

# Knoebels Amusement Resort



## SUMMARY

### • LOCATION

Elysburg, PA

### • FACILITY SCOPE

45-acre theme park

### • OBJECTIVES

Knoebels Amusement Resort required an upgrade to its audio system to better serve the thousands of visitors it receives annually.

### • BIAMP SOLUTION

Community™

### • OUTCOME

By replacing its outdated solution with Community loudspeakers throughout the park, Knoebels achieved the superior audio clarity and coverage required.

### • EQUIPMENT

- Community E SERIES
- Community R SERIES

Located in the bottom of a lushly green valley, Knoebels Amusement Resort in Elysburg, Pennsylvania, is America's largest free-admission theme park, with over 60 rides, food, games, and gift shops.

Built in 1926, Knoebels was in need of extensive audio upgrades to best serve the thousands of visitors it receives annually. The first step of this process was to replace the park's aging 70-volt system with a new solution to provide more comprehensive coverage and an open platform, enabling expansion for years to come.



**The E SERIES system in use throughout the park has performed excellently. We have all the clarity we wished for and the discrete installation is almost unnoticed.**

**DREW KANASKIE**

Audio Technician  
Knoebels Amusement Park

## SOLUTION

Drew Kanaskie, Knoebels' Audio Technician, was in charge of the project from conception to implementation, with design assistance provided by Moyer Electronics of Pottsville, PA. After much research and an on-site evaluation, Kanaskie selected Biamp's Community E SERIES column-format line source and point source loudspeaker systems.

"We are able to create a canvas of sound using the advantage of E SERIES' wide angle of coverage," said Kanaskie. "In the environment of an amusement park there is ambient sound coming from everywhere." To produce the desired clarity, it was decided to place a higher density of loudspeakers at locations closer to the listener. "By locating loudspeakers at 10 to 12 feet above ground level we were naturally closer to the listener's ear. This meant that we could typically use the underside of a building's roof overhang, or just below the glass fixture of a light pole. We hid many loudspeakers on poles with banners affixed to them; an easy solution with the slender profile of the E SERIES."

The coverage pattern of E SERIES meant audio power wasn't being wasted up in the air, allowing for a broad scope with fewer units. "By selecting a variety of E SERIES models, we found that balancing the EQ for the total system was easy to accomplish," Kanaskie said. "Once we had shaped the system for the smallest speakers, we basically enjoyed more low-end from the larger models without having to EQ each model separately."

## CONCLUSION

The first phase of Knoebels' upgrade comprised fifty-four Community ENT203 loudspeakers, seventy-four ENT206, eight ENT212, and two R SERIES R.35COAX. "We chose ENT212 loudspeakers for large open areas that are required to reproduce voice and music. In the more intimate settings, below low roofs and in narrower corridors, we chose ENT203, and for all other areas we used the ENT206," Kanaskie said. "In one location, where we have free entertainment performances several times each day, we selected Community R SERIES R.35COAX loudspeakers as ideal for the application." With the implementation of Biamp's Community loudspeakers throughout the park Knoebels now has a strong, reliable foundation for its audio overhaul. "The E SERIES system in use throughout the park has performed excellently," Kanaskie said.



### ABOUT BIAMP

Biamp® is a leading provider of innovative, networked media systems that power the world's most sophisticated audiovisual installations.

Recognized worldwide for delivering high-quality products and backing each one with a commitment to exceptional customer service, Biamp's mission is connecting people through extraordinary audiovisual experiences.

Founded in 1976, Biamp is headquartered in Beaverton, Oregon, with offices and manufacturing facilities located around the world.

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