GRIPPER NITROGEN USA

OPERATION MODES: P0 (normal inflation) & P4 (conversion AIR to N2)

TO PRESET THE DESIRED PRESSURE & OPERATION MODE:

- **PLUS and MINUS buttons:** These buttons select the desired pressure in the tire to be inflated. The allowed values for the desired pressure are between 3 psi (0.2 bar) and 145 psi (10.0 bar).
- **STOP button:** During the calibration process this button is a STOP button that interrupts the calibration process. Out of the calibration process it is a MODE button that allows selection between the program modes P0 and P4, using the PLUS and MINUS buttons. In this mode the display flashes intermittently ("blinking"). After selecting the program mode (P0 or P4) it is necessary to push this button again ("confirmation") to return to normal functioning mode of the equipment. If the program mode P4 was selected, after to push the STOP button, it allows selection between the dwell times L4 (4 seconds) and L8 (8 seconds), using the PLUS and MINUS buttons. After selecting the dwell time (L4 or L8) it is necessary to push this button again ("confirmation") to return to normal functioning mode of the equipment. The dwell time is the final stabilization time to equalize the pressure into two or more tires.
- **START button:** This button must always be pressed to start the normal inflation/deflation in P0 or the air-to-nitrogen changing process in P4.

FUNCTIONING:

1. PROGRAM MODE "P0" (<u>inflates</u> or <u>deflates</u> the tire to preset level):

- (user) preset Gripper using "+" and "–" buttons => (user) connect chuck to tire valve => (user) press START button => (Gripper) increase/decrease the pressure to preset level, then BEEP signal => (user) remove chuck from tire valve.
- PS – If the tire is empty (that is, the internal pressure is lower than 3 psi), <u>then</u> user must keep pressed the START button for a few seconds so that tire can reach the threshold value of 3 psi or more, which assures further automatic inflation.

2. PROGRAM MODE "P4" (conversion AIR to N2 => this program is used to <u>flush</u> the AIR from a tire to convert it to a N2 filled tire):

- (user) Connect (N2 hoses) chucks to tire valve and select desired pressure (between 0 and 145 psi) = (between 0 and 10 bar). **(ATTENTION: The "odd hose" must be the FIRST to be connected, BEFORE the operation starts. The "odd hose" must be the LAST to be removed, AFTER the operation is finished).**

- (user) press START button => **STEP1** (Gripper) decrease the pressure (air release) to 3 psi (0.2 bar) => **STEP2** (Gripper) increase the pressure (N2 blast) to flushing pressure value => **STEP3** (Gripper) decrease the pressure (air+N2 mix release) to 3 psi (0.2 bar) => **STEP4** (Gripper) increase the pressure (N2 blast) to preset level, then BEEP signal => (user) remove chuck from tire valve ("end of cycle"). Tire is filled with pure N2.
- PS – The steps 2 and 3 constitute one flushing cycle. The number of flushing cycles can be selected between 1 and 3, using the procedure: SOFTWARE PROGRAMMING FOR GRIPPER NITROGEN USA.
- PS – The flushing pressure value can be selected between 3 psi (0.2 bar) and 58 psi (4.0 bar) using the procedure: SOFTWARE PROGRAMMING FOR GRIPPER NITROGEN USA.

3. DEFAULT VALUES:

- After plugging the equipment to the power outlet, the program mode default is "P0".
- The default number of flushing cycles is one. If another value is selected using the procedure SOFTWARE PROGRAMMING FOR GRIPPER NITROGEN USA, this new value is saved in the flash memory of the equipment, and it will not change if the user remove the equipment from the power outlet.
- The default flushing value is 15 psi (1.0 bar). If another value is selected using the procedure SOFTWARE PROGRAMMING FOR GRIPPER NITROGEN USA, this new value is saved in the flash memory of the equipment, and it will not change if the user remove the equipment from the power outlet.
- The default desired pressure is 32 psi (2.2 bar). If another value for the desired pressure is selected using the procedure SOFTWARE PROGRAMMING FOR GRIPPER NITROGEN USA, this new value is saved in the flash memory of the equipment, and it will not change if the user remove the equipment from the power outlet.

4. WARNINGS:

- In program mode P4 (N2), after the program cycle is finished and tires are filled to the desired pressure with N2, the equipment will emit a BEEP signal after 4 seconds or after 8 seconds, allowing the "dwell time" for tires to equalize their pressures. The (N2 hoses) chucks can be removed only after the BEEP signal is heard.
- When connecting multiple hoses: The "odd hose" must be the FIRST to be connected, BEFORE the operation starts. The "odd hose" must be the LAST to be removed, AFTER the operation is finished.

COUNTER:

- If the **STOP button** is pressed for more than 4 seconds, then equipment displays the counter of completed tire inflation / deflation operations.