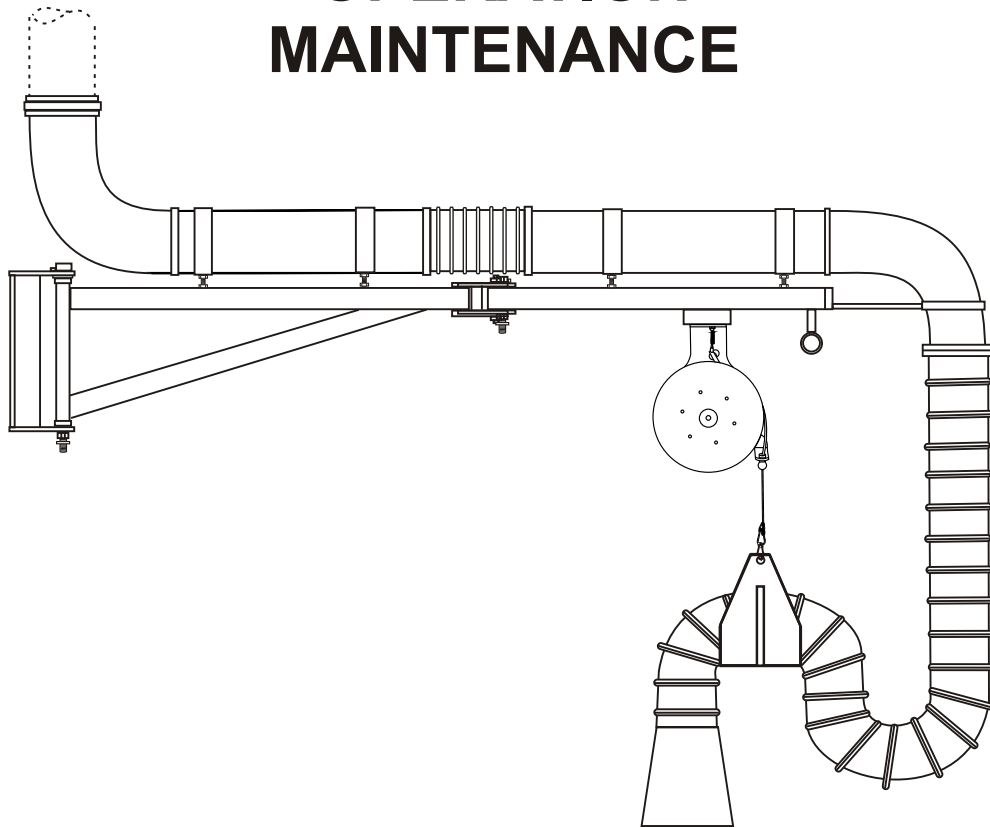


CAR-MON ARTICULATED ARM ASSEMBLY

INSTALLATION OPERATION MAINTENANCE



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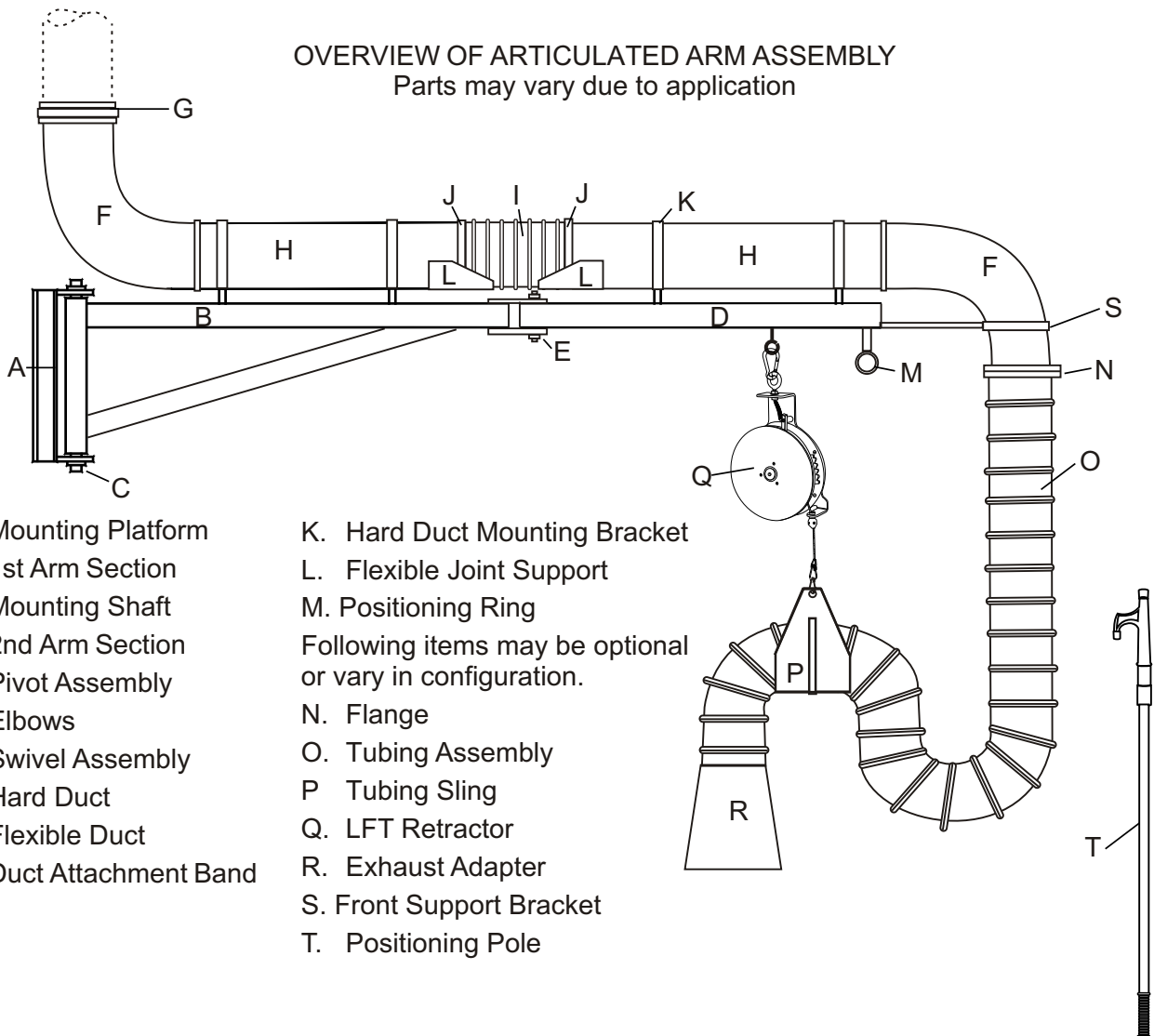
1225 Davis Road Elgin, IL 60123
Phone (847) 695-9000 Fax (847) 695-9078

AA0413

INITIAL PREPARATION

1. Upon receiving, check all boxes of materials to make sure all components on packing list have been received. Also check for any possible concealed shipping damage, and if found report it to the freight carrier immediately.
2. Articulated arm assemblies must be mounted on a supporting beam or a load bearing wall. The assemblies can weigh several hundred pounds, so the platform must be mounted at a point that can take a great amount of stress.
3. Please read thru this manual completely before installation. Articulated arms are manufactured in many different lengths, diameters, and configurations. If you have any questions, or have a custom configuration not covered in the manual, please contact the factory for questions. When calling you must have the factory order number that appears in the upper right hand corner of the packing list.

OVERVIEW OF ARTICULATED ARM ASSEMBLY Parts may vary due to application



- | | |
|-------------------------|--|
| A. Mounting Platform | K. Hard Duct Mounting Bracket |
| B. 1st Arm Section | L. Flexible Joint Support |
| C. Mounting Shaft | M. Positioning Ring |
| D. 2nd Arm Section | Following items may be optional
or vary in configuration. |
| E. Pivot Assembly | N. Flange |
| F. Elbows | O. Tubing Assembly |
| G. Swivel Assembly | P. Tubing Sling |
| H. Hard Duct | Q. LFT Retractor |
| I. Flexible Duct | R. Exhaust Adapter |
| J. Duct Attachment Band | S. Front Support Bracket |
| | T. Positioning Pole |

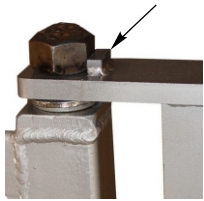
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INSTALLATION

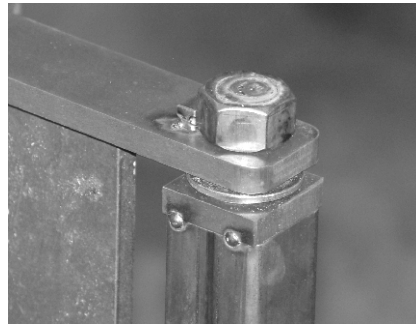


1. Attach mounting platform to a secure surface. Make sure locking key is at the top of the platform. Using bolts and welding in place is strongly recommended. This **MUST** be a load bearing wall or a support beam. Make sure platform is level and plumb before attachment-this is imperative to proper operation of the arm.
2. Attach first section of arm on platform by using 1" shaft. Slide shaft through vertical opening at end of arm. Push shaft collar onto shaft at bottom of base and tighten.
3. Attach second section of arm with $\frac{3}{4}$ " rod. Repeat step number two for securing shaft.

(1) MAIN PLATFORM
Mount first section of
arm using 1" shaft.



$\frac{3}{8}$ locking key must be
at the top of the wall mount
base



Detail of platform and top of 1st arm
section with main shaft.

4. Check the movement of the arm to make sure it moves smoothly through the range of the arm.
5. Attach the flexible joint supports (these must be installed first) in both positions, and then the bottom of the duct supports in both positions. Adjust the stopping bolt so that the bottom of the duct and tube will be approximately 3 inches from the arm. Check to make sure that the bottom of all the supports are at the same level.



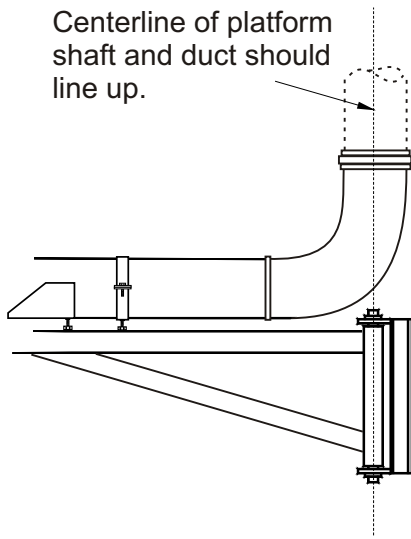
Installation of support brackets. Make sure the flexible duct support (the bigger bracket) is installed first, or you will not be able to install the hard duct bracket.

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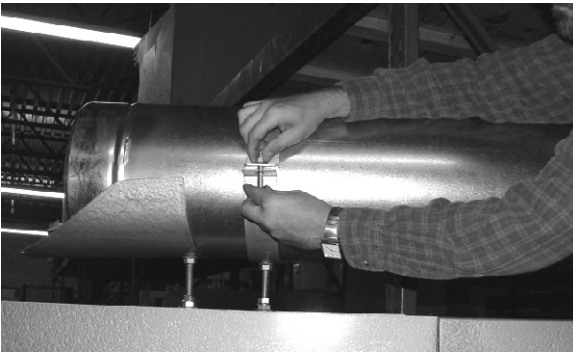
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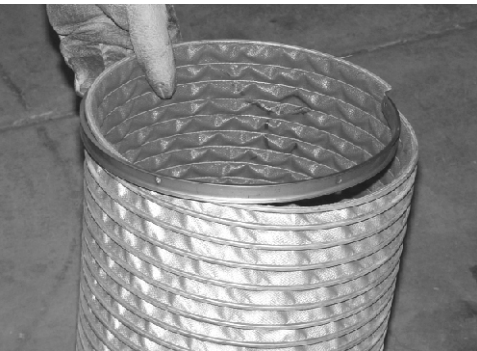
6. Install the first section (nearest the platform) with the elbow and hard duct. The centerline of the elbow should line up with the centerline of the shaft in the mounting platform.



All duct brackets must be at the same height



7. Install the top of the duct bracket-do not tighten at this time.
8. Install front portion of the duct assembly, again making sure that it is at the same level as the rear assembly. Install the top of the duct bracket-do not tighten at this time. You can now install the flexible tubing connection.

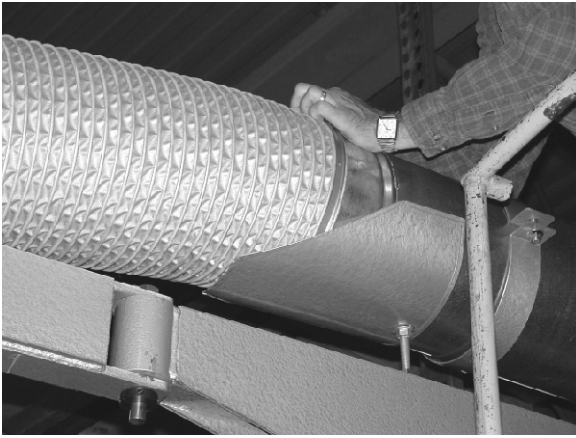


Detail of flexible tubing and tubing clamp to make connection between the hard duct at the Pivot Assembly Joint.

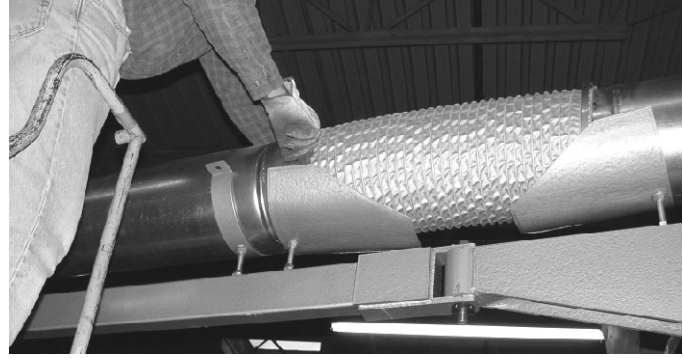
9. Install the flexible joint between the two hard pieces of duct. Using the band clamp, attach each side by slipping flex tubing over hard duct with clamp going around tubing. Drill holes through clamp into duct and rivet into place. (Note: Due to the position of the Flexible Joint Support, you will not be able to attach rivets to the bottom of the assembly. (See photo on next page)

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Attach the flexible tubing over the hard duct using the attachment band. Secure the attachment band to the flexible tube and duct by riveting.



After attaching first end, repeat the process on the other end. Make sure assembly is secure and air-tight. You can now tighten down the duct mounting brackets.



Attach swivel to back elbow using rivets or sheet metal screws.

10. Tighten Hard Duct Mounting Brackets. Double check all connections that they are secure. Attach the swivel at the back elbow. You can now hook up the duct work to the arm.
11. If present, attach front support bracket to elbow assembly.
12. Screw Positioning Ring into hole on bottom of front arm. (See M on arm drawing)
13. Attach the front tubing assembly, as well as the balancer or any other accessories. For specific directions, consult instruction manuals on these separate products. These should be included somewhere in your shipment.

OPERATION

1. Before attaching tubing assembly to the exhaust, make sure the vehicle is not running. Attach the adapter to the exhaust using the positioning pole or other means.
2. Make sure adapter is firmly in place.
3. Turn system fan on before starting vehicle. When fan is up to speed, only then should the vehicle be started.
4. Consult additional instructions for spring balancer operation.

MAINTENANCE

The articulated arm assembly is designed for low maintenance and requires no greasing or lubrication of parts. The only maintenance necessary is periodic cleaning of exterior surfaces when required.

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