

# MAVERICK®

## Technician-Focused Tire Changer

# OPERATIONS MANUAL



Standard Operation Video



Form: CM08035-00  
06/19/2024  
Supersedes 01-23

# Table of Contents

- 1. Getting Started ..... 3
  - 1.1. Corporate Information ..... 3
  - 1.2. For Your Safety ..... 3
    - 1.2.1. Hazard Definitions ..... 3
    - 1.2.2. Important Safety Instructions - Electrical ..... 3
    - 1.2.3. Important Safety Instructions - Operation ..... 4
    - 1.2.4. Important Safety Instructions - Tire Changer ..... 4
  - 1.3. Power Source Precaution ..... 5
  - 1.4. Decal Labels & Placement ..... 6
  - 1.5. Equipment Specifications ..... 7
  - 1.6. Explanation of Symbols ..... 8
  - 1.7. Equipment Component Diagram ..... 9
- 2. Basic Operation ..... 10
  - 2.1. Control Console Diagram ..... 10
  - 2.2. Leverless Tool Head ..... 11
    - 2.2.1. Replacing Hook on Mount Head ..... 11
  - 2.3. Placing Wheel on Center Support ..... 12
  - 2.4. Bead Loosening ..... 13
  - 2.5. Demounting Tires from Rim ..... 13
  - 2.6. Mounting Tire to Rim ..... 15
  - 2.7. Tire Inflation ..... 17
- 3. Maintenance ..... 19
- 4. Warranty Information ..... 20
  - 4.1. Copyright ..... 20

# 1. Getting Started

This manual provides operation instructions and information required to maintain the Maverick Tire Changer. The owner of the Tire Changer is solely responsible for arranging technical training. The Tire Changer is to be operated only by qualified trained technicians.

Maintaining records of personnel trained is solely the responsibility of the owner and management. This manual assumes the technician has already been trained in basic tire changing procedures.

## 1.1. Corporate Information

Hunter Engineering Company

Addr:	11250 Hunter Drive, Bridgeton, MO 63044 USA
Ph:	314-731-3020
Web:	<a href="http://www.hunter.com">www.hunter.com</a>

## 1.2. For Your Safety

### 1.2.1. Hazard Definitions

Watch for these symbols:



#### **CAUTION**

Hazards or unsafe practices, which could result in minor personal injury or product or property damage.



#### **WARNING**

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



#### **DANGER**

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

These symbols identify situations that could be detrimental to your safety and or cause equipment damage.

### 1.2.2. Important Safety Instructions - Electrical

Do not operate equipment with a damaged cord or equipment that has been dropped or damaged until examined by a Hunter Service Representative.

If an extension cord is necessary, it must have a current rating equal to or more than that of the equipment. Cords rated for less may overheat. Arrange the cord so that it will not be tripped over or pulled.

Never use the cord to pull the plug from the outlet. Do not let cord hang over any edge or contact fan blades or hot manifolds.

Verify that the electrical supply circuit and the receptacle are properly grounded.

To reduce the risk of electrical shock, do not use on wet surfaces or expose to rain.

Verify the appropriate electrical supply circuit is the same voltage and amperage ratings as marked on the equipment before operating.



**WARNING**

DO NOT ALTER THE ELECTRICAL PLUG. Plugging the electrical plug into an unsuitable supply circuit will damage the equipment and may result in personal injury.

When servicing the , power must be disconnected by removing the power cord from the electrical outlet. Ensure that the power switch is in the off position ("O" position) before plugging the power cord into the electrical power outlet.

**1.2.3. Important Safety Instructions - Operation**

To reduce the risk of fire, do not operate equipment near open containers of flammable liquids (gasoline). Read and follow all caution and warning labels affixed to your equipment and tools. Misuse of this equipment can cause personal injury and shorten the life of the equipment. Keep all instructions permanently with the unit. Keep all decals, labels, and notices clean and visible. To prevent accidents and/or damage to the recommended accessories.

Use equipment only as described in this manual. Never stand on the . Wear non-slip safety footwear when operating the . Keep hair, loose clothing, neckties, jewelry, fingers, and all parts of body away from all moving parts. ALWAYS WEAR OSHA APPROVED SAFETY GLASSES. Eyeglasses that have only impact resistant lenses are NOT safety glasses. Adequate ventilation should be provided when working on operating internal combustion engines.

**1.2.4. Important Safety Instructions - Tire Changer**

Read and follow all caution and warning labels affixed to equipment and tools. Read and understand all instructions before operating this machine.



**WARNING**

Do not exceed these pressure limitations:

SUPPLY LINE PRESSURE (from compressor)	175 PSI
OPERATING PRESSURE (gauge on regulator)	145 PSI
BEAD SEATING PRESSURE (gauge on hose)	40 PSI



**WARNING**

Never mount a tire to a rim that is not the same diameter (e.g., 16 1/2 inch tire mounting on a 16 inch rim).



**WARNING**

After loss of air line pressure ALWAYS raise the wheel lift pedal to prevent the wheel lift from rising quickly during first operation.



**DANGER**

Activate blast inflation nozzle only when seating bead.

Bleed air pressure from system before disconnecting supply line or other pneumatic components. Air is stored in a reservoir for operation of the blast inflation nozzle. Air pressure can be bled from the system by pulling up on the knob located on top of the regulator, and then turning it counterclockwise.

Do not activate the blast inflation nozzle if the tire is not properly clamped. Do not operate TC with worn rubber or plastic parts. Wheels equipped with low tire pressure sensors or special tire and rim design may require certain procedures. Consult manufacturer's service manuals.



#### **SOUND PRESSURE LEVEL**

Equivalent continuous A-weighted sound pressure at operator's position does not exceed 70 dB (A).

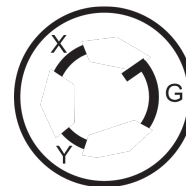


#### **SOUND WARNING**

The deflation phase noise, the bead breaking phase noise and the bead seating insertion phase noise are not taken into account for noise emission declaration because they are not part of the machine operation, however they are noisier than the machine itself. Experience shows that the A-weighted emission sound pressure level at the operator position for these operations can be as high as 85 dB. Consequently, to avoid the risk of damage to hearing, or other physiological disturbance, in case of A-weighted sound pressure level more than 80 dB and during these three phases a hearing protection device shall be worn.

### **1.3. Power Source Precaution**

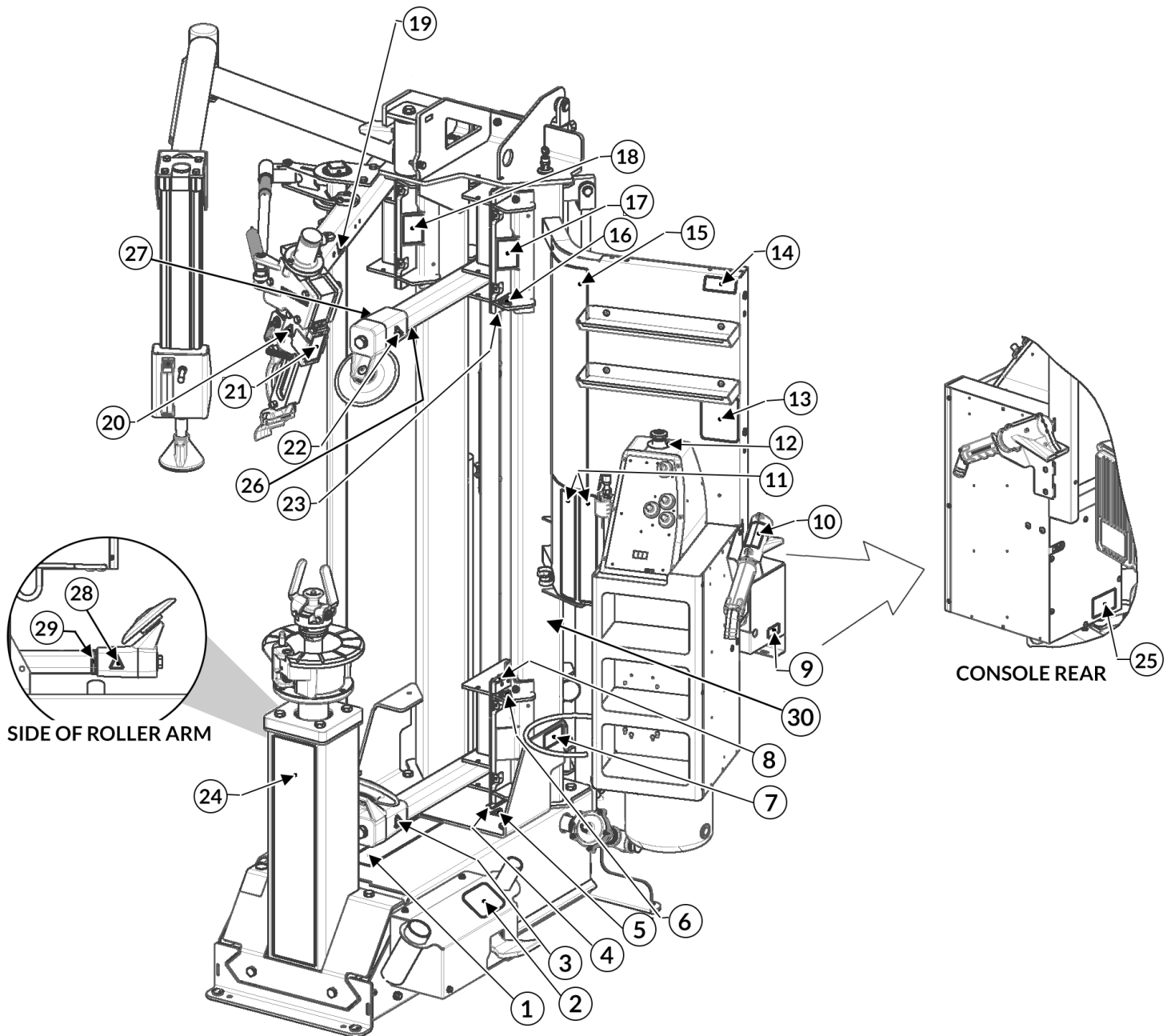
The Maverick is intended to operate from a power source that will apply 230VAC +10% / -15%, 1 phase, 20 amp 50/60 Hz power, power cable includes NEMA 20 amp plug, L6-20P, between the supply conductors of the power cord.



#### **CAUTION**

A protective ground connection, through the grounding conductor is the power cord, is essential for safe operation. Use only a power cord that is in good condition.

## 1.4. Decal Labels & Placement



Label #	Part #	Decal Description
1	128-1946-2	Decal-Keep Area Clear
2	128-1470-2	Decal-TC Rotate Pedal
3	128-1500-3	Decal-Safety, Roller
4	128-1945-3	Decal-TCM OPER & FRT Safety
5	128-1610-2	Decal-Wheel Lift Safety
6	128-1610-2	Decal-Wheel Lift Safety
7	24-51-2	Decal-Name Plate
8	128-1945-3	Decal-TCM OPER and FRT Safety
9	128-1515-2	Decal-Fluid Flash Point

Label #	Part #	Decal Description
10	128-1149-2	Decal-Warning TC Air Blast
11	128-1540-3	Decal-Front L/R Warning
11	128-1540-3	One Operator present at all times
12	128-1547-2	Decal-Hunter Logo
13	128-1901-2	Decal-Social Media and HunterNet
14	128-1363-2	Decal-Made in the USA
15	128-1965-2	Maverick Logo
16	128-1610-2	Decal-Wheel Lift Safety
17	128-1940-2	Decal-TPMS Sensor
18	128-1944-2	Decal-Reco'd TLHD Height
19 (2)	128-1610-2	Decal-Wheel Lift Safety
20 (2)	128-1610-2	Decal-Wheel Lift Safety
21	128-1945-3	Decal-TCM OPER and FRT Safety
22	128-1500-3	Decal-Safety, Roller
23	128-1945-3	Decal-TCM OPER and FRT Safety
24	128-1964-2	Decal-Hunter Maverick Logo
25	128-381-2	Decal-Not Serviceable Warning
26	128-1945-3	Decal-TCM OPER and FRT Safety
27	128-1500-3	Decal-Safety, Roller
28	128-1500-3	Decal-Safety, Roller
29	128-1945-3	Decal-TCM OPER and FRT Safety
30	128-2073-2	Pressurized Air (Air tank)

## 1.5. Equipment Specifications

**Table 1. TCM - SITE REQUIREMENTS**


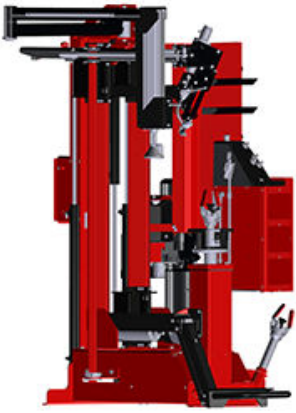
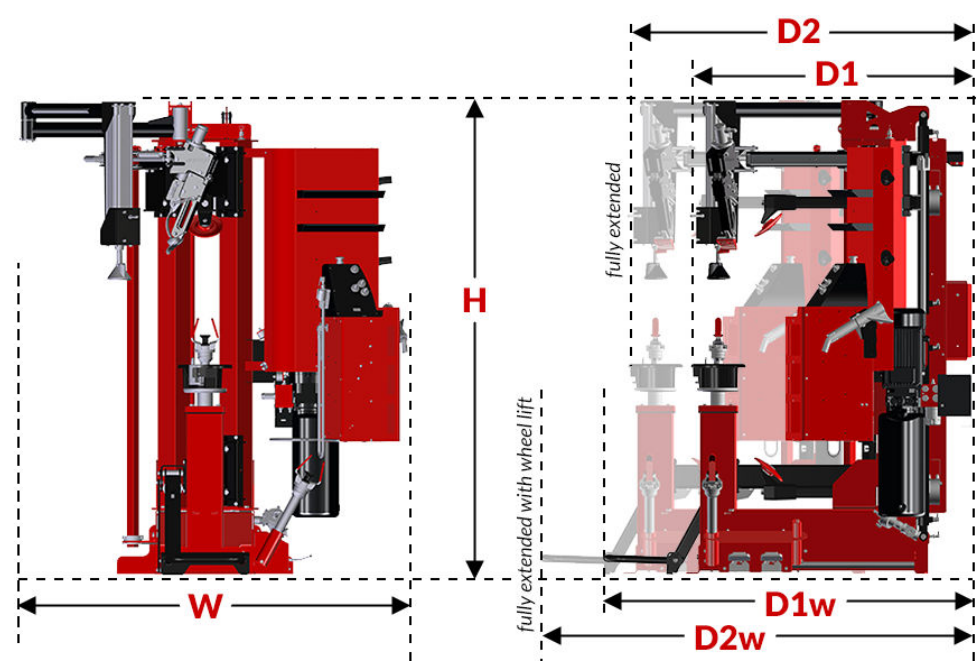
	<b>Power Requirements</b>	208-230 VAC, 1 Ph, 3 kW. NEMA L6-20 plug provided
	<b>Air Supply Requirements</b>	125 ± 25 psi (8.6 ± 1.7 bar)
	<b>Weight</b>	TCM: 1082 lbs (476 kg) / TCMW: 1100 lbs (499kg)
	<b>Width (W)</b>	53 in. (1346 mm)
	<b>Height (H)</b>	77 in. (1955mm)
	<b>Depth (D1 / D1w)</b>	46 in. (1168 mm) / 57 in. (1448 mm)
	<b>Depth (D2 / D2w)</b>	60 in. (1524 mm) / 71 in. (1803 mm)









Table 2. TCM - KEY SPECIFICATIONS

	<b>Mount / Demount Tool</b>	Polymer Leverless
	<b>Clamping Type</b>	Center w/ Quick Clamp
	<b>Bead Loosening Type</b>	Upper / Lower Roller
	<b>Match Mounting Capable</b>	Yes
	<b>Rim Diameter Range</b>	10 in. - 34 in. (254 mm - 863 mm)
	<b>Maximum Tire Diameter</b>	50 in. (1,270 mm)
	<b>Maximum Wheel Width</b>	19 in. (381 mm)
	<b>Drive</b>	Variable up to 17 rpm CW / CCW Torque: 700 ft-lbs (949 Nm)



1.6. Explanation of Symbols

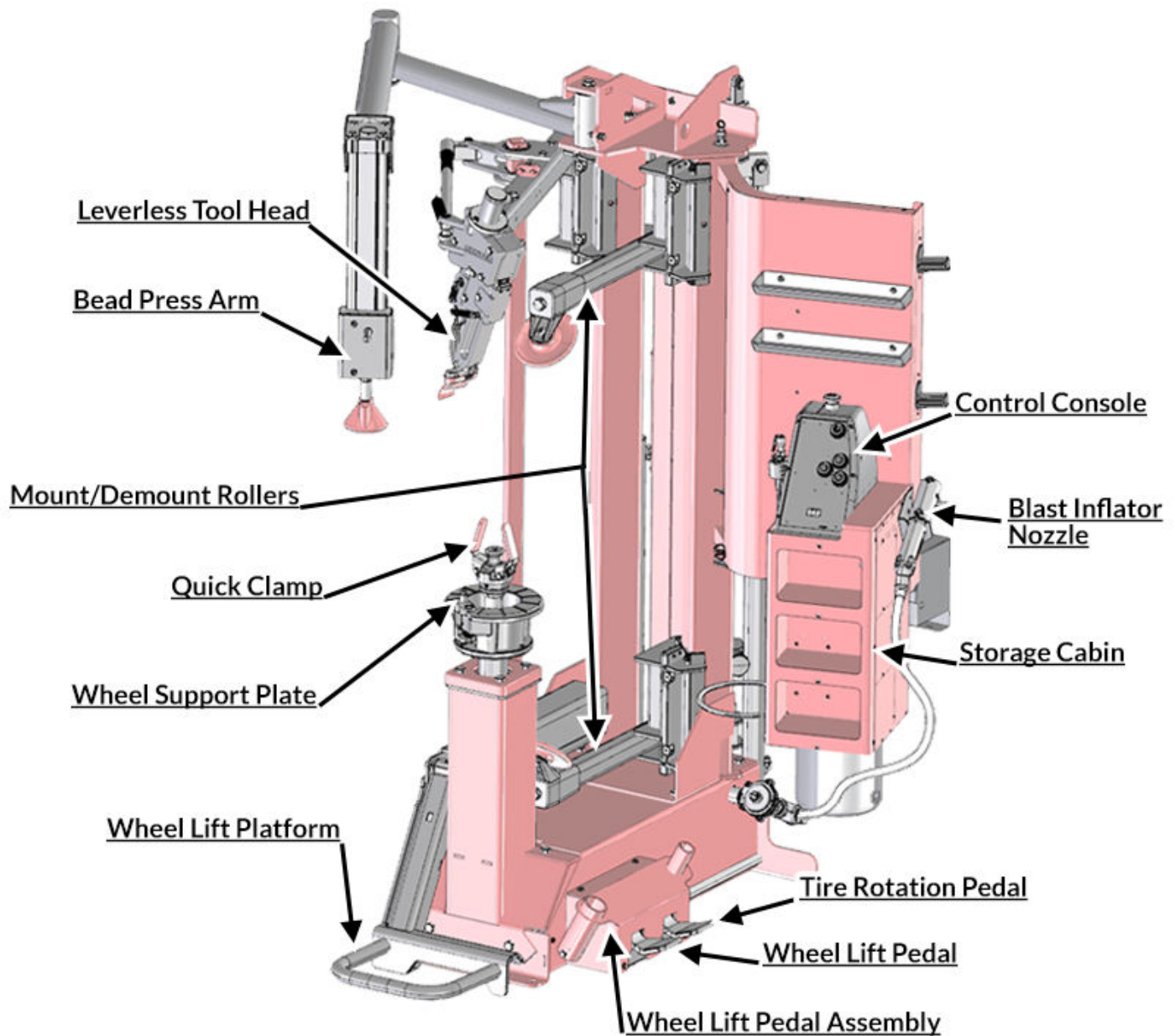
	Alternating Current
	Earth ground terminal
	Protective conductor terminal
	ON / OFF (Supply) condition
	Risk of electrical shock
	Stand-by Switch





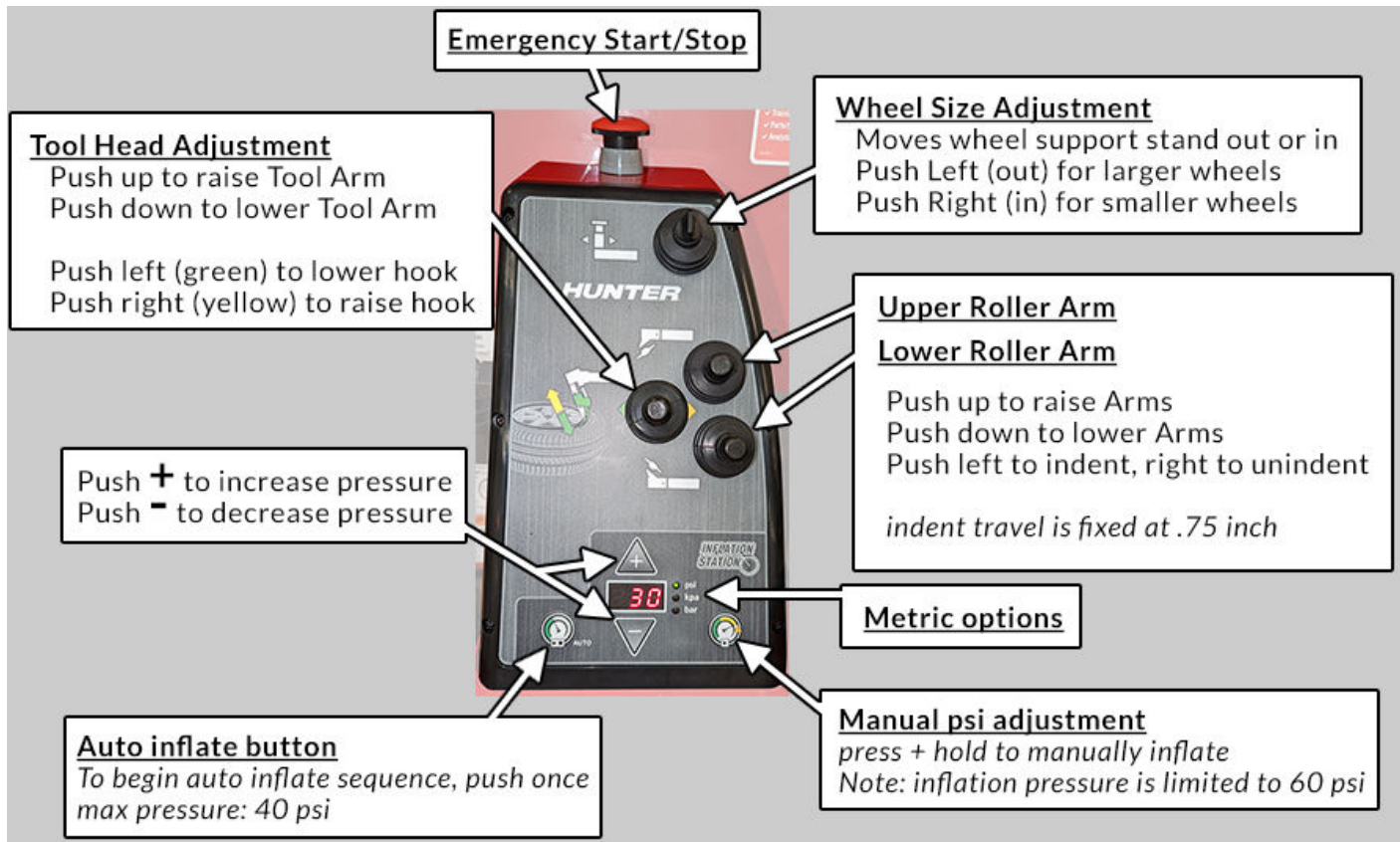
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## 1.7. Equipment Component Diagram

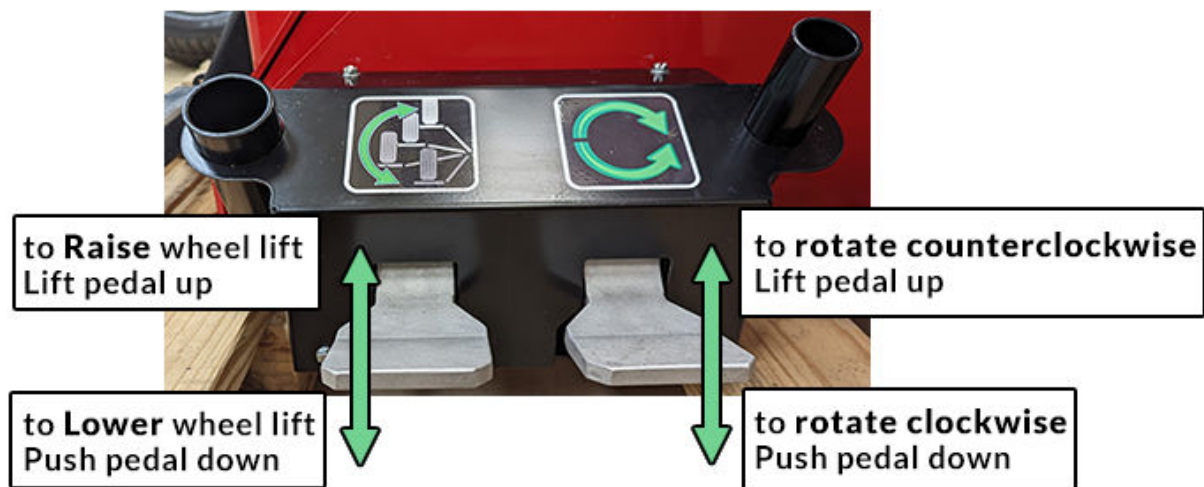


## 2. Basic Operation

### 2.1. Control Console Diagram



### WHEEL LIFT and CENTER SUPPORT PEDAL CONTROLS



## 2.2. Leverless Tool Head

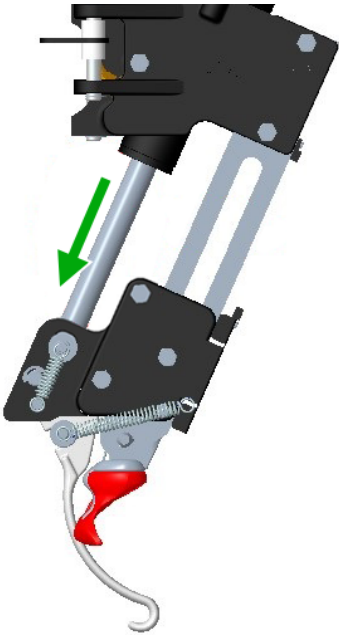


### NOTE

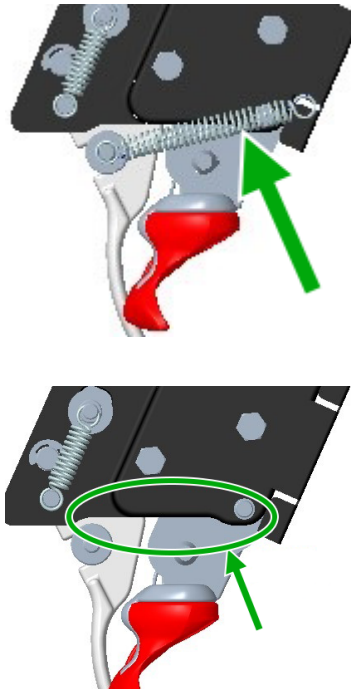
Always generously GREASE all sides, including the bottom, of new tool heads with tire lube paste before first use.

### 2.2.1. Replacing Hook on Mount Head

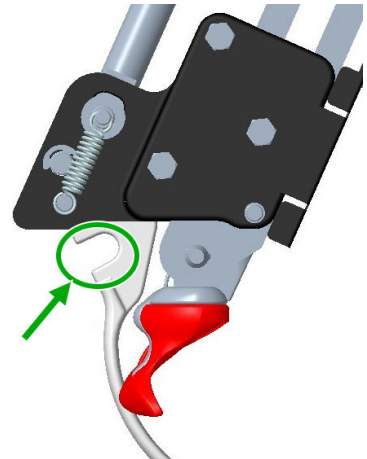
**1** Extend the hook cylinder fully to relieve the tension on the side springs (98-575-2).



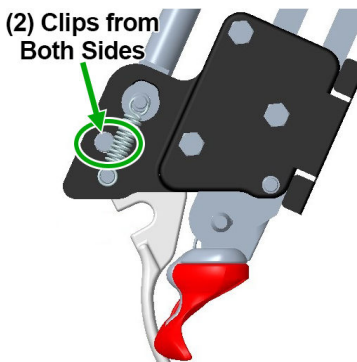
**2** Remove the two side springs (98-575-2) by hand or with pliers.



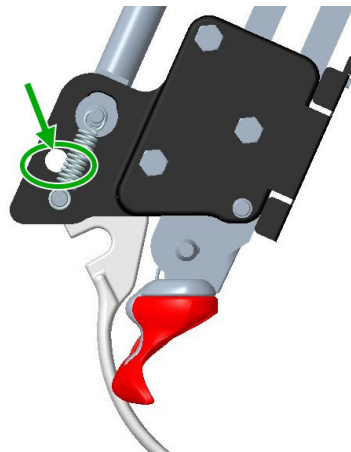
**3** Remove the hook spring pin (135-677-2).



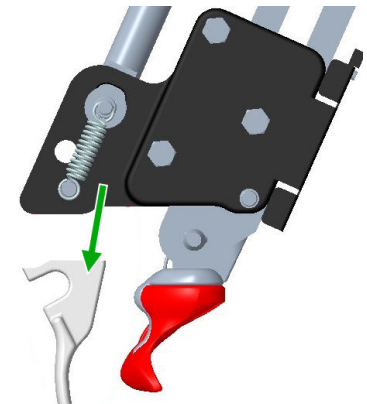
**4** Remove the two C-clip retainers from the ends of hook pivot pin with a small flat bladed screwdriver.



**5** Remove the hook pivot pin (135-681-2).



**6** Remove the hook assembly (221-723-2).

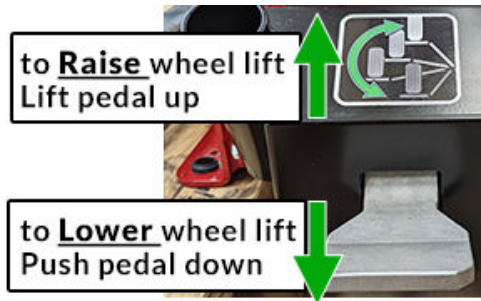


**7** Install the replacement or alternate hook. **8** Re-assemble completely by following the above steps in reverse order.

## 2.3. Placing Wheel on Center Support

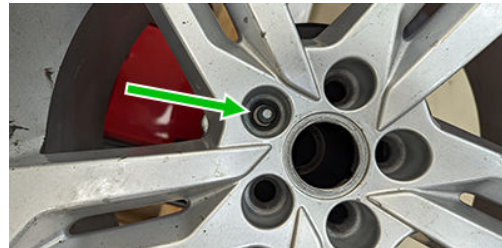
- 1 Stand up wheel and roll onto lift, while lowered, with face out.

To **RAISE** the wheel lift, lift and hold the left pedal up. To **LOWER** wheel lift, press down on the left pedal and hold. Release the pedal when the spindle is at the appropriate height for the wheel to be mounted on the center support plate.



### CENTER SUPPORT PLATE

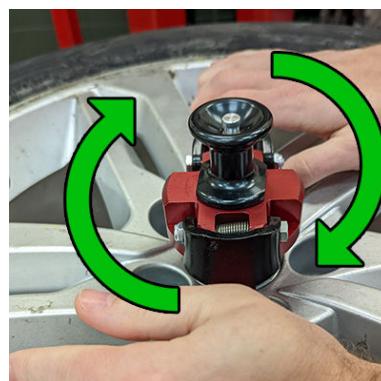
- 2 Place the wheel, face up, on the center support. Ensure the anti-rotation pin enters a lug hole in the wheel.



- 3 Push down on button while inserting wheel clamp.



- 4 Turn clamp clockwise, using handles & tighten firmly.





## 2.4. Bead Loosening

- 1 Use the control console to position the upper roller within 1/8" of rim



- 2 Indent roller arm so its right underneath lip of the rim.



- 3 Rotate wheel. Apply lubrication while rotating wheel and pushing the bead off the rim with the bead roller



- 4 Stop when bead is removed from bead seat. Move upper roller out of the way.
- 5 Repeat for lower bead.
- 6 Rotate wheel. Apply lubrication while rotating wheel until bead is completely broken.



### CAUTION

Never place hands near the rollers while applying force and rotating tire. Hands could be pulled between the roller and tire causing injury.

## 2.5. Demounting Tires from Rim



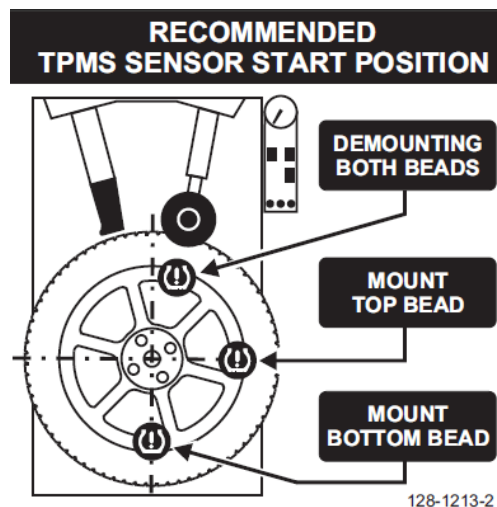
### NOTE

For rims that have a clear coat finish, clean the mount/demount head to remove dirt and debris before demounting the tire from the rim.



### CAUTION

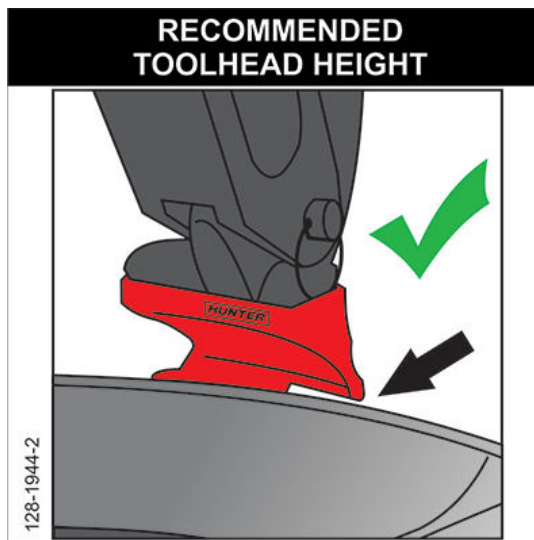
If the wheel has a TPMS sensors installed, keep the sensor under the upper roller when inserting tool head. This will prevent the tool head from contacting the sensor. Refer to decal for proper TPMS placement before demount.



- 1 Lower tool head into position such that a small gap remains above the SmartSet® indicator notch (shown on the right. Decal: 128-1944-2) →



With the upper roller pressing down on the tire, bring your tool head down insert in between the bead and the rim, rotate tire while doing so to ease tension.



#### WARNING

DO NOT ROTATE while raising the tool hook. Ensure tool head cradles the rim edge before rotating during demount of upper bead.

- 2 Move the upper roller out of the way.
- 3 Raise the tool hook until it is fully above the rim edge as shown.



#### TIP

Do not rotate while pulling bead up.



- 4 **Slowly** rotate wheel until the entire upper bead is lifted from the rim.



#### TIP

The bead press can be used to push the bead into the drop center.



#### TIP

Use the lower roller to press upward on the tire to reduce top bead demount stress on challenging tires.

- 5 If possible, lift the tire with the mount / demount head.



### IMPORTANT

Use your free hand to hold the tire, opposite the mount / demount head, in the drop center. The BP lifting ledge is helpful for large or heavy tires.



- 6 Raise the lower roller until the lower bead is slightly above the rim, then indent the roller. Rotate wheel until the entire bead is lifted from the rim. Remove tire from rim.



## 2.6. Mounting Tire to Rim



### WARNING

The bead **MUST** be in the drop center when mounting the upper bead. Use the bead press device and the upper roller to guide the bead into the drop center.

Ensure the bead is completely in the drop center on wheels where the drop center is far from the bead seat.

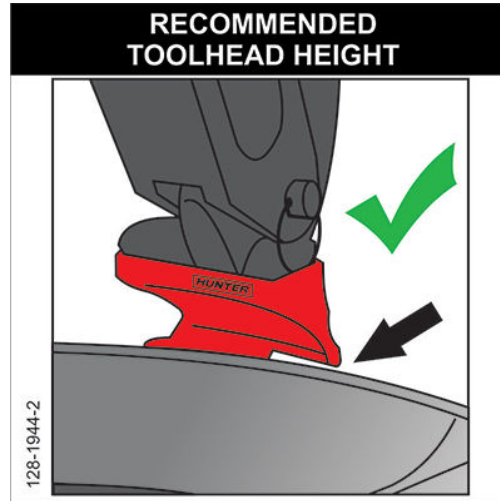
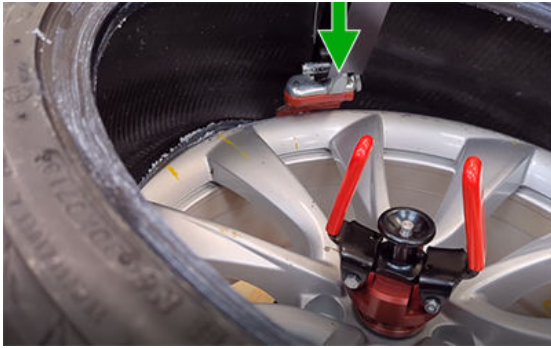
- 1 Lubricate inside and outside of both beads of the tire and lubricate the rim edge with supplied mounting paste.

### MOUNTING BEAD

- 2 Position tire on top of the rim and tilt tire toward column.



- 3 Lower tool head into position such that a small gap remains above the SmartSet® indicator notch (shown on the right. Decal: 128-1944-2) →



- 4 Rotate slowly until lower bead falls into place.



#### NOTICE

Place your tire over and under the back of the mount head as shown.

Be sure to keep the top bead in the drop center as it rotates around.



- 5 Lower the upper roller arm on the tire and indent right underneath the rim as shown.



- 6 Rotate while pressing down on the tire with the upper roller.



- 7 Rotate **slowly** while keeping the top bead in the drop center. For challenging tires or partially seated bead, use the bead press to help.

Bead too high, partially seated.



Rotate slowly.



Bead fully in drop center



## 2.7. Tire Inflation



### WARNING

Activate blast inflation nozzle only when seating beads. Never point the blast inflation nozzle at yourself or others. Do not lean or reach over tire changer when inflating.

**Do not exceed this pressure limitation - bead seating 40 PSI (2.8 bar)**

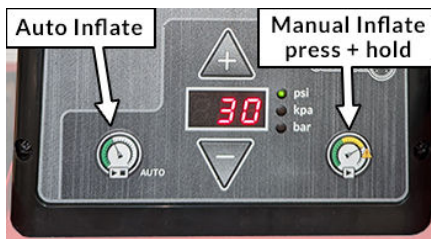
Do not operate the blast inflation nozzle if the tire is not properly clamped.

- 1 Verify that the wheel has been properly clamped and centered. (If necessary, remove the valve stem core from the valve stem) Connect the inflation hose to the valve stem.
- 2 For auto inflation, Set your pressure first, then press the Auto Inflate button once. Inflation starts and stops automatically.
- 3 Press and hold the Manual Inflation button to exceed 40 psi if necessary.



### NOTE

The inflation system is limited to 60 psi even in manual mode.



## BLAST INFLATION



### NOTE

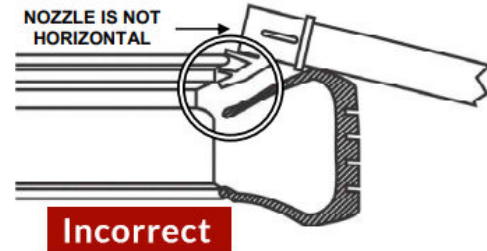
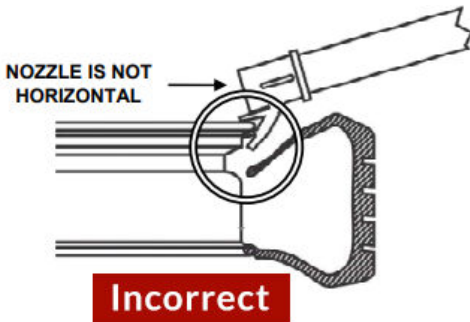
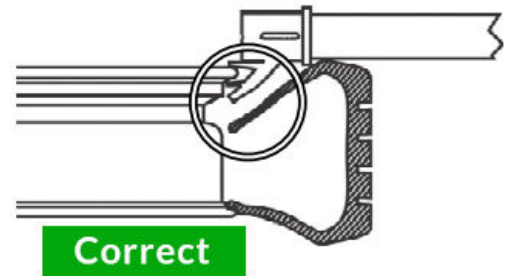
To increase the effectiveness blast inflation nozzle, always liberally lubricate the outer edge of the tire sidewall and pull up on the tire while twisting to seal the bead.

Press the bead blaster hose on the wheel rim as shown below. Ensure the hose head is pressed in.



**NOTE**

The nozzle should be horizontal for optimal performance, as shown on the right.



- 4 After beads have been seated, (if necessary, disconnect inflation hose and reinstall valve stem core previously removed). Then connect inflation hose and inflate tire to the required pressure.
- 5 If tire is over inflated, air may be removed from the tire by pressing the auto inflate button again. The inflation system will deflate to the desired pressure automatically.
- 6 Disconnect inflator hose from valve stem.
- 7 Remove center clamp by loosening the clamp, pressing the button release and pulling straight up.

### 3. Maintenance



#### CAUTION

Do not hose down or power wash electric tire changers.

Proper care and maintenance are necessary to ensure that the tire changer operates properly. Proper care will also ensure that rims and tires are not damaged during the mount/demount process.

Maintenance Schedule	Perform the Following Maintenance
Daily	Turn the tire changer power off at the end of the work day. At a minimum, depress the emergency stop switch. Never leave a wheel assembly on the tire changer overnight. Always remove all assemblies and ensure tools are returned to their home position. Check for worn or damaged rubber and nylon components that should be replaced to prevent damage from occurring. Replace worn parts as needed (rubber pads and blocks, rollers, and mount/demount head). Clean all areas that contact rims or tires to prevent possible scratching to rim.
Weekly	Clean the tire changer with shop towels or a vacuum cleaner. Do not clean with or use compressed air, which can blast dirt between moving parts. Do not use cleaning solvents to clean pressure regulator/oiler.
Annually	Change hydraulic fluid and filter once per year. Contact your Hunter Service Representative for this service.
Periodically	Check for loose bolts and tighten per specifications. Contact your Hunter Service Representative for information.

## 4. Warranty Information

Hunter Engineering Company warrants new equipment to be free from defects in material and workmanship under normal conditions of use for a period of three (3) years from the date of installation. Exceptions to this warranty are listed below:

- Field labor is covered under this warranty for a period of six (6) months.
- ADASLink™ units carry a one (1) year warranty and remain under warranty as long as a subscription is maintained there after.
- DAS 3000 units, including electronic circuit boards, carry a one (1) year warranty.
- Printers carry a one (1) year warranty.
- Normal consumables and wear items are not covered. Exception is batteries, which are warranted for a period of six (6) months.
- Product that has been subject to abuse, misuse, alterations, accident, exposure to the elements, tampering, unreasonable use, or not maintained in a reasonable or necessary manner.
- Replacement parts purchased through the Hunter Service Center and no longer covered by machine warranty are warranted for a period of six (6) months.

In case of any warranty claim, it will be necessary to contact your local authorized Hunter Service Representative. To have an item considered for warranty, it must be returned to Hunter Engineering Company for inspection and evaluation. This must be done on a freight prepaid basis. If after our inspection the product proves to be defective, and is within the time frame specified, we will repair or replace the item at no additional cost.

This is Hunter Engineering Company's only warranty with respect to new equipment. Hunter Engineering Company disclaims all other warranties to the extent permitted by law. This express warranty and any implied warranties of merchantability and fitness for a particular purpose shall not extend beyond the warranty period. Hunter Engineering Company is not responsible for any incidental or consequential damages, including, but not limited to, loss of business.

We do not authorize any person to assume for us any other liabilities with our products. Any remaining warranty may be transferred to subsequent purchasers by forwarding the purchaser's name, address, phone number and equipment serial number to:

See our document library at [www.Hunter.com](http://www.Hunter.com) for additional details.

<b>Hunter Engineering Company   Customer Service Department</b>
<b>11250 Hunter Drive, Bridgeton, MO 63044</b>
<b>(800) 448-6848</b>

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