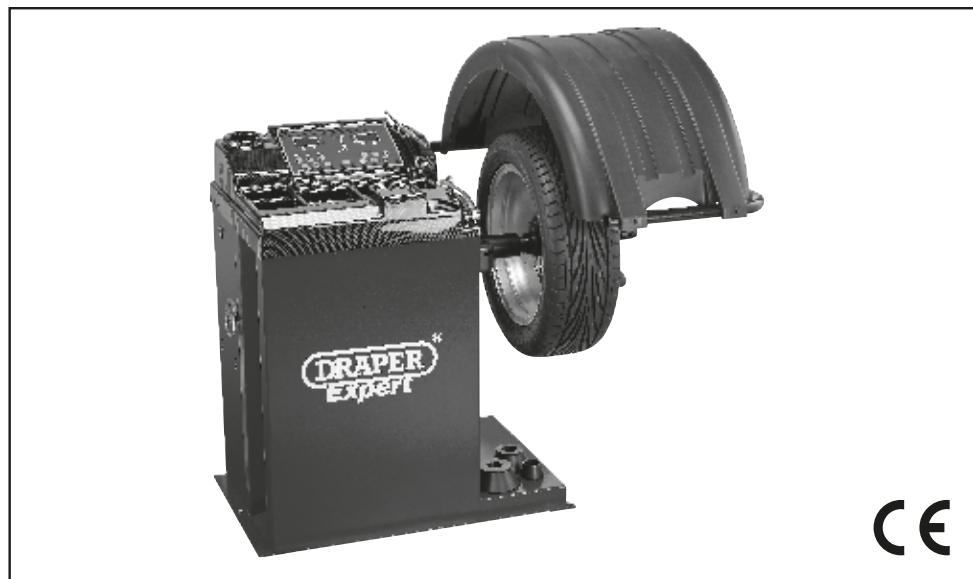




DRAPER[®]
Expert

SEMI AUTOMATIC WHEEL BALANCER

91860



These instructions accompanying the product are the original instructions. This document is part of the product, keep it for the life of the product passing it on to any subsequent holder of the product. Read all these instructions before assembling, operating or maintaining this product.

This manual has been compiled by Draper Tools describing the purpose for which the product has been designed, and contains all the necessary information to ensure its correct and safe use. By following all the general safety instructions contained in this manual, it will ensure both product and operator safety, together with longer life of the product itself.

All photographs and drawings in this manual are supplied by Draper Tools to help illustrate the operation of the product.

Whilst every effort has been made to ensure the accuracy of information contained in this manual, the Draper Tools policy of continuous improvement determines the right to make modifications without prior warning.

1. TITLE PAGE

1.1 INTRODUCTION:

USER MANUAL FOR: SEMI AUTOMATIC WHEEL BALANCER

Stock No: 91860

Part No: WB200

1.2 REVISIONS:

Date first published January 2020.

As our user manuals are continually updated, users should make sure that they use the very latest version.

Downloads are available from: <http://drapertools.com/manuals>

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1.3 UNDERSTANDING THIS MANUALS SAFETY CONTENT:

WARNING! – Information that draws attention to the risk of injury or death.

CAUTION! – Information that draws attention to the risk of damage to the product or surroundings.

1.4 COPYRIGHT © NOTICE:

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3. WARRANTY

3.1 WARRANTY

Draper tools have been carefully tested and inspected before shipment and are guaranteed to be free from defective materials and workmanship.

Should the tool develop a fault, please contact place of purchase or installation@drapertools.com.

Draper Tools Limited, Chandler's Ford, Eastleigh, Hampshire, SO53 1YF. England.

Telephone Sales Desk: (023) 8049 4333 or Product Help Line (023) 8049 4344.

A proof of purchase must be provided with the tool.

Self installed products must be installed correctly and maintained regularly or the warranty may be effected + warranty validation form completed and emailed to installation@drapertools.com.

If upon inspection it is found that the fault occurring is due to defective materials or workmanship, repairs will be carried out free of charge. This warranty period covering labour is 12 months from the date of purchase except where tools are hired out when the warranty period is 90 days from the date of purchase. This warranty does not apply to any consumable parts, normal wear and tear, nor does it cover any damage caused by misuse, careless or unsafe handling, alterations, accidents, or repairs attempted or made by any personnel other than the authorised Draper warranty repair agent.

Note: If the tool is found not to be within the terms of warranty, repairs and carriage charges will be quoted and made accordingly.

This warranty applies in lieu of any other warranty expressed or implied and variations of its terms are not authorised.

Your Draper warranty is not effective unless you can produce upon request a dated receipt or invoice to verify your proof of purchase within the warranty period.

Please note that this warranty is an additional benefit and does not affect your statutory rights.

Draper Tools Limited.

4. INTRODUCTION

4.1 SCOPE

This semi-automatic wheel balancer is capable of balancing most car, light commercial vehicle and motorcycle wheels (adapter required) up to a maximum diameter of 47 inches (including tyre).

4.2 SPECIFICATION

Stock no	91860
Part no.....	WB200
Rated voltage	230V~
Rated frequency	50Hz
Maximum wheel and tyre diameter capacity	47"/1194mm
Minimum/maximum rim diameter capacity	10" – 24"
Minimum/maximum rim width capacity	1.5" – 20"
Maximum tyre/ rim weight capacity	65kg
Balancing speed	200min ⁻¹
Tyre/rim balancing modes	DYN, ALU-1, ALU-2, ALU-3, ALU-4, ALU-5, ALU-S, ST
Cycle time	8 Seconds
Automatic start feature	Starts when safety guard is closed
Brake type	Automatic
Wheel stops	At 12 o'clock or 9 o'clock
Balancing accuracy	0.35 ounce (1gram)
Single value noise level	65dB(A)
Weight gross	102kg
Weight net	87kg

4.3 HANDLING & STORAGE

To maintain machine and user safety, the responsibility of the owner is to read and follow these instructions:

- Follow all installation instructions.
- Make sure installation conforms to all applicable local environmental/health and safety rules and regulations.
- Carefully check the unit for correct initial function.
- Read and follow the safety instructions. Keep them readily available for machine operators.
- Make certain all operators are properly trained, know how to safely and correctly operate the unit, and are properly supervised.
- Allow unit operation only with all parts in place and operating safely.
- Carefully inspect the unit on a regular basis and perform all maintenance as required.
- Service and maintain the unit only with authorized or approved replacement parts.
- Keep all instructions permanently with the unit and all decals/labels/notices on the unit clean and visible.
- Do not override safety features.

5. HEALTH & SAFETY INFORMATION

5.1 GENERAL SAFETY INSTRUCTIONS

When using any type of power tool there are steps that should be taken to make sure that you, as the user, remain safe.

Common sense and a respect for the tool will help reduce the risk of injury.

Read the instruction manual fully. Do not attempt any operation until you have read and understood this manual.

Most important you must know how to safely start and stop this machine, especially in an emergency.

Keep the work area tidy and clean. Attempting to clear clutter from around the machine during use will reduce your concentration. Mess on the floor creates a trip hazard. Any liquid spilled on the floor could result in you slipping.

Find a suitable location. The location should provide good natural light or artificial lighting as a replacement. Avoid damp and dust locations as it will have a negative effect on the machine's performance.

Beware of electric shock. Avoid contact with earthed surfaces; because they can conduct electricity if there is an electrical fault with the power tool. Always protect the power cable and route it away from danger.

Keep bystanders away. Children, onlookers and passers by must be restricted from entering the work area for their own protection. The barrier must extend a suitable distance from the tool user.

Do not overload or misuse the tool. All tools are designed for a purpose and are limited to what they are capable of doing. Do not attempt to use a power tool (or adapt it in any way) for an application it is not designed for. Overloading a tool will result in tool failure and user injury: This covers the use of accessories.

Dress properly. Loose clothing, long hair and jewellery are all dangerous because they can become entangled in moving machinery: This can also result in parts of body being pulled into the machine.

Clothing should be close fitted, with any long hair tied back and jewellery and neck ties removed. Footwear must be fully enclosed and have a nonslip sole.

Wear personal protective equipment (PPE). Dust, noise and vibration can all be dangerous if not suitably protected against. If the work involving the power tool creates dust or fumes; wear a dust mask. Vibration to the hand, caused by operating some tools for longer periods must be protected against. Wear vibration reducing gloves and allow long breaks between uses. Protect against dust and swarf by wearing approved safety goggles or a face shield. These are some of the more common hazards and preventions; however, always find out what hazards are associated with the machine/work process and wear the most suitable protective equipment available.

Do not breathe contaminated air. If the work creates dust or fumes; connect the machine (if possible) to an extraction system either locally or remotely.

5. HEALTH & SAFETY INFORMATION

Move the machine as instructed. If the machine is hand held, do not carry it by the power supply cable. If the product is heavy; employ a second or third person to help move it safely or use a mechanical device. Always refer to the instructions for the correct method.

Do not overreach. Extending your body too far can result in a loss of balance and you falling. This could be from a height or onto a machine and will result in injury.

Maintain your tools correctly. A well maintained tool will do the job safely. Replace any damaged or missing parts immediately with original parts from the manufacturer. As applicable; keep blades sharp; moving parts clean, oiled or greased; handles clean; and emergency devices working.

Wait for the machine to stop. Unless the machine is fitted with a safety brake; some parts may continue to move due to momentum. Wait for all parts to stop; then unplug it from the power supply before making any adjustments, carrying out maintenance operations or just finishing using the tool.

Remove and check setting tools. Some machinery requires the use of additional tools or keys to set, load or adjust the power tool. Before starting the power tool always check to make certain they have been removed and are safely away from the machine.

Prevent unintentional starting. Before plugging any machine in to the power supply, make sure the switch is in the OFF position. If the machine is portable; do not hold the machine near the switch and take care when putting the machine down; that nothing can operate the switch.

Carefully select an extension lead. Some machines are not suitable for use with extension leads. If the tool is designed for use outdoors; use an extension lead also suitable for that environment. When using an extended lead, select one capable of handling the current (amps) drawn by the machine in use. Fully extend the lead regardless of the distance between the power supply and the tool. Excess current (amps) and a coiled extension lead will both cause the cable to heat up and can result in fire.

Concentrate and stay alert. Distractions are likely to cause an accident. Never operate a power tool if you are under the influence of drugs (prescription or otherwise), including alcohol or if you are feeling tired. Being disorientated will result in an accident.

Have this tool repaired by a qualified person. This tool is designed to conform to the relevant international and local standards and as such should be maintained and repaired by someone qualified; using only original parts supplied by the manufacturer: This will ensure the tool remains safe to use.

5.2 SPECIFIC SAFETY INSTRUCTION FOR WHEEL BALANCER USE

- This machine MUST be bolted to the floor. Failure to do so will invalidate the warranty
- Make sure this machine is used on a dry, flat, level, oil/grease free, concrete surface capable of supporting the weight of the wheel balancer, the tyre being balanced, and any additional tools and equipment.
- Before each use, always examine the wheel balancer for structural cracks and bends, damage to the safety guard, electrical wiring, and any other condition that may affect the safe operation of the machine. Do not use the wheel balancer even if minor damage is apparent.
- Maintain a safe working environment. Keep the work area well lit. Make sure there is adequate surrounding workspace. Always keep the work area free of obstructions, grease, oil and other debris. Do not use the wheel balancer in a damp or wet location. Do not use the wheel balancer in areas near flammable chemicals, dusts, and vapours.
- Always ensure that the wheel is secure and the clamp fully tightened BEFORE starting the machine.

5. HEALTH & SAFETY INFORMATION

- This wheel balancer is designed for use with most passenger car and light commercial vehicle wheels. Do not attempt to exceed this machine's maximum wheel diameter capacity.
- Prior to beginning a job, make sure the safety guard is in the proper lowered position. Do not raise the safety guard until the spinning wheel comes to a complete stop.
- Always keep hands, fingers, and feet away from the moving parts of the wheel balancer while the machine is in use. Remain clear of the spinning wheel while it is being balanced.
- Never leave the wheel balancer unattended when it is running. After completing a wheel balancing job, always turn the Power Switch to its "OFF" position, and wait until the machine comes to a complete stop before leaving.
- Make sure you read and understand all instructions and safety precautions as outlined in the manufacturers manual for the wheel you are balancing, and the vehicle the wheel is to be used on.
- Before turning the machine on, make sure tools, tool trays, wheel weights, and all other parts and equipment are removed from the immediately vicinity of the mounted wheel that is to be balanced.
- Never stand or allow an observer to stand in line with the spinning wheel.
- To comply with national regulations, and to provide additional protection from the risk of electrical shock, the power plug should only be connected to a 3- hole electrical outlet that is protected by a Ground Fault Circuit Interrupter .
- If an extension cord (not provided) is used, make sure to use only approved cords having the correct gauge and length.
- Always unplug the wheel balancer from its electrical supply source before performing any inspection, maintenance, or cleaning procedures.
- **WARNING:** People with pacemakers should consult their physician(s) before using this product. Operation of electrical equipment in close proximity to a heart pacemaker could cause interference or failure of the pacemaker.

5.3 CONNECTION TO THE POWER SUPPLY

Make sure the power supply information on the machine's rating plate are compatible with the power supply you intend to connect it to.

The wheel balancer comes supplied with a UK standard 3 pin plug fitted. It is designed for connection to a domestic power supply rated at 230V AC.

Because it is constructed mostly of metal parts, it is a Class 1 machine; meaning, it must have an earth connection in the power supply. This is to prevent electrocution in the event of a failure.

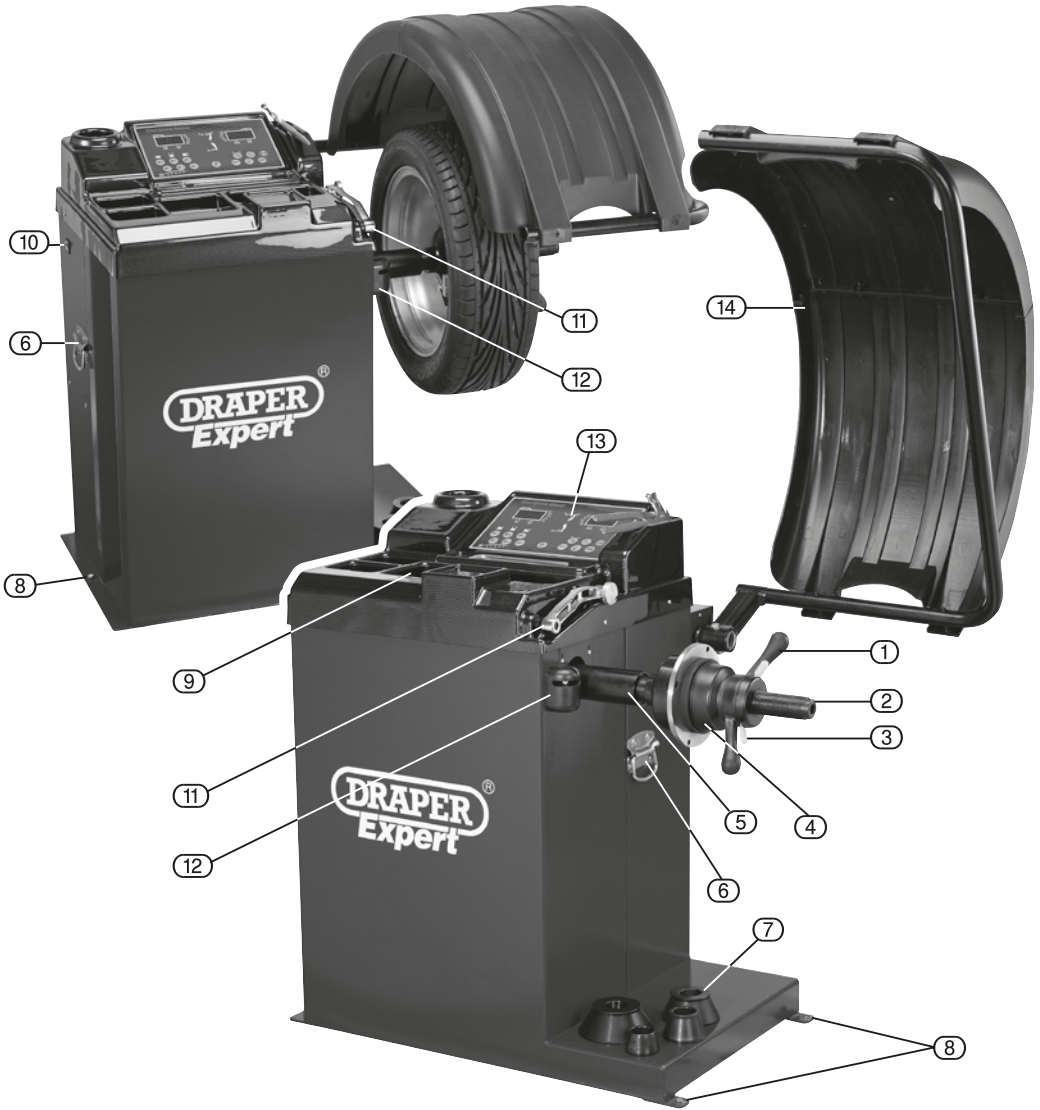
Apart from replacing the fuse in the plug, no other electrical work is recommended on this wheel balancer.

IMPORTANT

If using an extension lead, follow the instructions that came with your lead regarding maximum load while cable is wound. If in doubt, ensure that the entire cable is unwound. Using a coiled extension lead will generate heat which could melt the lead and cause a fire.

6. GETTING TO KNOW YOUR WHEEL BALANCER

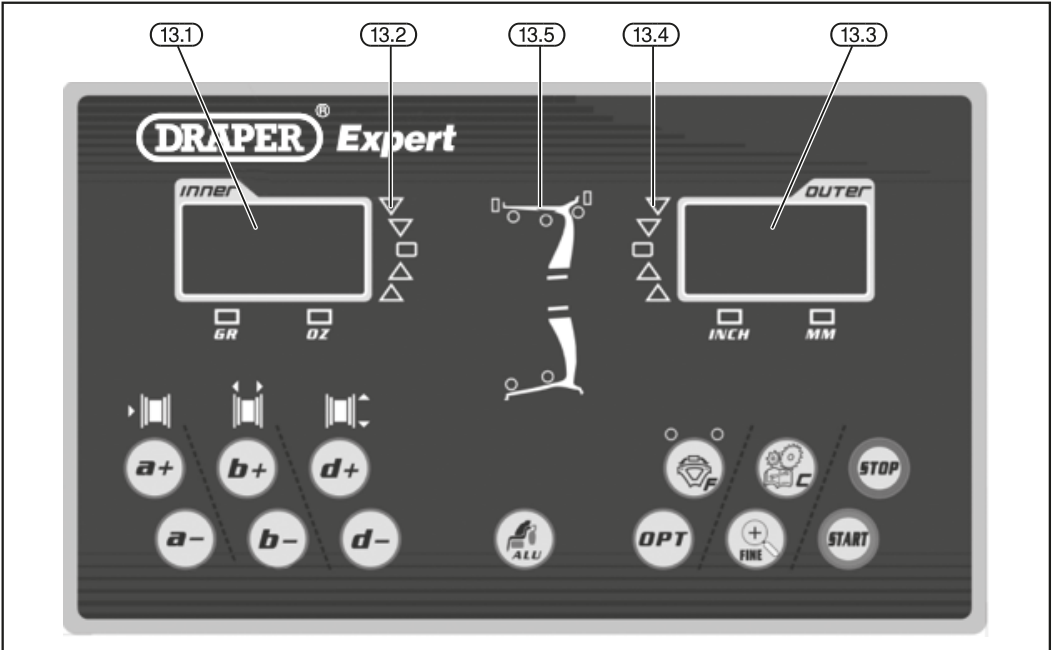
6.1 IDENTIFICATION



- | | | |
|------------------------|--------------------------------------|------------------------|
| ① Adjustable hub nut | ⑦ Assorted cones | ⑫ Laser orientation |
| ② Centring shaft | ⑧ Machine mounting bolts | ⑬ Keypad control panel |
| ③ Thumb lock | ⑨ Weight & tool storage compartments | ⑭ Plastic safety guard |
| ④ Plastic pressure cup | ⑩ Power switch | |
| ⑤ Transmission shaft | ⑪ Rim distance pointer | |
| ⑥ Carry handle | | |

6. GETTING TO KNOW YOUR WHEEL BALANCER














6.2 CONTROL PANEL IDENTIFICATION




- 13.1 Inner imbalance value digital display.
- 13.2 Inner imbalance position display.
- 13.3 Outer imbalance value digital display.
- 13.4 Outer imbalance position display.
- 13.5 Displays showing type of correction chosen for weight placement.

6. GETTING TO KNOW YOUR WHEEL BALANCER

6.3 KEY BOARD

Icon	Function	Icon	Function
 	Set distance		Optimization of imbalance
 	Set rim width		Optimization of imbalance
 	Set rim diameter		Static mode, for motorcycle wheels
	Recalculation		Imbalance display pitch and threshold
	Start		Stop/Cancel

6.4 ELECTRONIC BRAKES

Icon	Function
	Automatic brake switch / can be used to load and unload tires

7. UNPACKING & CHECKING

7.1 PACKAGING

Carefully remove the wheel balancer from the packaging using the handles (6), DO NOT LIFT BY TRANSMISSION SHAFT and examine it for any sign of damage that may have happened during shipping. Lay the contents out and check them against the parts shown below. If any part is damaged or missing; please contact the Draper Helpline (the telephone number appears on the Title page) and do not attempt to use the wheel balancer.

The packaging material should be retained at least during the guarantee period: in case the machine needs to be returned for repair.

Warning! Some of the packaging materials used may be harmful to children. Do not leave any of these materials in the reach of children.

If any of the packaging is to be thrown away, make sure they are disposed of correctly; according to local regulations.

7.2 WHAT'S IN THE BOX?

As well as the wheel balancer; there are several other parts not fitted or attached to it.



(17) Cone 1, 2, 3, & 4.

(18) Centring shaft.

(19) Centring shaft fixing bolt.

(20) Hexagon keys.

(21) Rim width callipers.

(22) Pliers for weight fitting and removing.

(23) Quick release hub nut with pressure cup.

(24) Secondary pressure cup.

8. INSTALLATION AND ASSEMBLY

8.1 DETERMINE THE PROPER LOCATION FOR THE WHEEL BALANCER

WARNING: Make sure this machine is used on a dry, oil/grease free, flat, level CONCRETE surface capable of supporting the weight of the wheel balancer, the wheel being balanced, and any additional tools and equipment.

The wheel balancer is designed for indoors use only. Do not install or use the wheel balancer outdoors, or in damp or wet locations.

Make sure to check the desired location for possible obstructions such as a low ceiling and overhead lines, (leave a minimum of 0.6m behind the equipment), adequate working area, access ways, exits, etc.

The wheel balancer should be located in an area free of flammable materials and liquids.

8.2 TO MOUNT THE WHEEL BALANCER ON A FLOOR SURFACE - FIG. 1

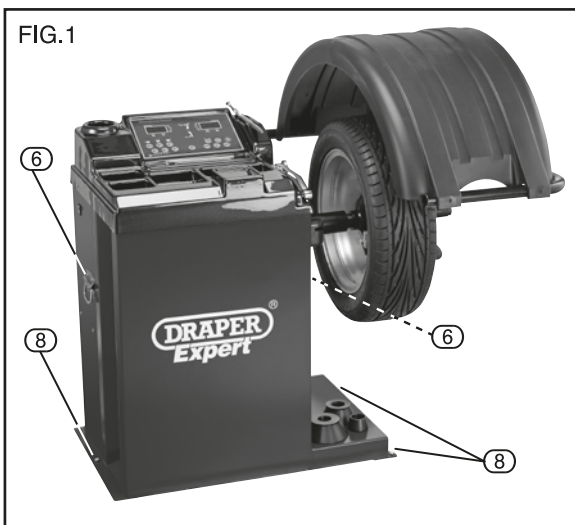
Note: DO NOT LIFT BY THE TRANSMISSION SHAFT. Only lift the wheel balancer with handles (6) either side.

With assistance, and with the use of a lifting device, stand the wheel balancer in its upright position and in the desired work location. Use the three, ½" machine mounting holes (8) located at the base of the body as a template to mark the points where three floor anchor holes will be drilled in the floor surface, then temporarily remove the wheel balancer using the handles (6) on either side, NOT touching the transmission shaft.

Where marked on the concrete floor surface, drill three ½" diameter, minimum 4" deep, anchor holes. Note: Be sure to blow out the cement dust from the drilled holes.

Move the wheel balancer back to the desired location, and align the three machine mounting holes at the base of the Body with the three drilled floor anchor holes. If necessary, level the wheel balancer by inserting steel shims between the base of the machine and the concrete floor surface. Do not exceed more than ½" thickness of shims.

Secure the wheel balancer to the concrete floor surface, using three ½" diameter concrete anchor bolts of appropriate length, three washers, and three nuts (not provided).



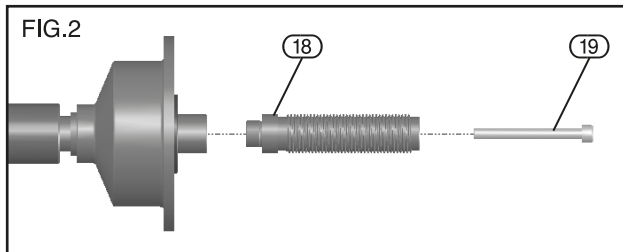
8.3 TO ATTACH THE SAFETY GUARD TO THE WHEEL BALANCER

Slide the safety guard onto the shaft and secure with bolt. Ensure it is level when in the closed position.

8. INSTALLATION AND ASSEMBLY

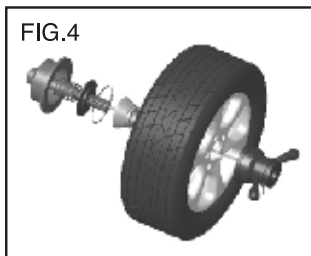
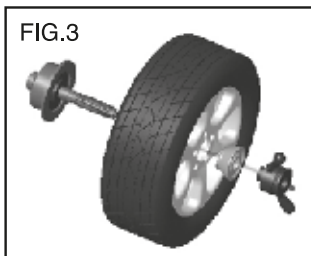
8.4 INSTALL CENTRING SHAFT - FIG. 2

Attach the centring shaft (18) with bolt (19) supplied.



8.5 INSTALL WHEEL - FIGS 3 - 4.

Ensure the wheel to be balanced is clean, stones removed from tyre thread, old wheel weights removed and the tyre pressure is correct. Select the correct centring cone for the wheel, slide down the shaft followed by the wheel using the hub nut to lock into place.





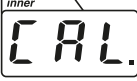
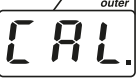

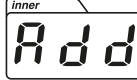
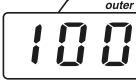

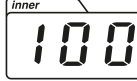
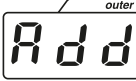



Attention: Add a wheel, and hold the wheel to help install the thread hub. When installing or taking off wheel, do not let wheel move on the shaft, to avoid scratching shaft.

9. CALIBRATION OF WHEEL BALANCER



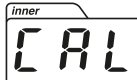
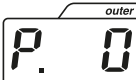

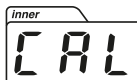
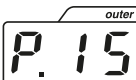

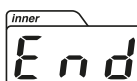
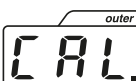
9.1 SELF-CALIBRATION OF 100G

Turn on balancer, install a medium size wheel (14"-18") which can use a 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.**



1	Press  and hold, then press  .	 
2	Put down safe guard or press  start spin, after spin stop.	 
3	Open the safe guard and clip a 100 gram weight on the outside 12 o'clock position, put down safe guard and press  to start spin, after spin stop.	 
4	Open the safe guard ,first remove the outer 100g lead block, turn the wheel until the inner rim imbalance position displays all 5 segments, and add a 100 gram weight on the inside 12 o'clock position, put down the safety guard and press  to start spin, after spin stop.	 



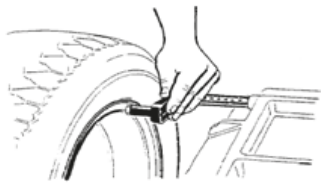


9.2 RIM DISTANCE GAUGE CALIBRATION

1	 + 	 
2	Pull gauge to position "0" and hold, press  .	 
3	Pull gauge to position "15" and hold, press  .	 
Rim distance gauge calibration finished		



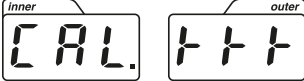
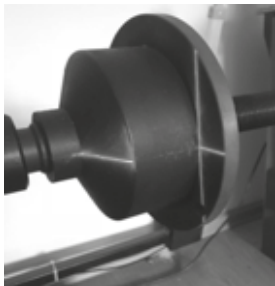




9. CALIBRATION OF WHEEL BALANCER

9.3 RIM DIAMETER GAUGE CALIBRATION

Set "d" by press  and , (for example if it is 14 inch, make it 14)

		
<p>Move gauge to touch the edge of rim and keep still.</p> 	<p>Press </p>	

9.4 CALIBRATION OF LASER

	
	
	<p>Press  and  to move the position of the laser intersection as left picture, press  to confirm.</p>
	

10. DYN (STANDARD/DEFAULT) OPERATION MODE

10.1 INPUT A, B, D VALUE - FIGS. 5 - 9

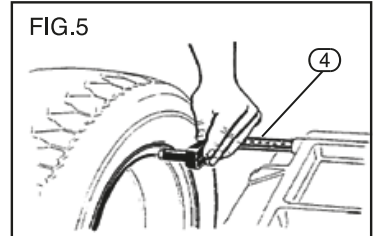
Turn on machine.



Choose correct way to install wheel according to the type of wheel; (see 8 install wheel).

Set "a" "b" "d" values:

- Set "a" value: move the gauge (4) to measuring position as illustrated Fig.5, hold the gauge still in position for approx. 4 seconds, then return the gauge to closed position. (The value measured in automatic mode appears on the display).

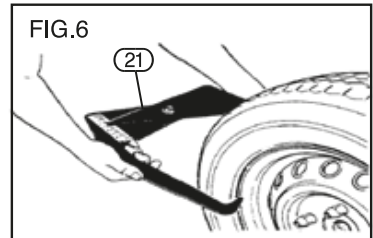
Press  and  to set manually.



- Set "b" value: Use the width gauge (21) to measure the value of "b" as Fig.6, then press  and .

- Set "d" value:

Press  and  to set manually.



10. DYN (STANDARD/DEFAULT) OPERATION MODE




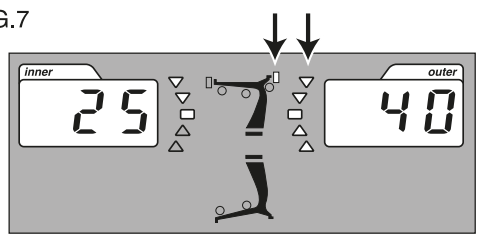
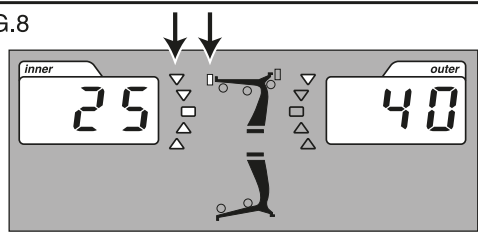
- Put down the guard and press  to perform a measuring spin.
- In a few seconds the wheel is brought to operating speed and begin measuring, the unbalance values will appear on display  and  when the wheel has stopped.
- Move the wheel slowly anticlockwise, until the **RIGHT LED LIGHTS UP ALL 5 SEGMENTS FULLY** and the **wheel locks**, apply weight on 12 o'clock position.

FIG.7



- Moving the wheel slowly anticlockwise, until the **LEFT LED LIGHTS UP ALL 5 SEGMENTS FULLY** and the **wheel locks**, apply weight on 12 o'clock position .

FIG.8




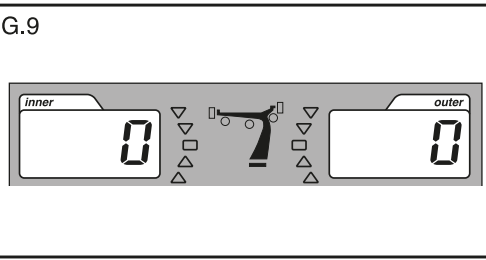
- After finishing applying the counterweights, put the guard down and press,  to perform the balancing spin again, review the results.

FIG.9



Note: The target is to display no weight required on both sides.


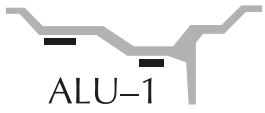

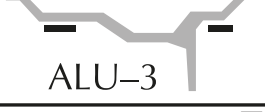
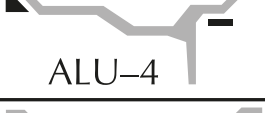



10. DYN (STANDARD/DEFAULT) OPERATION MODE

The previous operation is the same for **DYN, ALU-1, -2, -3, -4, -5** mode.

Use  button to select mode, this will change the position and type of weights required.

Use this chart:





10.2 EIGHT BALANCING MODES

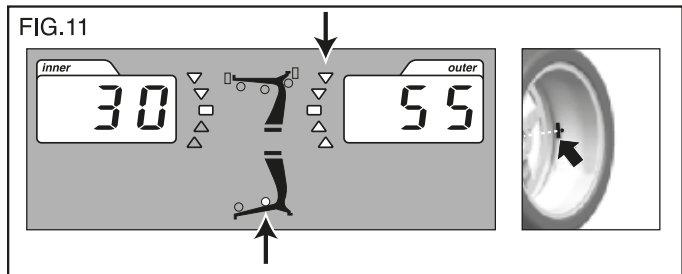
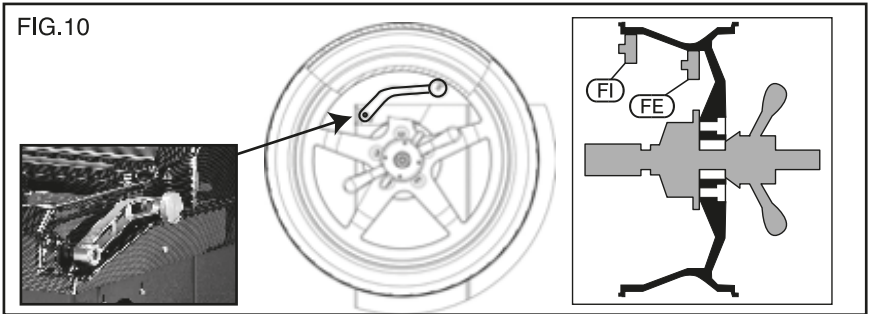
Icon	Balancing mode	Add weights
 DYN	Standard/ Default	Clip on weights on both sides of rim edge
 ALU-1	ALU1	Add adhesive weights on the rim shoulder both sides
 ALU-2	ALU2	Clip on weight on inside rim edge, add adhesive weight on outside rim shoulder
 ALU-3	ALU3	Add adhesive weights on the rim shoulder both sides
 ALU-4	ALU4	Clip on weight on inside rim edge, add adhesive weight on outside rim shoulder
 ALU-5	ALU5	Add adhesive weight on inside rim shoulder, clip on weight on outside rim edge
 ALU-S	ALUS	Add adhesive weights on the two positions gauge head touch
 ST	Static mode, for motorcycle wheels	Add adhesive weight

11. ALU-S MODE OPERATION MODE

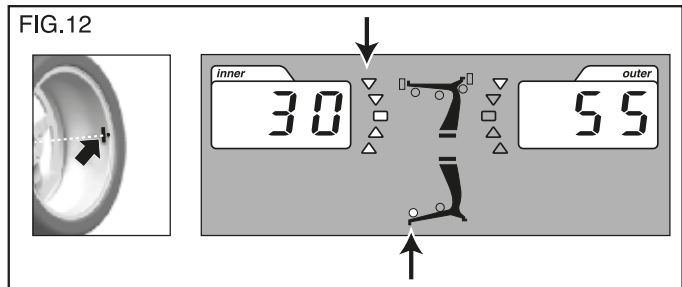
11.1 ALU-S MODE - FIGS. 10 - 13

Use this mode for a more cosmetically pleasing placement of the weights on the wheel.


- Using the  button, select ALU-S mode (refer to previous chart)
- Using the Rim distance pointer head  touch the position you wish to place the outer weight (example FE) and hold for 4 seconds until the machine beeps.
- Using  and  set the rim size.
- Lower the guard and press start.
- When the wheel comes to a complete stop lift the guard and move the wheel slowly anticlockwise until the right LED lights up FULL, the Laser point will indicate the weight position a 9 o'clock.



Repeat for left LED.

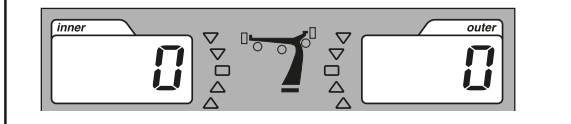


11. ALU-S MODE OPERATION MODE

- After finishing applying the counterweights, put down the guard and press,  to perform balancing spin again, review the results.

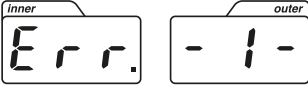
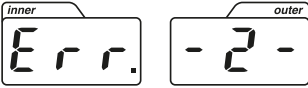
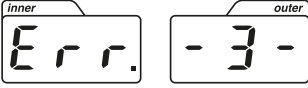
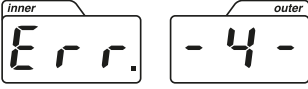
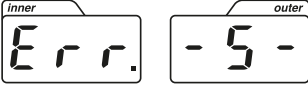
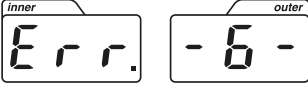
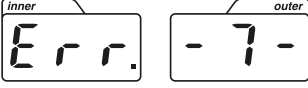
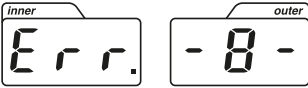
Note: The target is to display no weight required on both sides.

FIG.13

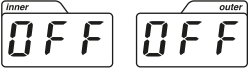
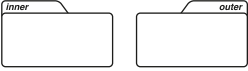


12. ERRORS





Various abnormal conditions can be detected during machine operation by the onboard diagnostics, if errors appear on the display- STOP USE and correct the error as detailed below. If the error persists, consult your supplier.


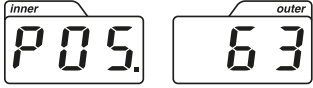
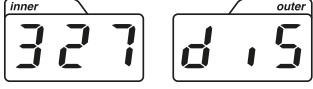
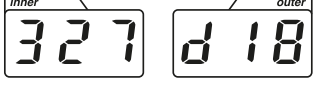
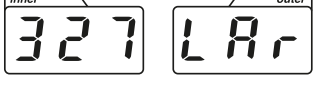

1		<ol style="list-style-type: none"> 1. No spin. 2. Shaft spin. 	<ol style="list-style-type: none"> 1. If no spin, check or change power board. 2. If spin, check or change position pick up board and computer board. 3. Adjust position pick up board support.
2		<ol style="list-style-type: none"> 1. No wheel or wheel not locked tightly. 2. Position pick up board problem. 	<ol style="list-style-type: none"> 1. Lock tightly. 2. Check or change position pick up board.
3		<ol style="list-style-type: none"> 1. Not enough air pressure in wheel. 2. Wheel distortion. 	<ol style="list-style-type: none"> 1. Add proper air pressure in wheel. 2. Check wheel.
4		<ol style="list-style-type: none"> 1. Position pick up board problem. 2. Computer board problem. 	<ol style="list-style-type: none"> 1. Check or change position pick up board. 2. Check or change computer board.
5		<ol style="list-style-type: none"> 1. Micro switch problem. 2. Computer board problem. 	<ol style="list-style-type: none"> 1. Check or change Micro switch. 2. Check or change computer board.
6		<ol style="list-style-type: none"> 1. Power board problem. 2. Computer board problem. 	<ol style="list-style-type: none"> 1. Check or change power board. 2. Check or change computer board.
7		<ol style="list-style-type: none"> 1. Program lost. 2. Computer board problem. 	<ol style="list-style-type: none"> 1. Self calibration. 2. Check or change computer board.
8		<ol style="list-style-type: none"> 1. No 100g weight during self calibration. 2. Computer board problem. 3. Power board problem. 	<ol style="list-style-type: none"> 1. Add 100g weight. 2. Check or change computer board 3. Check or change power board.

12. ERRORS

9		<ol style="list-style-type: none">1. Micro switch problem.2. Computer board problem.	<ol style="list-style-type: none">1. Check or change micro switch.2. Check or change computer board.
10		<ol style="list-style-type: none">1. Computer board problem.2. Power board problem.	<ol style="list-style-type: none">1. Check or change computer board.2. Check or change power board.

13. SELF-DIAGNOSES

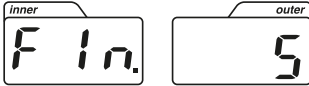
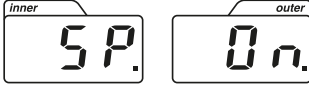
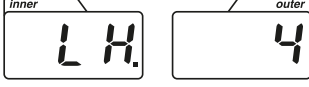
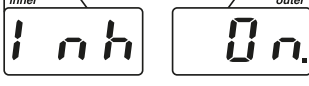
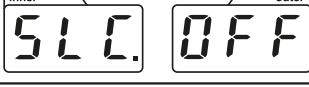
Press  and hold, then press  goes to self diagnoses, press  to next , press  to escape.

Order	Display	Function	Function normal
1		Display.	All lit up.
2		Position pick up board.	POS changes in 0-127.
3		Distance potentiometer.	Left window data is 327-340, when pull gauge out, the data changes.
4		Distance potentiometer.	Left window data is 327-340, turn ruler to another direction, data changes.
5		Width ruler calibration.	Left window data is 327-340, turn ruler to another direction, data changes.
6		Pressure sensor.	Use hand to press main shaft, 4X-4X 6X-6X changes.



14. SETTING MACHINE

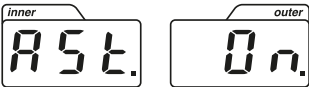
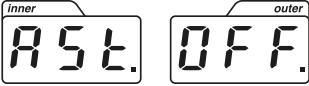

14.1 MACHINE SETTING

Press  and hold, then press  goes to set machine, press  and  to change, press  to next.

Order	Display	Function	Choice
1		Imbalance display threshold.	5/10/15
2		Sound.	On/off.
3		Light.	1-8
4		Inch/mm	Inch on/inch off
5		When ALU-S mode if use gauge head to add weight.	OFF: 9 point laser. ON: Use gauge head to add weight.

14.2 SAFE GUARD SETTING

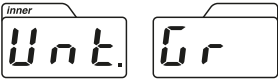

Press  and hold, then press  to set safe guard

Display	Function	Explain
	Safe guard on.	Put down safe guard to start spin.
	Safe guard on.	Put down safe guard then  press to start spin

14. SETTING MACHINE

14.3 UNIT OF WEIGHT SETTING

Press  +  to set safe guard.

Display	Function	Explain
	Unit of weight.	Gram
	Unit of weight.	Ounce

15. EXPLANATION OF SYMBOLS/PICTOGRAMS



Warning!



Do not dispose of WEEE* as unsorted municipal waste.



* Waste Electrical & Electronic Equipment.



Warning!
Wear suitable foot protection.



Warning!
Read the instruction manual.



Warning!
Wear suitable eye protection.



Risk of electric shock.

16. DISPOSAL

16.1 DISPOSAL

At the end of the machine's working life, or when it can no longer be repaired, ensure that it is disposed of according to national regulations.

Contact your local authority for details of collection schemes in your area.

In all circumstances:

- Do not dispose of power tools with domestic waste.
- Do not incinerate.
- Do not abandon in the environment.
- Do not dispose of WEEE* as unsorted municipal waste.

* Waste Electrical & Electronic Equipment.



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Service/Warranty Repair Agent:

For aftersales servicing or warranty repairs, please contact the
Draper Tools Helpline for details of an agent in your local area.

YOUR DRAPER STOCKIST

DBKC0120

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