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I don't understand how the Gripper Nitrogen machine automatically adds the Nitrogen. I am missing a step somehow. How does it exhaust the old air - where?

Where does it get the Nitrogen from to fill the tire without switching the hoses throughout the entire cycle?

Is there an air exhaust outlet within the Gripper and solenoid valves control the flow from the tires to the exhaust port and solenoids then activate to allow Nitrogen to pass through the Gripper and into the hoses on to the Tires?

Explanation:

To use the Gripper Nitrogen model for automatically releasing the air from the tires and fill them with N2 you have the following set-up and procedure:

You need:

1. A Nitrogen Tank (Tank filled with Nitrogen) => In this case you don't need a compressor, because the pressure inside the tank is enough
2. or a
3. A Nitrogen Generator (the compressor is behind the generator in one piece of equipment)
4. A Gripper Nitrogen (N2) Model Electronic Air Inflator

Procedure:

1. Connect the N2 Tank or the N2 Generator to the Gripper Nitrogen Model
2. Connect the Quadra Hose to the Gripper Nitrogen model.
3. **Connect the "odd hose" (Red Hose) with Open-End Chuck to the first tire.**
4. **Connect the 3 blue/black hoses with Closed-End Chuck to the next 3 tires.**

(If you don't have a Quadra Hose setup - you can also use only one Red hose for one tire => use Open-End Chuck)

Set the programming of the Gripper Nitrogen to P4

Set the final pressure you require in the tires

Press the START button

STEP 1: The process starts and the Gripper releases the air through the small black opening next to the Solenoid Valve on the bottom of the Gripper to 3 psi

STEP 2: All 4 tires are empty and now the Gripper gives a blast of N2 to flush the tires. Pressure goes up to 15 psi.

STEP 3: After reaching 15 psi in all 4 tires, the Gripper releases all air/nitrogen from the tires again to 3 psi.

STEP 4: As soon as the 4 tires are empty again, the Gripper starts inflating N2 up to the Preset Pressure.

The moment the Preset Pressure is almost reached in all 4 tires, the Gripper comes into the dwell time (time the equalize the pressure in all 4 tires).

The moment the whole process is finished, the Gripper starts to beep and you can disconnect the Chucks *

*** you first have to disconnect the Blue/Black hose with the Closed-End Chucks => last to remove is the "Odd" (Red) hose with the Open-End Chuck.**

The 5 port brass block (Quadra Hose configuration) allows all the hoses of different colors to be attached so all 4 wheels can be done at once.

I recognize that you use the different chucks depending on the Odd hose and other hoses. That is where I don't clearly understand the function of each type of Hose Chuck.

The problem is that you cannot see the difference (Open-End or Closed-End) from the outside of the Chucks, that's why the pictures look the same.

You connect the Open-End Chuck first and because the other Chucks are Closed-End, the air cannot escape. The Gripper Nitrogen always needs only one open-end connection to the environment to do the 0 (Zero) measurement (calibration).

The moment you use 2 or 4 or more hoses at the same time, you need the Gripper N2 Model with a START button as well as one **Open-End Chuck** and the other chucks must have a **Closed-End Chuck**. (as explained above).

Some Ideas:

1. Spray or dab a bit of **red paint on the Open-End chuck** base and **black on the Closed-End chuck** base so that there is **no confusion between them**. The paint doesn't have to last forever but it will allow a much more successful initial assembly of a Quadra Hose configuration with colors matching the hose they need to be on to match your instructions – that way nothing gets confusing and success is much more likely.
2. Assemble the **Quadra hose manifold** piece with dabbing a bit of **red paint** on the Open-End (Odd) outlet, **black paint** on 3 Closed-End outlets and **blue paint** on the N2 port. That way you are reminded which color hoses connect to which port when replacing worn out hoses at a later date.

How to create a Quadra Hose Manifold Assembly

