

# COATS®

## **Tire Inflation Cage Kit 85608214**

**For servicing only single piece automotive, and most  
light truck tire/wheel assemblies**

This is a supplement to your operating manual and covers the setup and use of the Tire Inflation Cage unit. If you do not have your original operating manual, please call **COATS® at 1-800-688-6359** to request an additional copy.

### **Safety Instructions Setup Instructions Operating Instructions *with Parts Identification***

READ these instructions before placing unit in service. KEEP these and other materials delivered with the unit in a binder near the machine for ease of reference by supervisors and operators.

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HENNESSY INDUSTRIES INC. Manufacturer of AMMCO®, COATS® and BADA® Automotive Service Equipment and Tools.

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## Safety Instructions

### Owner's Responsibility

To maintain machine and user safety, the responsibility of the owner is to read and follow these instructions:

- Follow all installation instructions.
- Make sure installation conforms to all applicable Local, State, and Federal Codes, Rules, and Regulations; such as State, Federal OSHA Regulations, and Electrical Codes.
- Carefully check the unit for correct initial function.
- Read and follow the safety instructions. Keep them readily available for machine operators.
- Make certain all operators are properly trained, know how to safely and correctly operate the unit, and are properly supervised.
- Allow unit operation only with all parts in place and operating safely.
- Carefully inspect the unit on a regular basis and perform all maintenance as required.
- Service and maintain the unit only with authorized or approved replacement parts.
- Keep all instructions permanently with the unit and all decals/labels/notices on the unit clean and visible.
- Do not override or bypass safety features.

### Operator Protective Equipment

Personal protective equipment helps make tire servicing safer. However, equipment does not take the place of safe operating practices. Always wear durable work clothing during tire service activity. Loose fitting clothing should be avoided. Tight fitting leather gloves are recommended to protect operator's hands when handling worn tires and wheels. Sturdy leather work shoes with steel toes and oil resistant soles should be used by tire service personnel to help prevent injury in typical shop activities. Eye protection is essential during tire service activity. Safety glasses with side shields, goggles, or face shields are acceptable. Back belts provide support during lifting activities and are also helpful in providing operator protection. Consideration should also be given to the use of hearing protection if tire service activity is performed in an enclosed area, or if noise levels are high.

### Definitions of Hazard Levels

Identify the hazard levels used in this manual with the following definitions and signal words:

#### DANGER

Watch for this symbol:



It Means: Immediate hazards, which will result in severe personal injury or death.

#### WARNING

Watch for this symbol:



It Means: Hazards or unsafe practices, which could result in severe personal injury or death.

#### CAUTION

Watch for this symbol:



It Means: Hazards or unsafe practices, which may result in minor personal injury or product or property damage.



Watch for this symbol! It means BE ALERT! Your safety, or the safety of others, is involved!

## Before You Begin

Read all of this instruction manual and understand all of the steps involved before beginning. Becoming familiar with the setup process before beginning will help you successfully complete the kit setup and avoid damaging your tire changer, accidentally discarding required parts, or reinstalling incorrect parts.

### **WARNING**

**Risk of explosive release of compressed air and flying parts and debris during tire seating and tire inflation. You can be killed, blinded, or seriously injured.**

- Read, Understand, and Follow All Instructions
- Adhere to Federal Regulations for Tire Mounting
- Wear Safety Goggles

### **WARNING**

**It is NOT SAFE to use the Tire Inflation Cage for inflation of the following type of tires.**

- Tires Defined as Truck Tires
- Tires on 2-piece Rims
- Small Tires (Rim Smaller than Cage Tube Spacing)

### **CAUTION**

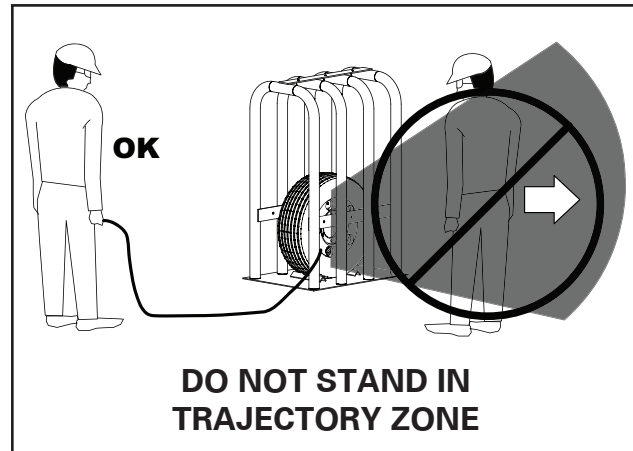
Always **DISCONNECT THE ELECTRICAL POWER** before servicing equipment. This prevents electrical shock or accidental movement of the systems operated by the electrical power.

### **CAUTION**

Always **DISCONNECT AIR SUPPLY** before servicing equipment. This prevents accidental movement of systems operated by compressed air which may result in personal injury. **BLEED THE AIR SYSTEM** by actuating all the valves.

### **CAUTION**

Always wear safety goggles to protect your eyes.



# Electronic Automobile & Light Truck Tire Inflator Safety and Reference Guide

**! DANGER**

To Prevent Tire Explosions:

- 1.** DO NOT exceed tire manufacturer's recommended air pressure.
- 2.** DO NOT use device to inflate small tires such as ATV, bicycle, lawn mower, etc.
- 3.** Keep hands, arms, and entire body away from the tire during the inflation procedure.
- 4.** Do not permit anyone to stand over or beside the tire as personal injury could result.
- 5.** ALWAYS read operating instructions before operating device.

• To Stop Inflation, Press One:



• Displays Set Pressure

Use  &  To Set Pressure

*Note: Device Defaults To 32 PSI*

• Display Switches From Set Pressure To Tire Pressure


**! WARNING**


To assure correct final tire pressure, clip-on air chuck must not leak at attachment to tire valve.

**! WARNING**

The clip-on chuck installed on the end of the inflator hose must always be an open style with all parts in proper working order to assure safe operation.

• Touch  To Decrease Set Pressure.

• Touch  To Increase Set Pressure.

• If tire has zero pressure, Touch  To Start Tire Inflation.

• If tire has air pressure (even a small amount) device will automatically start when chuck is attached to tire.

Note: See instructions for details

• For additional service information, call 1-866-455-8768.

**DO NOT  
USE TO INFLATE  
WHEELS SMALLER  
THAN 10 INCHES  
IN DIAMETER**

## Setup Instructions

### Upgradable Models

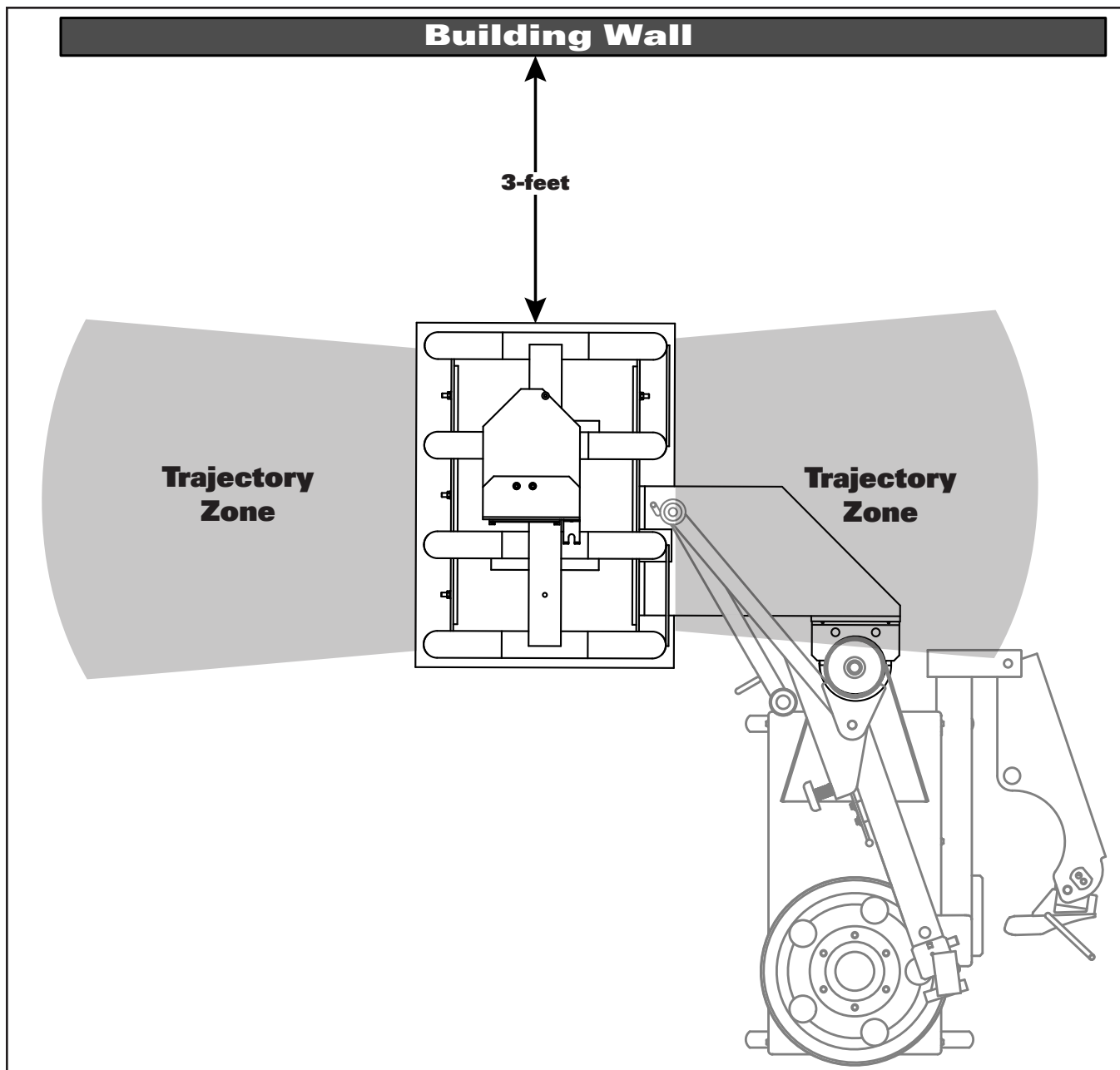
The following COATS tire changer models are compatible with the Inflation Cage Kit 85608214.

- Rim Clamp X-Model - all models
- All other tire changers - require an additional kit for attachment

### Location of Tire Inflation Cage

Provide at least three feet of clear space between the Tire Inflation Cage and building walls. When a tire fails, the explosive release of air will throw all movable objects in the path of the expanding compressed air.

The Tire Inflation Cage may be attached to a tire changer using a COATS® Tire Inflation Cage Bracket.



## Tire Inflation Cage Kit Setup

**1.** Disconnect tire changer from power source and from its air supply. Bleed off all air pressure. Verify the stored air pressure is zero by observing the air pressure gauge.

**2.** Remove cage and parts from pallet.

**3.** Assemble protectors and attachment brackets in the appropriate location to achieve desired attachment position.

**4.** Attach cage to tower using two U-bolts in desired attachment position.

**5.** Build inflation / bracket assembly and attach to cage (see parts identification).

**6.** Connect nozzle and hose assembly; build up supply assembly and connect to inflator gauge (see pneumatic diagrams).

**Note:** Use thread seal compound on non-precoated fittings.

**7.** Route hoses and electrical connection as shown. Tie to cage.



**8.** Connect inlet air to cage inlet and cage inlet to changer. Turn on air supply and connect electrical plug to 110V service.

## Operating Instructions

### Using Tire Inflation Cage


**1.** Always keep the floor clear of dirt and debris inside and around the cage area.

**2.** Be sure to clean tire and rim of any loose debris.


**3.** Using tire changer, follow tire changer instructions to bead seal tire on rim. After bead seal is achieved, remove clip-on chuck and reinstall the valve core if it was removed.

**4.** Roll the tire assembly into the cage. Center the tire, in the cage, in an upright position. Rotate tire so inflation valve is between inflation cage tubes.



**5.** Press  or  button on autoflate to set desired pressure. Connect the inflation hose with the clip-on chuck to tire valve stem and inflation will begin automatically.



**Note:** Press the  button if inflation does not automatically start.

**IMPORTANT:** When the set pressure is greater than 40 PSI the unit will inflate to 40 PSI; and then prompt you for confirmation to proceed. Check tire and press any button to complete tire inflation procedure greater than 40 PSI.

**6. DO NOT STAND IN TRAJECTORY ZONE DURING INFLATION.** When inflation is complete, the autoflate unit will beep and the pressure will flash on the display.

### Inspect Tire Inflation Cage Monthly

INSPECT cage for damage. Loose or weakened parts can fly in a tire explosion.

DO NOT USE cage if tubing is visibly bent, or shows visible cracking at welds.

# Instructions When Using Nitrogen As Inflation Gas

## Program Setup For Nitrogen

Manufacturer Recommended for Standard Air	
BL2 - 100	(no purge)
RPT - 0	(no repeats)
BL1 - 100	(no deflation)

Manufacturer Recommended for N2 Parameters	
BL2 - 40	(40% purge)
RPT - 0	(no repeats)
BL1 - 0	(full deflation)

Parameter Definitions:

**BL2:** Purging N2 percentage or Bleeding/Purge %

**0 – 100, 100 = no purge**

After first fill cycle is complete, the unit deflates tire to set percentage (BL2) of the set pressure.

**RPT:** Number of N2 Purges (BL2 parameter). The unit repeats N2 purges according to this setting.

**RPT set to 0 = no repeat, 1 purge only**

**BL1:** First deflation percentage

**0 – 100, 100 = no deflation**

Prior to the first fill cycle, the unit deflates the tire to set percentage (BL1) of the set pressure.

*Example:* If tire has 100 PSI and BL1 is programmed to 10 (%), the unit deflates the tire to 10 PSI first and then starts the fill cycle.

To change nitrogen parameters, access the program N2 parameters mode:

**1.** Turn power to the inflator gauge off and then power it back on. The inflator gauge will display 0000, 1111, 2222 up to 9999.

**2.** A short beep sounds just after inflator gauge



displays 9999. Push the button to enter into program N2 parameters mode. The inflator gauge will display **Adu**.

**Note:** If the unit does not display **Adu**, then it is in user mode. Repeat steps 1 - 2 until **Adu** is displayed were the unit is in the program N2 parameters mode.

In program N2 parameters mode, the inflator gauge displays the following:

**1.** BL2 displays on the LCD followed by the purge percentage number that is programmed.



Press button or button to set the BL2 parameter setting. The display amount advances in 5% increments from 0 to 100.



Push the button to confirm and advance to the next field.

**2.** RPT displays on the LCD followed by the number that is programmed.



Use the button to change repeat function to desired parameter.

0 = no repeat, 1 = 1 repeat, etc.



Push the button to confirm and advance to the next field.

**3.** BL1 displays on the LCD followed by the percentage number that is programmed.



Press button or button to set the BL1 parameter setting. The display amount advances in 5% increments from 0 to 100.





Push the button to confirm.

**Note:** The unit saves the new parameters and reverts back to user mode. The Default pressure is displayed on the LCD.



## Inflating Tire Using Nitrogen

1. Press  or  button on autoflate to set desired pressure. Connect the inflation hose with the clip-on chuck to tire valve stem and inflation will begin automatically.

**Note:** Press the  button if inflation does not automatically start.



2. The unit inflates tire to preset pressure. When it reaches the preset pressure it will purge to the percentage of the preset purge parameter (BL2).

It then inflates the tire to the preset pressure.

**Note:** This process repeats according to the RPT parameter number that is programmed.

**3. DO NOT STAND IN TRAJECTORY ZONE DURING INFLATION.** When inflation is complete, the autoflate unit will beep and the pressure will flash on the display.

## Topping Off A Tire That Already Has Nitrogen

1. Press  or  button on autoflate to set desired pressure. Connect the inflation hose with the clip-on chuck to tire valve stem and inflation will begin automatically.

It then inflates the tire to the preset pressure.

**2. DO NOT STAND IN TRAJECTORY ZONE DURING INFLATION.** When inflation is complete, the autoflate unit will beep and the pressure will flash on the display.

## Replacing Air In Tire With Nitrogen

1. Press  or  button on autoflate to set desired pressure.

2. Deflate the tire by removing; then replacing the valve core. Next, connect the inflation hose with the clip-on chuck to tire valve stem.

3. Press the  button to start the N2 conversion.

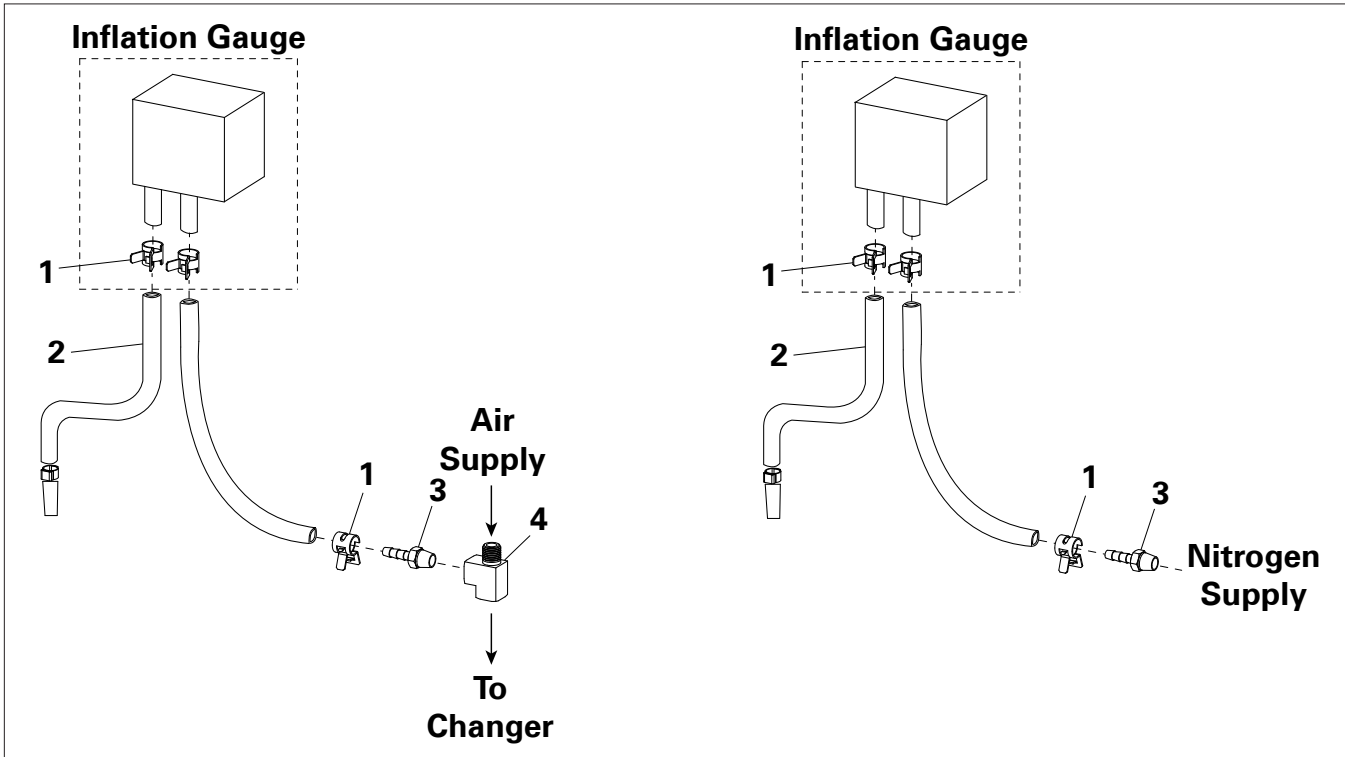
It then inflates the tire to the set pressure. When it reaches the set pressure it will purge to the percentage of the preset purge parameter (BL2). It will then re-inflate the tire to the preset pressure.

**Note:** The unit will repeat this operation according to the set RPT parameter.

**IMPORTANT:** When set pressure is higher than 40 PSI the unit will prompt for confirmation. Check tire and press any button to complete tire inflation procedure.

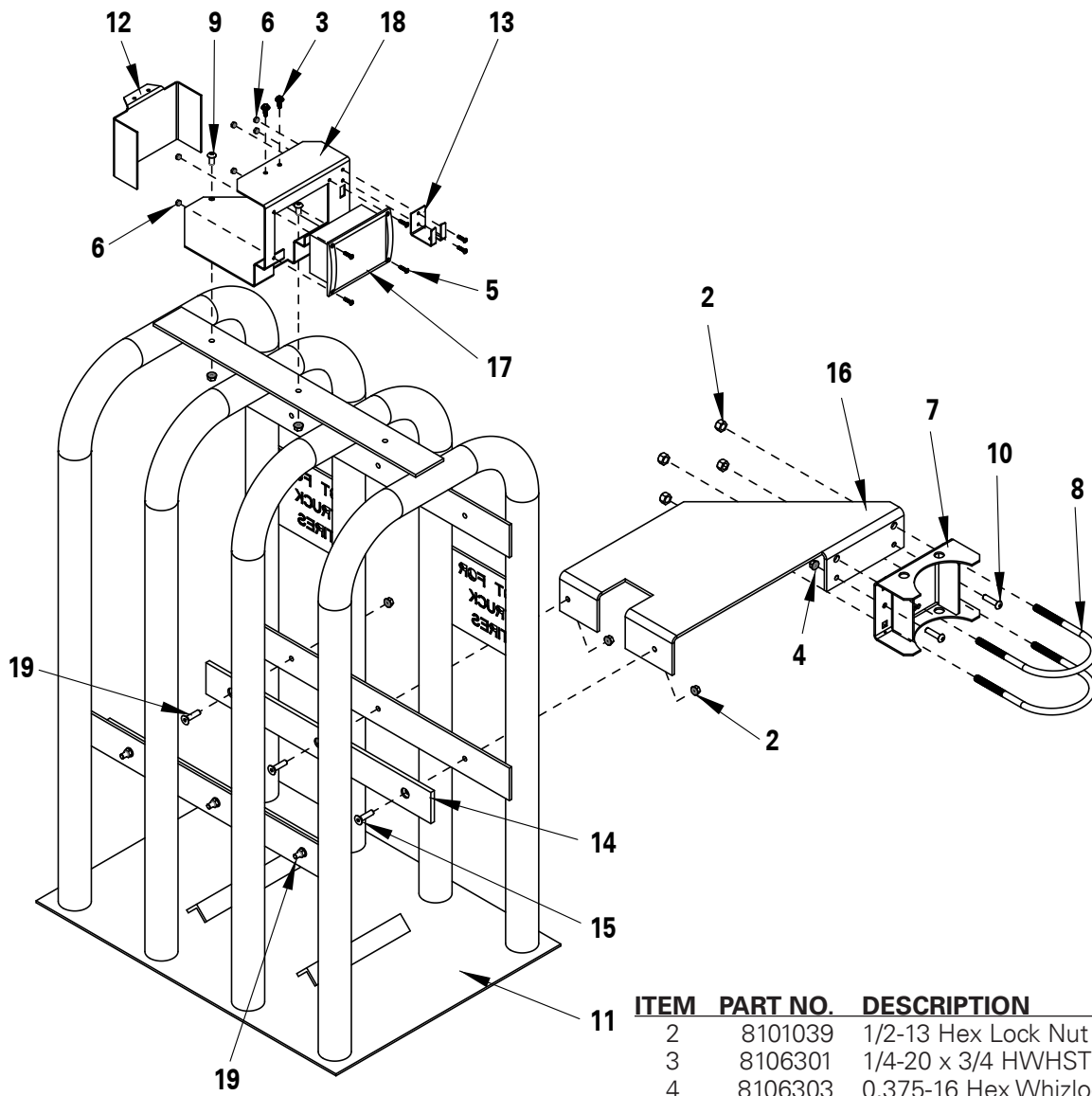
Once the process is completed, the unit will stop, beep and flash "END", which will indicate that the tire is ready.

# Pneumatic Diagram



ITEM	PART NO.	DESCRIPTION
1	85606362	13mm Spring Hose Clamp
2	85607765	Nozzle With Hose Assembly
3	8000378	1/4 NPT Brass Straight Fitting
4	871101642	1/4 NPTMX 1/4 F St. Tee Fitting

## Parts Identification



ITEM	PART NO.	DESCRIPTION
2	8101039	1/2-13 Hex Lock Nut
3	8106301	1/4-20 x 3/4 HWHST Screw
4	8106303	0.375-16 Hex Whizlock Nut
5	8181983	10-24 x 3/4 SBHCS Screw
6	8182682	#10-24 Hex Lock Nut, Reversible
7	8182843	Bracket
8	8182846	1/2-13 x 5 U-Bolt
9	8183055	3/8-16 x 0.750 SBHCS Screw
10	85009161	3/8-16 x 1-1/2 SBHCS Screw
11	85607768	Cage Assembly
12	85607799	Auto Inflate Rear Cover
13	85607806	Air Chuck Bracket
14	85607807	Cage Protector
15	85607819	3/8-16 x 1-1/2 FHSCS Screw
16	85608059	Cage Bracket
17	85608212	Auto Digital Unit Inflator
18	85608213	Auto Inflate Bracket
19	85607818	3/8-16 x 1 FHSCS Screw

