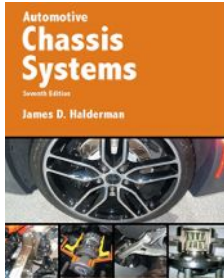


Automotive Chassis Systems



CHAPTER 31

Electric Power Steering Systems

ALWAYS LEARNING Automotive Chassis Systems, 7e Copyright © 2017 by Pearson Education, Inc. All Rights Reserved. PEARSON

FIGURE 31.1 A rack mounted electric power steering gear on a Lexus RX 400 h taken from underneath the vehicle.



ALWAYS LEARNING Automotive Chassis Systems, 7e Copyright © 2017 by Pearson Education, Inc. All Rights Reserved. PEARSON

FIGURE 31.2 Honda electric power steering unit cutaway, which is an example of pinion-mounted electric power steering system.



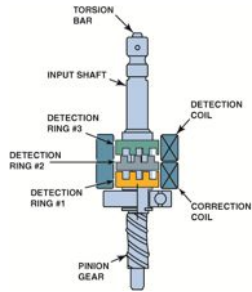
ALWAYS LEARNING Automotive Chassis Systems, 7e Copyright © 2017 by Pearson Education, Inc. All Rights Reserved. PEARSON

FIGURE 31.3 A Toyota Prius EPS assembly (Courtesy of Tony Martin).



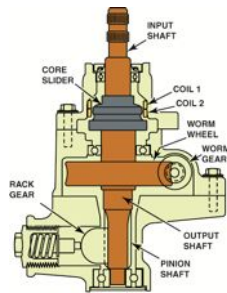
ALWAYS LEARNING Automotive Chassis Systems, 7e James D. Halderman Copyright © 2017 by Pearson Education, Inc. All Rights Reserved. PEARSON

FIGURE 31.4 The torque sensor converts the torque the driver is applying to the steering wheel into a voltage signal.



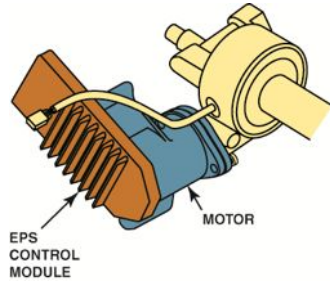
ALWAYS LEARNING Automotive Chassis Systems, 7e James D. Halderman Copyright © 2017 by Pearson Education, Inc. All Rights Reserved. PEARSON

FIGURE 31.5 A cross-sectional view of a Honda electric power steering (EPS) gear showing coils 1 and 2 of the torque sensor.



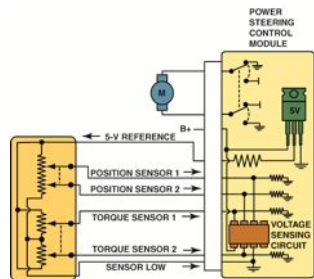
ALWAYS LEARNING Automotive Chassis Systems, 7e James D. Halderman Copyright © 2017 by Pearson Education, Inc. All Rights Reserved. PEARSON

FIGURE 31.6 The power steering control module (PSCM) is attached to the motor of the electric power steering assembly.



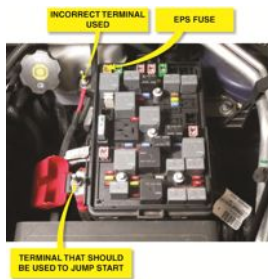
ALWAYS LEARNING Automotive Chassis Systems, 7e Copyright © 2017 by Pearson Education, Inc. All Rights Reserved. PEARSON

FIGURE 31.7 Schematic showing the electric power steering and the torque/position sensor.



ALWAYS LEARNING Automotive Chassis Systems, 7e Copyright © 2017 by Pearson Education, Inc. All Rights Reserved. PEARSON

FIGURE 31.8 The blown fuse is the yellow 60-amp fuse next to the terminal at the top.



ALWAYS LEARNING Automotive Chassis Systems, 7e Copyright © 2017 by Pearson Education, Inc. All Rights Reserved. PEARSON

FIGURE 31.9 An electro-hydraulic power steering assembly on a Chevrolet hybrid pickup truck.



ALWAYS LEARNING Automotive Chassis Systems, 7e Copyright © 2017 by Pearson Education, Inc. All Rights Reserved. PEARSON
