

TTL33-A GROUND STACKING

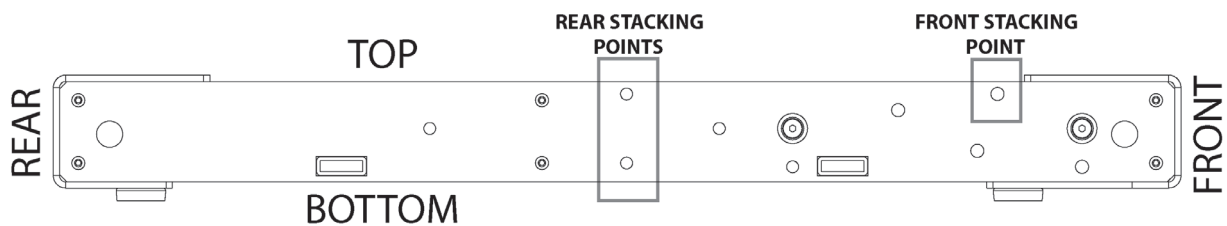
The mechanical design of the suspension system allows the TTL33A system to be either flown or ground stacked. Either method requires the array frame, the FLY BAR TTL33A.

Even the smallest of arrays benefit from a careful review of what vertical coverage is being created, and how that affects the listening environment. Typically, four TTL33A enclosures is the minimum practical array format if controlled coverage and precise directivity is a system design criteria for an event.

The figure below shows a ground stack of four boxes with a mild baffle arc setting on TT+ subs.

This array solution can be expected to provide controlled directivity. This type of compact array can work well in small venues, including concert clubs and smaller auditoriums.

In addition to its flown capabilities, the FLY BAR TTL33A frame forms a secure base for ground-stacking having rubber feet already installed.



For ground-stacking are necessary optional STCK BAR TTL33A rigging frames and additional quick release pins.

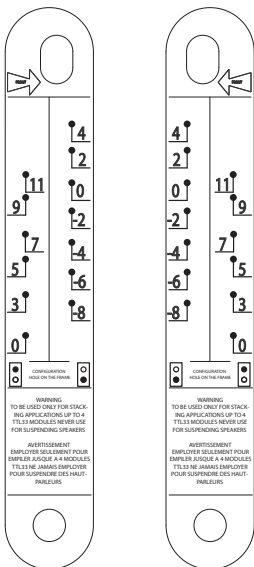


figure: STCK BAR TTL33A for connecting TTL33A

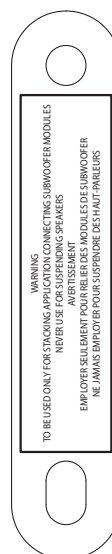
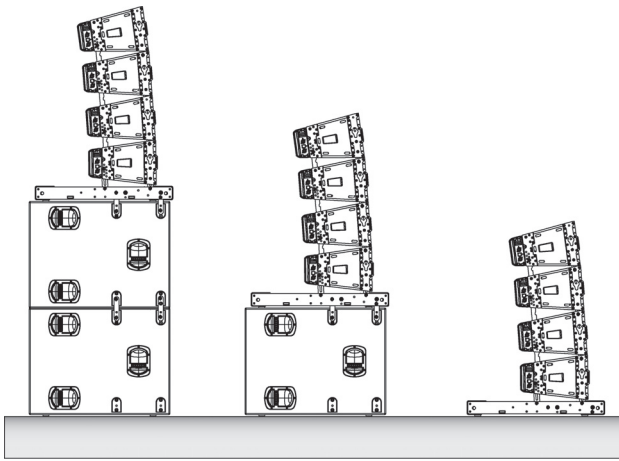
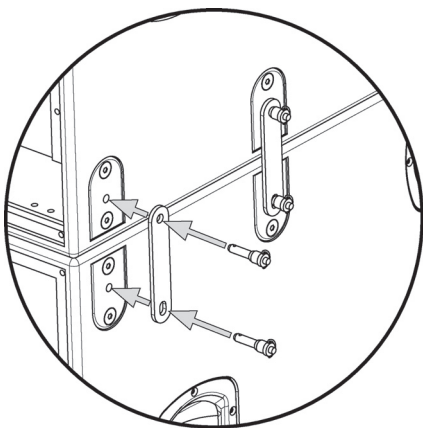


figure: STCK BAR TTL33A for connecting subs

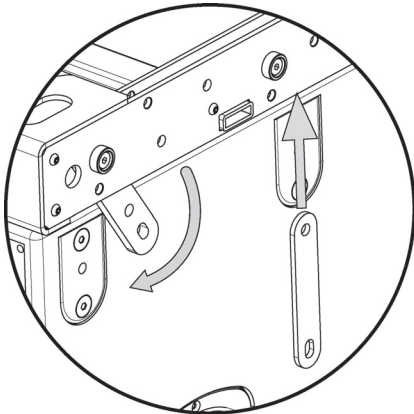


Ground stacking configurations: on subs and directly on the ground

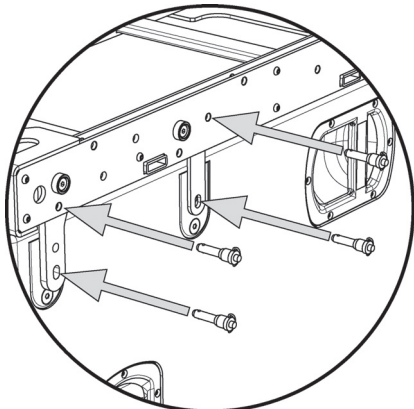
TTL33A loudspeakers can be stacked by themselves on the FLY BAR TTL33A, or can be placed on top of TT+ subwoofers (with the same FLY BAR TTL33A fitted with the optional STCK BAR TTL33A rigging frames) pinned to the grid.



Secure sub enclosures with the optional STCK BAR TTL33A rigging frames for subs using 2 quick lock pins for each bracket

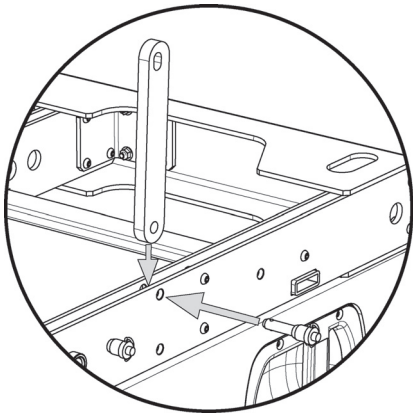


Reverse FLY BAR TTL33A front bracket and use the optional STCK BAR TTL33A rigging frames for subs for securing the frame to subs enclosures.

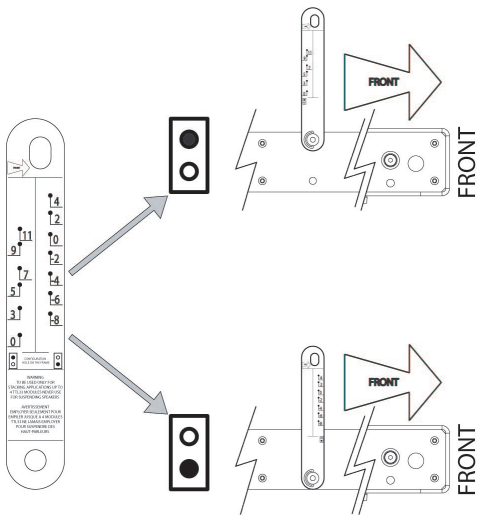


Connect the optional STCK BAR TTL33A rigging frames for subs and the FLY BAR TTL33A front bracket using 2 quick lock pins for each bracket.

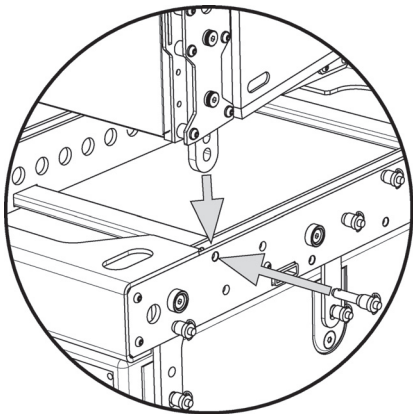
The STCK BAR TTL33A link adds a fixed amount of up or downtilt to ground-stacked TTL33A loudspeakers, with additional 19 degrees of adjustment possible (from +11° to -8°).



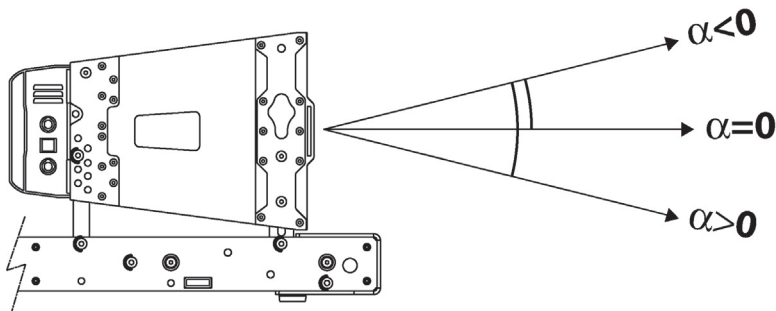
Use the optional STCK BAR TTL33A rigging frames for satellite enclosures for securing them to the frame.



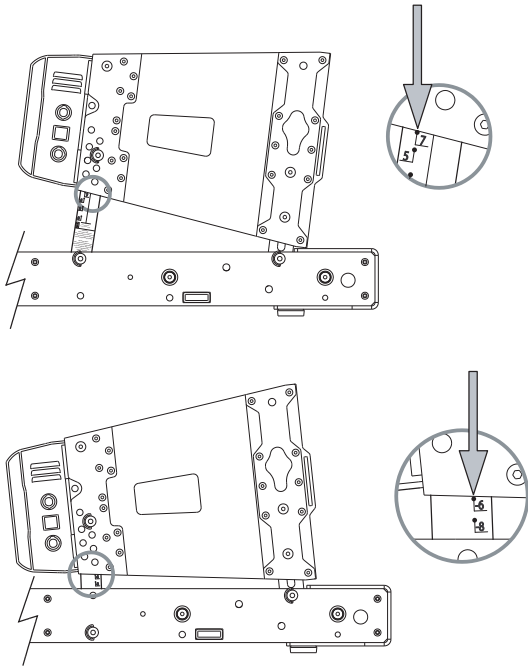
Depending on the two different holes on the FLY BAR TTL33A frame various tilt angles of the whole array are possible. Check the acoustical and mechanical set up with SHAPE DESIGNER software for stacked set ups.



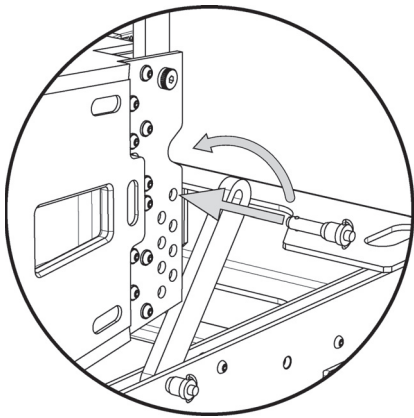
Connect front bracket of the first TTL33-A cabinet using 2 quick lock pins



The baffle of the bottom box in a stacked array does not necessarily have to be parallel to the stage or the array frame. It can be tilted up or downward if desired. In this way arced arrays can be readily created from a ground stack position.

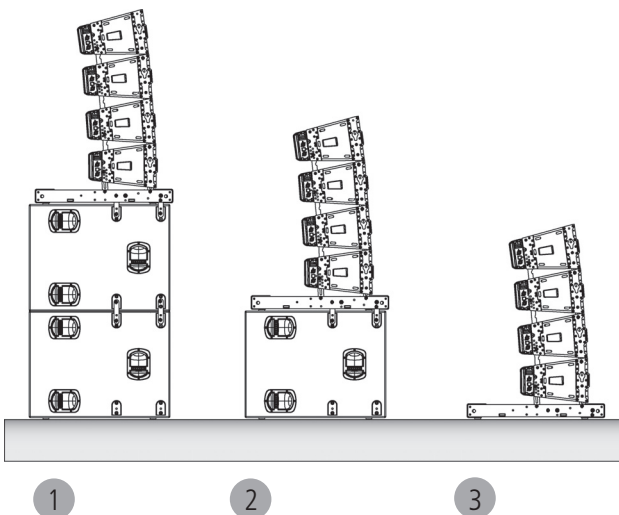


The bottom box in a stacked array can be tilted with 2 degrees steps to obtain proper coverage patterns (from +11° to -8°) as shown in the figure.



Reverse and connect the 2 rear STCK BAR TTL33A bracket to the first enclosure using the hole for the proper angle and quick lock pins

Add TTL33A cabinets one by one as indicated for flown configurations. Up to four TTL33A enclosures can be stacked and interlinked using the standard TT+ rigging components and the FLY BAR TTL33A flying frame as ground support.



Ground stacking summary: possible configurations

The configuration No. 1 requires:

No. 1 Stack bar accessory STCK BAR TTL33A p/n 13360057 of which all bars will be used, and additional Nos 16 pins (Nos 4 AC-QL PIN4X p/n 13360060).

The configuration No. 2 requires:

No. 1 Stack bar accessory STCK BAR TTL33A p/n 13360057 of which only 2 bars type A) and 2 bars type B) will be used, and additional Nos 8 pins (Nos 2 AC-QL PIN4X p/n 13360060).

The configuration No. 3 requires:

No. 1 Stack bar accessory STCK BAR TTL33A p/n 13360057, of which only 2 bars type B) will be used, and no additional pins are required.