



FOR IMMEDIATE RELEASE

CONTACT: Erika Myers, CharIN Inc., erika.myers@charin.global

CharIN Statement Regarding SAE J3400 Adapters

[WASHINGTON, D.C., November 28, 2023] --- In its efforts to advance the safe and reliable EV charging experience for the global EV market, the Charging Interface Initiative Inc. (CharIN) and its members have led the way with charging system development, industry interoperability testing and public education. CharIN has consistently advocated for the Combined Charging System (CCS), consisting of both AC and DC charging, including the new Megawatt Charging System (MCS), as the most versatile charging coupler interfaces with worldwide adoption.

With the announcements beginning in May 2023 by vehicle Original Equipment Manufacturers (OEMs) stating their intentions to access the Tesla charging network and implement the Tesla North America Charging Standard (NACS), CharIN launched a series of activities focused on developing best practices and critical specification recommendations to aid industry Standard Development Organizations (SDO), specifically the Society of Automotive Engineers (SAE) document SAE J3400 and Underwriters Laboratories (UL) document UL2251. While the topology and communications protocols between the CCS and the NACS charging systems are similar, the charging coupler interfaces are not interchangeable. As such, the use of an adapter has been recent practice and is expected to increase in popularity.

CharIN has advocated for the use of a complementary, native charging connector that matches the EV charge port in order to avoid the need for an adapter⁽¹⁾. Nevertheless, CharIN expects that the use of adapters will increase until the time that SDO certified, SAE J3400 compliant charging connectors are widely installed for public use.

Additionally, there are no SDO published standards for adapters. Many available adapters lack proper safety features and pose considerable public safety risks of potential electrical shock and/or fire hazards. While Underwriters Laboratories (UL) has issued an outline document⁽²⁾ for such adapters, the review and consensus standards publication process is not expected to be completed until mid-2024.

Accordingly, and based upon documented evidence from multiple catastrophic charging event failures involving charge coupler adapters, CharIN recommends the following interim steps by OEM EV manufacturers, federal and state regulatory agencies, and charge point operators (CPO) regarding these adapters:

- EV OEMs notify their dealers and vehicle owners that the use of any adapter other than the respective EV OEM's approved adapter (e.g. any aftermarket, or will-fit, adapters) may result in severe damage to their vehicle and cause damages to the EV charging infrastructure and surrounding facilities;
- National Highway Traffic Safety Administration (NHTSA)/Federal Motor Vehicle Safety Standards (FMVSS) and the Consumer Product Safety Commission (CPSC) engage to restrict market access to non-OEM approved adapters;



- Charge Point Operators (CPOs) provide only EV OEM approved adapters and provide messaging via their public communication channels in addition to signage on the EVSE dispenser regarding the use of adapters.

CharIN will continue to expedite its efforts to support the development of proper standards for EV charging couplers and charging systems with the aim that once these Standards are published and the EV infrastructure build-out expands that the use of adapters will be eliminated thereby mitigating the inherent risks.

References:

- 1) [CharIN's View on Adaptors within the Combined Charging System](#), 2019-04-16
- 2) [UL 2252](#) – Outline of Investigation for Adapters for use with Electric Vehicle Couplers, Issue Number 1, Underwriters Laboratory, July 28, 2023 (within the Technical Committee of UL2251).

About CharIN

The Charging Interface Initiative (CharIN) Inc. serves as a leading industry association bringing CharIN's global approach to decarbonization through the electrification of North American transport. Convening together industrywide e-mobility stakeholders including automakers, charging station manufacturers, component suppliers, energy providers, government officials, and grid operators, our organization assists members in coordinating, advancing, and advocating for interoperability across electric vehicle charging infrastructure. Driving forward the widely-adopted Combined Charging System (CCS) and the Megawatt Charging System (MCS) platforms, CharIN works to ensure all electric vehicles – from light-duty passenger cars to freight trucks, e-ferries, ships, and planes – can work seamlessly with available charging stations and services. CharIN serves as a pivotal, unified voice for industry-standard, interoperable charging technologies and best practices, working with federal, state, and local regulatory agencies and policymakers to unleash innovation and encourage the rapid adoption of electric vehicles in municipal, commercial, and private use.

For more information about CharIN, visit <https://www.charin.global/>.

###