MEVOTECH

TESLA MODEL S
STEERING AND SUSPENSION REPAIR SOLUTIONS



2020-2012
Tesla Model S



Mevotech Supreme chassis and control arms are the first-to-market front end steering and suspension coverage solution for the 2020-2012 Tesla Model S.

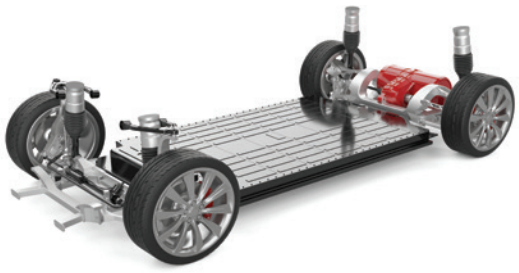
- Comprehensive aftermarket repair alternative
- Designed to restore the original vehicle performance characteristics
- Anti-corrosion coating for longer service life
- Fastening hardware included for quicker installation

TESLA MODEL S SUSPENSION: DID YOU KNOW?

Tesla Model S Front Suspension Overview

The Tesla Model S utilizes an independent multi-link suspension setup for the front of the vehicle. This setup is typically found on performance and luxury vehicles and provides a unique balance between precise handling feel and overall ride comfort.

The Model S features a three-link system, wherein an upper control arm and two lower control arms are mated to each of the front steering knuckles.



Tesla Model S Front Suspension Challenges

From a suspension geometry and part durability perspective, the Tesla Model S presents specific challenges: vehicle weight and torque. Depending on the equipped battery pack, drive type (RWD or AWD) and motor configuration (single or dual), the curb weight of a Model S can range from 4,323 lbs (1,961 kg) to 4,960 lbs (2,250 kg)



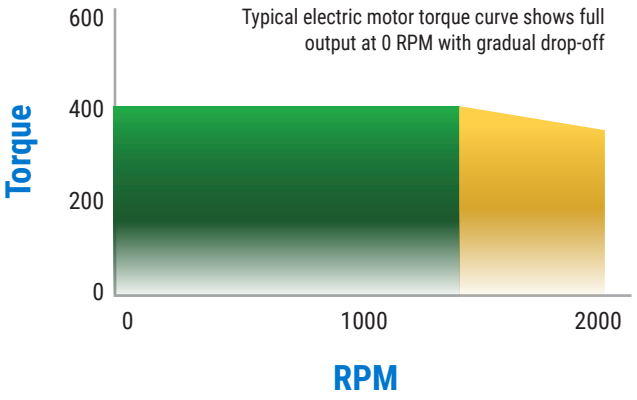
4,323 lbs (1,961 kgs)
2020 Model S (Base)



3,662 lbs (1,661 kgs)
2020 Chevrolet Impala (V6)



4,345 lbs (1,971 kgs)
2020 Ford Explorer XLT



High Torque

In comparison to a conventional combustion engine and transmission combination, an electric driveline means “instant” full torque output at 0 RPM. Depending on Model S configuration, torque output can range from 443 LB-FT (601 N-M) to 1,050 LB-FT (1,424 N-M).

- 2017 Model S 60 (Base RWD): 443 LB-FT (601 N-M) @ 0 RPM
- 2019 Model S (Standard Range AWD): 568 LB-FT (770 N-M) @ 0 RPM
- 2021 Model S (Plaid): 1,050 LB-FT (1,424 N-M) @ 0 RPM

Issue: Even under normal service conditions, this combination of increased vehicle weight and high torque output can put strain and stress on suspension components. In particular, the front lower control arms encounter dynamic fore-to-aft loading forces as the vehicle rapidly accelerates or decelerates.

MEVOTECH SUPREME CONTROL ARM SOLUTIONS

Mevotech Supreme Control Arms are built to address the challenges of the Model S platform and facilitate an easier install for the professional technician.

OEM

OEM Front Lower Rearward Control Arm



The 1st design by the OEM included significant voided areas on the body of the control arm.



The 1st design by the OEM used a two-piece construction with the ball joint pressed into the control arm.

OEM Front Lower Forward L/R



The 1st design by the OEM used a two-piece construction with the ball joint pressed into the control arm. The ball joint is prone to separation from the control arm, especially when subjected to impacts.

OEM Installation

Model S front lower control arms use a cone-type ball joint, which requires a higher-than-average fastening torque value (144 LB-FT/ 195 N-M) to the steering knuckle. A special wedge-type locking washer is used by the OEM between the flanged nut and steering knuckle, which is intended to secure bolted joints under severe vibration. This washer needs to be replaced during service.

OEM Hardware



The pinch bolt for the front upper control arm often becomes seized to the steering knuckle, especially in high-salt areas. Additionally, the OEM requires the nut to be replaced.

SUPREME

SUPREME CMS95128 – Front Lower Rearward Control Arm



Supreme CMS95128 is constructed using a solid forging, which fills in voided areas for increased assembly strength.



Supreme CMS95128 features an unitized design, which encapsulates the ball joint into the forging, improving part durability.

SUPREME CMS95126/CMS95127 – Front Lower Forward L/R



Supreme CMS95126/CMS95127 feature a unitized design, which combines the ball joint with the forging, reducing the potential for separation and improving assembly strength.

SUPREME Frustration-Free Installation

Side 1  Side 2

Supreme front lower control arms include this unique wedge-type washer in the box for a correct and complete installation.

SUPREME Anti-Corrosion Coated Hardware



Supreme front upper control arms include both an anti-corrosion coated replacement bolt and nut in the box for a complete installation.

MEVOTECH
PREMIUM PROGRAM

TESLA MODEL S FRONT END REPAIR SOLUTIONS

Mevotech Supreme chassis and control arms are the comprehensive solution for front end coverage on the 2020-2012 Tesla Model S.

- Anti-corrosion coated for longer part service life
- Fastening hardware included in the box for reduced installation time
- Restore vehicle performance and handling

BALL JOINT



MS95502- FRONT UPPER
2020-2012 Tesla Model S

STABILIZER BAR LINKS



MS95807- FRONT
2020-2014 Tesla Model S AWD



MS95808/MS95809- FRONT L/R
2017-2012 Tesla Model S RWD



MS95810- REAR
2020-2012 Tesla Model S

CONTROL ARMS

CMS95129/CMS95130- FRONT UPPER L/R
2020-2012 Tesla Model S



CMS95126/CMS95127- FRONT LOWER FORWARD L/R
2020-2012 Tesla Model S & 2021-2016 Tesla Model X



CMS95128- FRONT LOWER REARWARD
2020-2012 Tesla Model S & 2021-2016 Tesla Model X



TIE ROD ENDS

MS95703- FRONT INNER
2016-2012 Tesla Model S



MS95704- FRONT INNER
2020-2016 Tesla Model S & 2020-2017 Tesla Model 3



MS95666- FRONT OUTER
2017-2012 Tesla Model S





SUPREME

Supreme Chassis and Control Arm extended service life replacement parts also available for PHEV, HEV and BEV vehicles from:

- Chrysler
- Ford
- GM
- Honda/Acura
- Hyundai/Kia
- Mitsubishi
- Nissan/Infiniti
- Subaru
- Toyota/Lexus
- Audi
- BMW
- Volkswagen

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