US 20240213760A1

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2024/0213760 A1

Haggerty (43) Pub. Date: Jun. 27, 2024

(54) ELECTRICAL SYSTEM

(71) Applicant: **Lear Corporation**, Southfield, MI (US)

(72) Inventor: **Michael Haggerty**, Grand Blanc, MI (US)

(21) Appl. No.: **18/086,903**

(22) Filed: **Dec. 22, 2022**

Publication Classification

(51) **Int. Cl.**
H02H 3/08 (2006.01)
H02H 1/00 (2006.01)

(52) **U.S. Cl.**
CPC ***H02H 3/08*** (2013.01); ***H02H 1/0007*** (2013.01)

(57) **ABSTRACT**

A system includes a power source, an electrical load, a pyrotechnic fuse, a pyrotechnic fuse, and/or an electrical subsystem, in some configurations. The load may be selectively electrically connected to the power source. The fuse may be electrically connected between the power source and the load. The subsystem may be electrically connected to the power source and the fuse. The subsystem may include a first circuit section, a second circuit section, and/or a capacitive coupler. The first circuit section may include a fault detector that detects faults associated with the power source. The second circuit section may include a fuse actuator. The capacitive coupler may be electrically connected to the fault detector and the fuse actuator. The capacitive coupler may isolate the first circuit section from the second circuit section. In accordance with detecting a fault, the subsystem may actuate the fuse to disconnect the power source from the load.