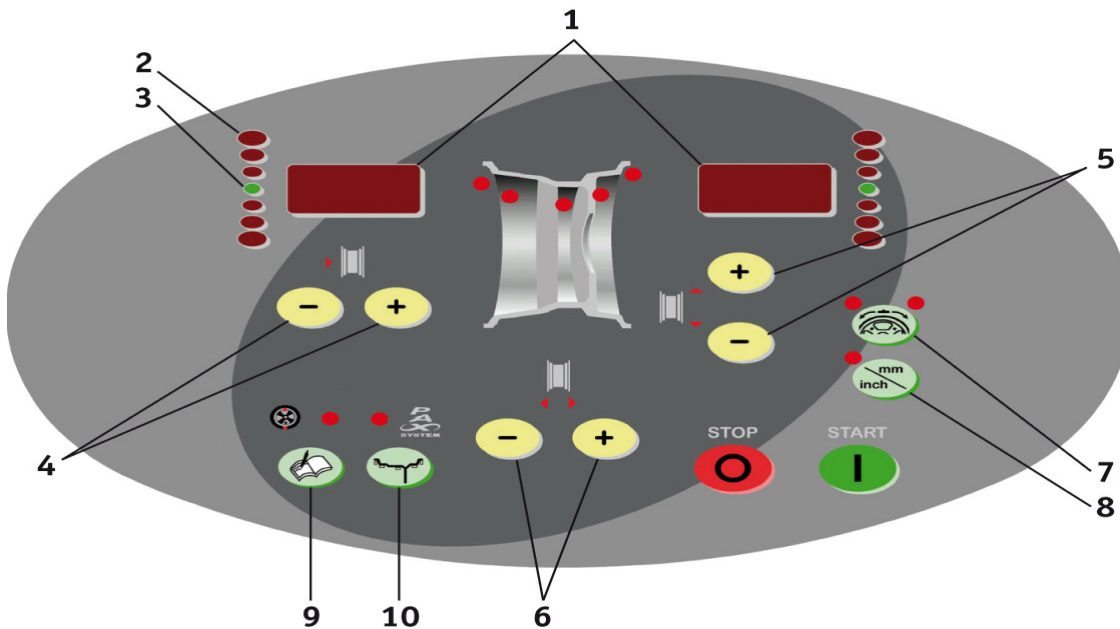


WB 255-277 CALIBRATION



Command Panel – key

1. Data display
2. Luminous diodes for direction of imbalance point
3. Point of imbalance (LED)
4. Rim distance set-up keys
5. Rim diameter set-up keys
6. Rim width set-up keys
7. SPLIT key
8. Unit of measurement selector for rim width or diam. (mm/inch)
9. Control functions key (MENU)
10. Balancing program selection key (MODE)

(FIG. 1).

CALIBRATION

- 1) Press down the menu key (number 9 of FIG. 1) until the display on the left shows CAL and within 1.5 seconds press the mm/inch key (key 8 fig.1)**

- 2) The display on the left will show C-1 = flange imbalance reset. Mount the flange with cones supplied on the balancer shaft. Fix it firmly, take off the wing nut and all the cones present and carry out a run by lowering the protection cover. At the end of the run the display on the left shows C-2.**
- 3) C-2 = mount an iron wheel with tyre, if possible in good condition, on the flange. Set the wheel measurements: (distance, diameter and width) and do a run with the wheel by lowering the protection cover. At the end of the run the display on the left shows C3 and the display on the right 100.**
- 4) C-3 = set-up of the calibration weight (weight advised is the 100 g supplied) normally already pre-set-up. If you use a different weight, to change the value of the weight use the +/- keys (number 5 of FIG. 1). Apply the weight to the inside of the tyre and do a run by lowering the protection cover. At the end of the run, the display on the left shows C4 and the display on the right 100.**
- 5) C- 4 = take off the 100 g weight previously applied to the inside of the wheel and apply it to the outside of the wheel in about the same symmetric position, then do a run by lowering the protection cover. At the end of the run the display on the left shows C5.**
- 6) C-5 = adjustment of the position of the calibration weight. Turn the wheel manually to position the**

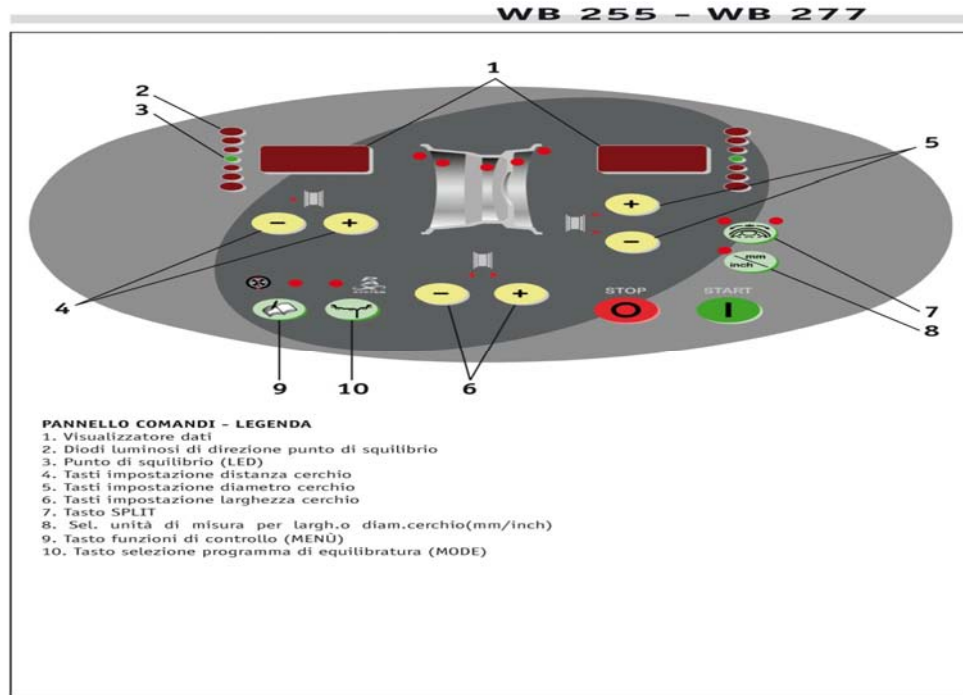
calibration weight (100g) at 6 o'clock (see fig. 2) using the flange shaft as a reference. While holding the wheel in position as in (fig.2), press the key with the two red leds lit up (key 7 of fig. 1) to confirm.

- 7) Normally the value of the position for machines at 50 Hz goes from 20 to 35 and for machines at 60 Hz, from 30 to 45.***



(fig.2)

Diagnostic menu for WB 255-277 Balancers



COMMAND PANEL – KEY

1. Data display
2. Luminous diodes for direction of unbalance point
3. Point of unbalance (LED)
4. Rim distance set-up keys
5. Rim diameter set-up keys
6. Rim width set-up keys
7. SPLIT key
8. Unit of measurement selector for rim width or diam. (mm/inch)
9. Control functions key (MENU)
10. Balancing program selection key (MODE)

To enter the diagnostic menu press the menu key (KEY 9) until tSt is shown on the display on the left and after 1.5 seconds press the key mm/inch to enter the diagnostic menu. If the key mm/inch is pressed in time, the display on the left visualises NSr meaning that you have entered the menu. If, instead, the key mm/inch is not pressed in time, the display on the right and the display on the left show 0-0.

NSr : this menu is used to visualise the tensions of the pick-ups.

To visualise exactly the tensions of the two pick-ups, before entering this menu carry out a run with a 100 grams weight applied to the outside of the wheel, after which the tension of the two pick-ups can be visualised.

By pressing the distance plus key (KEY 4) a green led appears on the display on the left and numbers on the display on the right. This means the tension of the interior pick-up is being shown, that is, the one with the black connector or with the black cable REFERENCE VALUE 550 +/- 30% (715-385)

By pressing the diameter plus key (KEY 4) a green led and some numbers appear on the display on the right. This means that the tension of the exterior pick-up is being shown, that is, the one with the red connector or the one with the red cable REFERENCE VALUE 790 +/-30% (1027-553)

By pressing the distance plus key (KEY 4) two green leds and numbers appear on both the display on the right and the display on the left meaning that the phase difference between the two pick-ups is being shown. The numbers on the display on the right are the numbers after the comma REFERENCE VALUE: 180+/-1 (179-181) .

BEFORE VISUALISING THESE VALUES, IT IS VERY IMPORTANT TO DO A RUN WITH 100 GRAMS APPLIED TO THE OUTSIDE OF THE WHEEL.

By pressing the menu key (KEY 9) the word EnC appears on the display on the left and numbers on the display on the right. In this menu you can check if the encoder is working. The numbers to be visualised are from 0 to 255 and by moving the flange or the wheel you can check if the encoder is working.

By pressing the menu key (KEY 9), the word SP appears on the display on the left and 0 on the display on the right. By lowering the cover and pressing the start key the number of revolutions per minute of the motor can be checked REFERENCE VALUE 170 +/- 10 (160-180)for machines at 50 Hz, for machines at 60 Hz 200+/- 10 (190-210). To stop the machine press the stop key. .

By pressing the menu key (KEY 9) An0 appears on the display on the left and 513 on the display on the right. Here the unamplified value of the interior pick-up is visualised. By pushing on the flange or on the wheel you can see if the pick-up is working because by pushing down the value goes to 0 and then returns to 513. By

pushing up the flange or the wheel the numbers go to the bottom of the scale, that is, 999 and then return to 513.

By pressing the distance plus key (KEY 4) the display on the left shows An1 and the display on the right 513. Here the amplified value of the interior pick-up is shown.

By pressing the distance plus key (KEY 4) the display on the left shows An2 and the display on the right 513. Here the amplified value of the interior pick-up is shown.

By pressing the distance plus key (KEY 4) the display on the left shows An3 and the display on the right 513. Here the amplified value of the exterior pick-up is shown.

By pressing the distance plus key (KEY 4) the display on the left shows An4 only for WB 277 and on the display on the right the STARTING REFERENCE VALUE numbers, that is, with the gauge resting on the wheel cover tube, from 50 to 150. By moving the gauge towards the inside of the machine, the numbers increase, meaning that the exterior gauge is working and receiving input.

By pressing the distance plus key (KEY 4) the display on the left shows An5 and the display on the right shows the numbers for the STARTING REFERENCE VALUE from 150 to 250. By moving the distance gauge, the numbers change meaning that the gauge potentiometer is working and receiving input.

By pressing the distance plus key (KEY 4) the display on the left shows An6 and numbers on the display on the right. By moving the feeler pin up or down the numbers change meaning that the diameter potentiometer is working and receiving input. STARTING REFERENCE VALUE FROM 140 – 180.

By pressing the distance plus key (KEY 4) the display on the left shows An7 and the display on the right 650. Here the card input value is shown. REFERENCE VALUE 650 +/- 20%

By pressing the menu key (KEY 9) the display on the left shows inP and the display on the right on. By lowering the cover, the protection micro-switch is activated and the display on the right passes from on to off.

By pressing the menu key (KEY 9) the display on the left shows Cnt and the display on the right shows nothing. By pressing the distance plus key (KEY 4) the display on the right shows the total number of runs of the machine. By pressing the distance plus key (KEY 4) again the display on the right shows the partial runs, that is, from

when the machine was last switched on. For example, if the number shown is 0, this means that the machine has not done any runs. If the number is 50, it means that from when the machine was started it has done 50 runs. The total number of runs can be reset as follows:

switch off the machine

switch on the machine then press the following keys very quickly: key plus number 4, key number 7, key number 8, key plus number 5, all in not more than two seconds.

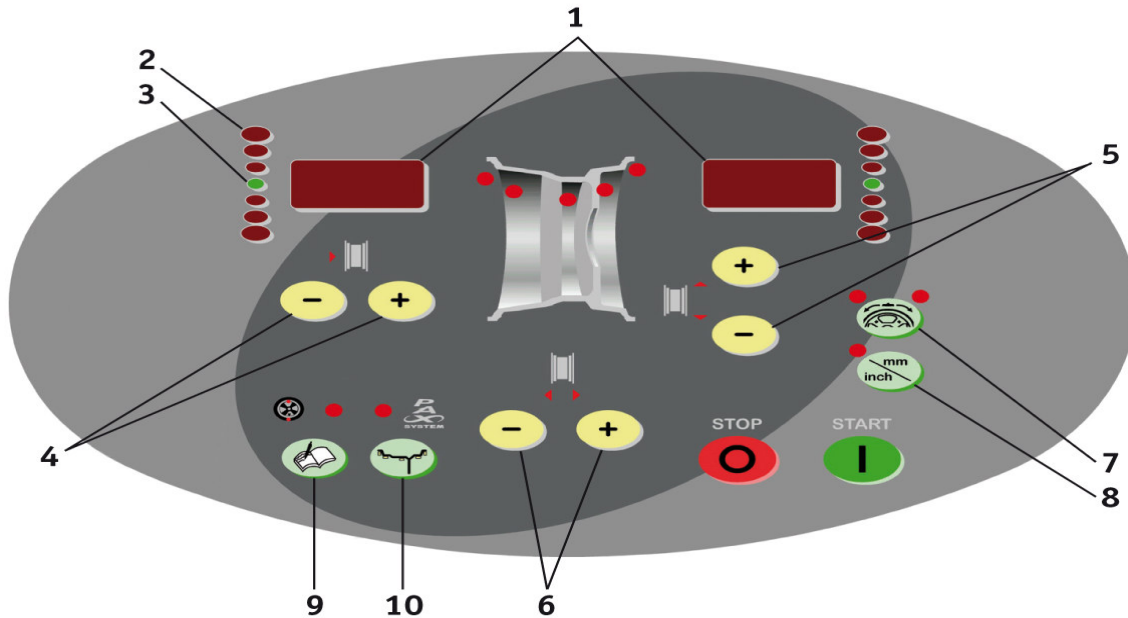
By pressing the menu key (KEY 9) the word Led appears on the display on the left. By pressing the distance plus key (KEY 4) a test of all the leds on the panel can be carried out. Starting from the left and going to the right, with each press sector after sector is checked.

By pressing the menu key (KEY 9) the display on the left shows tAr. This menu is for the card designers, not for technicians.

By pressing the menu key (KEY 9) the display on the left shows the word rEI and the display on the right shows off. This menu is also for the machine manufacturers and not for technicians.

By pressing the menu key (KEY 9) the display on the left shows LrG and the display on the right shows oFF, meaning that the width gauge is deactivated. If, instead, on the display on the right "on" appears, it means that the width gauge is activated. To go from off to on, press the diameter plus key. It is very important to carry out this operation when the card on a WB 277 is substituted. This must be done before beginning the machine calibration.

WB 277 GAUGE CALIBRATION



(fig.1)

Command Panel – key

1. Data display
2. Luminous diodes for direction of imbalance point
3. Point of imbalance (LED)
4. Rim distance set-up keys
5. Rim diameter set-up keys
6. Rim width set-up keys
7. SPLIT key
8. Unit of measurement selector for rim width or diam. (mm/inch)
9. Control functions key (MENU)
10. Balancing program selection key (MODE)

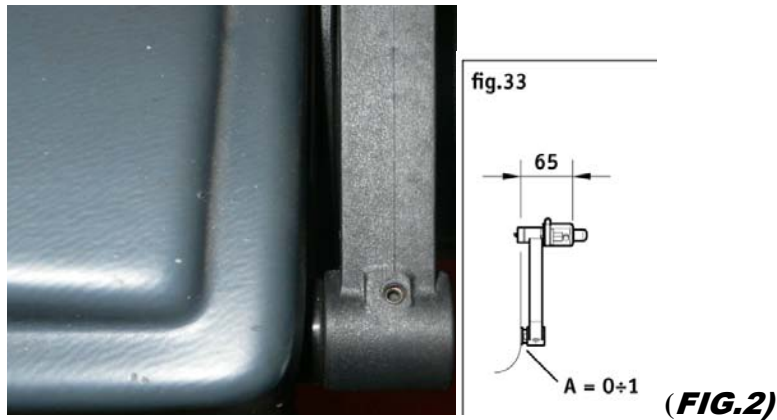
IMPORTANT: BEFORE CARRYING OUT ANY OPERATIONS, FINISH READING THE INSTRUCTIONS CAREFULLY . IF YOU MAKE ANY MISTAKES, SWITCH OFF THE MACHINE AND BEGIN AGAIN FROM THE START.

1) Hold the menu key pressed down (key 9 of FIG.1) until the display on the left shows Cal. Release the key and within 1.5 seconds press the mm/ inch key (key 8 FIG. 1).

2) Press the menu key (key 9 FIG.1) twice and on the display on the left d-1 appears and on the right one 0.

3) On the yellow shaft divided into millimetres, look at the minimum value of the gauge at rest (NORMALLY THE VALUE IS 0).

4) Using the +/- keys (number 5 of FIG. 1) set the value read. Keeping the gauge in the rest position (see FIG. 2) press the + key of (fig. 1 number 4) to confirm the value. (see FIG. 2).



5) On the display on the left d-2 will appear and a value on the display on the right (normally it is pre-set at 200). Open the gauge until the measurement of 200 mm is reached (see FIG 3-4) and staying in this position press the + key of (FIG. 1 key number 4).



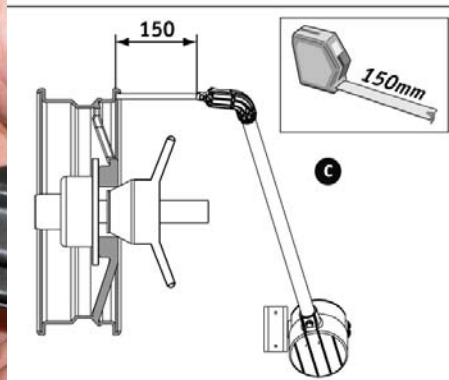
(fig. 3)



(fig. 4)

6) On the display on the left Lt1 will appear and 150 on the display on the right which is the value of the calibration spacer supplied with the machine. Mount an iron wheel, for example of 14", on the flange and secure it. Take the 150 mm spacer supplied and rest one end of the spacer on the rim. Bring the width gauge up against the other end of the spacer as shown in the figure (FIG. 5). Holding this position press the + key (number 4 of FIG. 1) to confirm. To increase or decrease the

measurement, use the +/- keys (key 5 of FIG.1). If there is no spacer, use a rule (see fig. 5).

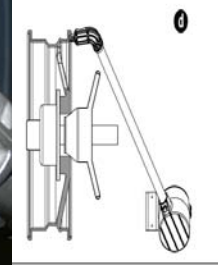


(FIG.5)

7) On the display on the left Lt2 will appear and a value on the display on the right (normally it is pre-set on the machine at 5.50). Check the width of the rim chosen for the calibration with the plastic gauge supplied (fig. 6). Using the +/- keys (number 5 fig. 1) set the value of the rim width chosen for the calibration. Put the width gauge against the rim (see fig. 6) hold it in position and press the + key (number 4 fig. 1) to confirm.



(FIG.6)



(FIG.7)

8) On the display on the left h1 will appear and a value on the display on the right (normally pre-set on the machine at 14). h1= rest the distance feeler pin on the rim as shown in the figure (FIG. 8) and holding it in this position press the + key (FIG. 1 key number 4) to confirm. To increase or decrease the value of the rim diameter chosen, use the +/- keys (FIG. 1 key number 5)

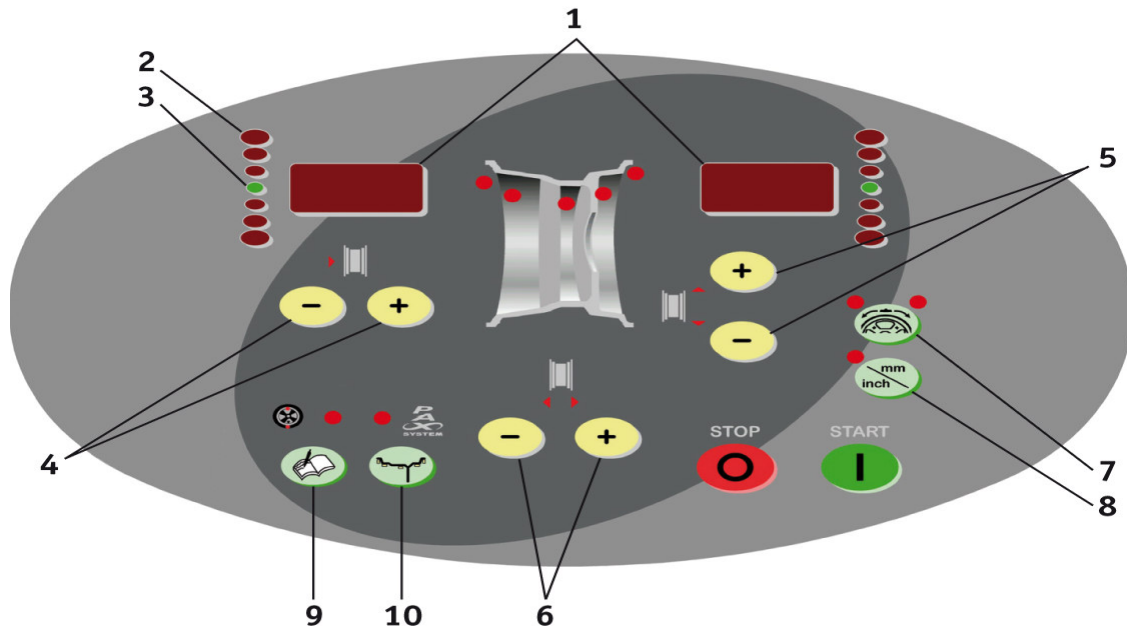


(fig. 8)

Wait for the first beep for confirmation and do not move from that position until the second bip signalling acquisition of the measurement. The value of the distance appears on the display on the left and the gauge can now be put back in the rest position.

9) The acquisition of gauge calibration has finished. To exit from the calibration, press menu (key number 9 fig. 1) and then press the STOP key (fig. 1), or switch off the machine.

GAUGE CALIBRATION WB 255



(fig.1)

Command Panel – key

1. Data display
2. Luminous diodes for direction of imbalance point
3. Point of imbalance (LED)
4. Rim distance set-up keys
5. Rim diameter set-up keys
6. Rim width set-up keys
7. SPLIT key
8. Unit of measurement selector for rim width or diam. (mm/inch)
9. Control functions key (MENU)
10. Balancing program selection key (MODE)

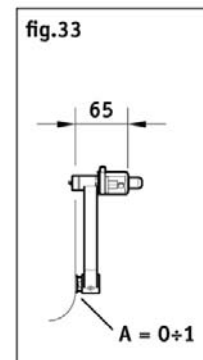
IMPORTANT: BEFORE CARRYING OUT ANY OPERATIONS, FINISH READING THE INSTRUCTIONS. IF YOU MAKE ANY MISTAKES, SWITCH OFF THE MACHINE AND BEGIN AGAIN FROM THE START.

1) Hold the menu key pressed (key 9 of FIG. 1) until the display on the left shows Cal, release the key and within 1.5 seconds press the mm/inch key (key 8 FIG 1).

2) Press the menu key (key 9 FIG 1) twice and d-1 appears on the display on the left and 0 on the one on the right.

3) On the yellow shaft divided into millimetres, look at the minimum value of the gauge at rest (NORMALLY THE VALUE is 0)

4) Using the +/- keys (number 5 of FIG. 1) set the value read. Keeping the gauge in the rest position (see FIG. 2) press the + key (FIG. 1 number 4) to confirm the value. (see FIG. 2).



(fig.2)

5) On the display on the left d-2 appears and on the display on the right a value (normally set at 200). Open the gauge until the measurement of 200 mm is reached (see FIG. 3-4). Holding it in this position, press the + key (FIG.1 key number 4) to confirm.



(fig 3).



(fig 4).

6) On the display on the left h1 appears and on the display on the right a value (normally set at 14).

7) h 1 = mount an iron wheel on the flange, for example, a 14" one. Rest the feeler pin on the rim as shown in the figure (FIG. 5). Holding it in this position press the + key (FIG. 1 key number 4) to confirm. To increase or decrease the diameter of the rim chosen, use the keys +/- (FIG. 1 key number 5).



(fig. 5)

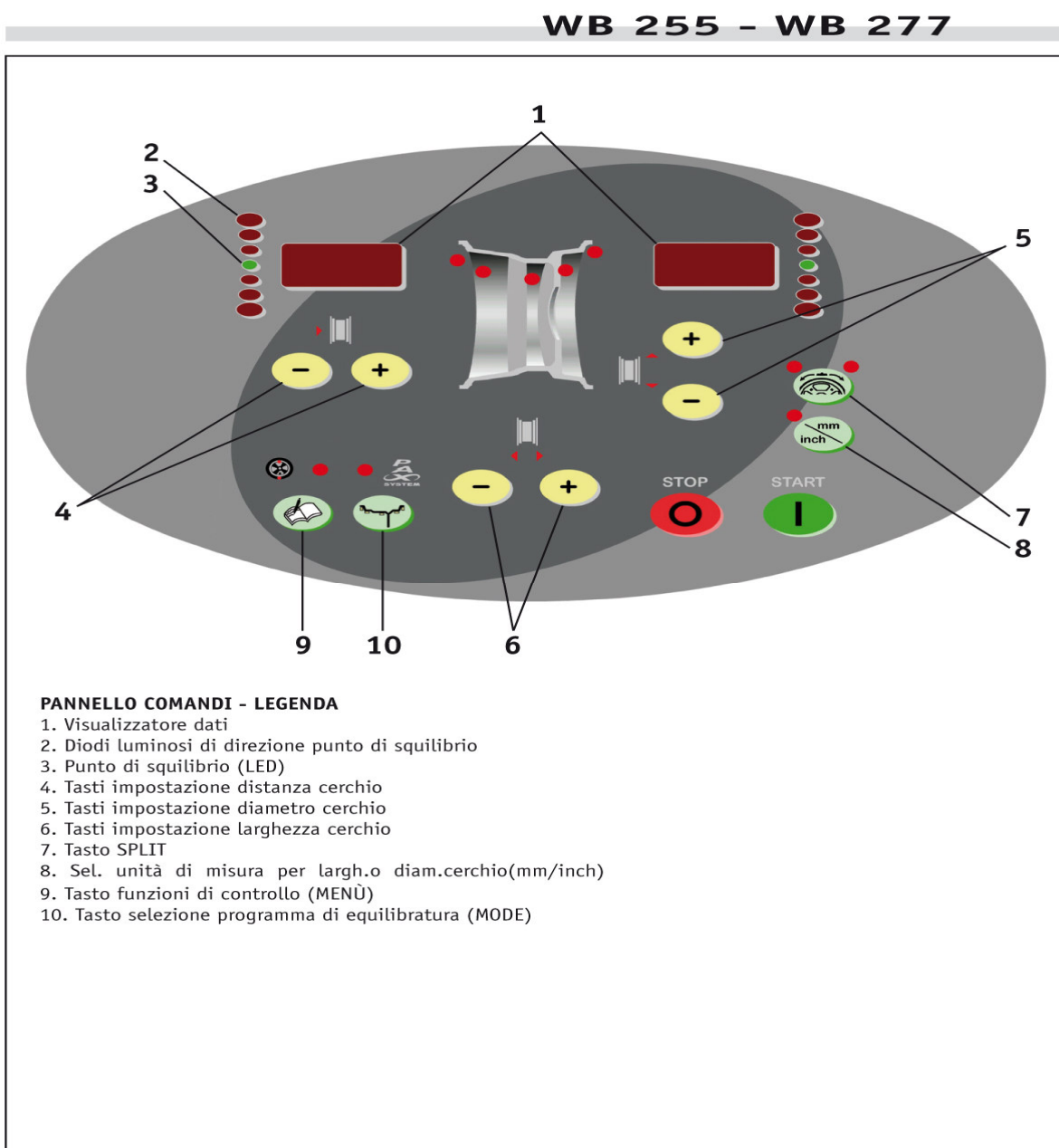
Wait for the first confirm beep and do not move from that position until the second beep, which is for the measurement acquisition. The value of the distance appears on the display on the left and the gauge can now be put back in the rest position.

8) The gauge calibration acquisition is finished. To exit from the calibration press the menu key (key number 9 FIG. 1) and then press the STOP key (fig. 1) or switch off the machine.

Setting Technical Manual for WB 255-277

Chapter 1 configuration

Press down the menu key (key number 9) until the word set appears on the display on the left and release immediately.



COMMAND PANEL – KEY

1. Data display
2. Luminous diodes for direction of unbalance point
3. Point of unbalance (LED)
4. Rim distance set-up keys
5. Rim diameter set-up keys
6. Rim width set-up keys
7. SPLIT key
8. Unit of measurement selector for rim width or diam. (mm/inch)
9. Control functions key (MENU)
10. Balancing program selection key (MODE)

- 1) *When the display on the left shows the word **tol** (tolerance), the machine is set from home with a tolerance of 5 grams, that is, the machine does not show weights less than five grams.*
- 2) ***TO CHANGE THE TOLERANCE**
by using the diameter plus or minus keys (key 5) the tolerance can be raised or lowered*
- 3) *by pressing the menu key the display on the left shows the word **res** (resolution) and the display on the right shows 5 meaning that the machine is set for calling grams in multiples of 5, that is, an approximation (5-10-15).*
- 4) ***TO CHANGE THE APPROXIMATION SCALE:***
- 5) *it is possible to change this parameter using the diameter minus key (key 5), that is, passing from 5 grams to 1 gram.*
- 6) *by pressing the menu key (key 9) the display on the left shows **unb** and the display on the right **gra** meaning that the machine has set grams as the unit of measurement.*
- 7) ***TO CHANGE THE UNIT OF MEASUREMENT:***
- 8) *it is possible to change the unit of measurement by using the diameter plus or minus keys (key 5), passing then to ounces and the display on the right shows **oun***
- 9) *by pressing the menu key (key 9) the display on the left shows **snd** and the display on the right shows **on** meaning that the acoustic bip is connected, that is, with any pressure on any key a bip is heard*
- 10) ***TO CHANGE THE ACOUSTIC BIP (Snd):**
by pressing the diameter minus key (key 5), it is possible to disconnect the sound so that the confirm bip is not heard every time a key is pressed.*

- 11) *by pressing the menu key (key 9) the display on the left shows CAr and the display on the right shows on meaning that when the wheel cover protection is lowered, the machine starts automatically*
- 12) *TO CHANGE THE AUTOMATIC START (CAr)*
- 13) *by pressing the diameter minus key (key 5) you go from on to off meaning that when the wheel cover protection has been lowered, the machine no longer starts automatically but will start only when the start is pressed.*
- 14) *by pressing the menu key (key 9) the display on the left shows Pot and the display on the right shows on meaning that the gauge potentiometers are active*
- 15) *DEACTIVATION OF THE POTENTIOMETER UNITS (Pot)*
- 16) *by pressing the diameter minus key (key 5) the display on the right shows off meaning that the gauge potentiometers have been deactivated and that consequently the automatic gauges do not work now. This operation must only be carried out in the case of breakdown of the automatic gauges.*
- 17) *by pressing the menu key (key 9) the display on the left shows Con and the display on the right Eur meaning that the machine has standard configuration with a tolerance of 5 grams and grams as the unit of measurement.*
- 18) *TO CHANGE THE CONFIGURATION (Con)*
- 19) *by pressing the diameter plus key (key 5) the display on the right passes from Eur to Usa meaning that the machine is now set up for American values varying the tolerance from 5 to 7 grams and the unit of measurement from grams to ounces.*
- 20) *by pressing the menu key (key 9) the left and right displays both show 0 meaning that you have exited from the set-up menu.*