

LITHIUM-ION BATTERY FIRE / RC Car Battery

Brighton Area Fire Authority - Brighton Michigan



July 16, 2016

A fire in a residential garage resulted in approximately \$750,000 loss to the home, a vehicle, and its contents.

On arrival, the fire had completely involved the unfinished attic of the garage and began to spread to the second floor of the dwelling. The fire originated on a workbench where the homeowner stated he had been charging his RC car batteries. The homeowner indicated that he had charged one battery pack earlier in the day and had no issues. He swapped the unit with another prior to leaving the home for the movies with the family. Within an hour of them leaving, the fire was called in by a neighbor by the visible smoke coming from the eaves. The house was rebuilt and took 16 months to complete.



The neighbor (original caller) was able to take an early photograph of the fire as it caused the garage door to raise. The elevated fire at the rear is the top of the workbench with falldown fire.

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Brighton Area Fire Authority - *Continued*

Round Table Discussion / High Points

- Large, two story, single family residence, Type V construction.
- Working fire upon arrival. Flames visible from the attic area above the garage with extension into the second floor living space.
- Non-hydranted area, water provided via Tanker / Tender
- 3 miles from closest Paid-on-Call fire station.
- Ignition point determined to be a overheated Lithium-ion battery while on a charger. Homeowner was not aware of any damage to the battery pack prior to charging
- Rapid fire spread contributed by standard residential garage materials / fire load
- Failure of drywall allowed extension into the unfinished attic space above the garage



Post fire during the investigation