Please Note: This is a generic assembly detail. The "3" in the name, indicates three attachments to the loudspeaker. Other configurations are available. Specify loudspeaker being used when ordering. Some loudspeakers have more attachment points than shown. Choose the points that best suit your application. See inset below. Instructions CHAIN Monkey™ System S3 Gimbal option G3 (one of six options available) Use the Drill Guide feature to drill bolt holes in component "B". WLL 250 lbs. With pipe against end stop, drill into pipe from each side. Discard the cotter pin and four 1/4" cap screws after use. See the proper use of the Drill Guide @ www.aperigging.com "watch an installation" link. The angle between any two chain legs must NOT exceed 90° User provided 3/4" schedule 40 steel Pipe, 1.05" O.D. Available at plumbing supply. This is NOT thin wall conduit. (refer to examples at lower left) See user prepare pipe for install @ www.aperigging.com "watch an installation" link. Chain Carrier and Swivel Assembly with Yoke The Primary Chain passes thru the Carrier and it's position is retained with plastic end caps. The Swivel sets the pan (horizontal) angle. (D) Primary Chain, 7/32" grade 80 alloy steel Adjust its length using component "F' Back Chain, 7/32" grade 80 alloy steel Adjust its length using component "F" CHAIN Monkey™ adjuster/termination for 7/32" Chain Used for adjusting the length of the chain legs to accomplish the desired tilt (vertical) angle. THE ANGLE BETWEEN ANY TWO CHAIN LEGS MUST NOT EXCEED 90 DEGREES! Select the bolt positions on the loudspeaker that accomplish this while keeping the Chain Carrier assembly 0 as close to the cabinet as possible. Side bolt positions may also be used. Cap screw, lockwasher and flat washer, typical The screw MUST engage the threads in the cabinet for at least 5 full rotations. **Upper Right Rear View** side view 90° or less top/front view 0 Excess chain can be removed using a bolt/chain cutter. Cut one side of the link at a time. WEAR SAFETY GLASSES! Be sure to leave at least one full link to keep the chain secure in fitting.

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Advantage Products Enterprise, Inc.

Pro Audio rigging solutions 561-741-8126 www.aperigging.com

CHAIN Monkey	^M System - to be used on	
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Do not attempt to use this product before reading and understanding the instructions. If you have any questions, contact A.P.E. @ 561-741-8126.

Use of this hardware involves the overhead suspension of equipment.

An overall review of your plan and method of attachment to the structure should be done by a licensed professional engineer. The installation should only be done by qualified individuals with the knowledge and proper tools to ensure a reliable outcome.

Safety Cables

The following is not a thorough review of the proper tools, techniques and components used to product wire rope assemblies for backup suspension systems or any other purpose. Knowledge of these subjects is imperative.

This information is presented only to stress the importance of Safety Cables and offer some basic guidelines.

- Having an adequate Factor of Safety on the primary rigging components is essential, but it may not be able to compensate
 for <u>installer error</u> or <u>damaged components</u>. Only an effective backup system can keep these unforeseen occurrences from
 turning into catastrophes.
- 2. Design and install safety cables as though they were going to be relied upon to protect life and/or property.
- 3. As with the installation of the primary suspension system, the installation of the safety cables should only be done by qualified individuals with the knowledge and proper tools to ensure an effective outcome.
- 4. Select a wire rope size that has a WLL (work load limit) of at least twice the load weight. The same applies to all hardware used to secure the safety cable.
- Keep the safety cable as vertical as possible, and with the least amount of slack possible.
 More slack = more shock load = the need for stronger cable and attachments.
- 6. Attach the wire rope to the structure being careful to avoid sharp edges. Use softeners as needed.
- 7. To limit slack in the safety cable, do the following when making the speaker cabinet attachment:
- Prepare an attachment point on the upper most portion of the speaker and as centered above the speaker's CG as possible.
 A horizontally oriented speaker may require two attachments, one on each end, where no central rigging point is available.
 Alternately, a bridle can be used to provide a central rigging point.
- Extend the safety cable down from the structural attachment to the speaker and form a loop in the cable at the point where it is just long enough to be shackled to the attachment point.
- Using a felt tipped pen, mark both halves of the loop so it can be re-formed in exactly the same spot even if the cable needs to be moved to another area to apply the mechanical splice.
- Make the final connection between cable and speaker with a shackle or other load rated connector. Using this method, a safety cable with 1" of slack or less is easily produced.



