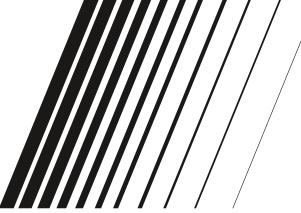


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AC.U.PULL.XL



# **Instruction Manual**

MNL-VAC-U-PULL-XL Ver. 1.1



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## **About Pro Spot**

Pro Spot International specializes in quality welding and repair products for the collision repair industry. Pro Spot owns numerous patents for special welding equipment and applications, and works with the largest auto manufacturers in the world. Pro Spot is a proud 'MADE IN THE USA' manufacturer in Carlsbad, CA. The turnkey facility includes Design, Engineering, Machine and Sheet Metal Shops, Powder Coating, Assembly, Training and Customer Support. The Pro Spot equipment line includes resistance spot welders, aluminum & steel dent repair systems, pulse MIG welders, rivet guns and tools, dust-free sanding systems, fume extraction and more.

## **Pro Spot Training and Services**

Pro Spot provides on-going training to all of our distributors and their technicians, therefore, all owners of Pro Spot products receive complete training first hand. Pro Spot has two ASE certified training programs that are I-CAR Alliance approved. Pro Spot has a fully equipped training facility at their Headquarters in Carlsbad, CA, as well as in Nashville, TN, and Denver, CO, for groups to come in and train on all products. To stay up-to-date, Pro Spot offers their unique my.prospot.com which includes interactive training courses for shops and technicians to access online.

Pro Spot is constantly striving to improve. Whether that means designing innovative equipment, implementing cutting edge technical support or further improving their already extensive training programs, Pro Spot is always looking for ways to better our customer's experiences.





# **PROSPET** QUALITY WELDING SYSTEMS

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## **1.1 ABOUT VAC-U-PULL-XL**

Thank you for choosing Pro Spot's VAC-U-PULL-XL. The VAC-U-PULL-XL provides an excellent solution for dent repair on vehicles consisting of a portable pulling system that is fixed to the ground by means of a vacuum system. The 550 lbs pulling force, controlled by a winch system, provides the necessary force for each repair.

The correct operation of this equipment is subject to the correct connection of the different parts that make it up.

These operations must be carried out by trained and experienced personnel.

The manufacturer is not responsible for the safety of the equipment if the instructions for use, maintenance and repair in this manual are not followed, or if the equipment is used for purposes other than dent repair.

The VAC-U-PULL-XL system is simple to learn, easy to use, safe and very efficient.



**WARNING!** For your safety, read this manual carefully.

Be very careful, as incorrect handling can cause serious damage to materials and people. The necessary precautions for use and safety are listed below:

- Standing behind or in front of the equipment when it is under tension can cause serious injury. Always stand off to the side.
- Ensure the floor area is clean (dust, liquids or other elements) and without cracks to guarantee the correct sealing of the foam.
- When moving the VAC-U-PULL-XL, tilt it back onto the rear wheels until the foam is off the ground to prevent damaging the foam seal.
- · Keep hands clear of pinch points during use.
- The equipment requires compressed air supply for its operation (recommended operating pressure 75 psi). Check that the base is fixed.



**WARNING!** Always connect VAC-U-PULL-XL to clean and dry compressed air.

Always check the air connection before unscrewing the sheet metal, otherwise, the floor fastening will not be secured.

If the equipment will operate without compressed air, Pro Spot is not responsible for any damage to persons, materials or other items in the vicinity.

#### **1.2 WARRANTY**

Pro Spot International, Inc. offers a limited two-year guarantee initiated on the date of delivery of the new VAC-U-PULL-XL. This guarantee covers material defects and assumes normal care and maintenance. This guarantee assumes that:

- The equipment is correctly installed and inspected by a certified Pro Spot representative.
- The equipment has not been altered or rebuilt without approval from Pro Spot International, Inc.
- Genuine Pro Spot International, Inc. parts and consumables are used to make repairs.
- Preparation and maintenance has been carried out according to the instructions in this manual.

All claims on warranty must verify that the fault has occurred within the guarantee period, and that the unit has been used within its operating range as stated in the specifications. All claims must include the product type and serial number. This data is stamped on the nameplate.



## 2.1 OPERATING VAC-U-PULL-XL

All the following operations must only be carried out by trained and qualified personnel.

Failure to comply with the instructions below or tampering with the pneumatic connections, exempts the manufacturer from any liability for non-compliance or damage caused by malfunctioning of the equipment.

The following are the steps for the proper use of the VAC-U-PULL-XL equipment:

- 1. Clean the area you intend to place the VAC-U-PULL-XL.
- 2. Tilt back the unit onto its rear wheels until the foam base is off the ground then roll it to your intended work area and position it so it is pointing at the area of repair, as straight as possible.
- 3. Connect compressed air and press down on the base with your foot and the base should stick to the ground.
- 4. Adjust the height so that it is level with what the VAC-U-PULL-XL will be pulling.
- 5. Attach the VAC-U-PULL-XL hook or multi-hook attachment to the pulling point.
- 6. The pull force required will depend on the repair to be carried out with the limitation of 550 lbs. A higher pulling force could damage the mechanism or cause the base to lose its vacuum, resulting in the possible overturning of the base.
- 7. When storing make sure it is stored on a flat clean surface. The gasket is very dense and will create a memory if something is stored underneath it and not hold properly. Example extension cord, air hose, etc.



WARNING! Always use this system for pulling forces of less than 550 lbs.

#### 2.2 PRECAUTIONS

All the following operations must be carried out only by trained and qualified personnel. Failure to comply with the provisions below or tampering with the pneumatic connections, exempts the manufacturer from any liability for non-compliance or damage caused by malfunctioning of the equipment.

The following instructions must be observed by the operator.

The base does not attach sufficiently due to poor sealing of the base or rubber, excessive force, or failure of the compressed air supply or ejector. In this situation, the VAC-U-PULL-XL will lose its hold and may fall in the direction of the force being exerted.



**WARNING!** When pulling the strap, no persons or materials should be placed around the equipment.

**WARNING!** If using the multi-hook attachment for pulling, make sure that it is screwed all the way on the eyelet.





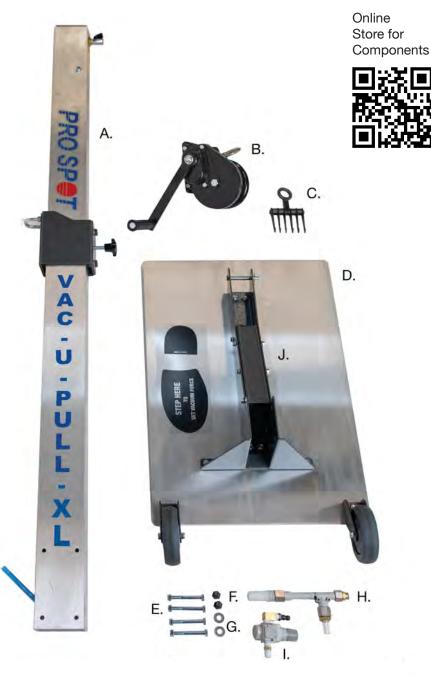


## 3.1 VAC-U-PULL-XL COMPONENTS

## 1.0 BOX CONTENT:

- A. Vertical Column (Tower)
- B. Winch
- C. Multi-Hook (claw)
- D. Base Assembly
- E. M8 Bolts & Nyloks
- F. M10 Bolts (Winch)
- G. Washers (M10 Bolts)
- H. Vacuum Venturi
- I. Regulator/QD Fitting
- J. Venturi Cover

\***NOTE:** Spare Gasket (90-2526) and Muffler (51-0183) are included.





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## 3.2 TOOLS FOR ASSEMBLY (NOT INCLUDED):

- 1. Flat Blade Screwdriver
- 2. Adjustable Wrench
- 3. 17mm Wrench
- 4. 9/16" Wrench
- 5. 13mm Wrench
- 6. 10mm Wrench
- 7. 13mm Socket
- 8. 17mm Socket
- 9. Ratchet w/ Extension

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## ASSEMBLY



#### **4.1 ASSEMBLY INSTRUCTIONS**



1.VENTURI COVER REMOVAL

Remove 8 bolts holding the cover in place. A 10mm wrench might be needed. Remove cover.





#### 4. PLACE THE VENTURI TUBE

Firmly push the Venturi tube into the Fitting in the Base plate. Pull the Venturi slightly to ensure secure attachment of the tube.





## 2. TUBE INSTALLATION Confirm the tube is passing through the hole at the end of the Vertical Column. Push tube into Venturi fitting (as shown) until it stops.

Give the tube a slight tug to ensure a secure attachment to Venturi.



#### 5. REINSTALL THE VENTURI COVER

Reinstall the Cover to line up the screw holes and re-install the same screws, finger tight. While pushing the cover against the Vertical Column, using the 10mm wrench, tighten the screws firmly (recommended torque is 120 in lbs).



3. VERTICAL COLUMN Position the Vertical Column so the four M8 bolt holes line up. Insert the M8 bolts all the way through from one side. Thread on the Nylock nuts, but do not tighten. NOTE: Lowering the Slider as shown, will make installing the Tower easier. Tighten the Knob snugly.



#### 6. SECURE THE COLUMN

Secure the column by using the 13mm Wrench & Ratchet Wrench to hand tightening the nylocks nuts. Make snug, do not over tighten.

## ASSEMBLY





7. ATTACH THE WINCH Attach the winch (as shown) to the Slider with M10 Bolts & Washers.





#### **10. INSTALL THE MULTI-HOOK**

Attach the Multi-Hook by inserting the winch hook through the eye bolt on the Multi-Hook.



8. SECURE THE WINCH Using the 17mm socket, tighten the top bolt (recommended torque is 31 ft lbs.). Using the 17mm wrench, tighten the bottom bolt (recommended torque 31 ft lbs.).



## NOTE:

For downward pulls, remove claw and place strap under holder on the base of the tower. Install the multi-hook attachment.



9. INSTALLATION OF REGULATOR/QD FITTING

Start by threading the Regulator/QD Fitting into the ON/OFF valve until hand tight (and before valve turns). While holding the valve stationary with the Adjustable Wrench, use the 9/16" Wrench to tighten the regulator fitting 2 or more turns until the Regulator is positioned, QD pointing down, as shown.



All maintenance and repair work must be carried out by trained personnel who have read this manual and the operating instructions.

The following are recommendations for possible repairs to the machine.

The machine should be located in a place that is preferably flat, free of scratches, cracks, and as clean and dustfree as possible.

The foam acts as a sealant and should be checked to ensure that it is watertight when the vacuum is applied.

If it is in poor condition, always use original consumables to ensure correct operation of the equipment.

If the problem persists, call the Pro Spot technical assistance service.

Inspect the condition of the foam gasket periodically to make sure the sufficient vacuum seal is achieved. Check the condition of the strap and its fasteners before exerting traction forces on them. In case of damage or wear, always use original consumables to ensure correct operation of the equipment.

#### 6.0 TROUBLESHOOTING GUIDE

6.1 VAC-U-PULL-XL NOT STAYING SECURED TO FLOOR (procedures for SA-0148 rev. A)



1. Remove venturi cover from the base plate.



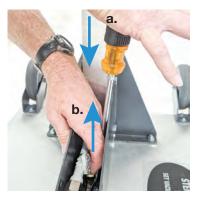
2. Gently lift the muffler end of the Venturi to easily access the air tube release ring on the base plate air fitting.



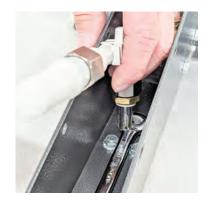
3. Place the open end of a  $12mm (\frac{1}{2})$  box wrench over the air tube release ring.



4a. Using a large flat blade screwdriver a. push down on the open end of the box wrench to depress the release ring.



4b. While simultaneously b. pulling up on the Venturi "T" section. (Do not pull up on the Muffler).



4c. Released

## TROUBLESHOOTING





5. Using a 25mm wrench on the large nut, and a 21mm wrench on the Muffler hex, loosen the Muffler.



6. Unscrew and remove the Muffler.



7. Inspect the inside of the Muffler. Look for dirt, debris or other contaminants that could clog the filter wall of the Muffler. Clean or replace the Muffler (82-0148).



8. Re-install the Muffler.



9. Insert the tube into the base plate fitting and push firmly. Give the Venturi "T" section an upward tug to make sure the tube is locked into the air fitting.

10 Re-install Venturi cover.

TROUBLESHOOTING



## 6.2 VAC-U-PULL-XL NOT STAYING SECURED TO FLOOR (procedures for SA-0148 rev. B)



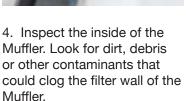


1. Remove venturi cover from the base plate.

2. To remove the Muffler, depress the tube release ring in and pull on the Muffler at the same time.

- J.
- 3. Released





Clean or replace the Muffler (51-0183).



5. Insert the Muffler into the fitting and push firmly. Give the Muffler a tug to make sure it is locked into place.

6. Re-install Venturi cover.

## 6.3 GASKET SLIPPED ON THE BOTTOM PLATE DUE TO OVER-PULLING



1. The gasket will need to be re-glued. Make sure to clean the old glue off first. We recommend 3M 4298UV adhesion promoter, or equivalent, and then spray adhesive to glue back on.

2. If the gasket is torn, replace it with part #84-0501S.

3. Occasionally clean the gasket with soap and water or a glass cleaner. No harsh chemicals.

TROUBLESHOOTING



## 6.4 GASKET HAS AN INDENTATION OR IT IS PARTIALLY DAMAGED



1. Use a razor knife to cut the piece of the gasket in two parallel lines at 45°.

**NOTE:** Do not cut too deep into the base metal.



2. Peel off damaged part of the gasket.



3. Thoroughly clean the surface with adhesive remover and scraper. Clean the area with rubbing alcohol, after the adhesive has been removed.



4. Apply adhesion promoter. We recommend 3M 4298UV.

**NOTE:** The adhesion promoter must be dry before replacement foam is put in place.



5. Measure a piece from spare gasket to fit into the cut area. Make sure to add at least 0.25 inch on both sides.



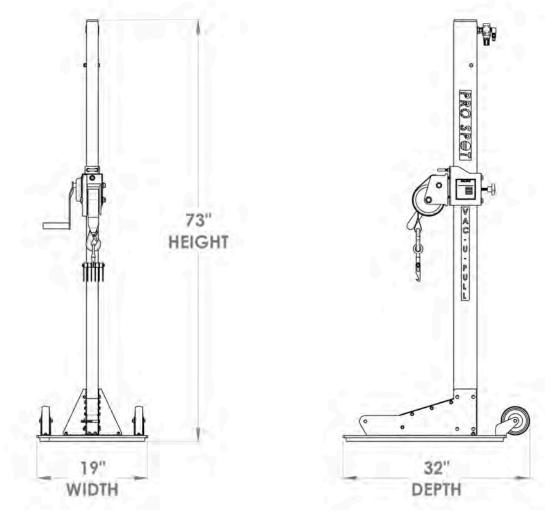
6. Apply the piece of the replacement gasket to the metal plate by pressing firmly.



## 7.0 VAC-U-PULL-XL DIMENSIONS

7.0

Height: 73"/ 185.5cm Width: 19"/ 48cm Depth: 32"/ 81cm Weight: 61lbs / 27.7kg






8.0

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NOTES

8.0



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