

SDi E-CLIK Electronics CanAm Defender Installation Manual

E-CLIK System Types

- 1. E-CLIK (Switch controlled)
- 2. E-CLIK PRO (Touch Screen controlled)

E-CLIK Electronics Package Content

- 1. ECU + Hardware
- **2.** ECU Placement Template
- **3.** IMU + Bracket and Hardware
- 4. Touch Screen Controller + Bracket and Hardware
- 5. Touch Screen Placement Template
- 6. Wiring Harnesses + Zip Ties
 - a. ECU Main Plug
 - b. Power Harness
 - c. Front Shocks Harness
 - d. Rear Shocks Harness
 - e. HS Button Harness
 - f. Data Harness
 - g. (Optional) Switch Harness with Switches
 - h. (Optional) HS Button Harness

Required Tools

- 1. Ratchet
- 2. 10mm Wrench
- 3. 10mm Socket
- 4. 4mm Allen Key
- 5. T20 Screwdriver
- 6. Power Drill + Step Bit
- 7. Plastic Clip Removal Tool
- 8. Cutting Pliers
- 9. Utility Knife

Estimated Installation Time

1 to 2 hours

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1. Install ECU

- **a.** Under the Front Row middle seat, locate the circled area (see picture below).
- **b.** Use the supplied Velcro Tape or use self-tapping screw to secure the ECU in place.
- c. Secure the ECU Main Plug in the ECU receptacle and lock it (see picture below).



- 2. Install IMU
 - **a.** Under the Front Row middle seat, locate the circled mounting hole (see picture below).
 - b. Place IMU bracket on the frame with the IMU connector facing the front of the vehicle.
 - c. Use a 10mm wrench and socket and the supplied hardware to secure the IMU in place (see picture below).





3. Install Touch Screen

- a. On the dashboard, locate the circled area (see picture below).
- **b.** Drill an 18mm (or 11/16") hole with a power drill and step bit (see picture below).
- c. Mount the Touch Screen using the supplied M17 plastic nut.
- **d.** Make sure the Touch Screen Home Button is oriented down (see picture below).





4. Wiring routing preparation

Make sure vehicle ignition is off.

- **a.** Remove the designated front central floor panel by unclipping the retaining plastic fasteners.
- **b.** Remove the designated rear central floor panel by unclipping the retaining plastic fasteners.
- **c.** Remove the designated firewall cover behind the steering wheel by unclipping the retaining plastic fastener.
- **d.** Remove the designated glove box compartment by unclipping the retaining plastic fasteners and 2x T20 screws.
- e. Identify wiring paths as shown below in RED.











- 5. <u>Install Power Harness for ECLIK Touch Screen controlled</u> *Make sure vehicle ignition is off.*
 - **a.** Refer to wiring diagram for callouts of wire function and color (page 10).
 - **b.** Under the Front Row middle seat, place the 4-Pin Male Black DT connector by the ECU Main harness.
 - **c.** Route the power harness black and red wire ring following the OE wiring harness under the front central floor panel, then up behind the dashboard, then through the firewall grommet previously located, then up under the hood.
 - d. Connect the red wire ring connector of the power harness to the red (+) pin of the vehicle battery with 10mm socket (see picture below).
 - e. Connect the black wire ring connector of the power harness to the black (-) pin of the vehicle battery with 10mm socket (see picture below).
 - f. DO NOT CONNECT THE 4-PIN MALE BLACK CONNECTOR OF THE POWER HARNESS TO THE ECU MAIN PLUG UNTIL FINAL STEP.



6. Install Power Harness for ECLIK Switch controlled

Make sure vehicle ignition is off.

- **a.** Refer to wiring diagram for callouts of wire function and color (page 10).
- **b.** Under the Front Row middle seat, place the 4-Pin Male Black DT connector by the ECU Main harness.
- **c.** Route the power harness black and red wire ring following the OE wiring harness under the front central floor panel, then up behind the dashboard.
- d. Connect the red wire ring connector of the power harness to the red (+) terminal behind the dashboard with 10mm socket (see picture below).
- e. Connect the black wire ring connector of the power harness to the black (-) terminal behind the dashboard with 10mm socket (see picture below).
- f. DO NOT CONNECT THE 4-PIN MALE BLACK CONNECTOR OF THE POWER HARNESS TO THE ECU MAIN PLUG UNTIL FINAL STEP.



7. Install Front Shocks Harness

Make sure vehicle ignition is off. <u>Note:</u> You will secure all harnesses at the end once you ensure they are placed properly and functioning correctly.

- **g.** Refer to wiring diagram for callouts of wire function and color (page 10).
- **h.** Connect the 4-Pin Male Grey DT connector of the front shocks harness to the ECU Main Plug.
- i. Route the front left and right shock harness following the OE wiring harness under the central floor panel, then up behind the dashboard, then through the firewall grommet previously located, then following the frame and the brake lines to reach the front left shock and the front right shock (see pictures below).
- **j.** Connect the "FL" 2-Pin Male DT connector of the driver side shock harness to the front left shock coil.
- **k.** Connect the "FR" 2-Pin Male DT connector of the passenger side shock harness to the front right shock coil.



8. Install Rear Shocks Harness

Make sure vehicle ignition is off.

<u>Note:</u> You will secure all harnesses at the end once you ensure they are placed properly and functioning correctly.

- I. Refer to wiring diagram for callouts of wire function and color (page 10).
- **m.** Connect the 4-Pin Female Grey DT connector of the rear shocks harness to the ECU Main Plug.
- **n.** Route the rear left and right shock harness following the OE wiring harness under the central floor panel, then through the rear firewall opening, then following the frame and the brake lines to reach the rear left shock and the rear right shock (see pictures below).
- **o.** Connect the "RL" 2-Pin Male Grey DT connector of the rear left shock harness to the rear left shock coil **(see picture below)**.
- **p.** Connect the "RR" 2-Pin Male Grey DT connector of the rear right shock harness to the rear right shock coil (see picture below).



9. Install Data Harness and E-CLIK Touch Screen Controller

Make sure vehicle ignition is off.

<u>Note:</u> You will secure all harnesses at the end once you ensure they are placed properly and functioning correctly.

- **q.** Refer to wiring diagram for callouts of wire function and color (page 10).
- r. Connect the 6-Pin Male Black DT connector of the data harness to the ECU Main Plug.
- **s.** Connect and lock the 6-Pin Male Red/Black connector of the IMU harness to the IMU sensor previously installed (see picture below).
- t. Route the 5-Pin Circular 90deg connector harness following the OE wiring harness under the central floor panel, then up behind the dashboard, until the previously installed Touch Screen.
- u. Connect and secure the 5-pin Circular 90deg connector to the Touch Screen (see picture below).
- v. Route the 6-Pin Female Grey DT connector harness following the OE wiring harness under the central floor panel, then up behind the dashboard, then through the firewall grommet previously located, then up under the hood.
- w. Locate the stock Diagnostic connector (see picture below).
- **x.** Connect and secure the 6-Pin Female Grey DT connector to the vehicle's diagnostic connector.







10. (Optional) Install Switch Harness

Make sure vehicle ignition is off.

<u>Note:</u> You will secure all harnesses at the end once you ensure they are placed properly and functioning correctly.

- y. Refer to wiring diagram for callouts of wire function and color (page 10).
- z. Connect the 6-pin female black connector of the switch harness to the ECU Main Plug.
- **aa.** Route the Switches harness following the OE wiring harness under the central floor panel, then up behind the dashboard, until the previously designated switches slots.
- **bb.** Remove 2x Switch Slot covers of your choice and use a utility knife to trim the edges of the 2 slots to fit the supplied switches.
- **cc.** Connect Front and Rear switches to the switch harness pink connectors following the diagram below:



dd. Install the Front and Rear switches in the center console of the vehicle.

11. (Optional) Install HS Button Harness

Make sure vehicle ignition is off.

<u>Note:</u> You will secure all harnesses at the end once you ensure they are placed properly and functioning correctly.

- ee. Refer to wiring diagram for callouts of wire function and color (page 10).
- ff. Attach the HS Button to the Steering Wheel using the Velcro strap, on the side of your choice
- **gg.** Run the HS Button harness from the Steering Wheel, behind the dashboard, then down to under the central floor panel following the OE wiring harness, up to the ECU Mian Harness
- **hh.** Connect the 2-Pin Female Black DT connector of the HS Button harness to the ECU Main Plug.

12. Final Set Up

Make sure vehicle ignition is off.

- **ii.** NOW CONNECT THE 4-PIN MALE BLACK CONNECTOR OF THE POWER HARNESS TO THE ECU MAIN PLUG.
- jj. Make sure all connectors are securely plugged in.
- **kk.** Turn on the ignition.
- II. Confirm the Switch panel or E-CLIK touch screen controller are powered on.
 - For touch screen controller:
 - 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 in the user manual.
 - Confirm the main menu appears on the screen.
 - For the Switch panel:
 - Confirm LEDs are illuminated and not blinking.
 - If LEDs are blinking refer to the Error code chart in the user manual.
- mm. 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.
- nn. Calibrate/Zero the IMU sensor:
 - Place the vehicle on a level surface, side to side and front to back.
 - Loosen the two bolts that hold the IMU adjuster plate.
 - Turn on the ignition.
 - Rotate the selector ring on the touch screen display to the Output Menu.
 - Press screen to select it.
 - Swipe right to 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:
 - Loosen the IMU adjuster bracket with the 4mm Allen Key (see picture below).
 - Move the bracket until 0-degree pitch angle is indicated on the screen.
- **oo.** Tighten the 2 bolts on the IMU adjuster bracket with a 4mm Allen key **(see picture below)**.
- **pp.** Reinstall previously removed panels from (Wiring Routing preparation steps).





Wiring Harness Color Chart

Start	Wire Color	Function	End	Wire Color	Destination
4-Pin Male		Power	Ring Terminal		Battery +
			Ring Terminal		Battery -
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			IMU Sensor
			5-Pin Male		Touch Screen
			6-Pin Female		Diagnostic Port + ACC
6-Pin Female		Switches .	4x Female Connectors		Front Shocks Switch
			4x Female Connectors		Rear Shocks Switch
2-Pin Female		HS Button	Push Button		HS Button

SD 1	ERROR CODE CHART									
Error Code	LEC) Blinkin	g Seque	ence	Source	Error Description	Action			
1014	5 Blinks	2 seconds	1 Blink	5 seconds	ECU	Battery Low	1. Check vehicle's battery			
1015	5 Blinks	2 seconds	2 Blinks	5 seconds	ECU	Battery High	1. Check vehicle's battery			
1016	5 Blinks	2 seconds	3 Blinks	5 seconds	ECU	Temperature Low	-			
1017	5 Blinks	2 seconds	4 Blinks	5 seconds	ECU	Temperature High	-			
5000	N/A	N/A	N/A	N/A	IMU	Disconnected / Malfunction	1. Check connection between ECU and IMU 2. Replace IMU Harness			
9000	1 Blink	2 seconds	1 Blink	5 seconds	Front Left Shock	Open Circuit	1. Check connection between ECU and Front Left Shock, 2. Replace Front Shocks Harness			
9001	1 Blink	2 seconds	2 Blinks	5 seconds	Front Left Shock	Short Circuit to Power	1. Check connection between ECU and Front Left Shock, 2. Replace Front Shocks Harness			
9002	1 Blink	2 seconds	3 Blinks	5 seconds	Front Left Shock	Short Circuit to Ground	1. Check connection between ECU and Front Left Shock, 2. Replace Front Shocks Harness			
9003	1 Blink	2 seconds	4 Blinks	5 seconds	Front Left Shock	Deviation of Current	 Check connection between ECU and Front Left Shock, Replace Front Left Shock Solenoid Coil 			
9004	2 Blinks	2 seconds	1 Blink	5 seconds	Front Right Shock	Open Circuit	 Check connection between ECU and Front Right Shock, 2. Replace Front Shocks Harness 			
9005	2 Blinks	2 seconds	2 Blinks	5 seconds	Front Right Shock	Short Circuit to Power	 Check connection between ECU and Front Right Shock, 2. Replace Front Shocks Harness 			
9006	2 Blinks	2 seconds	3 Blinks	5 seconds	Front Right Shock	Short Circuit to Ground	 Check connection between ECU and Front Right Shock, 2. Replace Front Shocks Harness 			
9007	2 Blinks	2 seconds	4 Blinks	5 seconds	Front Right Shock	Deviation of Current	1. Check connection between ECU and Front Right Shock, 2. Replace Front Right Shock Solenoid Coil			
9024	3 Blinks	2 seconds	1 Blink	5 seconds	Rear Left Shock	Open Circuit	 Check connection between ECU and Rear Left Shock, Replace Rear Shocks Harness 			
9025	3 Blinks	2 seconds	2 Blinks	5 seconds	Rear Left Shock	Short Circuit to Power	1. Check connection between ECU and Rear Left Shock, 2. Replace Rear Shocks Harness			
9026	3 Blinks	2 seconds	3 Blinks	5 seconds	Rear Left Shock	Short Circuit to Ground	1. Check connection between ECU and Rear Left Shock, 2. Replace Rear Shocks Harness			
9027	3 Blinks	2 seconds	4 Blinks	5 seconds	Rear Left Shock	Deviation of Current	 Check connection between ECU and Rear Left Shock, Replace Rear Left Shock Solenoid Coil 			
9028	4 Blinks	2 seconds	1 Blink	5 seconds	Rear Right Shock	Open Circuit	 Check connection between ECU and Rear Right Shock, Replace Rear Shocks Harness 			
9029	4 Blinks	2 seconds	2 Blinks	5 seconds	Rear Right Shock	Short Circuit to Power	 Check connection between ECU and Rear Right Shock, Replace Rear Shocks Harness 			
9030	4 Blinks	2 seconds	3 Blinks	5 seconds	Rear Right Shock	Short Circuit to Ground	1. Check connection between ECU and Rear Right Shock, 2. Replace Rear Shocks Harness			
9031	4 Blinks	2 seconds	4 Blinks	5 seconds	Rear Right Shock	Deviation of Current	 Check connection between ECU and Rear Right Shock, Replace Rear Right Shock Solenoid Coil 			
9020	6 Blinks	2 seconds	2 Blinks	5 seconds	Front Switch	Short Circuit to Power	1. Check connection between ECU and Front Switch, 2. Replace Switches Harness			
9021	6 Blinks	2 seconds	3 Blinks	5 seconds	Front Switch	Short Circuit to Ground	1. Check connection between ECU and Front Switch, 2. Replace Switches Harness			
9022	7 Blinks	2 seconds	2 Blinks	5 seconds	Rear Switch	Short Circuit to Power	1. Check connection between ECU and Rear Switch, 2. Replace Switches Harness			
9023	7 Blinks	2 seconds	3 Blinks	5 seconds	Rear Switch	Short Circuit to Ground	 Check connection between ECU and Rear Switch, Replace Switches Harness 			