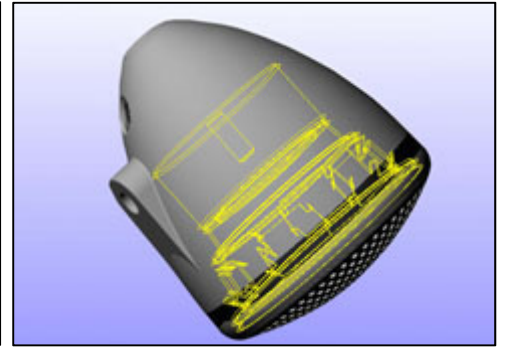


Motorcycle Speaker Assembly – Case Study



Overview: Over 10 years ago, ISL developed handlebar mounted, high performance, motorcycle loud speakers per customer request. At that time, there was little or no competition in this industry. This was the start of a new trend in Motorcycle Audio Systems. Today the selection of handlebar speakers is immense. They say that imitation is the best form of flattery.

Challenge: To build a high power speaker that would optimize the internal volume of a Harley Davidson conical shaped turn signal housing. The speaker needed to be weatherproof and UV stabilized to ward off the effects of sustained exposure to direct sunlight. The finished product needed to be mounted on the handlebars of the motorcycle and the speaker needed to withstand excessive vibration from both the motorcycle and the road.

Solution: Using existing speaker components and designing a magnet cover to fit inside the bullet-shaped housing, ISL created a superior sounding speaker designed for the conical shaped housing. The magnet used a custom configuration (no tooling necessary) to handle excessive vibration from the Harley Davidson motor and the extreme road vibration. Cone material was selected with both weather and harsh UV exposure conditions in mind. In addition, ISL designed and provided a mounting system and a grill with optimal acoustic aperture.

As a result of our success with the speaker design, ISL was then awarded the job to tool and produced the housings for a family of bullet-designed speaker housings in 3 sizes in die cast aluminum and molded plastic with both Chrome plate and black matt powder coat finishes. The speaker assemblies were also assembled, tested and packaged in our partner factory.