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Electric Vehicles & High Voltage Power Supplies

Blog Post

San Rafael, California – A bonus of working within the electronics equipment industry is the occasional glimpse into the future of various industries through our clients' use of our technologies. Amidst the vast sea of changes Berkeley Nucleonics has seen since its dawn in 1963 has been the shifting from internal combustion engines to electric vehicles within the automotive industry. This is perhaps a more pivotal change to witness, for if the car remains a symbol of industrialization, the electric vehicle surely marks the inevitable recognition that the future of industry lies in cleaner and more efficient practices.

Under the threat of dwindling fossil fuel reserves and the growing impact of over-reliance on fossil fuels, the development of electric cars has greatly escalated. What once was a market for consumers looking to improve fuel economy and reduce their carbon footprint is now a market propelled by government incentives for both the manufacturer and the consumer. Stricter fuel efficiency standards and EV tax breaks are a few of several motives that have kept the car companies providing more and the consumer demanding more. Though the electric car has yet to dominate its counterpart, a projected swap in the near future has the automotive industry picking up the pace to ensure their manufacturing plants can meet the challenge.



Large automotive plants have long since been equipped with the technology and staff to efficiently pump out ICE cars - but reform is underway to incorporate the electric car. Some car companies are building entirely new plants that specialize in EVs, and some are remodeling and/or adding on to previously existing plants. Workers specialized in internal combustion engines need to be retrained. Electrical engineers will be in increasing demand. New equipment will be needed, and existing equipment will be phased in or out.

High voltage pulse generators are a specific type of equipment that will rise into use. Beyond their already established roles in battery development, quality control, and even paint application, HV pulsers will rise in use as the electrical components of cars become the driving force. It's been intriguing to watch from afar here at BNC. In the automotive industry, we've witnessed our equipment used for electric battery testing.

Beyond cars, HV pulsers are used for time-of-flight mass spectrometry, Q-switches, LIDAR, beam steering, and a good deal more. Through our line of High Current / High Voltage Pulsers, we've had the privilege of witnessing how our equipment can help propel growing industries. Cutting-edge equipment that is both user friendly and high-performance, like the EVO Series, fuels the purpose of Berkeley Nucleonics and keeps us moving forward alongside our peers.