



the top of the checklist. Loudspeaker array locations should be as far away from people as possible. Attachment to the venue should be appropriate, and should be performed only by a qualified professional rigger. When assembling the loudspeaker array, be conscious of the surroundings at all times. Check and then double-check the array assembly to ensure that the rigging system is assembled properly, and that all attachment hardware is tight and showing no signs of wear or fatigue. Remember that the ultimate responsibility for any accidents that may occur falls on the owner of the loudspeaker flying system.

Other components of the rigging system include shackles, wire ropes, carabiners, straps, round slings, clips, chain motors, beam clamps, and various other rigging hardware. All of these components must be designed and implemented into the system with the 5:1 design factor discussed earlier. Also, all of the components must be rated for overhead suspension. Aluminum carabiners and carabiners without locking

gates have no place in a loudspeaker rigging hardware system. If forged eyebolts are implemented in the system, they must be of the shoulder variety and the angle of load must be thoroughly understood before the bolts are used. Shackles, quick-links and clips must also be thoroughly understood, and the rules that apply to the direction of load must be observed. In many cases, the angle of the load will cause a decrease in the working load limit of the component in excess of 50%. Remember that the loudspeaker rigging hardware system is only as strong as the weakest link in the system.

The loudspeaker rigging hardware system can be the safest system in the world, but the venue must be able to support the load in order for the system to be of benefit. Specific load points should be available at any venue where loudspeaker arrays are to be flown. Venue load points must be engineered and load rated with a design factor in place and for a specific load angle. Many times, venues will have specified

suspension points in the ceiling structure; these points must have a specified working load limit. Don't take the building owner's word for it, ask for proof: remember who is responsible if there is an accident. Larger venues may have a support structure constructed from steel, concrete, or wooden beams. Again, any suspension point should be load rated and the 5:1 design factor must be applied. In any case, a qualified professional rigger should do the work performed to attach to the venue structure.

Flying loudspeaker enclosures can be a challenging, however, the benefits of a suspended loudspeaker system are tremendous. The added intelligibility and increased gain distribution can turn a mediocre installation into a brilliant success. Nonetheless, the process of flying loudspeaker enclosures must be approached with one primary concern at all times — SAFETY.

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