LAB – Tire Balance

Students: 1. _____ Date: _____
2. _____ Block: _____
3. _____

Fill in each box with the appropriate information.
Be sure to have the Instructor's initials before moving on to the next step. These are there to ensure everything is SAFE and CORRECT. Each team member must be able to answer questions from your instructor to receive credit for this lab.

WHEEL & TIRE IDENTIFICATION

Tire Size:	P _____/_____ R ____ P = Passenger Tire LT = Light Truck T trailer	Build Date: (Last four numbers of DOT code)	_____ _____ Week Year *Tires should not be used more than 6 years past their build date*
Number of Sidewall Plies:		Number of Tread Plies:	
Treadwear Rating:	_____ >500 = high mileage ~250 = High Performance <100 = competition	Tread Depth:	_____ [mm] [in]
Valve Stem Condition:	[good] [cracks]	Tire Pressure:	[psi] *Tire must be properly inflated to balance correctly*

BEFORE YOU BEGIN

SAFETY

Jack Stands

2-Post

4-Post

☐ Raise and support the vehicle properly – see your instructor if you are unsure

Jack Stands:
Raise the vehicle with jack in correct place, ALWAYS use jack stands in correct place

Two-Post Hoists:
Position and LOCK arms, raise car slightly, check stability, continue raising.

Drive-On Hoists:
In Gear/Park, E-Brake on, wheel chocks, raise, and then LOCK rails.
Have instructor check rail placement before dropping ramps.

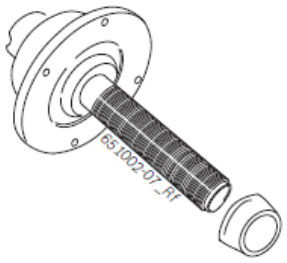
STOP!!! **INSTRUCTOR'S INITIALS:** ☐

GETTING STARTED

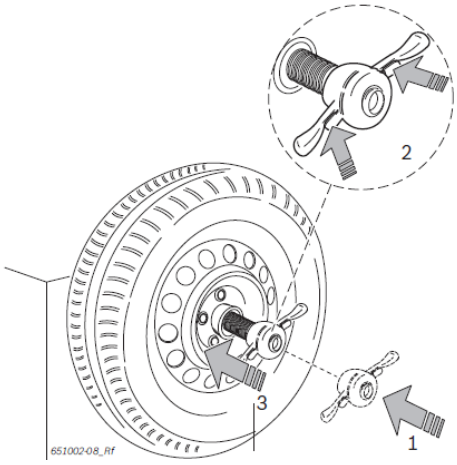
Demo:

MOUNT THE WHEEL TO THE MACHINE

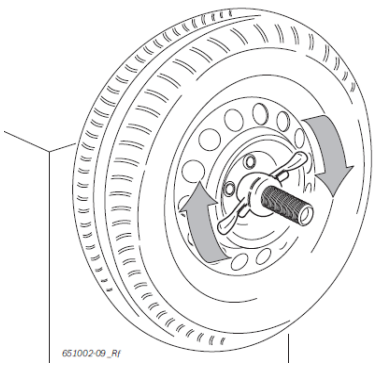
- ☐ Remove wheel and tire from vehicle
- ☐ Remove wheel weights from both sides of the wheel
- ☐ Position a suitable cone on the shaft



- ☐ Push the unlocked quick-action clamping nut onto the shaft and press firmly against the wheel



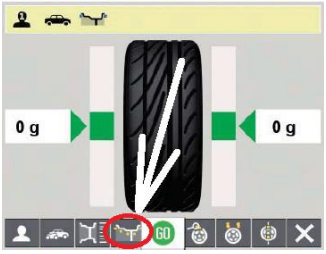
- ☐ Release the lock and turn the quick-action clamping nut clockwise until the wheel is FIRMLY braced.



MACHINE SETUP

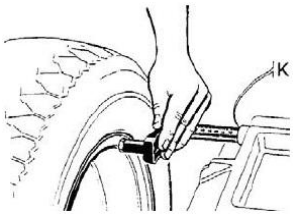
- ☐ Everything is done by the < **I** > key and **ARROW** keys
- ☐ Pick the Wheel Balance Icon

- ☐ Pick the method of weight attachment. Usually:
  - Clip-on weights (outside)
  - Stick-on weights (inside)

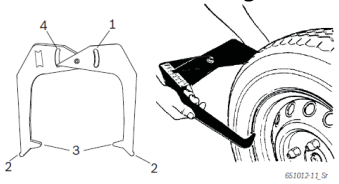


TELLING THE MACHINE WHERE THE WEIGHTS WILL GO:

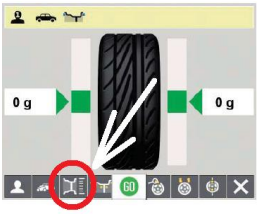
- ☐ Apply the electronic vernier caliper for rim distance and rim diameter
  - *When using stick on weights, use the vernier caliper to indicate BOTH inner weights*



- ☐ Measure the rim width with measuring compass
  - *Not usually used with stick-on weights*



- ☐ Enter the rim width



BALANCE

Demo:

- Close the Wheel balancer Lid, and the wheel should begin spinning.

IF THE WHEEL STARTS TO COME OFF
STOP THE MACHINE AND TIGHTEN THE WHEEL!

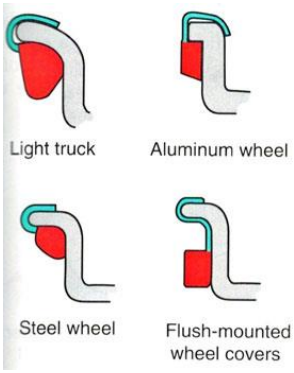
- Machine will indicate where and how much weight should be added
- Pick a side, and rotate tire until the GREEN ARROW appears

4

Clip-On Weights

- Place the correct weight at the TOP of the wheel, and hammer the weight onto the rim edge

Note: There are many kinds of weights. Typically:



Stick-On Weights

- Weights will be placed using the Electronic Vernier Caliper.
- Clean the inner wheel surface where the weight is going to go
- Place the correct weight (sticky-side up) on the flat portion of the Electronic Vernier Caliper
- Extend the caliper into the wheel until the machine beeps its location.
- Affix the wheel weight

- *This machine can also "split" the weights and hide them behind mag spokes – see your instructor on how to do this.*

Close the Wheel balancer Lid again to re-spin the wheel and check your work

Zero?
- Epic win
- Bask in your mad-tyte tire-balancing skilz, dawg.

Not zero?
- DO NOT add more weights
- De-weight and Rebalance
- Try moving a weight slightly

Difficult to balance?
- Is the wheel mounted properly?
- Is the rim bent?
- Is the tire warped? Try moving the tire 180° on the rim

STOP!!! **INSTRUCTOR'S INITIALS:**