SDI E-CLIK PRO Raptor Installation Guide

IMPORTANT NOTE ABOUT FORD OTA UPDATES

Updating your Truck with Ford OTA Updates:

1. Disconnect the OBD2 connector of the ECLIK system before bringing your vehicle to a dealer.
2. When applicable, turn off the automatic updates of your truck, then before starting an update, or bring your truck to a dealer:
    a. For 2019-2020 Raptor GEN2, disconnect the 2x ECLIK connectors under the dashboard, and re-connect the 2x stock connectors to the factory Shock Control module
    b. For 2021+ Raptor GEN3 and Bronco Raptor disconnect the ECLIK Adapter Box on the frame, and re-install and re-connect the factory Shock Control module to the frame.

SDi E-CLIK Ford Raptor Electronics Installation Manual

E-CLIK Electronics Package Content

1. ECU and Hardware
2. ECU Placement Template
3. IMU + Bracket and Hardware
4. Touch Screen Controller + Bracket and Hardware
5. Wiring Harnesses + Zip Ties
    a. ECU Main Plug
    b. Power Harness
    c. Data and Front Shocks Harness
    d. Rear Shocks Harness

Required Tools

1. Ratchet
2. 10mm Socket
3. 12mm Socket
4. 4mm Allen Key
5. 10mm Wrench
6. Small Flathead Screwdriver
7. Power Drill + ¼" Drill Bit or Step Bit
8. Small Pliers
9. Cutting Pliers
10. Utility Knife

Estimated Installation Time

1-2 hours

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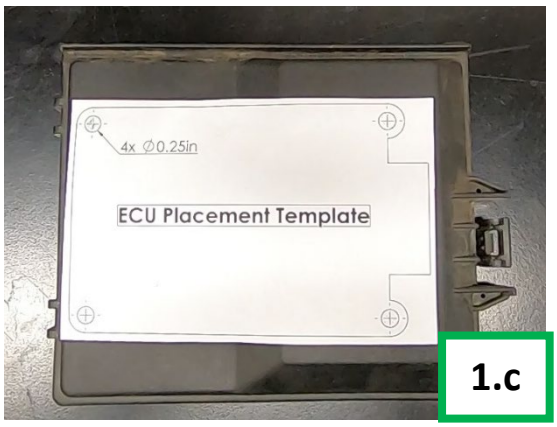
1. ECU

a. Open the vehicle hood.
b. Remove the engine fuse box cover.
c. Apply the ECU Placement template on the fuse box.
d. Drill the 4x designated holes using a power drill and a ¼ drill bit or step bit.
e. Cut notch using a utility knife.
f. Mount the ECU with the supplied hardware using a 4mm Allen key and a 10mm wrench.
g. Plug the ECU harness into the ECU.

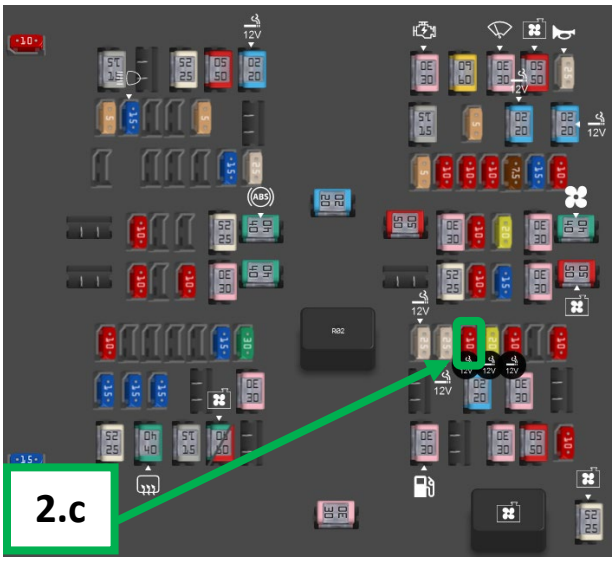


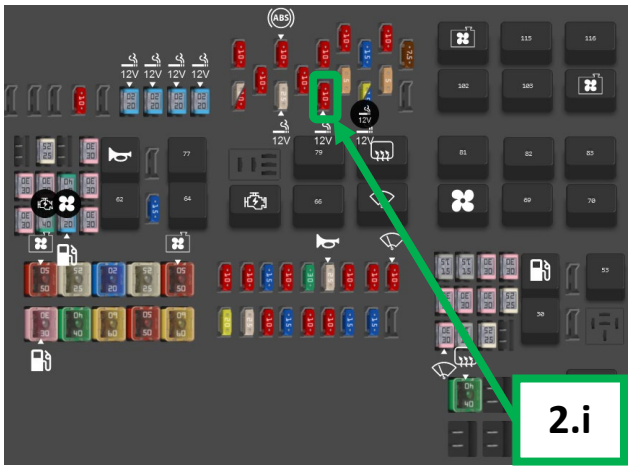
2. Power Harness

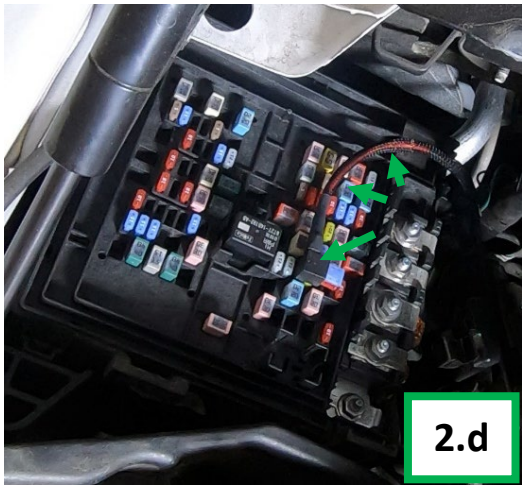
a. Remove the stock 10A fuse from the fuse slot #36 (Vehicle power 3) using a small pliers.
b. Plug the stock 10A fuse in the bottom slot of the E-CLIK fuse holder.
c. Plug the E-CLIK fuse tap in the fuse slot #36 (10A - Vehicle power 3).
d. Route the fuse tap harness out of the fuse box through the notch cut previously.
e. Mount the GND wire (Black) to the GND battery connector using a 10mm socket.
f. Mount the +12V wire (Red) to the +12V battery connector using a 12mm socket.
g. Reinstall the fuse box cover with the E-CLIK ECU on it.
h. DO NOT Connect the Black/Orange 4-pin Power harness connector to the E-CLIK ECU harness yet.

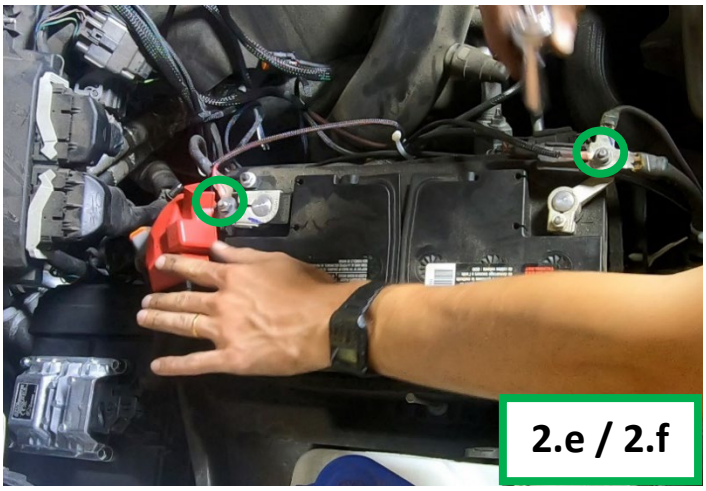
OR for 2017 Ford Raptor

i. Remove the stock 10A fuse from the fuse slot #97 (Vehicle power 3), plug the stock 10A fuse in the bottom slot of the E-CLIK fuse holder, and plug the E-CLIK fuse tap in the fuse slot #97 (10A - Vehicle power 3).



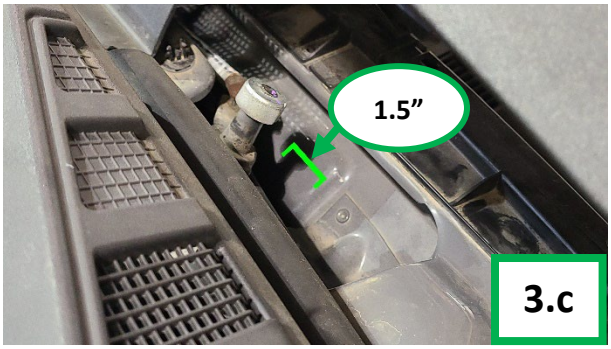


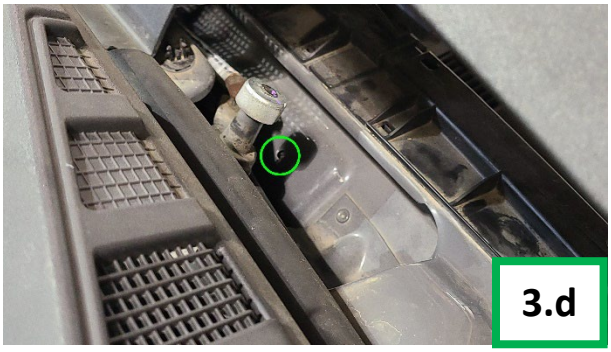




3. IMU Sensor

a. Unhook and remove the passenger side windshield wiper.
b. Open the hood and unclip the 2x plastic trims between the windshield and the engine bay using a small flathead screwdriver.
c. Locate the center of the firewall, 1.5” away from the seam of the firewall **shown here**.
d. Drill a hole using a power drill and a ¼” drill bit.
e. Install the IMU sensor using the supplied hardware, a 4mm Allen key and a 10mm wrench.
f. DO NOT reinstall the plastic trims as you will need to adjust the sensor orientation in the final steps.





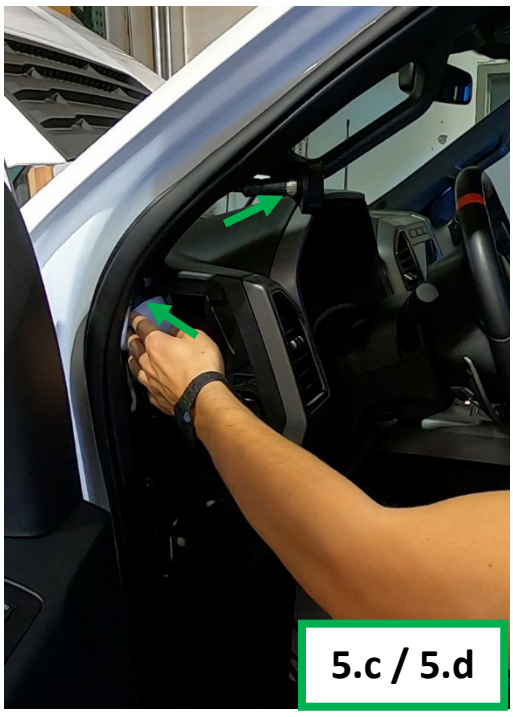
4. Touch Screen

a. Unclip and unbolt the driver side bottom handle cover using a 10mm socket.
b. Place the Touch Screen bracket and secure it with the supplied bolt using a 10mm socket.

5. Data Harness

TOUCH SCREEN:

a. Unclip the side panel between the driver side door and the dashboard using a flathead screwdriver.
b. Pull the driver side door seal
c. Route the Touch Screen connector (Black/Silver) from under the dashboard to the Touch Screen.
d. Connect (Screw) the Touch Screen connector to the Touch Screen.
e. Reinstall the driver side door seal and side panel.

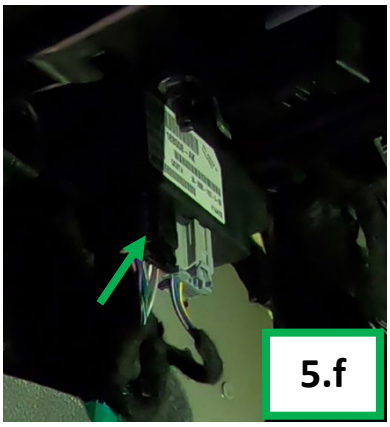


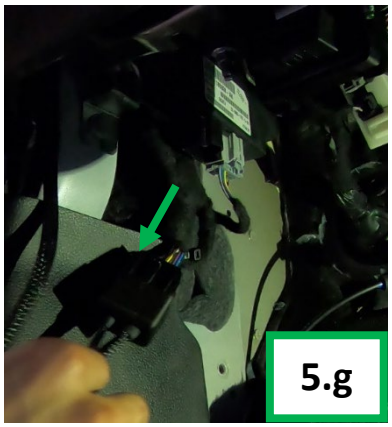
VEHICLE DATA:

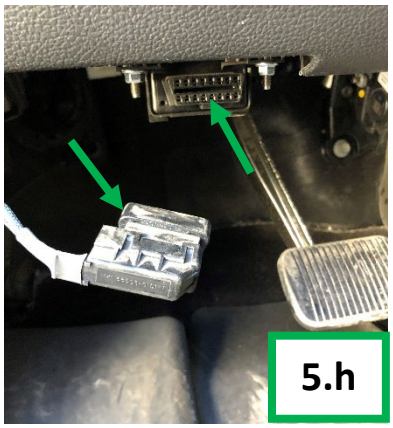
f. Disconnect the stock chassis ECU Black connector from under the dashboard.
g. Connect the Data connector (Black/Dark Grey) to the stock Black connector.

OR for 2017-2018 Ford Raptor

h. Under the dashboard, Connect the OBD2 connector (Black) to the stock OBD2 connector.

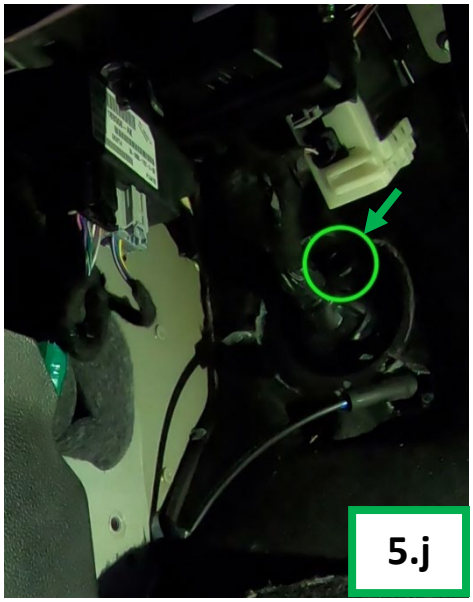


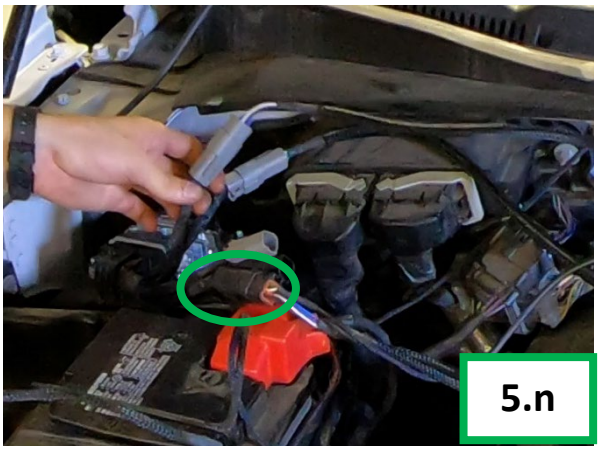




ROUTING:

i. Cut the stock firewall grommet from the engine bay side using a utility knife.
j. Cut the stock firewall grommet from the dashboard side using a utility knife.
k. Route the Black/Orange 6-pin Data harness connector through the firewall grommet.
l. Route the Black/Red 6-pin IMU connector through the firewall grommet.
m. Route the Black/Orange 6-pin connector along the firewall until the E-CLIK ECU.
n. Connect the Black/Orange 6-pin connector to the E-CLIK ECU harness.





IMU SENSOR:

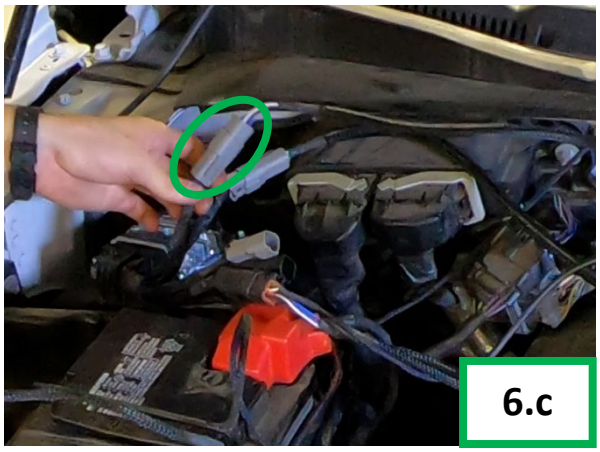
o. Route the Black/Red 6-pin IMU connector along the firewall until the IMU sensor.
p. Connect the Black/Red 6-pin IMU connector to the IMU sensor.
q. Secure the connection by pushing the red lock tab.

6. Front Shocks Harness

a. Route the Grey/Orange 4-pin connector through the previously cut firewall grommet.
b. Route the Grey/Orange 4-pin connector along the firewall until the E-CLIK ECU.
c. Connect the Grey/Orange 4-pin connector to the E-CLIK ECU harness.

OR for <u>2017-2018 Ford Raptor</u>

d. Connect the Grey/Orange 4-pin connector to the E-CLIK ECU harness.
e. Route the Front Right Shock harness under the passenger side wheel liner until the stock shock connector.
f. Plug the E-CLIK Front Right Shock connector to the Front Right Shock Coil supplied, the supplied coil connector should be orientated down.
g. Route the Front Left Shock harness along the firewall and above the driver side wheel liner until the stock shock connector.
h. Plug the E-CLIK Front Left Shock connector to the Front Left Shock Coil supplied, the supplied coil connector should be orientated down.

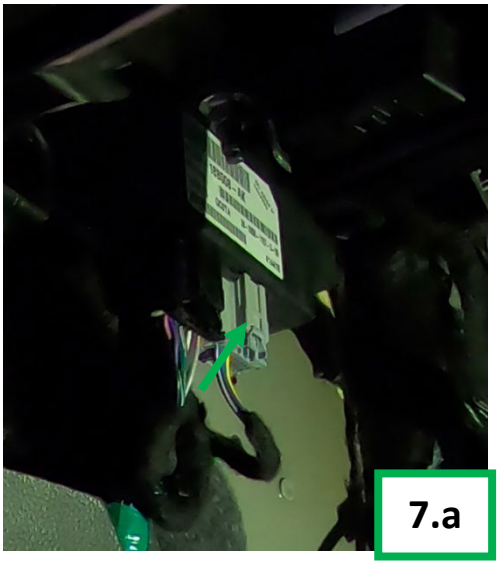


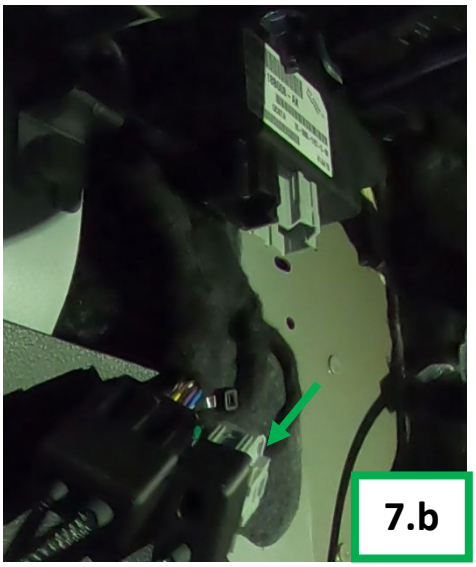
7. Rear Shocks Harness

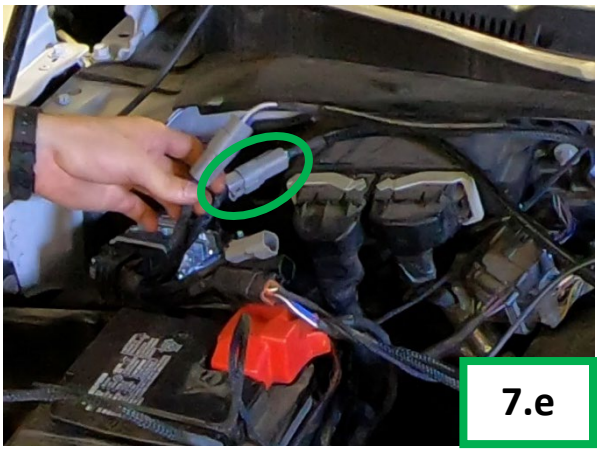
a. Disconnect the stock chassis ECU Grey connector from under dashboard.
b. Connect the Rear Shocks connector (Grey/Dark Grey) to the stock Grey connector.
c. Route the Grey/Green connector through the previously cut firewall grommet.
d. Route the Grey/Green connector along the firewall until the E-CLIK ECU.
e. Connect Grey/Green connector to the E-CLIK ECU harness.

OR for 2017-2018 Ford Raptor

f. Connect Grey/Green 4-pin connector to the E-CLIK ECU harness.
g. Route Rear Right and Rear Left Shocks harness under the passenger side wheel liner.
h. Route Rear Right and Rear Left Shocks harness along the vehicle frame until the passenger side stock shock connector.
i. Plug E-CLIK Rear Right Shock connector to the Rear Right Shock Coil supplied, the supplied coil connector should be orientated down.
j. Route the Rear Left Shock harness above the heat shield and along the vehicle frame from the passenger side to the driver side stock shock connector.
k. Plug E-CLIK Rear Left Shock connector to the Rear Left Shock Coil supplied, the supplied coil connector should be orientated down.

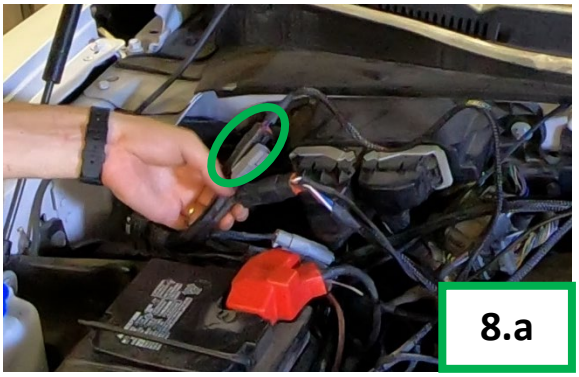


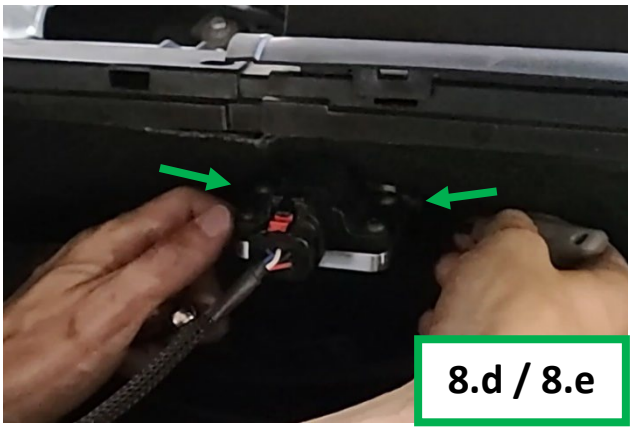




8. Final Set Up

a. NOW Connect the Black/Orange 4-pin Power harness connector to the E-CLIK ECU harness.
b. Place the vehicle on a leveled surface, and turn on the vehicle Ignition.
c. Go to the tilt angles display screen of the E-CLIK system.
d. Adjust the IMU sensor orientation using a 4mm Allen key until pitch and roll angles display 0 degrees.
e. Secure the IMU orientation using a 4mm Allen key.
f. Reinstall 2x plastic trims between the windshield and the engine bay.
g. Reinstall the passenger side windshield wiper.
h. Secure and zip-tie every harness, then close the vehicle hood.





ERROR CODE CHART			
Error Code	**Source**	**Error Description**	**Action**
1014	ECU	Battery Low	1. Check vehicle's battery
1015	ECU	Battery High	1. Check vehicle's battery
1016	ECU	Temperature Low	-
1017	ECU	Temperature High	-
5000	IMU	Disconnected / Malfunction	1. Check connection between ECU and IMU 2. Replace IMU Harness
9000	Front Left Shock	Open Circuit	1. Check connection between ECU and Front Left Shock, 2. Replace Front Shocks Harness
9001	Front Left Shock	Short Circuit to Power	1. Check connection between ECU and Front Left Shock, 2. Replace Front Shocks Harness
9002	Front Left Shock	Short Circuit to Ground	1. Check connection between ECU and Front Left Shock, 2. Replace Front Shocks Harness
9003	Front Left Shock	Deviation of Current	1. Check connection between ECU and Front Left Shock, 2. Replace Front Left Shock Solenoid Coil
9004	Front Right Shock	Open Circuit	1. Check connection between ECU and Front Right Shock, 2. Replace Front Shocks Harness
9005	Front Right Shock	Short Circuit to Power	1. Check connection between ECU and Front Right Shock, 2. Replace Front Shocks Harness
9006	Front Right Shock	Short Circuit to Ground	1. Check connection between ECU and Front Right Shock, 2. Replace Front Shocks Harness
9007	Front Right Shock	Deviation of Current	1. Check connection between ECU and Front Right Shock, 2. Replace Front Right Shock Solenoid Coil
9024	Rear Left Shock	Open Circuit	1. Check connection between ECU and Rear Left Shock, 2. Replace Rear Shocks Harness
9025	Rear Left Shock	Short Circuit to Power	1. Check connection between ECU and Rear Left Shock, 2. Replace Rear Shocks Harness
9026	Rear Left Shock	Short Circuit to Ground	1. Check connection between ECU and Rear Left Shock, 2. Replace Rear Shocks Harness
9027	Rear Left Shock	Deviation of Current	1. Check connection between ECU and Rear Left Shock, 2. Replace Rear Left Shock Solenoid Coil
9028	Rear Right Shock	Open Circuit	1. Check connection between ECU and Rear Right Shock, 2. Replace Rear Shocks Harness
9029	Rear Right Shock	Short Circuit to Power	1. Check connection between ECU and Rear Right Shock, 2. Replace Rear Shocks Harness
9030	Rear Right Shock	Short Circuit to Ground	1. Check connection between ECU and Rear Right Shock, 2. Replace Rear Shocks Harness
9031	Rear Right Shock	Deviation of Current	1. Check connection between ECU and Rear Right Shock, 2. Replace Rear Right Shock Solenoid Coil