

TISLE

DC Charging in Japan March 26th, 2014 Martin Sukup

Tesla Motors

- Founded in 2003
- Headquarters in Palo Alto, California, USA
- ~6000 Employees
- Stores and Service Centers in 31 Countries
- Cars on the Road in 37 Countries

Tesla Motors – 100% Electric

- Roadster
 - Deliveries Began 2008
 - 2300+ Sold
 - No Longer in Production
- Model S
 - Deliveries Began 2012
 - 25K+ Sold and Counting
- Model X
 - Coming Soon!









Tokyo Locations

- Tokyo Aoyama Store
- Tokyo Service Center



- Seating for up to 5 Adults + 2 Children
- 60kWh or 85kWh Battery Pack Available
- 390km or 502km Range



T = 5 L A

- Allows Tesla Vehicles to Charge Using CHAdeMO Chargers and Take Advantage of Extensive Network in Japan
- Provides Mechanical Interface
 Between CHAdeMO Chargers and
 Tesla Charge Port

CHAdeMO Adapter

- Provides Interpretation
 Function Between
 CHAdeMO Charging
 Protocol and Tesla
 Proprietary DC Charging
 Protocol
 Protocol
 Output
 Description:
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- Working with CHAdeMO Association and CHAdeMO Manufacturers on Compatibility with Various Charger Models



Personal Observations of Existing Infrastructure



TミSL

- Very Good Coverage
- Many Sites Only Have One Charge Connector/Stall
- Charging Time Limits as Low as 15 Minutes
- Access Sometimes Requires Key, May Not be Available 24 Hours
- Many Different Authorization and Billing Systems, Not Always Available on Short Notice or 24 Hours
- Good Websites / Smart Phone Apps Help Users
 - Private/Public
 - Authorization Required
 - 24 Hours Access
 - Charger Type and Protocol Version
 - <u>http://ev.gogo.gs/</u>
- Site Administrator Controls Access, Time Limits, etc.
 - Encourage Easy Access and Use to Help Promote EV Adoption
 - 24 Hours Access
 - Instant / One-Time Use Payment/Authorization
- Many of the same observations can be made about the infrastructure in the USA.

Questions?

- CHAdeMO chargers presently charge at around 50kW maximum power. What drives this and are higher power chargers being considered?
- Other Questions?