REDLINE MODEL 3200

INSTRUCTIONS

FACTORY BALANCE CALIBRATION

1. Mount a balanced (to less than ¼ oz.) wheel and tire assembly on the balancer. Do not use a "donut" style tire. 15" - 16" x 7" preferred, however make sure the calibration weight will fit snugly on the wheel.

   Note: If you do not have a balanced wheel and tire assembly, mount it on the balancer and balance to zero using multiple spins and multiple weight placements.
2. Set the balancer in Dynamic mode.
3. Enter the exact dimensions for offset, diameter, and tire width.
4. Press the Home/Enter key to enter SET OPT.
5. Press the DIS + key to enter SET UP.
6. Press the Home/Enter key to enter TES INT.
7. Press the Home/Enter key to enter TES POS.
8. Rotate the tire by hand to display 110 in the left screen.
9. Press the standard/fine key.
10. Rotate the tire by hand to display 120 in the left screen.
11. Press the standard/fine key.
12. Display will read ADD Bre 0.
13. Lower the hood and spin one cycle.
14. Display will read ADD FAC 3.50
15. Rotate tire until all placement lights are lit on right side and place a 3.50oz weight at 12 o'clock on the right, outside, of the wheel and tire assembly.

    Note: If there is already a weight on the wheel at the 12 o'clock position (inside or outside), mark the 12 o'clock position on the hub, loosen the wingnut, and rotate the wheel and tire on the hub to a location without weight interference. Press the stop button and return to step 4 above.
16. Lower the hood and spin one cycle.
17. Display will read 3.50 FAC ADD.
18. Remove the weight from the right side, then rotate tire until all placement lights are lit on left side and place a 3.50oz weight at 12 o'clock on the left, inside, of the wheel and tire assembly.
19. Lower the hood and spin one cycle. The machine will beep three times to signal the calibration is complete.

AUTOMATIC MEASURING ARM CALIBRATION

1. Press the Home/Enter key to enter SET OPT.
2. Press the DIS + key to enter SET UP.
3. Press the Home/Enter key to enter TES INT.
4. Press the Home/Enter key to enter TES POS.
5. Rotate the shaft by hand to display 110 in the left screen.
6. Press the standard/fine key.
7. Rotate the shaft by hand to display 130 in the left screen.
8. Press the standard/fine key.
9. The screen will read CAL FAC dAS.
10. Press the Home/Enter key, the screen will read DIS FAC 0.
11. Make sure the arm is securely in the home position against the cabinet and press the Home/Enter key.
12. The screen will read DIS FAC 150.
13. Pull out the arm to read 150 on the scale at the cabinet edge and press the Home/Enter key.
14. Return the arm to the home position and the screen will read CAL FAC DIA.
15. Mount a wheel and tire.
16. Press the Home/Enter key, the screen will read DIA FAC 0.
17. Pull out the arm and lower to rest on the shaft of the balancer inside the backing plate.
18. Press the Home/Enter key, the screen will read DIA FAC 14.
19. Return the measuring arm to the home position.
20. Using the up and down keys for diameter, change the 14 to the diameter of the wheel you are using.
21. Pull out the arm and place against the inside of the rim as though measuring the wheel diameter.
22. Press the Home/Enter key and the machine will beep three times to signal the calibration is complete.

NOTE: Whenever the machine is powered up, the measuring arm **must** be in the home position. If not it will not measure correctly until the machine is turned off and powered up with the arm in the home position.

PROGRAM SETUP

The home/enter key enters the information program and saves the data and exits the program. Within an information program the dis + and dis – changes the value. When

in the setup menu, the dis + and dis – toggles between information programs. Pressing the stop key will exit the program menu.

1. Press home/enter to enter the programming menu.
2. SET OPT (unbalance value optimum) The unbalance threshold value may be set between 15 and 100 grams.
3. SET P Allows you to select whether or not you have the hood installed on the balancer.
4. SET SP Select automatic start upon lowering the hood.
5. SET APP Select between .10 and .25 ounce weight roundoff.
6. SET BIP Turn the beeper off and on.
7. SET RI1 Turn the automatic distance arm off and on.
8. SET UP – Press home/enter to enter program and also to advance to next test program.
9. TES INT – Rotating the shaft will show the encoder position. 0-255
10. TES STA – Measure the value of the static(rear) sensor. Value should be between 480 & 580 at rest. Pressing and lifting the shaft will change the value.
11. TES DYN – Measure the value of the dynamic(central) sensor. Value should be between 480 & 580 at rest. Pushing and pulling on the shaft will change the value.
12. TES DIS – Measure the value of the distance potentiometer. Should be approximately 25 at the rest position. Must not be below the zero point of 13.
13. TES DIA – Measure the value of the diameter potentiometer. Should be approximately 60 at the rest position and approximately 25 at the shaft (zero) position. The values at the zero position should be within 10.

SETTING TOLERANCE

1. Press Home/Enter to enter the programming menu.
2. Press the DIS + key to enter SET up.
3. Press the Home/Enter key to enter TES int.
4. Press the Home/Enter key to enter TES pos.
5. Rotate the shaft by hand to display 111 in the left screen.
6. Press the mm/in key.
7. Rotate the shaft to display 55 in the left screen.
8. Press the mm/in key.
9. Rotate the shaft by hand to display 111 in the left screen.
10. Press the mm/in key.
11. Press the Home/Enter key three times until you see El I - - - on the screen.
12. Use the Dis + and Dis – key to set the tolerance in grams. (008 gm = .28 oz.)

13. Press the Home/Enter key several times until you here several beeps and the screen displays FAC sav COD.
14. Press the Home/Enter key and then the Dia + key.

SETTING ounces or grams as the default.

1. Set the machine to the default setting.
2. Press the Home/Enter key and then the Dia + key.

ALUMINUM MODES Set the balancer to the mode you are going to use before making measurements. Pushing ALU button will toggle between the ALU 1 – ALU 4 programs.

ALU 1- Sticking the weights on the inside and outside shoulder of the rim.

1. Enter the wheel dimensions as you would for clip/clip dynamic mode.
2. Lower the hood and spin.
3. Apply the inside weight ¾” in from the bottom of the wheel lip at the 12 o’clock position.
4. Apply the outside weight ¾” in from the bottom of the wheel lip at the 12 o’clock position.

ALU 2- Sticking both of the weights on the inside of the wheel.

1. Enter the wheel dimensions as you would for clip/clip dynamic mode.
2. Lower the hood and spin.
3. Apply the inside weight ¾” in from the bottom of the wheel lip at the 12 o’clock position.
4. Apply the outside weight to a position measuring ½” inside of the back face of the wheel.

   Note: This position is going to be almost impossible to determine and will almost never balance to zero on a single application of weights. It is recommended that you use the ALU* mode when applying weights at these locations on the wheel.

ALU 3 – Using a clip on weight on the inside and a sticky weight on the inside of the wheel.

1. Enter the wheel dimensions as you would for clip/clip dynamic mode.
2. Lower the hood and spin.
3. Apply the clip on weight on the inside at the 12 o’clock position.

4. Apply the outside weight to a position measuring 2½" inside of the back face of the wheel.

   Note: This position is going to be almost impossible to determine and will almost never balance to zero on a single application of weights. It is recommended that you use the ALU* mode when applying weights at these locations on the wheel. If using a clip on weight in the ALU* mode the weight should be applied where the dimension arm contacts the wheel, not at 12 o'clock.

ALU 4 – Using a clip on weight on the inside and a sticky weight on the outside of the wheel.

1. Enter the wheel dimensions as you would for clip/clip dynamic mode.
2. Lower the hood and spin.
3. Apply the clip on weight on the inside at the 12 o'clock position.
4. Apply the stick-on outside weight ¾" in from the bottom of the wheel lip at the 12 o'clock position.

ALU * - Applying two stick-on weights to the inside of the wheel using the dimension arm to apply the weights. This is the most accurate method of balancing using stick-on weights and should zero in one spin.

1. Press the ALU * button.
2. Pull out the dimension arm and contact the wheel where you wish to apply the weight. Holding arm in position push and hold the home enter key until the offset dimension appears in the left measurement screen.
3. Without allowing the measurement arm to move to the left, contact the wheel where you wish to apply the outside (middle of wheel) weight. Hold until machine beeps.
4. Return the arm to the home position, lower the hood and spin.
5. Insert the amount of weight shown in the inside (left) weight window into the dimension arm weight holder.
6. Rotate the tire until all of the position lights are lit in the left window and step on the position brake pedal.
7. Pull out the dimension arm until the dimension measurement reads 000.
8. Push up on the bottom of the weight holder to stick the weight in position on the wheel. Make sure the weight is secure on the wheel.

   Note: The inside of the wheel **must be thoroughly cleaned** before applying stick-on weights.
9. Insert the amount of weight shown in the outside weight window into the dimension arm weight holder.

10. Rotate the tire until all of the position lights are lit in the right window and step on the position brake pedal.
11. Pull out the dimension arm until the dimension measurement reads 000.
12. Push up on the bottom of the weight holder to stick the weight in position on the wheel. Make sure the weight is secure on the wheel.

SPLIT WEIGHT - Used to hide the middle weight from ALU * behind the wheel spokes.

1. Complete steps 1-8 above for the ALU * program.
2. Rotate the tire until all of the position lights are lit in the right window and step on the position brake pedal.
3. Pull out the dimension arm and observe if the weight position is behind or between a spoke.
4. If behind the spoke proceed with steps 9-12 above.
5. If between spokes press the spoke key. The display will read SP – 5.
6. Using the distance plus and minus keys enter the number of spokes in the wheel.
7. Press the diameter plus key to confirm. The screen will read SP AL 12C.
8. Position any spoke at exactly top dead center and press the diameter plus key to confirm.
9. Rotate the tire until all of the position lights are lit in the right window and step on the position brake pedal.
10. Insert the amount of weight shown in the right weight window into the dimension arm weight holder.
11. Pull out the dimension arm until the dimension measurement reads 000.
12. Push up on the bottom of the weight holder to stick the weight in position on the wheel. Make sure the weight is secure on the wheel.
13. Rotate the wheel forward or backwards one spoke until all of the position lights are lit in the right window and step on the position brake pedal.
14. Insert the amount of weight shown in the right weight window into the dimension arm weight holder.
15. Pull out the dimension arm until the dimension measurement reads 000.
16. Push up on the bottom of the weight holder to stick the weight in position on the wheel. Make sure the weight is secure on the wheel.