motor Operated Appliances / Household & Commercial:**
CSA C22.2 No. 68.18, 8th Edition, Rev May 2019

Tuxedo Distributors, LLC.

ELECTRICAL REQUIREMENTS:

The standard version of the machine must be connected to a mains **110V, 60HZ, SINGLE PHASE**. To complete the electric connection, apply the plug provided for in the user's country to the machine power supply cable. 30 Amp Circuit Breaker required.



ALL OPERATIONS REQUIRED TO MAKE ELECTRICAL CONNECTION (HOWEVER SLIGHT) ON THE ELECTRICAL PARTS MUST BE CARRIED OUT BY QUALIFIED PERSONNEL.

Electrical cables must be sized according to the electrical power absorbed by the machine. The user must:

- Check that the supply voltage corresponds to the voltage indicated on the nameplate of the machine.
- Check the condition of wires and the presence of the ground conductor.
- Check that the machine is connected to its own electrical connection, fitted with a proper automatically shutting off device against over current, with 30 mA trip sensitivity (circuit breaker).
- Connect the power supply cable to the plug with the utmost care, in accordance with applicable regulations.



WHEN THE MACHINE IS OFF AND UNUSED FOR LONG PERIODS, IT IS NECESSARY TO DISCONNECT THE POWER SUPPLY PLUG TO PREVENT USE BY UNAUTHORIZED PERSONNEL.



IF CONNECTION TO THE ELECTRICAL LINE OCCURS DIRECTLY THROUGH THE GENERAL ELECTRICAL PANEL, WITHOUT THE USE OF ANY PLUG, IT IS NECESSARY TO SET UP A SWITCH TO RESTRICT USE EXCLUSIVELY FOR QUALIFIED PERSONNEL.



IN CASE OF OPERATIONS ON LINES, MOTOR INTERNAL PARTS OR ANY ELECTRIC EQUIPMENT, IT IS NECESSARY TO CUT OFF POWER FIRST.



DO NOT REMOVE WARNING, CAUTION & INSTRUCTION DECALS REMOVED OR DAMAGED STICKERS CAN BE SOURCED FROM THE DEALER OF THE MANUFACTURER.



ANY DAMAGE RESULTING FROM FAILURE TO COMPLY WITH THE ABOVE INSTRUCTIONS WILL NOT BE CHARGED TO THE MANUFACTURER AND MAY INVALIDATE THE WARRANTY.

2. INTENDED USE

This manual is an integral part of the product. Carefully read the Warnings, Cautions and Instructions contained in this manual as they provide important information about **SAFE USE** and **MAINTENANCE**.



KEEP THIS HANDBOOK WITH CARE NEAR THE MACHINE TO FACILITATE ANY CONSULTATION BY OPERATORS.

TECHNICAL DATA:

The (WB-953) wheel balancer has been made to balance wheels for automobiles (CAR), Motorcycle wheel (MOT) with a max wheel weight of 143 lbs (65 kg). The machine can work on wheels with a max diameter of 44" (1118 mm) and rim diameter from 10" to 24" (254 to 610 mm) and rim width range from 1.5" to 20" (38 to 508 mm). All functions and controls can be set via a number of keys arranged on the panel. The balancing data is displayed on an LED display.

GENERAL SAFETY RULES:



THE WHEEL BALANCER MUST BE USED EXCLUSIVELY FOR THE PURPOSE FOR WHICH IT HAS BEEN DESIGNED. ANY OTHER USE IS CONSIDERED INCORRECT AND UNREASONABLE.



THE WHEEL BALANCER MAY BE USED BY AUTHORIZED, TRAINED PERSONNEL ONLY. DO NOT PUT ANY OBJECTS IN THE BASE WHICH MAY AFFECT THE CORRECT OPERATION OF THE WHEEL BALANCER.



THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY DAMAGE TO PEOPLE OR PROPERTY CAUSED BY UNAUTHORIZED PERSONNEL OR IMPROPER, INCORRECT AND UNREASONABLE USE OF THE WHEEL BALANCER.



THE WHEEL BALANCER SHOULD NOT BE MODIFIED OR TAMPERED WITH WITHOUT THE MANUFACTURER'S PERMISSION. ANY UNAUTHORIZED CHANGE MADE TO THE EQUIPMENT RELIEVES THE MANUFACTURER FROM ANY LIABILITY IN CASE OF DAMAGE ATTRIBUTABLE TO SUCH ALTERATIONS.



THIS MACHINE IS ONLY SUITABLE FOR TIRE BALANCING WITHIN THE SPECIFIED RANGE AND NOT FOR ANY OTHER PURPOSE. THE MANUFACTURER WILL NOT BE RESPONSIBLE FOR THE DAMAGE OR INJURY CAUSED FOR THE OPERATION NOT PROPERLY AND OUT OF THE RANGE.

3. TRANSPORT AND HANDLING

The wheel balancer is packaged in a wooden crate box, attached to a pallet. Transport and handling must be carried out **BY AUTHORIZED PERSONNEL ONLY**, using a **Pallet Jack** or **Forklift** and adopting appropriate safety measures.

- After making sure that the crate package of your machine is free of damages, transport and position the machine to the preferred installation location site, as shown in **Fig. 1**.

UNPACKING:

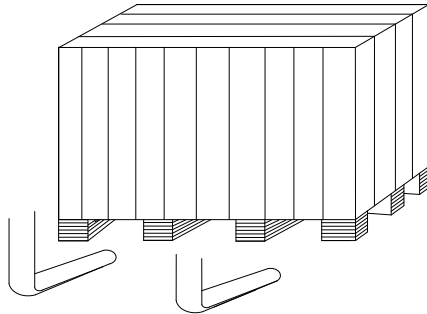


Fig. 1.

- Remove the upper cover of the crate package and check and confirm the machine, spare parts and documents you purchased according to the packing list. If you have any question, please contact with the dealer.
- Remove crate package side panels to gain access. Carefully, set aside side panels.
- Remove the connecting bolts securing machine to pallet, allowing to remove off pallet, **Fig. 2**.
- Carefully position machine on a flat solid floor. Store indoors to avoid being exposed to sunlight or moisture.



DO NOT LIFT OR USE FORCE ON THE SHAFT AND/OR FLANGE!!

- After unpacking the various parts of the wheel balancer, ensure they are intact and check for any anomalies, then assemble the parts.

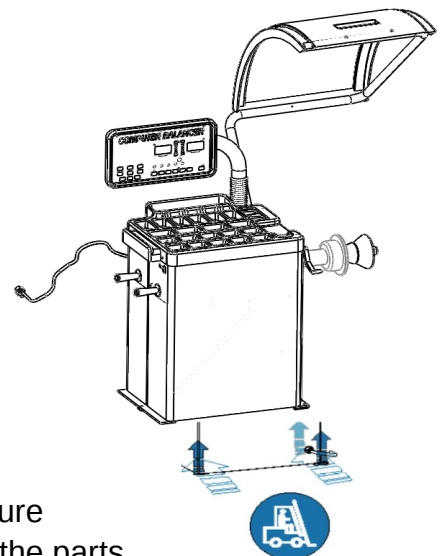


Fig. 2

NOTE: IF THE MACHINE IS NOT CRATE PACKAGED, AND NEED TO BE RELOCATED, TAKE THE FOLLOWING PRECAUTIONS FIG. 3:



PROTECT SHARP EDGES AT THE ENDS WITH SUITABLE MATERIAL, LIKE BUBBLE-WRAP OR CARDBOARD.



DO NOT USE METAL WIRE ROPES FOR LIFTING.



SLING WITH STRAPS OF AT LEAST 79" (200 CM) IN LENGTH AND WITH A GREATER CAPACITY THAN 6,500 LBS. (3000 KG).



DO NOT LIFT OR USE FORCE ON THE SHAFT AND/OR FLANGE!!



ALWAYS UNPLUG THE POWER SUPPLY CABLE FROM THE SOCKET BEFORE MOVING THE MACHINE.

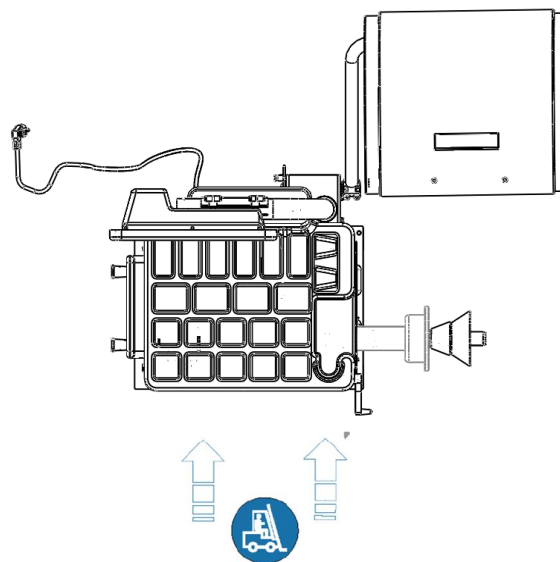


Fig. 3.



THE PACKAGING MATERIALS (PLASTIC BAGS, EXPANDED POLYSTYRENE, NAILS, SCREWS, PIECES OF WOOD, ETC.) MUST NOT BE LEFT WITHIN REACH OF CHILDREN AS THEY ARE POTENTIALLY DANGEROUS.

- Discard packaging materials to the appropriate collection points based on state & local regulations.



MAKE SURE YOU HAVE NOT THROWN AWAY THE ACCESSORY BOX WITH THE PACKAGING.

4. INSTALLATION



THE MACHINE MAY BE ONLY USED IN PLACES THAT DO NOT POSE ANY EXPLOSION OR FIRE HAZARDS.

- Ensure to install the machine based on the **calculated work area diagram** requirements for proper safety & operation. **Fig. 3.**

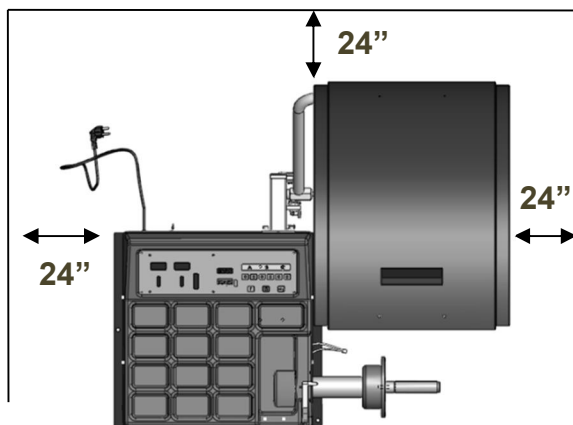


Fig. 3.



FROM THE WORK AREA POSITION, THE USER MUST BE ABLE TO CLEARLY VIEW THE MACHINE AND THE SURROUNDING AREA.

‘THREADED’ BALANCE SHAFT INSTALLATION:

- Before installation of threaded balance shaft, use ethyl alcohol and compressed air to clean the center hole of balance shaft prior to connecting to balancer. Also, remove protective cover from balance shaft hole on balancer.
- Use hex wrench and the included hex socket head screw to attach the threaded shaft the balancing shaft on balancer. **Fig. 4.**



Fig. 4.

‘PROTECTIVE’ HOOD INSTALLATION:

- See **Appendix 3** Protective Hood Cover Installation on **Page 26.**

5. CONFIGURATION & USAGE

CONFIGURATION:

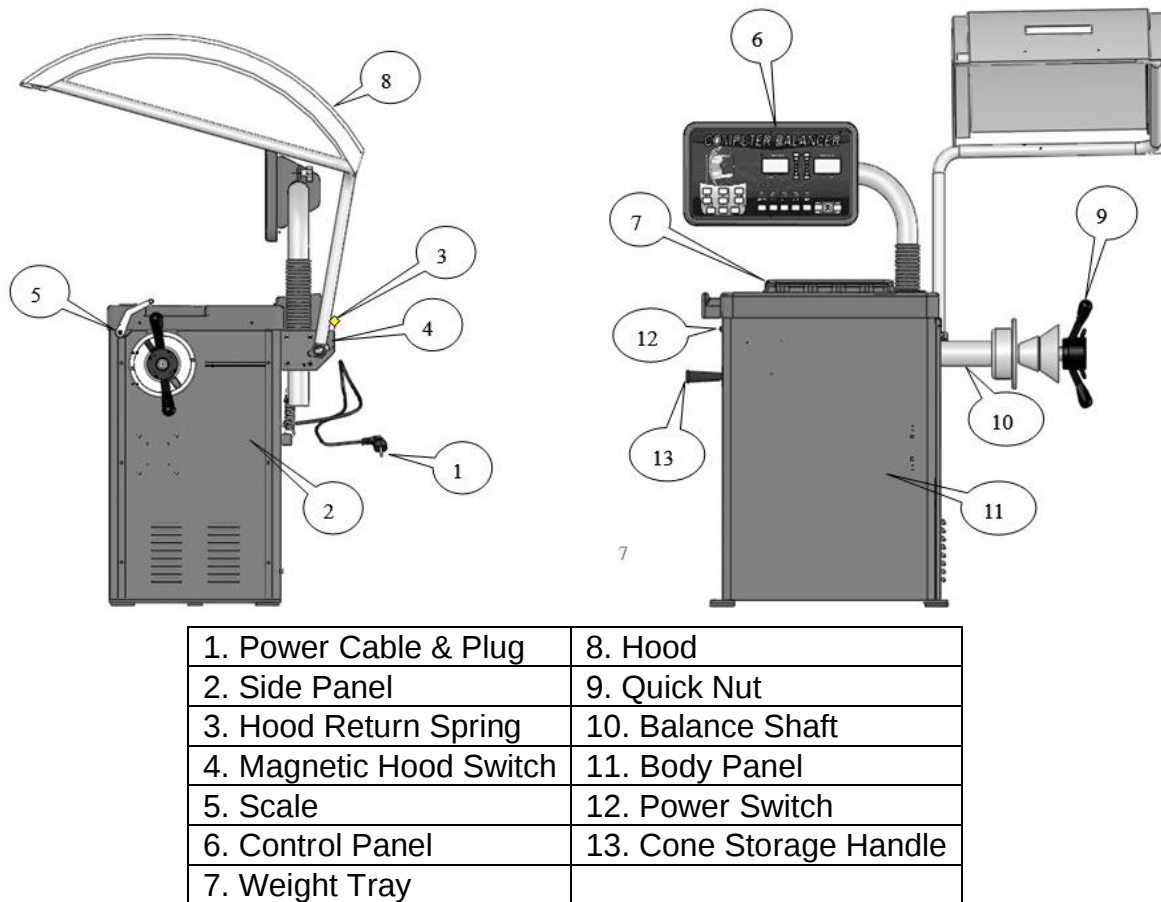


Fig. 5

SAFETY & PREVENTION

- Before operation, please confirm that you have read the entire safety labels and the instruction manual. Not following safety instructions can cause the injuries to the operators & bystanders.
- Keep your hands and the other parts of your body from the location with the potential danger. Before starting the machine, check if there are any damaged parts. If any part(s) are broken or damaged, DO NOT USE the balancer.
- In emergency, if the tire not properly fixed, you should press “STOP” to stop rotation of the wheels. NOTE: The balancer includes a high strength protective cover to prevent the tire or debris from flying in any direction, allowing to fall to the ground, protecting the safety of the operator.
- Before balancing, operators should check all the tires and wheels to find the possible faults. Do not balance the tires and wheels with fault.
- Do not exceed the load capability of the balancer and do not attempt to balance the wheel bigger than the specified max wheel dimension.

- Recommended to wear suitable tight-fitting type clothing, safety gloves and glasses during machine operation due to the high torque rotation of the balancing shaft & wheel. Loose, long type clothing or any other long loose items, such as long hair are prohibited.
- Before balancing, ensure to confirm the mounting of the wheel to be suitable. Before wheel rotation, ensure the nut turns 4 turns around the threaded shaft to firmly lock on the main shaft.

GENERAL USE:

The wheel balancer described in this manual must be used exclusively to measure the extent and position of unbalanced car wheels within the limits specified in the technical data section.



GETTING TO KNOW YOUR NEW MACHINE IS THE BEST WAY TO HELP PREVENTING ACCIDENTS, WHILE OBTAINING THE BEST PERFORMANCE FROM THE MACHINE, WHILE ALSO ENSURING THAT ALL OPERATORS KNOW HOW THE MACHINE WORKS.



WARNING

ANY USE OTHER THAN THOSE DESCRIBED IN THIS MANUAL IS TO BE CONSIDERED IMPROPER AND UNREASONABLE.



CAUTION

DO NOT START THE MACHINE WITHOUT THE WHEEL LOCKING EQUIPMENT.



WARNING

PROTECTIVE HOOD PLAYS THE ROLE OF PREVENTION AND SAFETY.



CAUTION

DO NOT CLEAN OR WASH THE WHEELS MOUNTED ON THE MACHINE WITH COMPRESSED AIR OR JETS OF WATER.



WARNING

LEARN THE FUNCTION AND LOCATION OF ALL THE CONTROLS.



WARNING

CAREFULLY CHECK THAT ALL CONTROLS ON THE MACHINE ARE WORKING PROPERLY.



WARNING

THE MACHINE MUST BE INSTALLED PROPERLY, OPERATED CORRECTLY AND SERVICED REGULARLY TO PREVENT ACCIDENTS AND INJURIES.

DISPLAY & CONTROL PANEL:

- The machine control panel is shown in **Fig. 6**. The control panel allows the operator to give commands and enter or edit data. The same control panel displays the machine balancing results and messages.

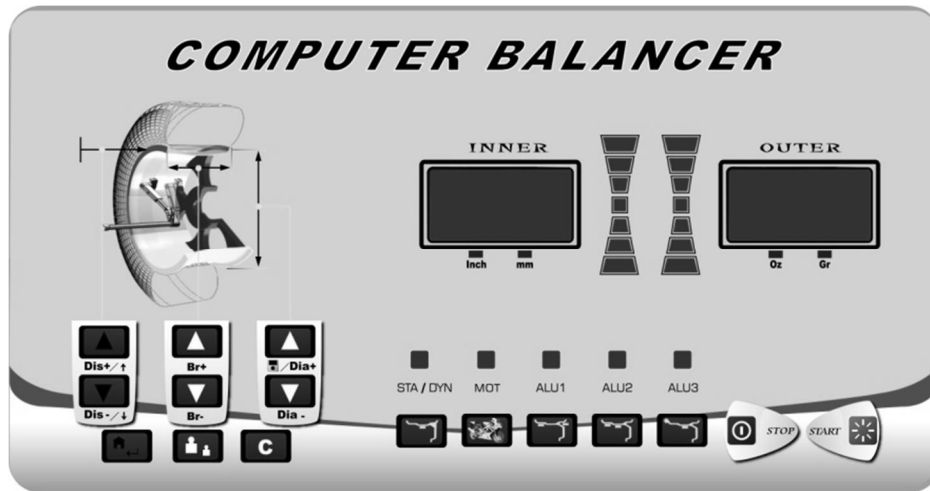


Fig. 6.



Dis+/↑



Dis-/↓

1. In the state of parameter input, is the **Distance from Wheel to Balancer Input Key**. You can change the Distance set value by pressing the 'Up/Down' Key.



Br+



Br-

2. **Br value Input Key**: You can change the Br set value, pressing the 'Up/Down' Key.



Dia+/↑



Dia-/↓

3. In the state of parameter input, is the **Diameter of Rim Input Key**. You can change the Diameter set value by pressing the 'Up/Down' Key.



4. **High Accuracy Balance Key**: When panel display shows [000], press this key and the display will display an unbalance value less than 0.25 Oz (5g).



5. **Unit Conversion Key** can convert the unit of the unbalanced value and size.



6. **Balancing Mode Selection Keys**.



7. **Function Key & Confirm Key**.



8. Emergency Stop Key



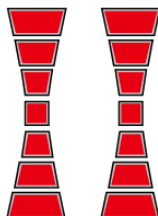
9. Start Key.



10. Inner Unbalance Value and Parameter of Tire Display.



11. Outside Imbalance Value and Tire Parameter of Tire Display.



12. Unbalance Position Indicator.



13. Balancing Modes Display Lamps.

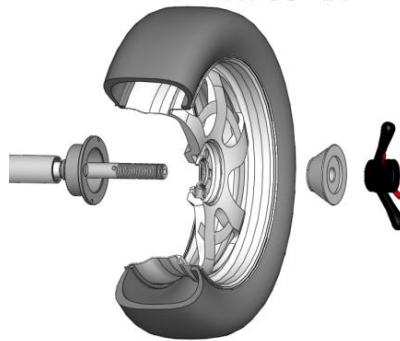
6. BASIC OPERATIONS

MOUNTING WHEEL:

- Switch-On the main power switch on the left side of the machine.
- **Preparation 'Checks' Before Balancing:**
 - ✓ Check wheel to remove & clean any dirt, mud or other foreign objects, such as rocks, metal, etc. from tire surface.
 - ✓ Check tire air pressure to be in accordance the OEM specified value.
 - ✓ Check if there are deformation on the rim's positioning surface & mounting hole.
 - ✓ Check if there are any foreign bodies inside the tire.
 - ✓ Remove original wheel weight(s).
- There are three differ **Wheel Mounting / Positioning methods**: They are **Positive Positioning**, **Negative Positioning** & **Flange Disk Positioning** for larger sizes of tires. Ensure to select the proper Wheel Positioning method according to the specific wheel type and size.

POSITIVE WHEEL POSITION:

- Positive positioning is the normal method. It is featured with simple and quick operation. It is mainly suitable to the common steel rim and aluminum alloy rim with small deformation.



Main Shaft → Wheel → Cone → Quick Nut

NEGATIVE WHEEL POSITION:

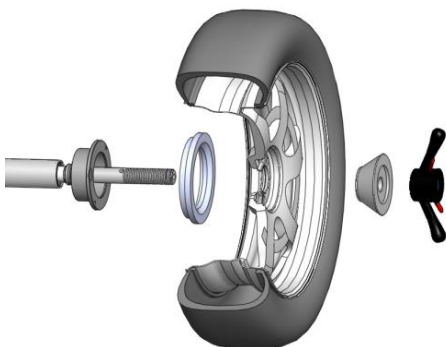
- When there is deformation of the outside of the wheel, adopt this method to positioning to guarantee the accurate positioning of the steel rim inner hole on main shaft. It is suitable to the steel rim, especially the thick ALU.



Main Shaft → Suitable Cone → Wheel → Bowl → Quick Nut

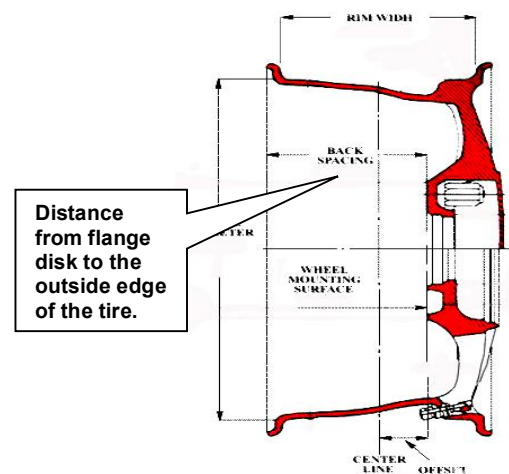
FLANGE DISK WHEEL POSITIONING: (OPTIONAL)

- Suitable for wheels with large diameter center rim hole.



Special Information:

The outreach of the main shaft is limited, so there exists some limit to the "back-spacing" distance from flange disk to the outside edge of the tire should be less than 6.7" (170 mm) for proper operation, as shown in the figure.

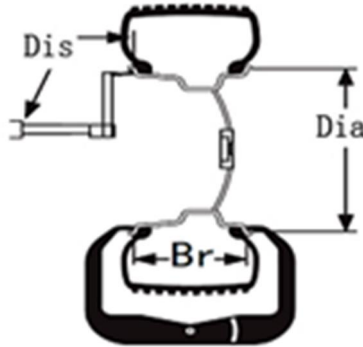


Main Shaft → Flange Disk (Fixed on Main Shaft) Wheel → Cone → Quick Nut



THE CHOICE ON THE CONE SHOULD BE ADAPTED TO THE RIM CENTER HOLE AND PAY ATTENTION TO ITS DIRECTION. OR IT WILL CAUSE THE INACCURATE MEASUREMENT.

INPUT VALUES:



INPUT DIS (DISTANCE) VALUE:

- Pull the scale to the inner position to add the weight and press the key   to input the DIS value into the display. At this moment, the display will show [DIS]: [XXX], and the default system is mm.

INPUT BR (RIM BREADTH) VALUE:

- Use the Br measurement caliper to measure the Br of the rim, press the key   to input the Br value into the display. At this moment, the display will display [Br.]: [XXX], and the default system is inch.

INPUT THE DIA (DIAMETER) VALUE:

- After confirming the rim diameter, press the key   to input the rim diameter into the display. At this moment, the display will display [Dia]: [XXX], and the default system is mm.

UNIT CONVERSION BUTTON:



① Unit Conversion of Br of the Rim from inch to mm:

- Normally, the display of Br should be in inch. When you need the unit of the display to be mm, you can use the  key to realize the unit conversion from inch to mm.

② Unit Conversion of DIA of the Rim from inch to mm:

- Normally, the display of D should be in inches. When you need the unit of the display to be mm, you can use the  key to realize the unit conversion from inch to mm.



AFTER UNIT CONVERSION, THE UNIT OF THE DISPLAY VALUES OF RIM'S BR AND D VALUES, BUT WHEN YOU SWITCH OFF AND BACK-ON, THE WHEEL BALANCER WILL DEFAULT BACK TO INCHES.



③ Unit Conversion from Gram to Ounce:

- Normally, the unit of the unbalanced value is grams (g). If you want to make the ounce (Oz) to be the unit, you can execute the g / Oz conversion. The unit of the displayed unbalanced value is gram (g). The way to realize the unit conversion from gram to ounce is to press. 

START BUTTON:

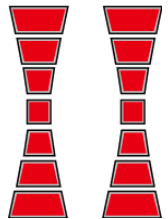
- When press the start button, the wheel balancer starts to run. A few seconds later, the machine automatically stops. The machine can also start by lowering down the protective hood which can be set by the program.

DISPLAY IMBALANCE VALUES:

- When the spin ends, the display will display the inner  and outer  unbalance value of the rim. Use your hand to pull the wheel. When all the positioning lamps light inside and outside light, the weight adding position will be indicated.
- Rotate the wheel, when the left side positioning lamp is all lite, at this moment, the highest position is the inner unbalance position and when the right-side positioning lamp is all light, at this moment, the highest position is the outer unbalanced wheel position.
- Add the corresponding weight(s) at the unbalance wheel point and start-test again until the wheel is properly balanced.

INNER

OUTER



- When starting the machine, use hand to pull the wheel to help it start rotation, especially relative for bigger / larger wheel / tires, which helps prolong the working life of the motor.
- Check if there are any mistakes on the dimension. Check if the balance methods meet the configuration of the rim and select the balancer mode to most easily & accurately balance the wheel.
- Check if the Quick Nut tight or not.
- When the balancing operation is completed, remove the tire from main shaft, paying close attention to carefully handle to avoid damaging the main shaft.
- When clipping the weight to rim, use the hammer to clip the weight on the rim without too much force. Do Not knock or apply force to the main shaft to avoid damaging the sensor.
- The rim position to add balance weights should be dry and free from the grease and/or any debris.

RESIDUAL IMBALANCE VALUE DISPLAY:

- The minimum value of the standard weight is 5g, so if the weight you use is less than 5 g, the wheel balancer will not display the value and only displays the state of 000
- When you need to display the residual unbalance value, you should press  key and the display will immediately display the inside or outside unbalance value of less than 5g. The maximum residual unbalance value is 4 grams.

BALANCE MODE SELECTIONS:

- Press the corresponding      key to choose the balance mode. If all the lights do not light up, it is in dynamic mode.



DYNAMIC Applying Clip Weights on both sides of Rim (Dynamic Test once started)



STATIC Applying Stick Weight in center of Rim.



MOT Optional Mode for balancing the Motorcycle Wheels.

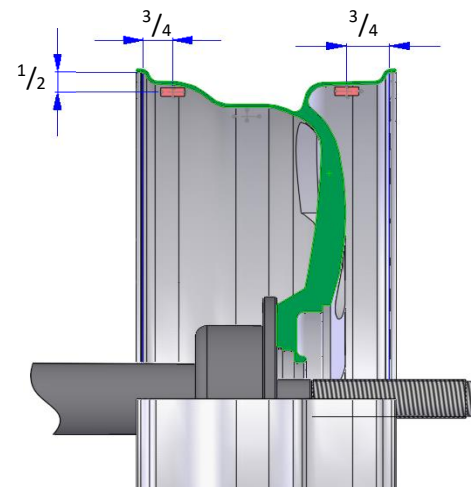
When balancing motorcycle wheels, you require the (optional) motorcycle adaptor accessory. With the assistance of the extension scale to measure Distance, Br and Diameter values. Input the measured values into the Dir, Br and Dia on display, as the input method for a motorcycle wheel is similar to the parameter input of the car.



ALU1 Balance Mode for light aluminum alloy rims - sticking the weight(s) on the both shoulder sides of the rim.

Example:

- $Dis1 = Dis + \frac{3}{4}$
- $Dis2 = Dis + Br - \frac{3}{4}$
- $Dia1 = Dia - 1$
- $Dia2 = Dia - 1$



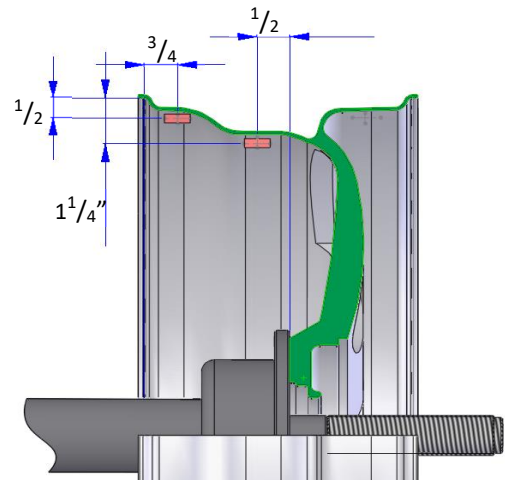
ALU1



ALU2 Balance Mode for light aluminum alloy rims - sticking the weight(s) to only the inside of the rim for hidden weights.

Example:

- $Dis1 = Dis + 3/4\hat{\sigma}$
- $Dis2 =$ from 0 point to outer flange $- 1/2\hat{\sigma}$
- $Dia1 = Dia - 1\hat{\sigma}$
- $Dia2 = Dia - 2 - 1/2\hat{\sigma}$



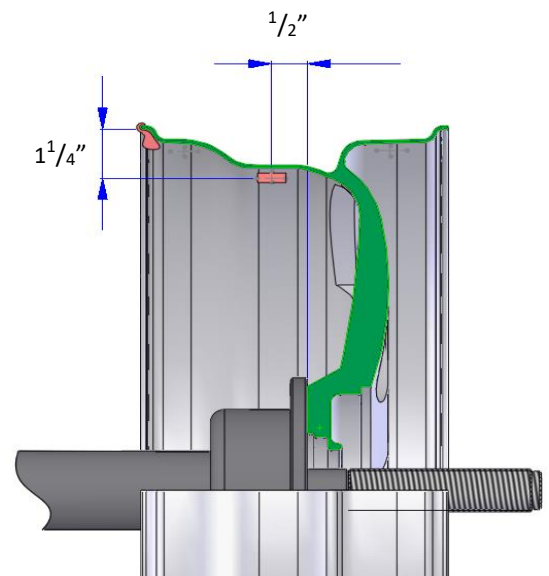
ALU2



ALU3 Balance Mode light aluminum alloy rims - clipping the weight inside of rim and sticking to the inside position, same as ALU2.

Example:

- $Dis1 = Dis -$
- $Dis2 =$ from 0 point to outer of flange $- 1/2\hat{\sigma}$
- $Dia1 = Dia -$
- $Dia2 = Dia - 2 - 1/2\hat{\sigma}$



ALU3

SUPPLEMENTARY EXPLANATION:

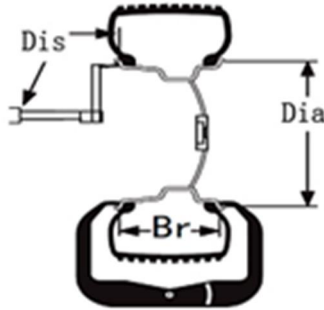
Once switched on, you will see standard dynamic balance mode set up by the computer. When selecting ALU mode and the configuration of the aluminum alloy rim is similar to the above standard ALU1, ALU2 or ALU3, you can get relative accurate balance effect.

If the section of the tire similar to the one given by the program, you will need do some adjustments on the position of weight(s) of the amount of weight. Generally speaking, 1~2 times of adjustments can reach relative satisfactory wheel balancing accuracy.

7. WHEEL BALANCER OPERATION

BALANCING A TIRE

1. Switch on the power source
2. Select the cone according to the tire. Assemble the tire on the main shaft of the wheel balancer and firmly lock it.
3. Input the tire parameters.



- a. Pull out the scale of the balancer to measure the Dis value which means the distance from the inside



of the tire to the body. According to measured reading, the unit of which is cm, press **Dis+ / ↑** to adjust the value to make the value displayed in the right-side window to be the measured value. But the unit of this displayed value is mm. e.g. you should input 55mm if the measured value is 5.5cm.



- b. Use the width measurement scale to measure the Br you can press **Br+ / ↑** to input the Br value which is the implied value with the unit of inch.

You can also convert this unit value of the Br to be mm, by pressing the **C** key to realize the differences between units.



- c. Check the Dia value, which means the diameter of the rim, marked on the tire. Press **Dia+ / ↑** key to adjust the value in the right window to be the diameter of the rim.

You can also convert the unit value of the Dia to be mm by pressing the **C** key.

4. Lower down the protective cover (you can also press the start key). After the machine starts, rotate and test, it will automatically stop. In the left /right window, the corresponding balancing values will be displayed.
5. Rotate the tire, when all the position indication lamps illuminate, add the specific weight corresponding to the value displayed in the window.
6. Once again, start the machine to test. The window will display the unbalance value. The balance process will be completed until reaching the balance range you required.

MACHINE PARAMETER SETUP:

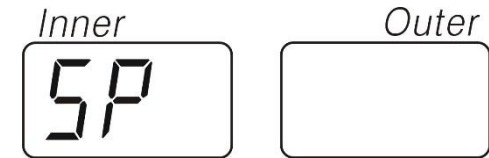
1. Press  to enter **Program Setup Menu**.



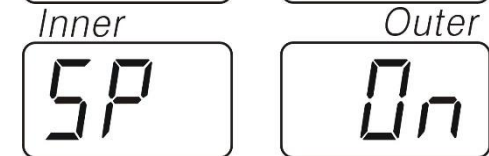
1.1.-P- (Hood Setup) press  to confirm the entrance select  to setup the on/off of the function of the hood. Press  to confirm.



1.2 -SP-(Hood Control Function Setup), In the upper condition, press . The display will display as the left figure. Press  to confirm.



- Select  to setup the on/off of the hood function. Press  to confirm after confirmation.



1.3 APP (Minimum Unbalance Setup), In the upper state, press  to enter the APP setup. Press  to enter the setup.

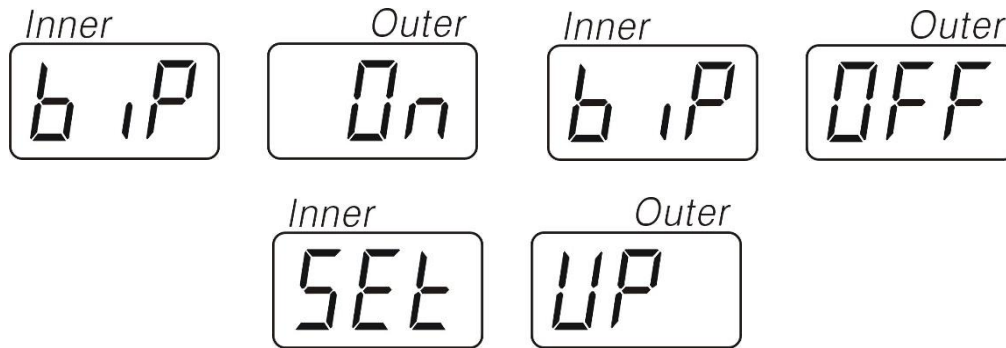
- Select the corresponding unit, Press  key to confirm the entrance, Select  to select the unbalance unit is **1Gr or 5Gr**. Press  key to confirm.



1.4 BIP (Beeper Setup) Press  to setup the on/off of the beeper.

- Press  to confirm the entrance. Select  to setup the on/off of the beeper. Press  to confirm.

- Press  to enter the sub-levels:



CUSTOMER SELF-CALIBRATION

In the condition of IN -TES, select  to enter CAL ñCAL, means customer self-calibration state. We use this when the machine has not been used for a long time or the balancing is inaccurate.



Press  to enter into the program.

This function can be used after inputting tire parameter. hold on pressing  for 5seconds to enter this state.

Press  to enter and the display will display óADDôóÔô



Press  to span the machine.

The window will displayóADDôó100ôthen Use your hand to rotate the tire until all the right side lamp light up. At this moment clip the weight of

100g at the 12 clock position outside of the tire. Press  to span the machine. Until the span is over, you finish the self-calibration of the machine.



After complete the customer self-calibration, it will display óSAVôóDATô Then the customer self-calibration is finished.



FACTORY CALIBRATION

If the Customer Self-Calibration is not helping to maintain the machine to have satisfactory balancing stability, we recommend that you proceed Factory Self-Calibration procedure. Below you would find the detailed instruction:

- Press Home button one time , and it displays [P] press DIS + button

one time  , and you will see [SET] [UP]

- Press Home button two times , and it displays [POS] XXX], pull the wheel by hand (clock-wise or anti-clock-wise) slowly. When it displays [POS] [110] press Fine button one time , then continue to pull the wheel slowly until it displays [POS] [120] Press Fine button one time .

Inner	Outer
-P-	

Inner	Outer
SET	UP

Inner	Outer
POS	110

Inner	Outer
POS	120

- The screen displays [ADD] [0], press  or lower down the hood to start rotation of the machine.

Inner	Outer
Add	0

- When machine stops rotation, it displays [ADD] [100], at this moment, please pull the wheel until the outer indicating lights are all illuminating, clamp 100g / 3.5 Oz calibration standard weight on the outside rim at 12 o'clock

Inner	Outer
Add	100

position. Press  or lower down the hood to start rotation of the machine.

- When the machine stops, it displays 100 ADD at this moment please remove that 100g / 3.5 Oz standard weight from the outside rim edge firstly, then pull the wheel by hand until the inner indicating lights are all illuminating,

Inner	Outer
100	Add

clamp that 100g / 3.5 Oz standard weight on the inside rim at 12 o'clock position, press  or lower down the hood to start the rotation again.

- When it stops, you will hear 3 times beeps indication and the Factory Calibration is over.

PREVENTIVE MAINTENANCE

SUSPENSION OF USAGE:

Should the machine not be used for long periods, disconnect the power supply, and protect all parts that could be damaged by dust. Grease all parts that could be damaged in case of oxidation. In this specific case, protect the shaft and flange.

ENVIRONMENTAL INFORMATION:



THE DISPOSAL PROCEDURE DESCRIBED BELOW ONLY APPLIES TO MACHINES WITH THE SYMBOL OF THE CROSSED-OUT WHEELIE BIN ON THEIR DATA PLATES.



The crossed-out wheelie bin symbol, placed on the product and on this page, reminds the user that the product must be disposed of properly at the end of its life. This product may contain substances that can be hazardous to the environment and to human health if it is not disposed of properly. We are therefore providing you with the information below in order to prevent these substances from being released into the environment, and to improve the use of natural resources. Electrical and electronic equipment must never be disposed of in the usual municipal waste but must be separately collected for proper treatment.

Thus, the hazardous consequences that non-specific treatments of the substances contained in these products, or improper use of parts of them, may have on the environment or on human health are prevented. Furthermore, this helps to recover, recycle, and reuse many of the materials contained in these products. For this purpose, electrical and electronic manufacturers and distributors set up proper collection and treatment systems for these products.

At the end of the product service life, contact your supplier for information about disposal procedures.

When you purchase this product, your supplier will also inform you that you may return another worn-out appliance to him free of charge, provided it is of the same type and has performed the same functions as the product just purchased.

Any disposal of the product performed in a different way from that described above will be liable to the penalties provided for by the national regulations in force in the country where the product is disposed of.

We also ask you to adopt other environmentally friendly measures: recycle the internal and external packaging that the product comes in, and suitably dispose of used batteries (only if contained in the product).

Your help is critical to reduce the amount of natural resources used for manufacturing electrical and electronic equipment, minimize the use of landfills for product disposal and improve the quality of life, preventing potentially hazardous substances from being released into the environment.

ROUTINE MAINTENANCE & CLEANING:

To ensure the efficiency and proper operation of the machine, it is essential to follow the manufacturer's instructions by performing periodic cleaning and routine maintenance.



CLEANING AND ORDINARY MAINTENANCE MUST BE PERFORMED BY AUTHORIZED PERSONNEL IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS PROVIDED BELOW.

Always keep the flanges clean (do not lubricate them). In addition, during handling, be very careful not to damage them. To clean the machine, especially the weight tray, use a soft cloth moistened with ethyl alcohol.



BEFORE PERFORMING ANY OPERATION, DISCONNECT THE POWER SUPPLY CABLE FROM THE SOCKET.

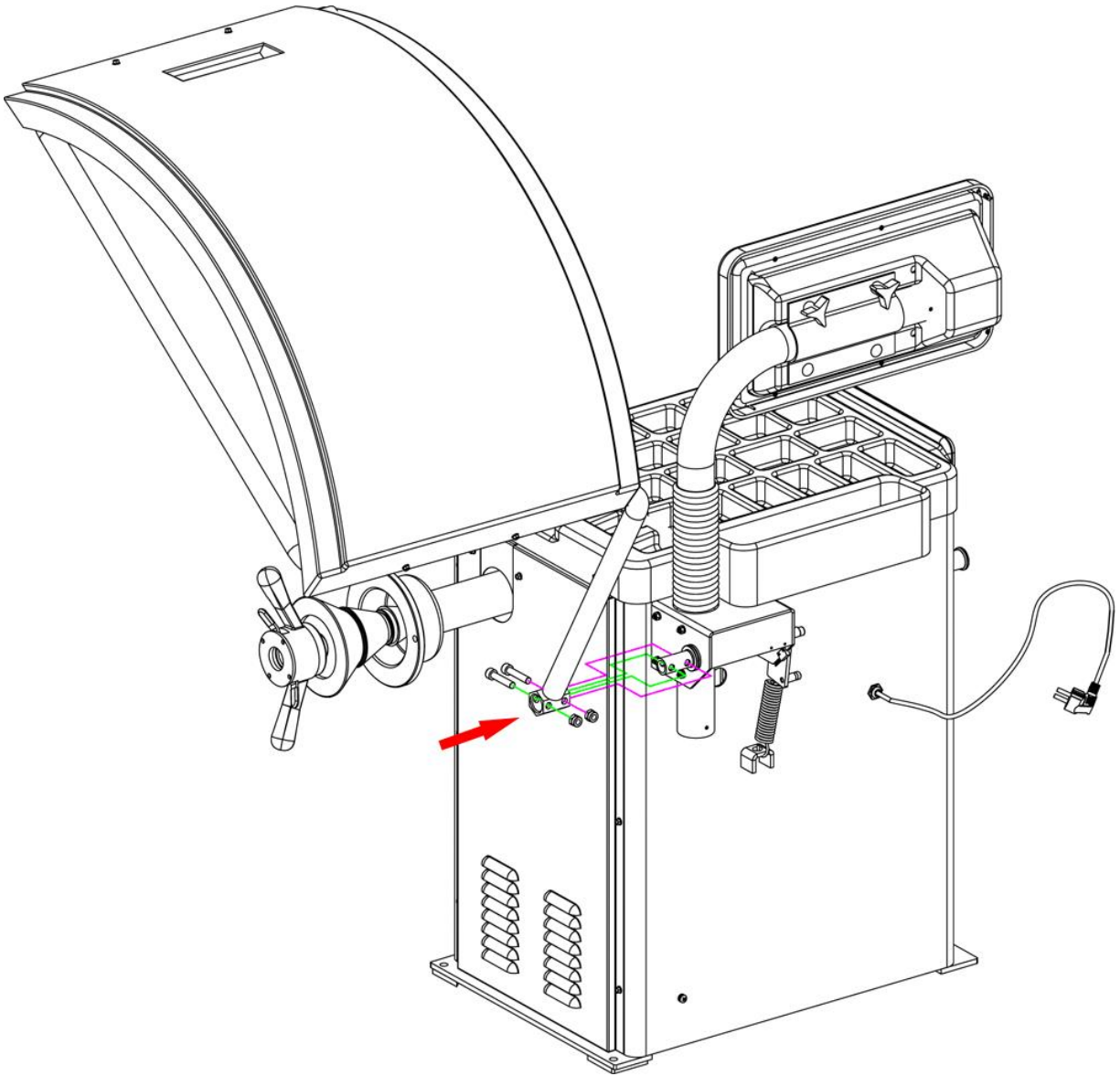


**DO NOT BLOW COMPRESSED AIR TO CLEAN THE MACHINE.
DO NOT USE WATER OR OTHER LIQUIDS TO CLEAN THE MACHINE.**

APPENDIX'S

APPENDIX 1 - PROTECTIVE HOOD COVER INSTALLATION

- Use the provided Bolts & Nuts to attach Hood Assembly to Wheel Balancer as shown in the below diagram.



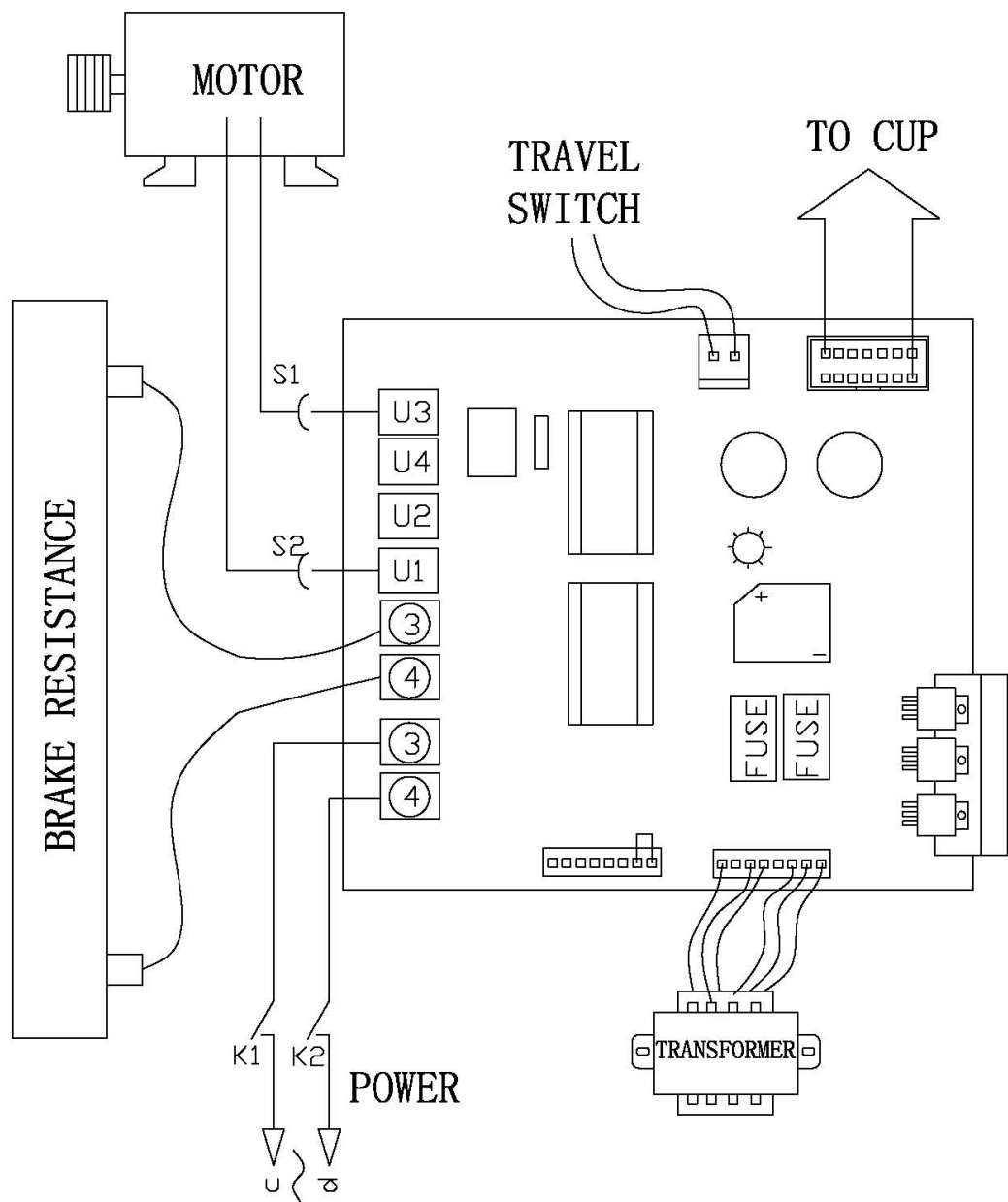
NOTE:

DOES NOT APPLY FOR WB-953-B MODEL (WITH NO HOOD)

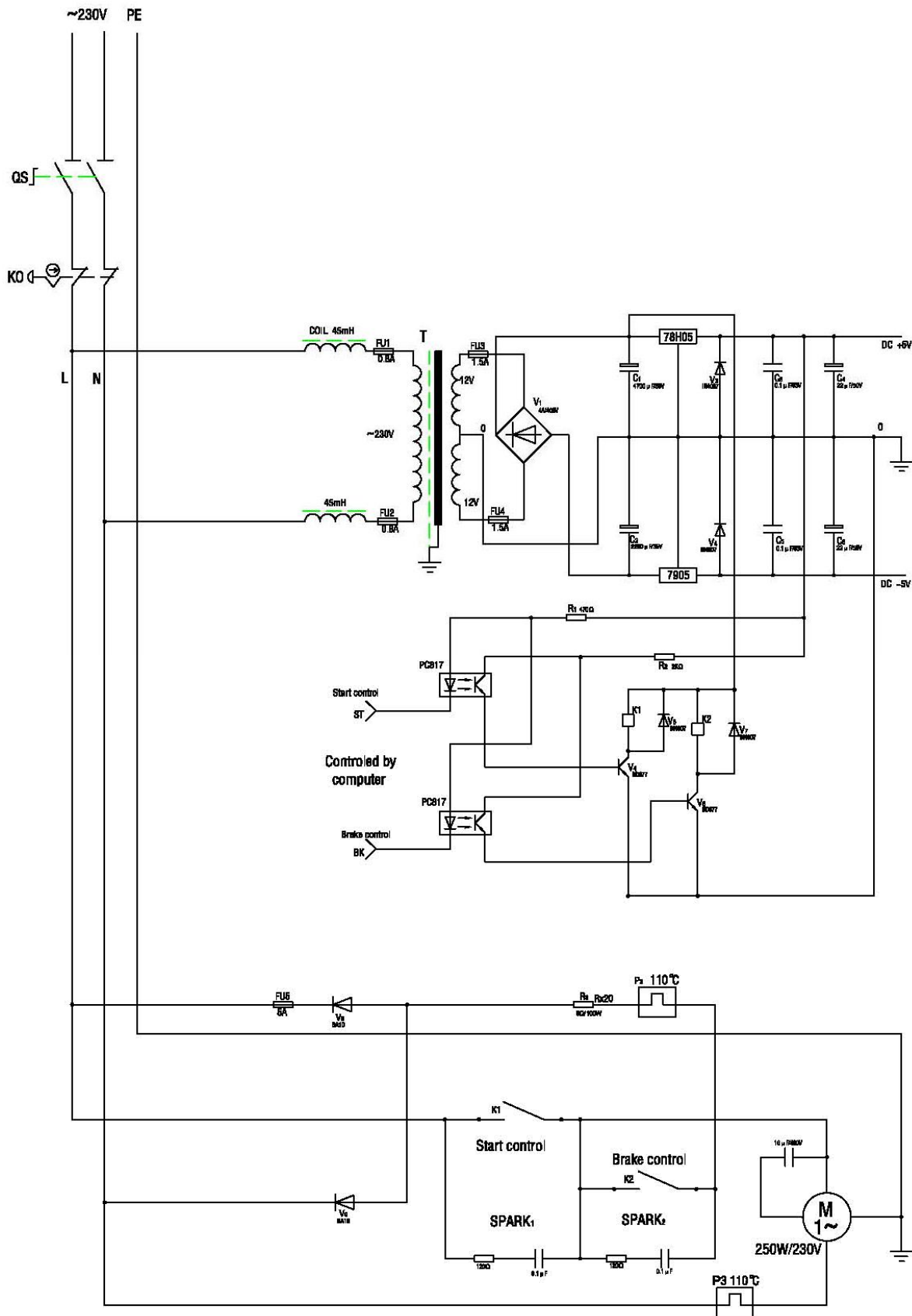


THE MANUFACTURER HAS THE RIGHT TO MODIFY THE PRODUCTS WITHOUT NOTIFICATION TO THE BUYER IN ADVANCE.

APPENDIX 2 - POWER SUPPLY CARD DIAGRAM:



APPENDIX 3 - WIRING DIAGRAM:



GENERAL PROTECTION & TROUBLESHOOTING SOLUTIONS

FIRE PROTECTION EQUIPMENT TO BE USED:

(Type)	Dry Materials	Flammable Liquids	Electrical Equipment
Water	YES	NO	NO
Foam	YES	YES	NO
Powder	YES*	YES	YES
CO ₂	YES*	YES	YES

YES*: CAN BE USED IN THE ABSENCE OF MORE APPROPRIATE MEANS OR FOR SMALL FIRES.



The information in the table above is general and can be used as a rough guide. For the responsibility for the use of each type of extinguisher, refer to the manufacturer.

DISPLAY ERROR INDICATIONS:

DISPLAY	CAUSE	SOLUTION
ERR OPN	Protective cover not lower down	Lower down the protective cover or change the setting and disable the hood function
ERR SP	Rotation speed not enough, photocell coupler cannot collect signal	Check the motor and belt, Check if the display of the photocell data normal. Check the computer board
ERR OFF	Error of stop	Press the start key or rise up the protective cover
ERR FAC	Factory set-up fault	Correct factory set-up
ERR USR	Customer set-up fault	Correct customer set-up
ERR REU	Reverse rotates is not correct	Troubleshooting of power board. Check power cable connection is correct

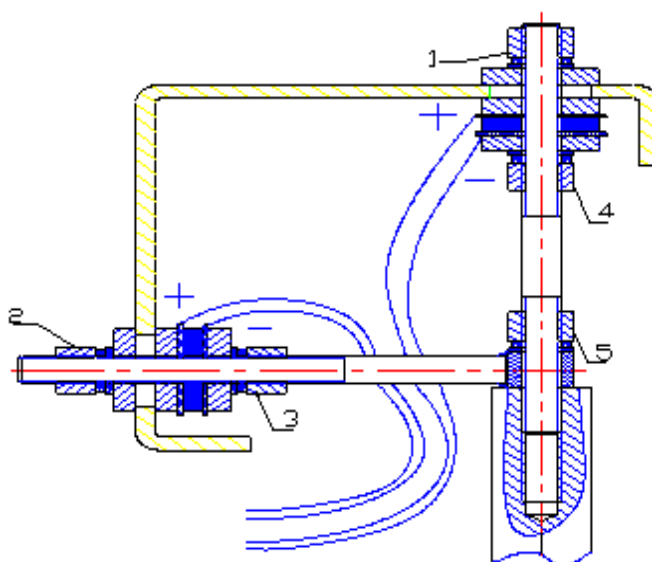
TROUBLESHOOTING & SOLUTIONS:

DESCRIPTION	CAUSE	SOLUTION(S)
Start the machine but does not display.	1. Check the circuit of 110V is normal or not. 2. Power board fault 3. The cable between the power board and computer is loose. 4. Computer board fault.	1. Check and connect the external power source. 2. Changer the power board 3. Check the plug cable 4. Change the computer board
Display is normal but the start button and input push button not working.	1. Contact switch not good 2. Machine breakdown	1. Open the housing of the machine and plug in and tight the contact switch plug. 2. Start the machine again
Display is normal but not braking after start.	1. The cable between the power board and computer lose 2. Power board fault Brake resistor damage computer board fault	1. Plug in and tight the cable between the computer board and power board. 2.Change the power board 3.Change the computer board
Balance is not accurate & difficult to reach 000	1. Sensor leads connection or contact is no good 2. Memory value lost	1. Connect again 2. Correct the memory value according to the manual.
After each spin, the change of balance value will not exceed 5g	1. There are foreign body on the rim or the assemble surface in the rim center deformation 2. Sensor damp or quick nut not tightly clamped 3. The external power voltage not enough	1. Change the wheel 2. Let sensor dry and recalibrate the sensor. 3. Check power source and assemble stabilizer

Each spin, the range of the change of balance value will be 20-90g.	There are foreign debris or weights still on the wheel or the unbalance of the wheel value too big. Possible sensor damage External power source voltage too low	1. Change the wheel 2. Check the sensor and wiring. 3. Check power source and assemble stabilizer
Balance is not accurate & difficult to reach 000	Sensor damp or damage to Program	1. Recalibrate again and then self-calibration or change 2. Self-calibration again
When second mount & demount, the error will exceed 10g.	Wheel internal hole irregular Flange assembled not properly	1. Change the wheel 2. Check the assemble surface and try again.

PRESSURE SENSOR REPLACEMENT & WIRING INFO:

Sometimes, the troublesome of inaccuracy of balancing and position is due to possible damage to the balance press sensor. The method to replace the press sensor is shown below and in the following steps:



Steps

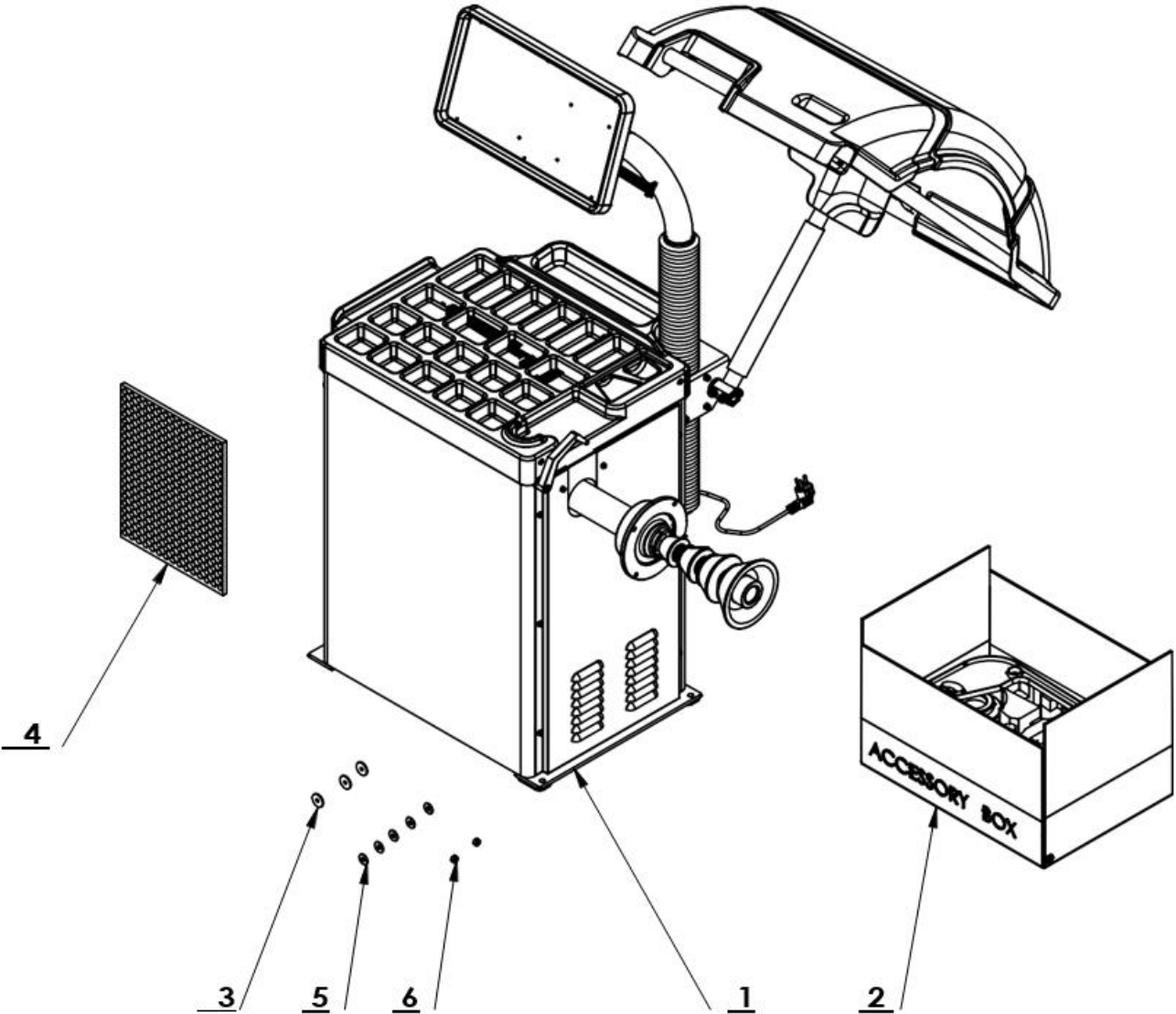
1. Demount the upper cover and right-side panel of the wheel balancer.
2. Remove the nut 1 & 2, elastic washer, sanding washer and plain washer.
3. Loosen the nuts 3, 4 and 5 to disassemble each part.
4. Change/replace the new pressure sensor and mount the double head screw and tighten nut 5.
5. Use the spanner to tighten nut 4 slightly and then tighten nut 3. At this time, pay attention that the horizontal & vertical sensor screws should be perpendicular to each other. The end of the screw should fall into the center of the hole with the gap of at least 1mm.
6. Mount the plain washer, sanding washer, elastic washer by securing but 1 first, then nut 2. Ensure to completely tighten both nuts.
7. There is glass glue protective coating on the pressure sensor.
8. Connect of pressure sensor output cable to discharge, and then plug the cable discharged into the computer board to avoid the high voltage spark to disable / destroy the computer board.
9. Plug the sensor plug according to its original position.
10. Calibrate the balancer once again and mount the upper cover and side panel.



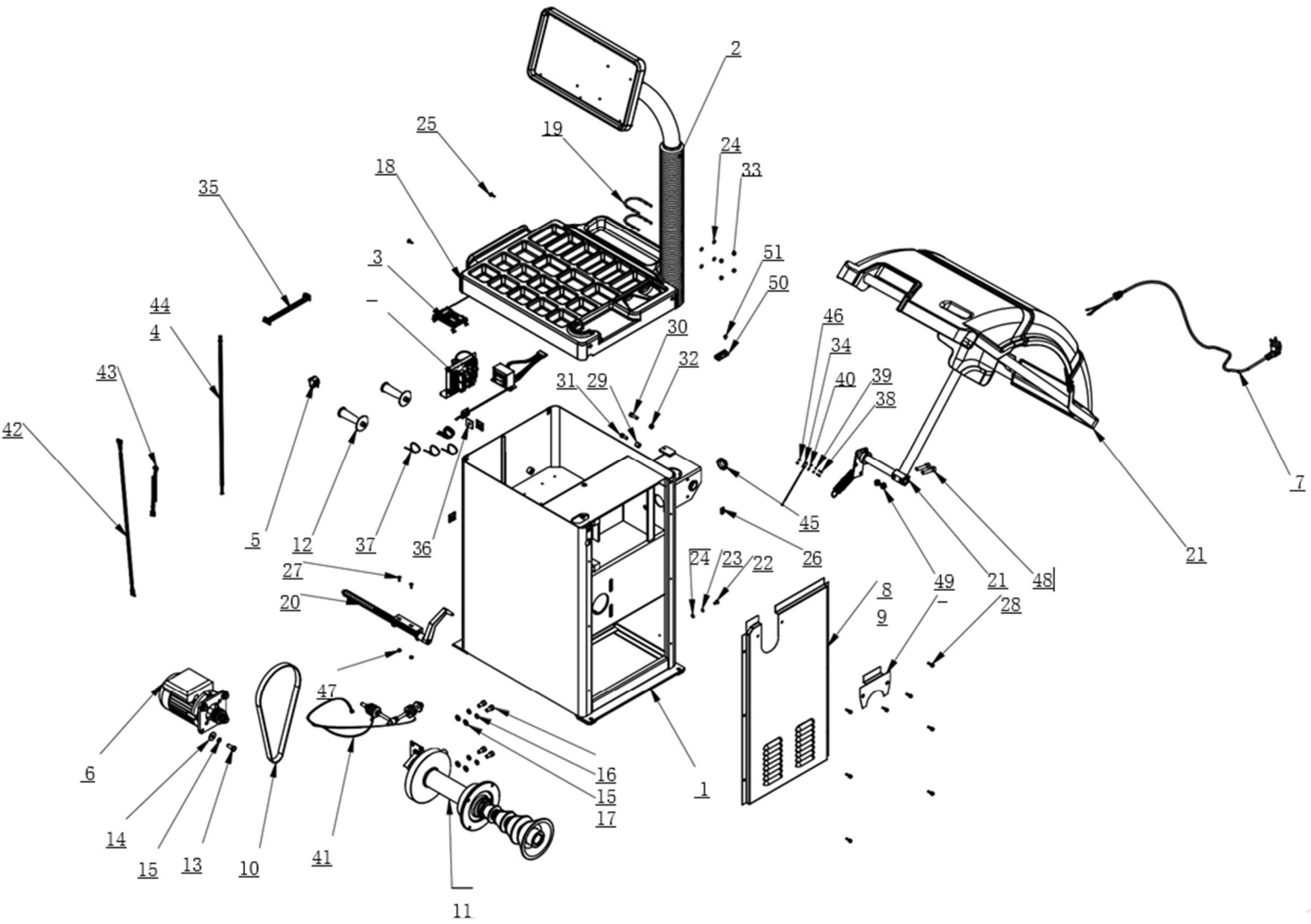
AFTER CHANGE THE COMPUTER BOARD, PHASE SENSOR OR THE PRESS SENSOR, YOU MUST EXECUTE THE SELF-CALIBRATION. IN THE PROCESS TO CHANGE THE COMPUTER BOARD, YOU SHOULD SETUP THE PARAMETER ACCORDING TO THE PARAMETER MARKED IN THE MACHINE OR THE ORIGINAL BOARD. YOU MUST SELF-CALIBRATE AFTER DISCONNECTING AND/OR REPLACING ANY OF THE ABOVE COMPONENTS.

EXPLODED VIEWS & PARTS LISTS

B-53-0000000-040



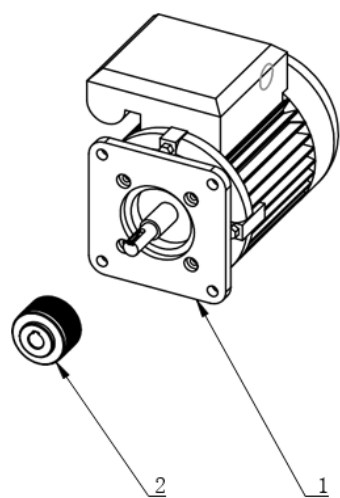
ITEM	PART NO.	DESCRIPTION	QTY
1	B-53-1000000-010	WB-953-UL/CSA	1
2	TB-S-0100000	ACCESSORY BOX	1
3	C-54-0000006	RUBBER GASKET	3
4	TB-S-0500003	BUBBLE BAG	1
5	GB96.2-8	LARGE WASHER C GD	5
6	GB41-M8	HEXANGULAR NUT	2



ITEM	PART NO.	DESCRIPTION.	QTY
1	B-53-1100000UL	BODY	1
2	B-53-1300000UL	PANEL CONTROL ASSEMBLY (UL)	1
3	B-53-1000020UL	POWER BROAD (UL)	1
4	TB-E-1220000UL	POWER BOARD (110V)	1
5	TB-E-1001101UL	POWER SWITCH (UL)	1
6	TB-E-9001110UL	MOTOR ASSEMBLY (110V,60Hz,1PH,.25KW)	1
7	TB-E-1500200UL	POWER CABLE ASSEMBLY (UL)	1
8	B-53-1000001	FRONT DOOR	1
9	B-53-1000002	FRONT DOOR CONNECT PLATE	1
10	B-01-1000006	WEDGE BELT (940mm)	1
11	TB-P-0100000	BALANCER SPINDLE	1
12	TB-S-0100009	CONE HANGER HANDLE	2
13	GB5783-M10×25	HEXANGULAR BOLT	4
14	GB96.1-10	LARGE WASHER A GRADE	4

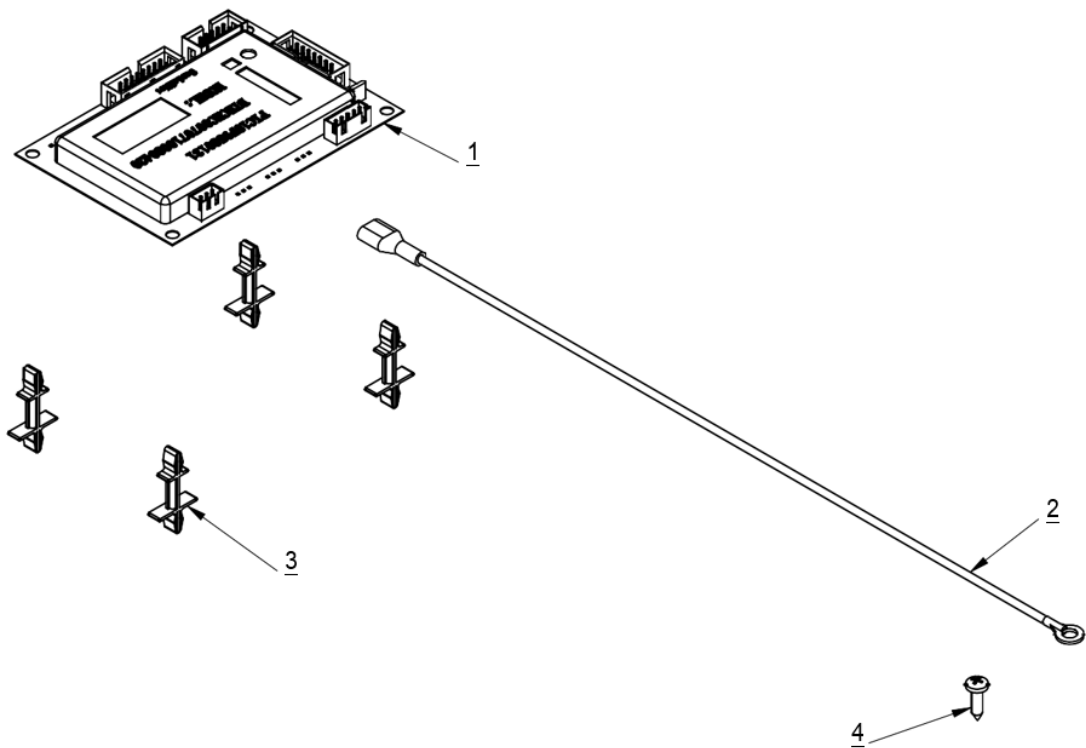
15	GB93-10	STANDARD SPRING WASHER	8
16	GB70.1-M10×20	INNER HEXA CYLINDRICAL SCREW	4
17	GB95-10	FLAT WASHER	4
18	B-53-1200002	WEIGHT TRAY	1
19	B-53-1300008	PIPE BASE U-CLAMP	2
20	TB-L-0103000	SCALE ASSEMBLY	1
21	TB-F-0200000	PROTECTIVE COVER ASSEMBLY	1
22	GB818-M6×12-H	CROSS PANHEAD SCREW	1
23	GB93-6	STANDARD SPRING WASHER	1
24	GB95-6	FLAT WASHER	5
25	B-53-1000006	SCREW M4	4
26	B-53-1000007	NUT M4	4
27	GB973-M5×16-H	CROSS PANHEAD SCREW	2
28	GB15856.4-ST5.5×19	HEXA FLANGE TAPPING SCREW	8
29	TB-F-0200001	ECCENTRIC SHAFT	1
30	GB70.1-M8×25	INNER HEXA CYLINDRICAL SCREW	1
31	GB70.1-M8×20	INNER HEXA CYLINDRICAL SCREW	1
32	GB41-M8	HEXANGULAR NUT	1
33	GB41-M6	HEXANGULAR NUT	4
34	B-53-1000010UL	MAGNETIC SWITCH	1
35	B-53-1000013	MOTHERBOARD CABLE	1
36	B-53-1000008	FIX PLATE	4
37	B-53-1000009	NYLON BELT	5
38	GB818-M3×10-H	CROSS PANHEAD SCREW	2
39	GB93-3	STANDARD SPRING WASHER	2
40	GB95-3	FLAT WASHER	2
41	TB-P-0110000	PRESS SENSOR ASSEMBLY	1
42	B-01-1008001UL	SWITCH CONNECTION LINE (UL)	1
43	B-53-1000017	PHOTOCELL CALBE	1
44	B-53-1000016	POWER LINE	1
45	H-12-1000002	PROTECTION RING	1
46	GB889.1-M3	1-TYPE, TORQUE TYPE HEXAGON LOCK NUT	2
47	GB6177.1-M5	HEXA FLANGE NUT	2
48	GB70.1-M10×50	INNER HEXA CYLINDRICAL SCREW	2
49	GB889.1-M10	1-TYPE, TORQUE TYPE HEXAGON LOCK NUT	2
50	TC-E-7400001	EARTHING TERMINAL	1
51	GB9074.4-M4×10	SCREW	7

TB-E-9001110UL

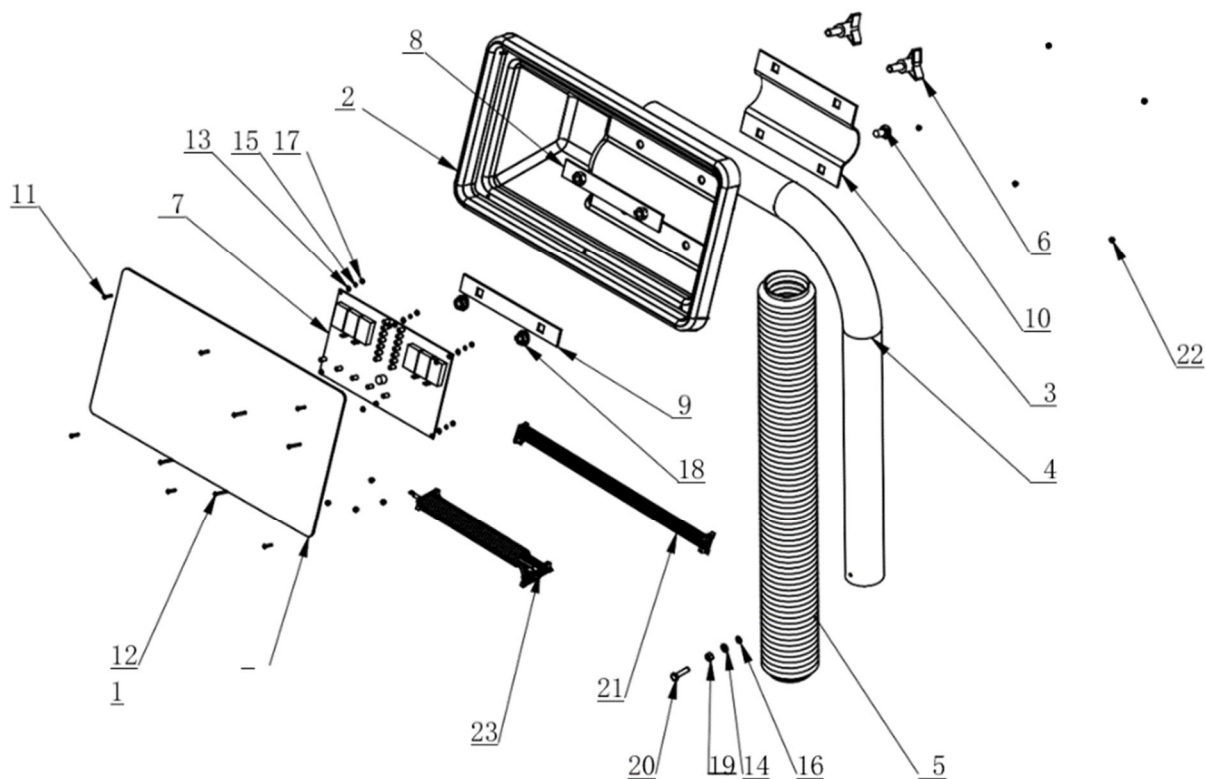


ITEM	PART NO.	DESCRIPTION.	QTY
1	TB-E-9000110UL	MOTOR (110V,60Hz,1P,0.25KW)	1
2	B-53-1000003	MOTOR BELT PULLEY	1

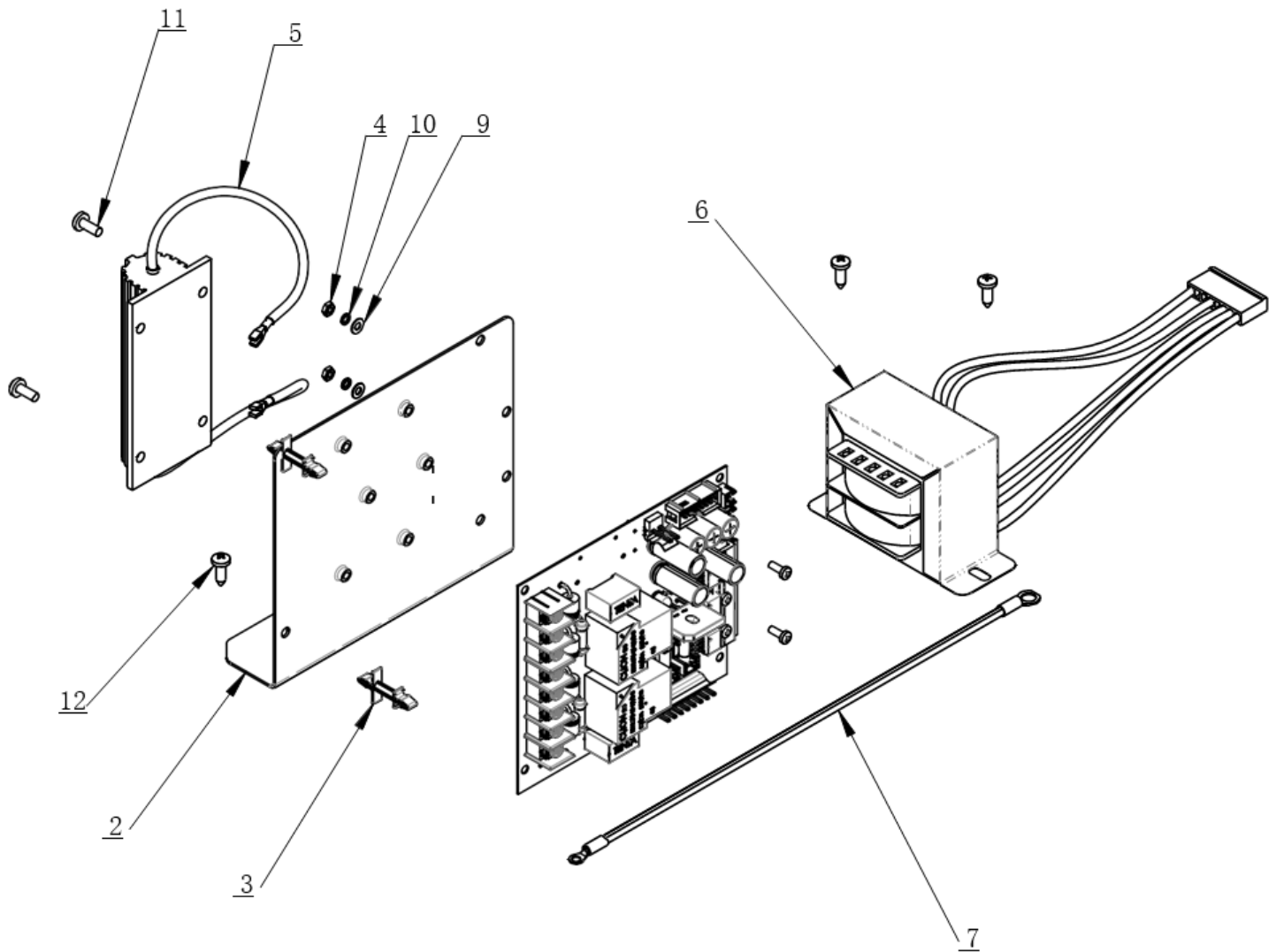
B-53-1000020UL



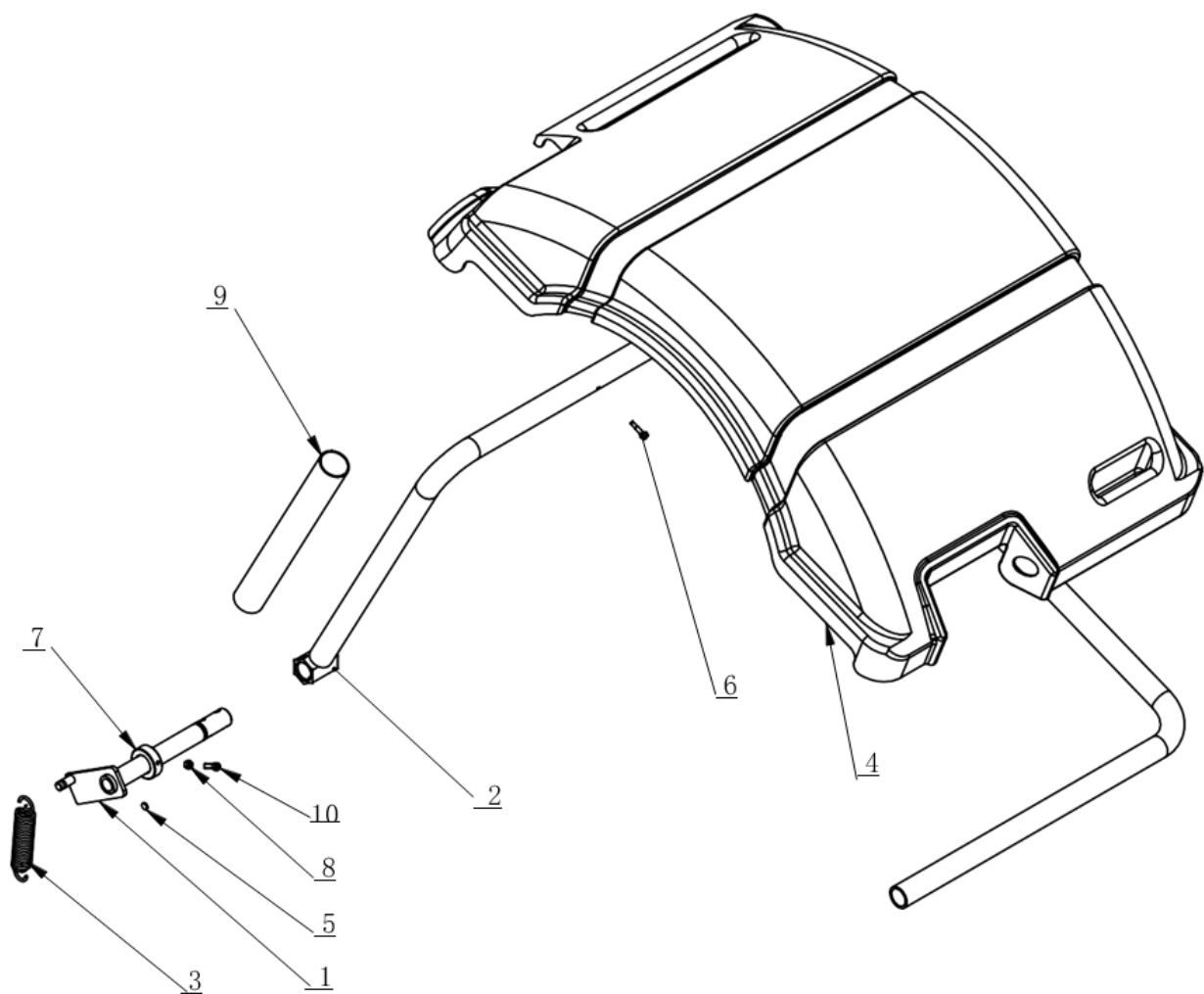
ITEM	PART NO.	DESCRIPTION	QTY
1	B-53-1000005	CPU-953	1
2	B-56-1500105UL	CPU GROUND WIRE(UL)	1
3	TB-E-1211002	PLASTIC CLIPPER	4
4	GB845-ST3.5×13 H C	CROSS PANHEAD TAP SCREW	1



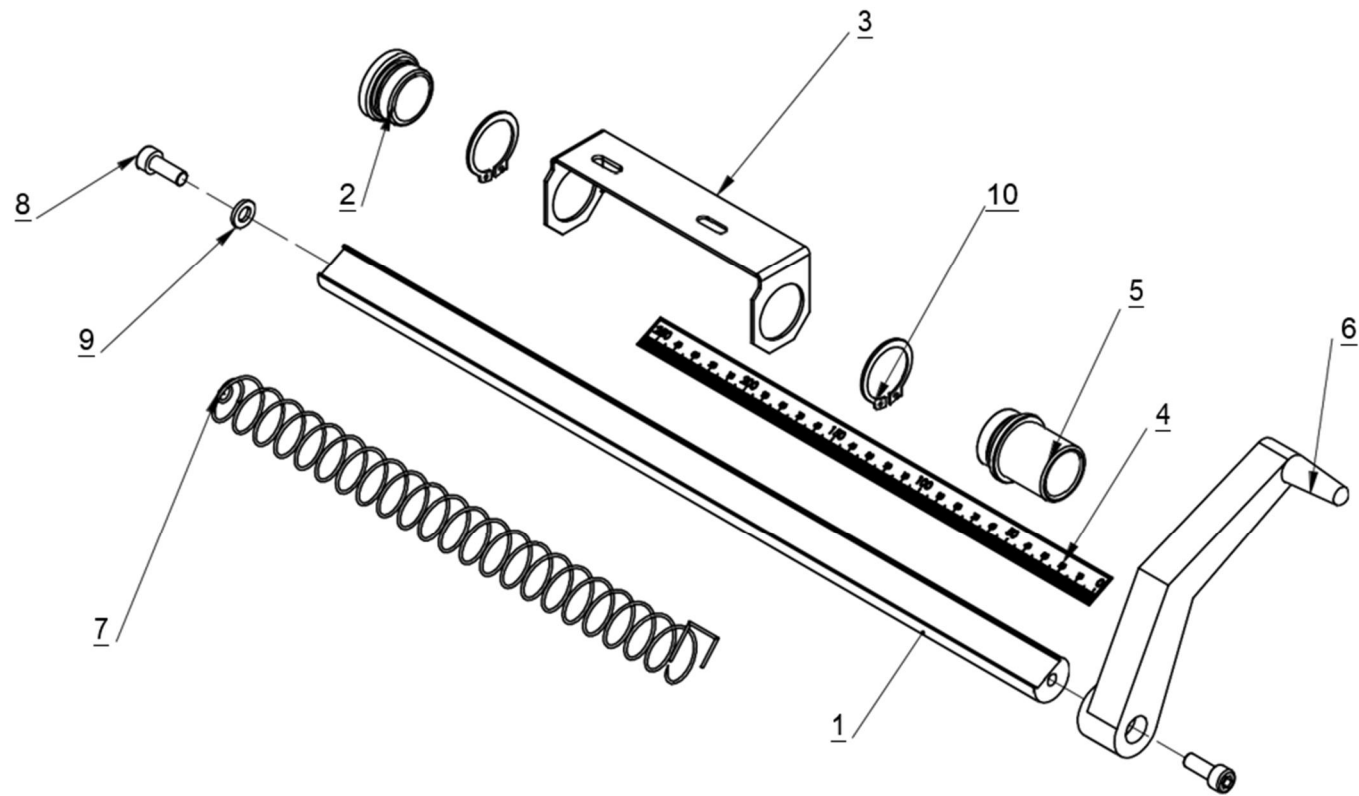
ITEM	PART NO.	DESCRIPTION	QTY
1	B-53-1300001	FRONT COVER	1
2	B-53-1300002	PANEL CONTROL DESK COVER	1
3	B-53-1300003	BACK PRESS PLATE OF THE CONTROL	1
4	B-53-1300004	CONTROL DESK SUPPORT BRACKET	1
5	B-53-1300020	BEND PIPE PROTECTIVE COVE	1
6	B-53-1300006	PRESS HAND WHEEL	2
7	B-53-1300007	PC BOARD	1
8	B-53-1300100	PRESS PLATE ASSEMBLY	1
9	B-53-1300011	PRESS PLATE	1
10	GB12-M10×20	SEMI-CIRCULAR HEAD BOLT	2
11	GB819.1-M3×16-H	SCREW	6
12	GB819.1-M3×25-H	CROSS COUNTERSUNK SCREW 4.8 GD	4
13	GB / T 95-2002	FLAT WASHER	6
14	GB / T 95-2002	FLAT WASHER	1
15	GB / T 93-1987	STANDARD SPRING WASHER	6
16	GB / T 93-1987	STANDARD SPRING WASHER	1
17	GB6170-M3	HEXANGULAR NUT 1-TYPE	14
18	GB6177.1-M10	HEXA FLANGE NUT	2
19	GB41-M6	HEXANGULAR NUT	1
20	GB5781-M6×25	HEXANGULAR BOLT	1
21	B-53-1000014	DISPLAY PANEL CABLE	1
22	GB889.1-M3	1-TYPE TORQUE HEXAGON LOCK NUT	10
23	B-53-1000200UL	WB953 DISPLAY WIRE ASSEMBLY	1



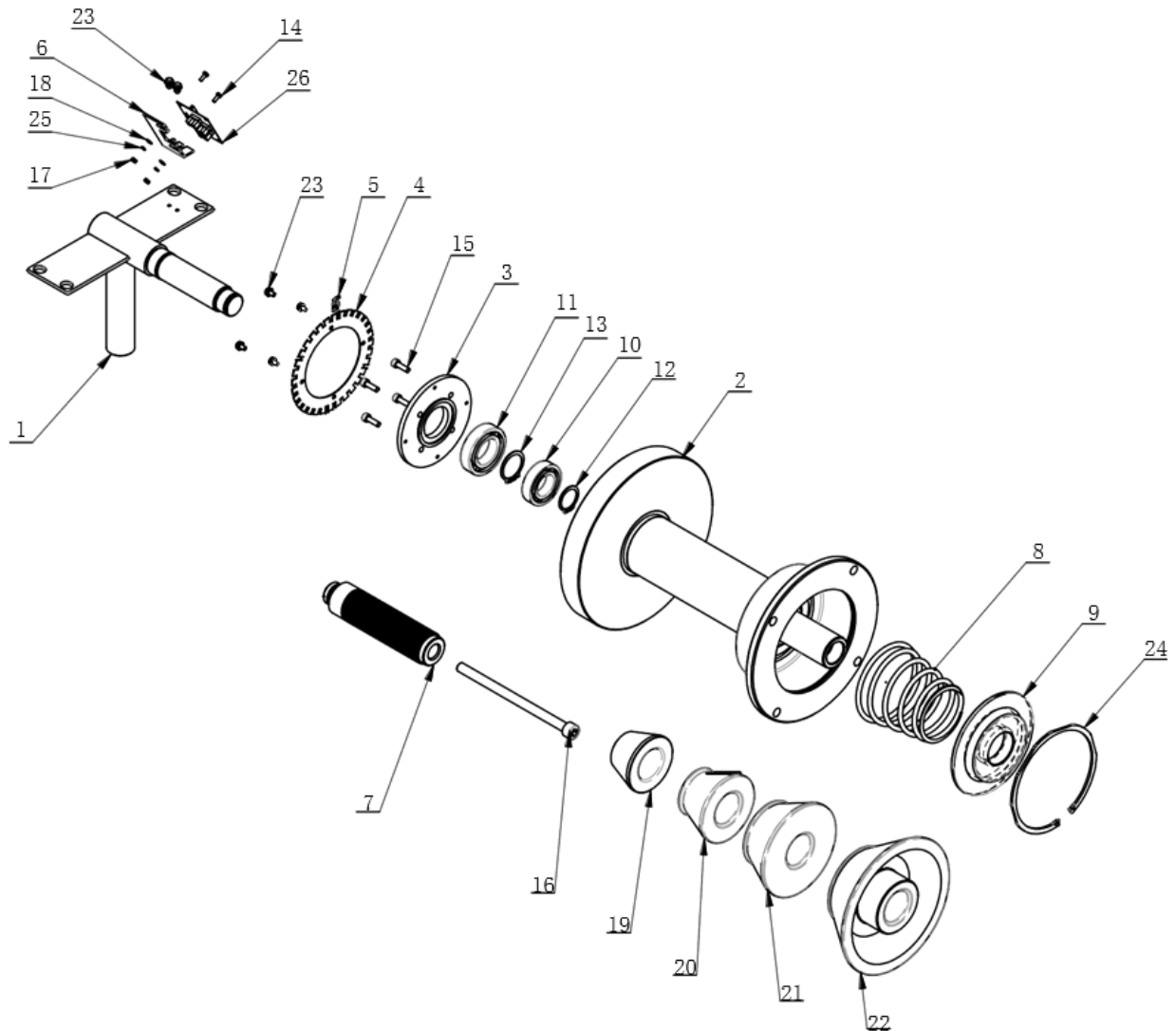
ITEM	PART NO.	DESCRIPTION	QTY
1	TB-E-1211100	POWER BOARD	1
2	TB-E-1211001	SUPPORT PLATE	1
3	TB-E-1211002	PLASTIC CLIPPER	2
4	GB6170-M3	HEXANGULAR NUT 1-TYPE	2
5	TB-E-1211268	ANTIBIAS RESISTANCE	1
6	TB-E-1258110	TRANSFORMER 110V	1
7	TB-E-1210100UL	EARTH WIRE	1
8	GB818-M3×8-H	CROSS PANHEAD SCREW	2
9	GB95-3	FLAT WASHER	2
10	GB93-3	STANDARD SPRING WASHER	2
11	GB818-M4×10-H	CROSS PANHEAD SCREW	2
12	GB845-ST4.2×13 H C	CROSS PANHEAD TAPPING SCREW	4



ITEM	PART NO.	DESCRIPTION	QTY
1	TB-F-0200200	SUPPORT	1
2	TB-F-0200100	CONNECTING BRACKET	1
3	TB-F-0200002	PIPE EXTENSION SPRING	1
4	TB-F-0100003	NEW STYLE HOOD	1
5	TB-F-0400002	MAGNET	1
6	GB15856.4-ST5.5×25	HEXA FLANGE TAP SCREW	1
7	TB-F-0200003	SET	1
8	GB41-M6	HEXANGULAR NUT	1
9	TB-F-0100014	PROTECTIVE CASING	1
10	GB70.1-M6×20	INNER HEX SCREW	1



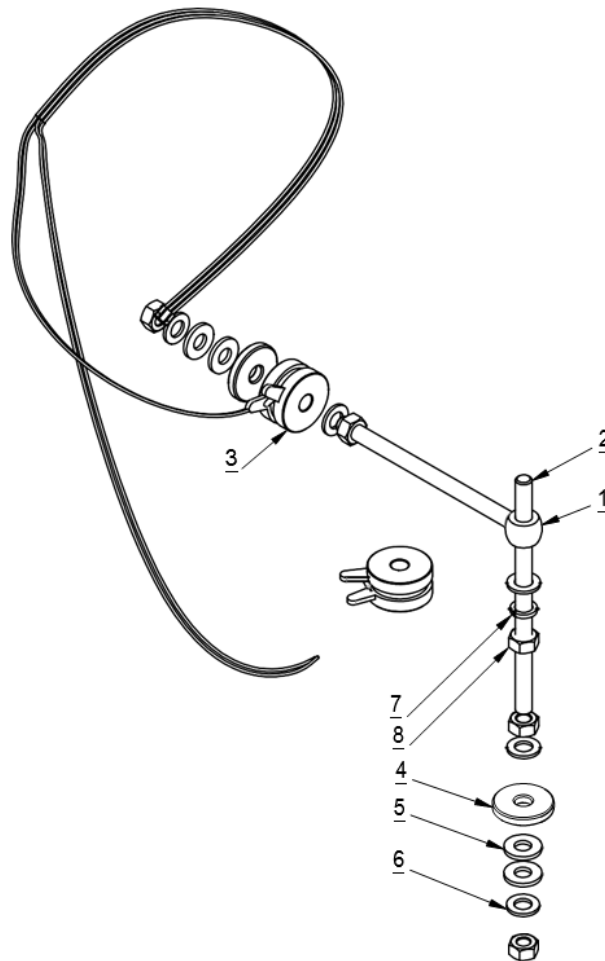
ITEM	PART NO.	DESCRIPTION	QTY
1	TB-L-0101001	SCALE ROD	1
2	TB-L-0101002	HARNESS	1
3	TB-L-0103001	SCALE HOLDER	1
4	TB-L-0101004	SCALE	1
5	TB-L-0101005	HARNESS	1
6	TB-L-0101006	SCALE HANDLE	1
7	TB-L-0101007	SPRING	1
8	GB70.1-M6×16	INNER HEX CYLINDRICAL SCREW	2
9	GB95-6	FLAT WASHER	1
10	GB894.1-25	ELASTIC RETAINING RING (A-TYPE)	2



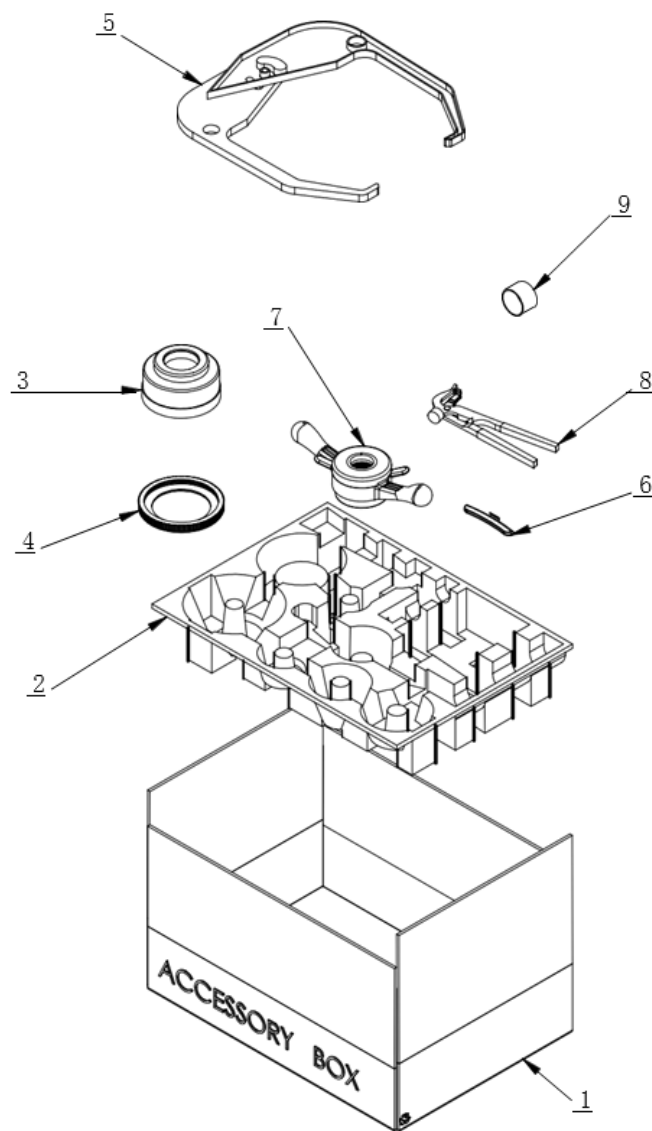
ITEM	PART NO.	DESCRIPTION	QTY
1	TB-P-0101000	FIXING SHAFT WELDING	1
2	TB-P-0102000	MAIN SHAFT WELDING	1
3	TB-P-0100001	BEARING PRESS HOUSING	1
4	TB-P-0100002	PHOTOELECTRIC SET	1
5	TB-P-0100003	PHOTOELECTRIC TOOTH	1
6	TB-P-0100004	ENCODER CELL PLATE	1
7	TB-P-0100007	THREADED SHAFT 36MM	1
8	TB-P-0100009	SPRING	1
9	TB-P-0100010	SPRING PRESS PLATE	1
10	GB276-6005	DEEP GROOVE BALL BEARING-1	1
11	GB276-6006	DEEP GROOVE BALL BEARING-2	1
12	GB894.1-25	ELASTIC RETAINING RING A-TYPE-1	1
13	GB894.1-30	ELASTIC RETAINING RING A-TYPE-2	1
14	GB818-M3×8-H	CROSS PANHEAD SCREW	2
15	GB70.1-M5×16	INNER HEXA CYLINDRICAL SCREW	4
16	GB70.1-M10×160	INNER HEXA CYLINDRICAL SCREW	1

17	GB6170-M3	HEX NUT 1-TYPE	2
18	GB95-3	FLAT WASHER	2
19	TB-P-0100031	36CONE 42-65	1
20	TB-P-0100032	36CONE 54-78	1
21	TB-P-0100033	36CONE 74-108	1
22	TB-P-0100034	36CONE 89-158	1
23	GB9074.4-M4×8	SCREW	6
24	TB-P-0300009A	CLAMP RING	1
25	GB93-3	STANDARD SPRING WASHER	2
26	TB-P-0100011	ANGLE SENSOR	1

TB-P-0110000



ITEM	PART NO.	DESCRIPTION	QTY
1	TB-P-0103000	SCREW W/ HANGING RING	1
2	TB-P-0100006	FULL BOTTON SCREW	1
3	TB-P-0100100	PIEZO ASSEMBLY	1
4	TB-P-0100005	PRESSING WASHER	2
5	DIN 6796 - 10	SPRING PIEZO WASHER	4
6	GB95-10	FLAT WASHER	5
7	GB93-10	STANDARD SPRING WASHER	1
8	GB6170-M10	HEX NUT 1-TYPE	5



ITEM	PART NO.	DESCRIPTION	QTY
1	TB-S-0100006	ACCESSORY BOX	1
2	TB-S-0100007	TRAY	1
3	TB-S-0100001	BOWL	1
4	TB-S-0100002	BOWL EDGE	1
5	TB-S-0100100	CALIBER ASSEMBLY	1
6	TB-S-0100003	WEIGHT (100g)	1
7	TB-K-0100000	QUICK NUT	1
8	TB-S-0100005	BALANCE HAMMAR	1
9	TB-P-F000001	ELASTIC BOOT	1

LIMITED WARRANTY

Structural Warranty:

The following parts and structural components carry a five year warranty:

Columns	Arms	Uprights	Swivel Pins
Legs	Carriages	Overhead Beam	
Tracks	Cross Rails	Top Rail Beam	

Limited One-Year Warranty:

Tuxedo Distributors, LLC (Tuxedo) offers a limited one-year warranty to the original purchaser of Lifts and Wheel Service equipment in the United States and Canada. Tuxedo will replace, without charge, any part found defective in materials or workmanship under normal use, for a period of one year after purchase. The purchaser is responsible for all shipping charges. This warranty does not apply to equipment that has been improperly installed or altered or that has not been operated or maintained according to specifications.

Other Limitations:

This warranty does not cover:

1. Parts needed for normal maintenance
2. Wear parts, including but not limited to cables, slider blocks, chains, rubber pads and pulleys
3. Replacement of lift and tire changer cylinders after the first 30 days. A seal kit and installation instructions will be sent for repairs thereafter.
4. On-site labor

Upon receipt, the customer must visually inspect the equipment for any potential freight damage before signing clear on the shipping receipt. Freight damage is not considered a warranty issue and therefore must be noted for any potential recovery with the shipping company.

The customer is required to notify Tuxedo of any missing parts within 72 hours. Timely notification must be received to be covered under warranty.

Tuxedo will replace any defective part under warranty at no charge as soon as such parts become available from the manufacturer. No guarantee is given as to the immediate availability of replacement parts.

Tuxedo reserves the right to make improvements and/or design changes to its lifts without any obligation to previously sold, assembled or fabricated equipment.

There is no other express warranty on the Tuxedo lifts and this warranty is exclusive of and in lieu of all other warranties, expressed or implied, including all warranties of merchantability and fitness for a particular purpose.

To the fullest extent allowed by law, Tuxedo shall not be liable for loss of use, cost of cover, lost profits, inconvenience, lost time, commercial loss or other incidental or consequential damages.

This Limited Warranty is granted to the original purchaser only and is not transferable or assignable.

Some states do not allow exclusion or limitation of consequential damages or how long an implied warranty lasts, so the above limitations and exclusions may not apply. This warranty gives you specific legal rights and you may have other rights, which may vary from state to state.

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