

# KONTROL

## LOUDSPEAKER MANAGEMENT SOFTWARE

The screenshot displays the KONTROL (V1.0.0.0) software interface. The top menu bar includes File, Setup, Operation, Selected Cabinet (TR 019), Service, and Main R. The main control area features a 'Create Line Array' button, 'LCD Mode' (Off/On), 'Audio Status', 'HF Compensation' (Off/50 Meter/75 Meter), 'Gain' (0.0 dB), 'Mute', and 'Inclinometer' (-0.63°). The 'Output' section shows four level meters for LF, MF, HF, and VHF. The 'Status' section includes indicators for Ready (85.5 °C), Signal Present, Clipping, Protect, and Limiting, along with a 'Delete Cabinet' button.

The central area shows a speaker layout diagram with a horizontal scale from 0 to 600 and a vertical scale from 0 to 700. It contains four panels: 'Main L' (16 speakers TR 039-024), 'Main R' (16 speakers TR 019-004), 'Delay L' (4 speakers TR 020-002), and 'Delay R' (4 speakers TR 022-000).

On the right, the 'Vertical angles' and 'Horn flare angles' section shows a table for 'MAIN R' with 'Forward Dual Point Flybar' at -4.3°. The table lists 16 speakers with their respective vertical angles:

Speaker	Vertical Angle
1 TR 019	0.0 °
2 TR 018	0.0 °
3 TR 017	0.0 °
4 TR 016	0.0 °
5 TR 015	0.8 °
6 TR 014	1.0 °
7 TR 013	1.2 °
8 TR 012	1.5 °
9 TR 011	2.0 °
10 TR 010	2.5 °
11 TR 009	3.0 °
12 TR 008	3.5 °
13 TR 007	4.0 °
14 TR 006	4.5 °
15 TR 005	5.5 °
16 TR 004	0.0 °

Below the table is a 'QUICK SETTINGS' section with a '0.0 °' input and an 'Apply to All' button. A 'Click and HOLD to Move' button is also present.

At the bottom left, it states: 'Using network card: Trinity Test Connection, 192.168.4.4'.

## Kontrol™ - Loudspeaker Management Software

PK proudly announces the official release of Kontrol™ - A loudspeaker management software and companion to PK Sound's flagship line array system, Trinity. Kontrol™ equips engineers with powerful tools that allow remote control of both the vertical and horizontal directivity of the array, as well as access to key DSP parameters and real-time monitoring during operation. With Kontrol™ set up time is reduced and the ability to make precise adjustments quickly and easily, without the requirement of additional personnel, provides a new set of tools for sound engineers.

### 3D Wavefront Control

Once flown, users can make significant remote sound field adjustments with the click of a button. Engineers can now adjust the directivity of every module from front of house, increasing sensitivity for longer throw applications, narrowing the sound field to avoid reflective boundaries, precisely focusing the array into the audience, and reducing spill into adjacent areas to comply with noise regulations. Kontrol interfaces with electronic actuators built into each cabinet that allow inter-module and waveguide angles to be remotely controlled. The software performs calculations to ensure movement of the array is within safety parameters while providing real-time feedback once a movement is in process, and when it has completed.

### Automatic Array Detection

Using inter-module communication, Kontrol™ automatically detects, arranges and configures an array with all modules in the correct order within the engineer's virtual workspace - designed to reflect the real world. Once activated, an engineer can quickly move on to spending time aiming, tuning and optimizing sound system with total confidence that their work will be reflected in the real world with precision.

### DSP Control & System Monitoring

Kontrol provides access to key DSP functionality as well allowing monitoring of the system during operation. The intuitive GUI makes it simple to detect when any of these features have been changed from their factory defaults. An unobtrusive, but distinctive notification decorates the virtual Trinity visual allowing an engineer to glance at their workspace and have confidence that their system is configured as intended.

## Features

When cabinets or arrays are selected within Kontrol™ an engineer has access to:

- Inclinometers in each module
- HFC and LFC Compensation
- Muting
- Delay - by time or distance
- Gain - from -10dB to +5dB
- Temperature
- Input and out output metering
- Clipping, limiting and protection status
- HFC and LRC Compensation Filters
- Front logo on/off
- Rear LCD status

## Service Notes

To ensure simple and seamless communication between engineers and shop technicians, Kontrol allows users to set service flags for any module from a user interface that provides a functionality where electronic notes may be created and stored within module. The service notes provide seamless communication between the field and service teams, ensuring modules are properly maintained, saving critical downtime.

## Audio Compensation Filters

Trinity features two sets of audio presets designed to compensate for different projection distances and array lengths. The High Frequency Compensation (HFC) filters are used to compensate for the effects of high frequency attenuation over long distances - these are configured to be used at distances of 75 and 100 meters. The Low Frequency Compensation (LFC) filters are used to smooth the low-end coupling that occurs when multiple cabinets are arrayed together. The simple to use features allow effective control to ensure every person in the audience receives the same perfect, transparent sound quality.