SDI E-CLIK Universal Kit Electronics Installation

SDi E-CLIK Electronics Universal Kit Installation Manual

E-CLIK Electronics package content

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2. ECU Placement Template
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4. Wiring harnesses + Zip Ties
    a. ECU Main Plug
    b. Power Harness
    c. Front Shocks Harness
    d. Rear Shocks Harness
    e. Data Harness with Touch Screen Controller + Mounting Plate

Required tools

1. Ratchet
2. 10mm Socket
3. 4mm Allen key
4. Power drill + ¼" drill bit + step bit.
5. Cutting pliers
6. Utility Knife

Estimated Installation Time

2 hours

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1. Install ECU

   WE RECOMMEND MOUNTING THE ECU ON TOP OF THE FUSE BOX COVER

   a. Open the vehicle hood.
   b. Remove stock fuse box cover, clean to remove dust and oil.
   c. Apply the ECU Placement Template.
   d. Drill the 4x designated holes on the fuse box cover with a power drill and 1/4“ drill bit.
   e. Cut a notch on the edge of the fuse box cover using a utility knife.
   f. Mount the ECU on the fuse box cover using the supplied hardware with 4mm Allen key and 10mm socket.
   g. Secure the ECU Main Plug in the ECU receptacle and lock it.
   h. Reinstall stock fuse box cover.

2. Install IMU

   WE RECOMMEND MOUNTING THE IMU AT THE CENTER OF THE FIREWALL

   a. Open the hood.
   b. If necessary, unhook the windshield wipers and unclip the panel between the windshield and the engine bay.
   c. Locate the center of the firewall.
   d. Drill a hole using a power drill and a 1/4" drill bit.
   e. Install the IMU sensor bracket using the supplied spacer between the firewall and the IMU bracket, and secure it with the supplied bolt and nut with 4mm Allen key and 10mm wrench.
   f. Make sure the IMU sensor is installed in the orientation shown.
   g. Reinstall previously removed parts.

3. Install Touch Screen

   a. Inside the vehicle, locate a desired location for the touch screen controller.
   b. Apply the Touch Screen Placement Template on the desired location.
   c. Drill the 4x 1/8” designated holes with a power drill and 1/8“ drill bit.
   d. Drill the 1x 1 1/8” designated hole with a power drill and step bit
   e. Install the Touch Screen and its mounting plate using the 4x supplied plastic screws.

4. Install Power Harness

Make sure vehicle ignition is off.

Note: We will secure all harnesses at the end once we make sure they are placed properly and functioning correctly.

a. Refer to wiring diagram for callouts of wire function and color (page 6)
b. Open the vehicle hood.
c. Remove Fuse box cover.
d. Locate a Fuse powered when ignition is on, and not powered when ignition is off.
   - Use a Voltmeter to measure voltage from fuse to ground,
   - With key off the ignition, select a fuse at 0V,
   - Then turn the key on ignition and measure voltage on the selected fuse,
   - If voltage measured is +12V, you can use this fuse for install, if not, try another fuse.
e. Remove the selected fuse and place it in the bottom slot of the provided fuse tap.
f. Insert the provided fuse tap into the selected fuse slot of the fuse box.
g. Run the blue ignition wire out of the fuse box and toward the ECU plug, cut a notch on the edge of the fuse box using a utility knife if necessary.
h. Connect the black wire ring connector of the power harness to the black (-) pin of the vehicle battery.
i. Connect the red wire ring connector of the power harness to the red (+) pin of the vehicle battery.
j. DO NOT CONNECT THE 4-PIN CONNECTOR OF THE POWER HARNESS TO THE ECU MAIN PLUG UNTIL FINAL STEP.

5. Install Front Shock Harness

Make sure vehicle ignition is off.

Note: We will secure all harnesses at the end once we make sure they are placed properly and functioning correctly.

a. Refer to wiring diagram for callouts of wire function and color (page 6).
b. Open the vehicle hood.
c. Connect the 4-pin connector of the front shock harness to the ECU Main Plug.
d. Run the Front Right (passenger's side) Shock harness toward the front right shock. Try to follow any existing electric harnesses as much as possible.
e. Connect the 2-pin connector of the passenger side shock harness to the front right shock coil.
f. Run the Front Left (driver's side) Shock harness toward the front left shock. Try to follow any existing electric harnesses as much as possible.
g. Connect the 2-pin connector of the driver side shock harness to the front left shock coil.

6. Install Rear Shocks Harness

Make sure vehicle ignition is off.

Note: We will secure all harnesses at the end once we make sure they are placed properly and functioning correctly.

a. Refer to wiring diagram for callouts of wire function and color (page 6).
b. Open the vehicle hood.
c. Connect the 4-pin connector of the rear shock harness to the ECU Main Plug.
d. Run the rear shock harnesses down the front fender. Route down to the top of the vehicle's frame then along the top of the frame with the brake line and stock wiring harness. All the way to the rear right shock.
e. Connect the 2-pin connector of the rear left shock harness to the rear left shock coil.
f. Run the rear right shock harness across the vehicle following the crossbar and stock wiring harness. Be sure to route it above any heat shield.
g. Connect the 2-pin connector of the rear right shock harness to the rear right shock coil.

7. Install Data Harness

Make sure vehicle ignition is off.

Note: We will secure all harnesses at the end once we make sure they are placed properly and functioning correctly.

a. Refer to wiring diagram for callouts of wire function and color (page 6).
b. Open the vehicle hood.
c. If necessary, from under the hood, cut a cross shape on any existing firewall grommet with utility knife.
d. From inside the vehicle:
    - Route the Touch Screen Harness toward the previously installed Touch Screen controller.
    - Connect the Touch Screen Harness connector to the Touch Screen controller.
    - Feed the Black/Orange Data Harness connector through the firewall leave the harness loose.
    - Feed the Black/Red IMU connector through the firewall, a second set of hands is a great help.
e. From the under the hood:
    - Connect the Black/Orange Data Harness connector the connector on the ECU Main Plug.
    - Connect the Black/Red IMU harness connector to the IMU sensor previously installed on the top center of the firewall, and lock the red lock tab.

8. Final Set Up

Make sure vehicle ignition is off.

a. Open the vehicle hood.
b. NOW CONNECT THE BLACK/ORANGE 4-PIN CONNECTOR OF THE POWER HARNESS TO THE ECU MAIN PLUG.
c. Make sure all connectors are securely plugged in.
d. Turn on the ignition.
e. Confirm the E-CLIK touch screen controller is powered on.
    - Acknowledge the "Do Not Use While Driving" message by pressing "OK" on the screen.
    - Confirm there are no error messages.
        - If there is an error refer to the Error code chart below.
    - Confirm the main menu appears on the screen.
f. Secure all wiring harnesses with supplied zip-ties.
    - Ensure they are not running close to the vehicle's exhaust or any potential sources of pinching, chafing or other damage.
    - For the rear shock harness use stock wire harness retainer locations along the frame.
    - For the rear right shock harness follow the crossbar routing and secure at the stock locations.
    - Along the firewall, use stock wire harness retainer locations.
g. Calibrate/Zero the IMU sensor:
    - Place on a level surface, side to side and front to back.
    - Turn on the ignition.
    - Rotate the selector ring on the touch screen display to the Output menu.
    - Press screen to select it.
    - Swipe screen left to reach the tilt angle display menu.
    - Look at the read out and confirm it is 0-degree pitch and roll.
    - If it is not reading 0-degree pitch and roll, Zero the IMU:
        - Open the hood.
        - Loosen the IMU adjuster bracket with the 4mm Allen Key,
        - Move the bracket until 0-degree pitch angle is indicated on the screen.
h. Tighten the 2 bolts on the IMU adjuster bracket with a 4mm Allen key.
i. Close the vehicle hood.

Refer to **"E-CLIK PRO User Guide"** for more information.

Wiring Harness Color Chart

Start	Wire Color	Function	End	Wire Color	Destination
4-Pin Male		Power	Ring Terminal		Battery +
			Ring Terminal		Battery -
			Fuse Tap		Ignition
4-Pin Male		Front Shocks	2-Pin Male		Front Left Shock
			2-Pin Male		Front Right Shock
4-Pin Female		Rear Shocks	2-Pin Male		Rear Left Shock
			2-Pin Male		Rear Right Shock
6-Pin Male		Data	6-Pin Male		IMU Sensor
			5-Pin Male		Touch Screen
			16-Pin OBD-II		OBD-II Diagnostic Port
2-Pin Female		NOT USED	Push Button		-

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