

SAFETY RECALL

FISKER AUTOMOTIVE, INC.

NUMBER: 51611001.04 DATE: May 22, 2012

MODEL: Karma MODEL YEAR: 2012

TITLE: High Voltage Battery Recall

PRIORITY:

Vehicles in Operation

APPLICABILITY: 2012 Karma

MARKET REGION: U.S. and Europe

PURPOSE:

Within the high voltage battery, cooling hose clamps may have been positioned incorrectly during the battery assembly process. When positioned incorrectly, the battery compartment cover could interfere with the hose clamps and cause a coolant leak inside the high voltage battery. If coolant enters the battery compartment, an electrical short could occur, possibly resulting in a fire. This recall requires the repair or replacement of the High Voltage Battery pack. Repairs will be performed by the battery manufacturer.

PROCESS OVERVIEW:

Removal and Replacement of High Voltage Battery

- 1. Isolation Procedure for 12 Volt Battery
- 2. High Voltage Isolation Procedure MSD
- 3. High Voltage Battery Removal Procedure
- 4. High Voltage Battery Pack Lifting Procedure
- 5. Install High Voltage Battery
- 6. Low Temp Cooling System Filling and Pressure Testing
- 7. Checking High Voltage Battery Electrical Connectors
 - BECM Pin Depth Examples
- 8. PTC Connectors to be Examined for Terminal Pin Push-Out
 - PTC Pin Depth Examples
- 9. Programming the Battery (if necessary)
- 10. Attach Recall Campaign Label

Shipping The Battery

SPECIAL TOOLS REQUIRED:

- 1. FST1001 HV Battery Pack Support Cradle
- 2. FST1022 Battery Lifting Kit
- 3. FST9001 Battery Charging Terminal Adaptor
- 4. Midtronics MDX Series Tester (or equivalent)

REVISION RECORD: 5/22/12

- Twenty two additional VIN numbers (in BOLD with BLUE highlights).
- Updated document format.

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YH4K10BA6CA000004	YH4K10BA8CA000005	YH4K10BA1CA000007
YH4K10BA5CA000009	YH4K10BA5CA000012	YH4K10BA7CA000013
YH4K10BA9CA000014	YH4K10BA4CA000017	YH4K10BA6CA000021
YH4K10BAXCA000023	YH4K10BA3CA000025	YH4K10BA5CA000026
YH4K10BA7CA000027	YH4K10BA9CA000031	YH4K10BA0CA000032
YH4K10BA2CA000033	YH4K10BA4CA000034	YH4K10BA6CA000035
YH4K10BA8CA000036	YH4K10BAXCA000040	YH4K10BA1CA000041
YH4K10BA3CA000042	YH4K10BA5CA000043	YH4K10BA7CA000044
YH4K10BA0CA000046	YH4K10BA4CA000048	YH4K10BA6CA000049
YH4K10BA2CA000050	YH4K10BA6CA000052	YH4K10BAXCA000054
YH4K10BA1CA000055	YH4K10BA3CA000056	YH4K10BA5CA000057
YH4K10BA7CA000058	YH4K10BA9CA000059	YH4K10BA9CA000062
YH4K10BA0CA000063	YH4K10BA4CA000065	YH4K10BA6CA000066
YH4K10BA8CA000067	YH4K10BA1CA000069	YH4K10BA8CA000070
YH4K10BA1CA000072	YH4K10BA3CA000073	YH4K10BA2CA000078
YH4K10BA0CA000080	YH4K10BA2CA000081	YH4K10BA4CA000082
YH4K10BA8CA000084	YH4K10BA1CA000086	YH4K10BA3CA000087
YH4K10BA5CA000088	YH4K10BA7CA000089	YH4K10BA3CA000090
YH4K10BA9CA000093	YH4K10BA0CA000094	YH4K10BA2CA000095
YH4K10BA6CA000097	YH4K10BA8CA000098	YH4K16AA5CA000161
YH4K16AA4CA000183	YH4K16AA8CA000185	YH4K16AAXCA000186
YH4K16AA1CA000187	YH4K16AA3CA000188	YH4K16AA5CA000189
YH4K16AA1CA000190	YH4K16AA5CA000192	YH4K16AA9CA000194
YH4K16AA0CA000195	YH4K16AA2CA000196	YH4K16AA4CA000197
YH4K16AA6CA000198	YH4K16AA8CA000199	YH4K16AA0CA000200
YH4K16AA2CA000201	YH4K16AA4CA000202	YH4K16AA6CA000203
YH4K16AA8CA000204	YH4K16AAXCA000205	YH4K16AA1CA000206
YH4K16AA3CA000207	YH4K16AA5CA000208	YH4K16AA7CA000209
YH4K16AA3CA000210	YH4K16AA5CA000211	YH4K16AA7CA000212
YH4K16AA9CA000213	YH4K16AA0CA000214	YH4K16AA4CA000216
YH4K16AA6CA000217	YH4K16AA8CA000218	YH4K16AAXCA000219
YH4K16AA6CA000220	YH4K16AA8CA000221	YH4K16AA1CA000223

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YH4K16AA3CA000224	YH4K16AA5CA000225	YH4K16AA7CA000226
YH4K16AA9CA000227	YH4K16AA2CA000232	YH4K14AA1CA000257
YH4K14AA5CA000259	YH4K14AA6CA000268	YH4K14AA9CA000278
YH4K14AA0CA000279	YH4K14AA7CA000280	YH4K14AA0CA000282
YH4K14AA4CA000284	YH4K14AA6CA000285	YH4K14AA8CA000286
YH4K14AAXCA000287	YH4K14AA1CA000288	YH4K14AA3CA000289
YH4K14AAXCA000290	YH4K14AA1CA000291	YH4K14AA3CA000292
YH4K14AA7CA000294	YH4K14AA9CA000295	YH4K14AA0CA000296
YH4K14AA6CA000299	YH4K14AA2CA000302	YH4K14AA4CA000303
YH4K14AA8CA000305	YH4K14AAXCA000306	YH4K14AA1CA000307
YH4K14AA3CA000308	YH4K14AA5CA000309	YH4K14AA1CA000310
YH4K14AA3CA000311	YH4K14AA5CA000312	YH4K14AA7CA000313
YH4K14AA0CA000315	YH4K14AA2CA000316	YH4K14AA4CA000317
YH4K14AA6CA000318	YH4K14AA8CA000319	YH4K14AA4CA000320
YH4K14AA8CA000322	YH4K14AAXCA000323	YH4K14AA1CA000324
YH4K14AA3CA000325	YH4K14AA9CA000328	YH4K14AA7CA000330
YH4K14AA0CA000332	YH4K14AA2CA000333	YH4K14AA4CA000334
YH4K14AA8CA000336	YH4K16AA7CA000341	YH4K14AA3CA000342
YH4K16AA0CA000343	YH4K16AA2CA000344	YH4K16AA6CA000346
YH4K16AA8CA000347	YH4K16AA1CA000349	YH4K16AA8CA000350
YH4K16AAXCA000351	YH4K16AA3CA000353	YH4K12AA6CA000369
YH4K12AA6CA000372	YH4K14AA3CA000373	YH4K14AA7CA000375
YH4K14AA4CA000379	YH4K14AA0CA000380	YH4K14AA2CA000381
YH4K14AA4CA000382	YH4K14AA6CA000383	YH4K14AAXCA000385
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YH4K14AA7CA000389	YH4K14AA3CA000390	YH4K14AA7CA000392
YH4K14AA0CA000394	YH4K14AA2CA000395	YH4K12AA9CA000396
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YH4K12AA7CA000400	YH4K12AA9CA000401	YH4K12AA2CA000403
YH4K12AA4CA000404	YH4K12AA6CA000405	YH4K12AA8CA000406
YH4K12AAXCA000407	YH4K12AA1CA000408	YH4K12AAXCA000410

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YH4K14AA8CA001616		
YH4K14AA7CA001171	YH4K14AA8CA001311	YH4K14AA9CA001592
YH4K14AA5CA000696	YH4K16AA5CA000712	YH4K14AA9CA000930
YH4K14AA0CA000671	YH4K14AA2CA000672	YH4K14AA3CA000695
YH4K14AA8CA000630	YH4K14AAXCA000631	YH4K14AA9CA000670
YH4K14AA9CA000569	YH4K14AA6CA000576	YH4K14AA4CA000608
YH4K14AA0CA000525	YH4K14AA2CA000526	YH4K14AA7CA000537
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YH4K14AA0CA000508	YH4K14AA0CA000511	YH4K14AA1CA000517
YH4K14AAXCA000502	YH4K14AA1CA000503	YH4K14AA5CA000505
YH4K14AA3CA000499	YH4K14AA6CA000500	YH4K14AA8CA000501
YH4K14AA0CA000492	YH4K14AA4CA000494	YH4K14AA1CA000498
YH4K14AA7CA000487	YH4K14AA7CA000490	YH4K14AA9CA000491
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YH4K14AA6CA000478	YH4K14AA8CA000479	YH4K14AA4CA000480
YH4K14AA3CA000471	YH4K14AA7CA000473	YH4K12AA5CA000475
YH4K14AA8CA000465	YH4K14AAXCA000466	YH4K14AA5CA000469
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YH4K14AA0CA000458	YH4K12AA7CA000459	YH4K14AA9CA000460
YH4K12AAXCA000455	YH4K14AA7CA000456	YH4K14AA9CA000457
YH4K14AA8CA000451	YH4K14AAXCA000452	YH4K14AA3CA000454
YH4K14AA0CA000444	YH4K14AA6CA000447	YH4K14AAXCA000449
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YH4K14AA1CA000422	YH4K12AA8CA000423	YH4K12AA1CA000425
YH4K12AA6CA000419	YH4K12AA2CA000417	YH4K12AA4CA000410
YH4K12AA1CA000411 YH4K12AA0CA000416	YH4K12AA3CA000412 YH4K12AA2CA000417	YH4K12AA5CA000413 YH4K12AA4CA000418





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HIGH VOLTAGE (HV) battery contains lethal voltage.

WARNING: Do not remove the Manual Service Disconnect (MSD) if the vehicle is switched on or running.

WARNING: Intentional disconnection of the Manual Service Disconnect (MSD) under load could potentially damage the battery pack and cause injury to the person performing the act.



You will have the ability to control the vehicle. By pressing "Accept" you are taking the

1. Isolation Procedure for 12 Volt Battery

1.1. Open Hood

NOTE: Be sure the Start/Stop Button (SSB) is in the OFF position before going to next step.

1.2. Release clip (red arrow and highlight) and disconnect 12 volt negative battery harness (blue arrow) (Figure 1A).

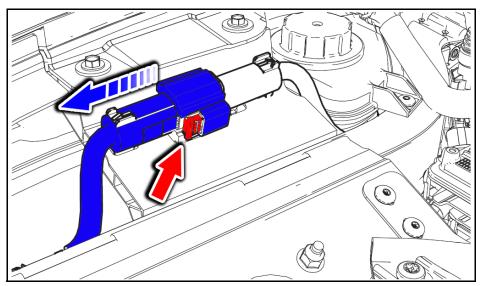


Figure 1A (12 volt negative battery connector C104)

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1.3. Remove fuse #27 (25 amp) solar panel fuse located in the Power Distribution Center (PDC) (Figure 1B).

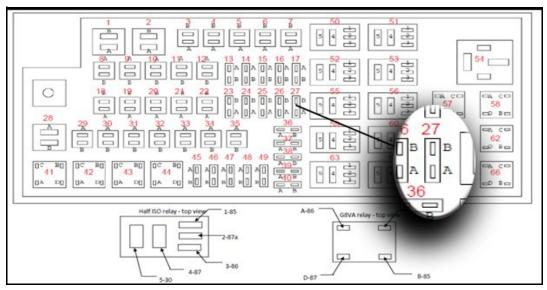


Figure 1B

2. High Voltage Isolation Procedure - MSD

- 2.1. Remove seat cushion Rear LH
- 2.2. Release clips (x2) from seat cushion leading edge by pulling sharply upwards (Figure 2A).

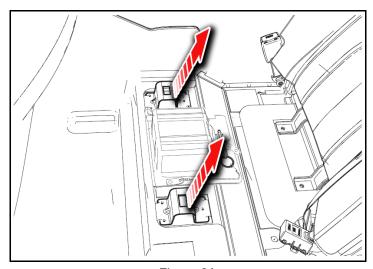


Figure 2A



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2.3. Disconnect seat harness connectors and remove seat cushion (Figure 2B).



Figure 2B

2.4. Remove seat cushion.





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- 2.5. Release latch pin from Manual Service Disconnect (MSD) latch (Figure 2C).
- 2.6. Lift cover for access to MSD plug (Figure 2C).

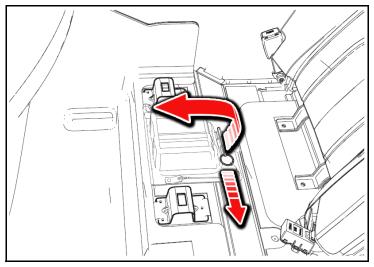


Figure 2C

2.7. Release clip and remove MSD plug



WARNING!

Wait 5 minutes for high voltage capacitors to discharge after removal of the Manual Service Disconnect (MSD). Although the battery has been disconnected, residual current may still be present.

NOTE: Verify that the voltage at the Accessory Power Module (APM) has dropped to zero. If 13+ volts are present at the APM, do not continue. Contact Fisker Technical Support.





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3. High Voltage Battery Removal Procedure

3.1. Lift car using suitable equipment and Fisker Automotive approved safe lifting points. Make sure rear arms won't block removal of rear battery protection shield.

NOTE: Before moving onto the following steps, use a marker to note the location of shield/closing panel bolts before removing them to help with battery and panel reinstallation (Figure 3A).

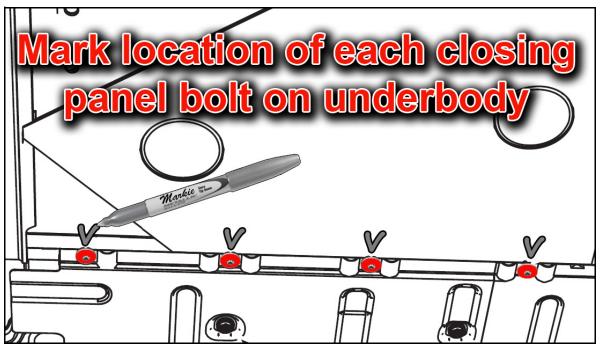


Figure 3A

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- 3.2. Remove the high-voltage closing panel from under the vehicle. Note length of bolts to help with reinstallation (Figure 3B).
 - Install torque spec: Battery case bolts = 19 lb-ft. (27 Nm)
 - Install torque spec: Battery cover bolts = 11 lb-ft. (15 Nm)

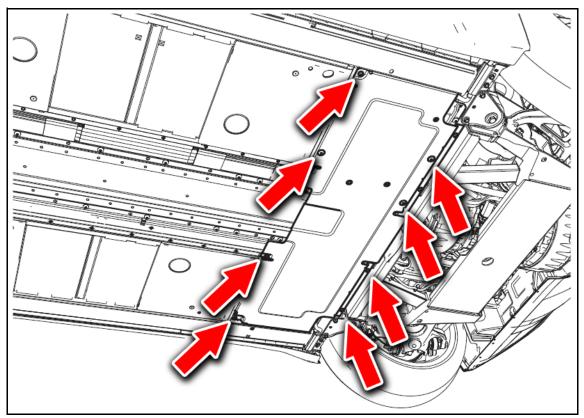


Figure 3B

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3.3. Remove tunnel closing panel from under the vehicle and note position and length of bolts. The shorter bolts are on the outside perimeter and very center of panel (see red arrows in Figure 3C) and longer bolts are in between (see blue arrows in Figure 3C). Note the position of the longer bolts on the body using a marker as this will assist in reinstallation of battery and knowing which holes to leave empty during battery reinstallation.

- Install torque spec: Battery case bolts = 19 lb-ft. (27 Nm)

Install torque spec: Battery cover bolts = 11 lb-ft. (15 Nm)

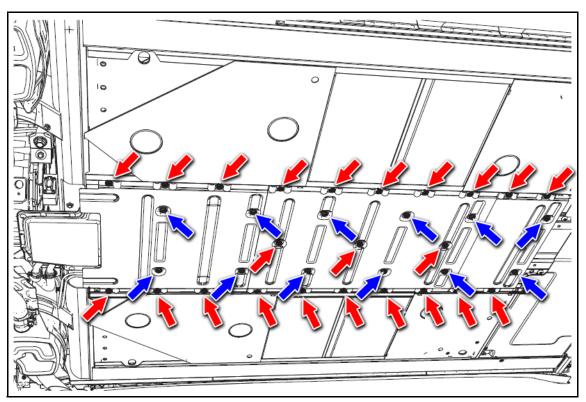


Figure 3C

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3.4. Remove both rear HV pack connectors (Figure 3D).

- Install torque spec: hold down bolts = 7 lb-ft. (10 Nm)

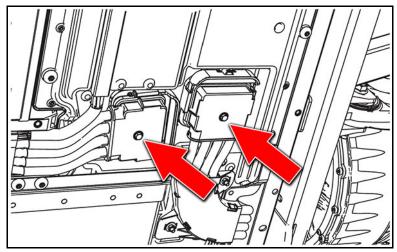


Figure 3D

3.5. Remove wiring loom guide bolts (x3) (Figure 3E).

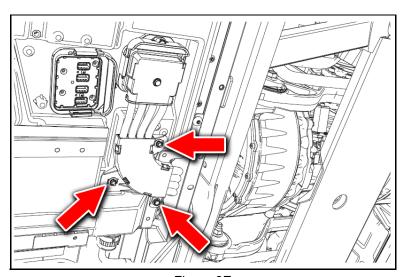


Figure 3E





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3.6. Remove large circular Battery Energy Control Module (BECM) connector on passenger side of battery by rotating the collar counter-clockwise and pulling. There may also be an additional ground strap here that needs to be unbolted.



Do not pull connector loose by grasping wires or damage to wires and connector may occur.

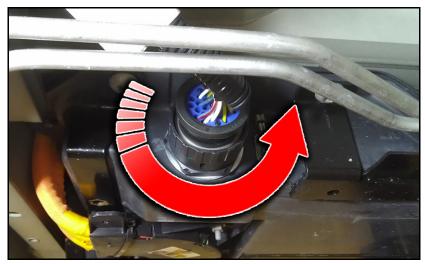


Figure 3F

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The Auxiliary HV connectors (shown in 3G) are physically the same, but need to be plugged into specific positions. Be sure to label each connector to keep track of their order, so they are not plugged into wrong connector during reassembly.

3.7. Remove the three Auxiliary HV lines from battery. They have a two stage lock. Press the outside orange tab and pull connector back slightly. Then push the red tab in the middle and remove the connector completely (Figure 3G).

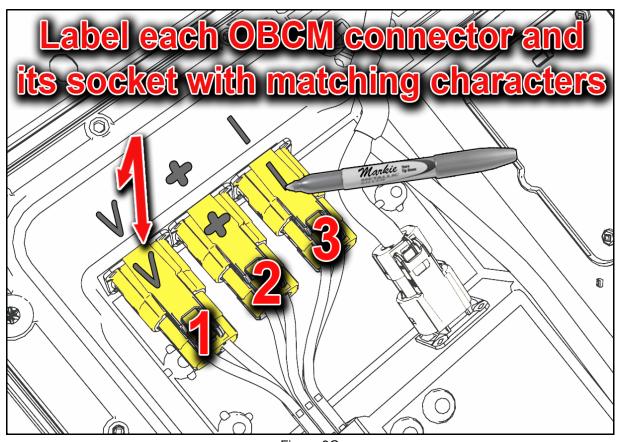


Figure 3G

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3.8. Disconnect the 4th Auxiliary HV connector and pull back the On Board Charger Module (OBCM) harness (Figure 3H).

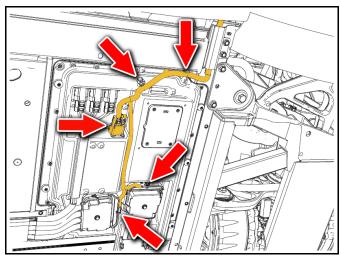


Figure 3H

- 3.9. Open up all three HV wiring loom troughs (highlighted in blue see Figure 3I) and lay the HV harness over the arms of the vehicle lift.
- 3.10. Using Figure 3I, remove the two bolts (red arrows) from the front HV wiring loom guide (highlighted in red) and lay it to the side without removing it from the HV harness.

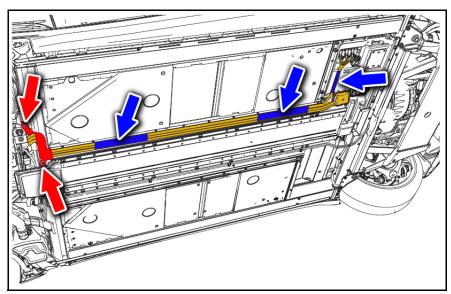


Figure 3I





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3.11. To drain coolant, loosen both clamps (red arrows in Figure 3J), remove both coolant lines from the front passenger side of the HV Battery Pack. Be sure to collect the coolant for recycling and/or re-use using the proper equipment.

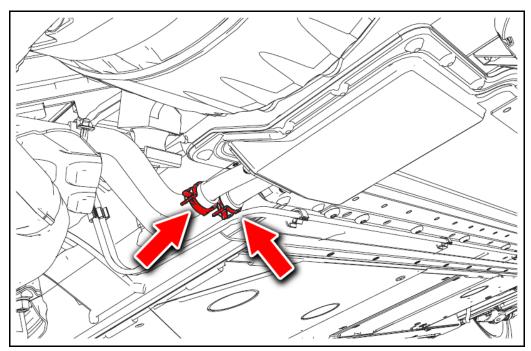


Figure 3J





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3.12. Place the Fisker Service Tool **FST1001 – HV Battery Pack Support Fixture** (red arrow in Figure 3K) on the lifting table (OTC 1595 or equivalent) and secure by bolting or strapping the fixture to the lift table. This fixture will give you enough space to remove the bolts along both sides of the HV Battery Pack. After removal of all bolts, carefully lower the HV Battery and transport to a suitable area within the shop which gives enough room to remove the HV battery from the lift table and cradle. Tape off the opening where the MSD was removed for safety.



Figure 3K

NOTE: The HV Battery can be lifted from the cradle using Fisker Service Tool FST1022 Battery Lifting Kit. Using suitable equipment such as a fork lift, mobile crane or "cherry picker" in combination with the lifting kit, remove the HV Battery Pack from the cradle and place in a secure area until ready for reinstallation or return shipping (details on page 36).

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TITLE: High Voltage Battery Recall

4. High Voltage Battery Pack Lifting Procedure

Lifting the HV Battery Pack should only occur at the four recommended lift points, with the Battery Cover in place and fully secured with all perimeter fasteners properly torqued. The following steps are shown using Fisker Service Tool *FST1022 Battery Lifting Kit*.

NOTE: When lifting the HV Battery Pack, the weight must be evenly distributed throughout the entire length of the battery pack.



Improper lifting will damage the HV Battery Pack. Refer to Battery Pack Lifting Caution in vehicle Safety Information.

4.1. Install the eye-bolts in the four locations (Figure 4A) on the HV Battery Pack.

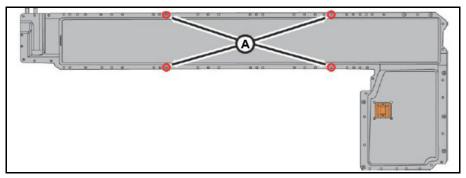


Figure 4A

4.2. Tighten the four eye-bolt nuts (Figure 4B).

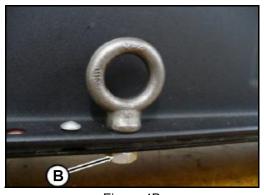


Figure 4B





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4.3. Place the lift hooks (Figure 4C) of the lift sling into each eye-bolt.

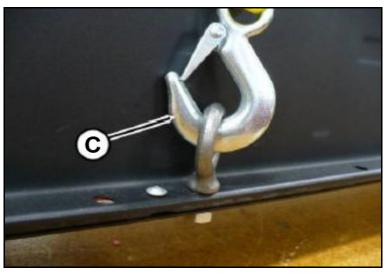


Figure 4C

4.4. Ensure the lift straps (Figure 4D) are properly routed and free of knots. Using appropriate lifting device, lift the HV Battery Pack and locate it to desired location.

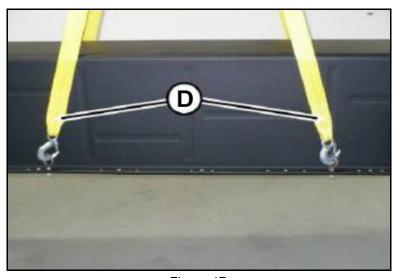


Figure 4D





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TITLE: High Voltage Battery Recall

5. Battery Installation Procedure

NOTE: Prior to refitting the replacement battery, please check the following (covered on pages 19-23):

- BECM (Battery Energy Control Module) Connector
- PTC (Positive Thermal Coefficient) Connectors

NOTE: Before installing the new battery, record the serial number of the replacement HV Battery (being installed) onto the Repair Order and on the warranty claim form (in the comments section) (Figure 5A).



Figure 5A

Install High Voltage Battery

5.1. Installation procedure will be reverse of the removal procedure.

NOTE: After the high voltage battery has been installed back into the vehicle, the low temp cooling for the high voltage battery will need to be filled and pressure checked.

6. Low Temp Cooling System Filling and Pressure Testing

6.1. Using a suitable vacuum filling kit such as a Snap-On RADKITPLUSA, pull a vacuum on the low-temp cooling circuit by attaching the kit to the low-temp circuit reservoir located in front of the engine (see red arrow in Figure 6A).



Figure 6A

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SAFETY RECALL

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6.2. Vacuum coolant system down to approximately -25 inches and hold the vacuum for 4 minutes.



Figure 6B

- 6.3. Close off the ball valves, disconnect vacuum adapter.
- 6.4. Connect the vacuum hose and insert hose into the 50/50 coolant supply.
- 6.5. Open ball valves to allow coolant to be pulled into the system.
- 6.6. When coolant stops flowing into the reservoir the system should be full.
- 6.7. Remove vacuum tool assembly.





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NOTE: The coolant reservoir is the highest point of this system and bleeding should not be required.

6.8. Using pressure tester (Snap-On part# TAB10036 and SVTS262-1 or Kent More adapter J-42401-3), pump system to 30 PSI.

6.9. Make sure system holds pressure for 20 min.





Figure 6C Figure 6D

- Energy Storage System (ESS) coolant capacity is 4.2 quarts (3.9 liters).
- Use Havoline Extended life anti-freeze/coolant, Dex-cool.





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7. BECM Connector to be Examined for Terminal Pin Push-Out

NOTE: The Battery Energy Control Module (BECM) connector female terminal pins could potentially be susceptible to **terminal pin push-out** causing several electrical concerns and Malfunction Indicator Lamp (MIL) illumination. With the connector removed from the BECM look closely at the female pins for any that appear to be recessed. Pin should be no lower than 3 mm from the surface of the connector.

7.1. To unlock/remove BECM female connector, rotate collar counter-clockwise and pull connector by grasping collar.



Do not pull connector loose by grasping wires.

7.2. Once connector has been removed, inspect terminal pins for terminal pin push-out.



Figure 7A

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BECM Pin Depth Examples

7.3. Conduct a "Push/Pull Test on the circuit pins" from the back of the connector in an attempt to re-seat pins on circuits that appear to be not completely seated.

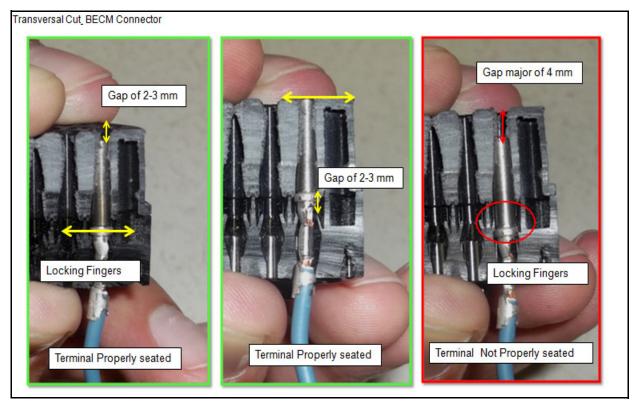


Figure 7B

NOTE: If the terminal/pin cannot be re-seated, the connector is damaged and will need to be replaced.

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Examples of Terminal Pin Push-Out

- See Figure 7C for close-up of pin improperly recessed pin (more than 3 mm) due to terminal pin push-out through back of connector.



Figure 7C

- Connector pins within 2-3 mm of plug face are seated correctly (see Figure 7D) for examples of different pin depths.



Figure 7D





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8. PTC Connectors to be Examined for Terminal Pin Push-Out

- 8.1. Remove PTC connectors from HV Battery Pack.
- 8.2. Once connectors have been removed, inspect terminal pins for terminal pin push-out.
- 8.3. Conduct a "Push/Pull Test on the circuit pins" from the back of the connector in an attempt to re-seat pins on circuits that appear to be not completely seated.

NOTE: The high voltage connector female terminal pins could potentially be susceptible to terminal pin push-out causing several electrical concerns and MIL illumination. All high voltage pins should be flush with the face of the connector. While the battery is removed for replacement closely inspect all high voltage cable female pins for possible terminal pin push-out.

PTC Pin Depth Examples



Figure 8A

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TITLE: High Voltage Battery Recall

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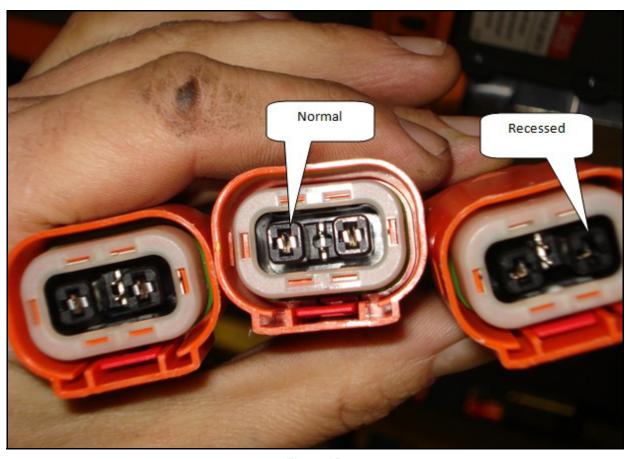


Figure 8B

8.4. Re-assemble all connectors, check for coolant leaks, and check coolant fill level in reservoir. Charge vehicle using the supplied travel cord or the wall charger for at least 6 hours. Re-install any removed fuses. Check for codes, record any codes present and then clear all codes. Road test vehicle and enter a case on the Fisker Technical Support System (TSS) stating repair has been completed.





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TITLE: High Voltage Battery Recall

9. Programming Battery (If Necessary)

Preparing the Vehicle for ECU Flash Reprogramming

9.1. Disconnect the vehicle from High Voltage Wall Charger.

9.2. If the Battery is not at least 12.2 volts, connect the positive lead of the battery charger to the B+ positive post at the PDC with Fisker Special Tool **FST9001 – Battery Charging Terminal Adaptor** (to be used for all electrical system testing and charging). Connect the – Negative lead to the Accessory Power Module (APM) ground terminal.



Figure 9A

FST9001 - Battery Charging Terminal Adaptor (red arrow) installed on the B+ post in the PDC.

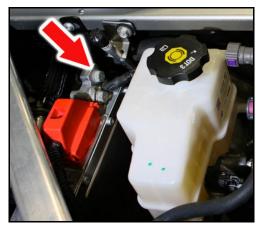


Figure 9B

Negative chassis ground (red arrow) location on Accessory Power Module (APM).

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NOTE: Battery voltage must be maintained between 12.2 and 16 volts while flashing an ECU.

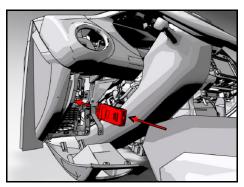
9.3. Before ECU flash reprogramming can be started; the vehicle must be in ACC (Accessory mode).

- With the vehicle completely off, press the SSB (Start/Stop Button) once. The SSB backlighting will turn amber and the Drivers Information System (DIS) will display "ACC."
- 9.4. When an ECU is being reprogrammed; the vehicle must be prevented from going into "Sleep" mode. This can be accomplished simply by turning on the Hazard Warning Lights.

NOTE: If the vehicle goes into sleep mode while an ECU is being reprogrammed; the reprogramming may be unsuccessful and can potentially damage the ECU.

Connect Laptop for ECU Reprogramming

9.5. Connect the WDI to the Data Link Connector (DLC) located underneath the driver's side dash. Then connect the WDI to the Fisker laptop with the provided USB cable.



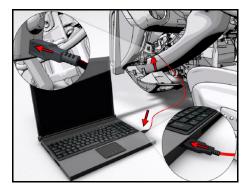


Figure 9C

NOTE: It is recommended to use the USB cable when flash reprogramming an ECU. It is faster and more reliable than using the Bluetooth connection.





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- 9.6. Select "user, default" to move on to the MDI Configuration screen.
- 9.7. Select WDI (Connection Type USB) by clicking on it once. When the gray box turns green, the WDI is ready to use.



Figure 9D

9.8. With a WDI selected, click on "Next Action" to move to the VIN Entry Screen. Enter the vehicle information to continue.

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Flash Reprogramming with Flash Application Lite

- 9.9. After opening FiskerWT and entering the vehicle information; select "Flash Application Lite" in the System Navigation menu.
- 9.10. Click once to highlight "Flash Application Lite." Click on "Next" in the bottom right hand corner of the screen to continue.

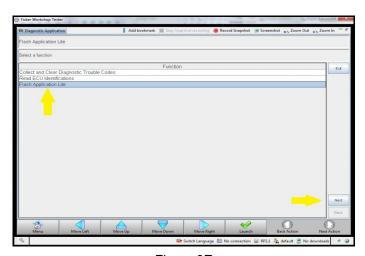


Figure 9E

9.11. In the next screen, select BECM (because the ECU has to be flashed). Consult the FlashApp Cheat Sheet to determine the flash files required to update the ECU to the desired baseline level.

ECU	ВЕСМ
SBL	BECM_SBL_0154_00_03.zip
APP	BECM_APP_0156_00_14.zip
CAL	BECM_CAL_014F_00_00.dsc.hex





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9.12. After verifying that the correct files are selected, begin the update by clicking on the "Start Flash" button.

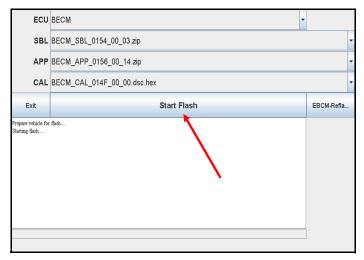


Figure 9F

9.13. The scan tool will begin to reprogram the ECU once "Start Flash" has been clicked. In the message box, you will be alerted to the status of the flash.



DO NOT DISTURB THE VEHICLE OR INTERRUPT THE CONNECTION BETWEEN THE SCAN TOOL AND THE VEHICLE ONCE FLASHING HAS STARTED.

THE PROGRESS BAR MAY LOOK FROZEN – THIS IS NORMAL. IF THERE IS A PROBLEM YOU WILL BE ALERTED THAT THE FLASH HAS BEEN UNSUCCESSFUL.





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9.14. When the ECU flash reprogramming has finished; you will be prompted with a message similar to:

"Flashing of [ECU SBL XXXX 00 00.zip, ECU APP 0350 04 00.zip] SUCCESS"

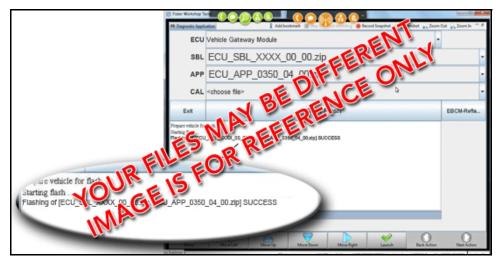


Figure 9G

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TITLE: High Voltage Battery Recall

Power Down and Power Up Vehicle

- 9.15. Once the flash is successful; power down the vehicle, open the hood and disconnect the 12 volt battery via connector C104.
- 9.16. With the battery disconnected, remove Fuse 27 (25 amp) from the Power Distribution Center. This will disable the Solar Panel from powering the 12 volt battery.
 - Let the vehicle sit for 10 minutes to clear the memory cache in the ECUs.

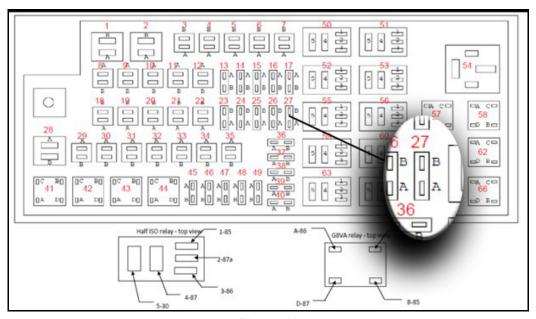


Figure 9H

- 9.17. Reconnect the 12 volt battery via connector C104 and install Fuse 27 (25 amps).
- 9.18. Turn the vehicle back on to System Ready mode and clear all Diagnostic Trouble Codes (DTC) using the scantool.
 - If the MIL light is displayed, turn the vehicle off and then on 3 times to clear the MIL.

NOTE: If MIL light is still displayed, use the scan tool to read DTC codes and diagnose accordingly.

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TITLE: High Voltage Battery Recall

10. Attach Recall Campaign Label

10.1. Once recall is complete, please fill in Campaign Label C1800TAG002 with campaign no. "51611001", your retailer code, and repair date. Affix to top surface of the right front shock tower (see red arrow). A sufficient supply of labels will be sent directly from Fisker Automotive. Additional Campaign Labels are available through the Parts Order system on the GRID.



Figure 10A

NOTE: Example of Recall Campaign Label.

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_
_

Figure 10B



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TITLE: High Voltage Battery Recall



Shipping Hazardous Material.

Retailers may be requested to return new or used parts that are considered hazardous materials (HAZMAT). Due to the nature of this practice, Fisker Automotive (FA) requires HAZMAT Training and Certification for at least 1 person at each FA Retailer in accordance with the Code of Federal Regulation requirements (49CFR training).

The following items are considered HAZMAT regardless of shipping method, and may not be shipped by persons without HAZMAT certification:

- Airbags
- Pyrotechnic seatbelts
- Wet filled batteries
- Lithium-Ion Battery

Please use the contact information below for the specific details in the return of the High Voltage Battery.

HV Battery Shipping Instructions

Shipping instructions

Carrier Dealers are to ship via:

Federal Express Freight

A123 Systems Account number for FedEx Freight is # 107752234

Ship the packs to:

Logistics Insight

537 Bradford

Pontiac, MI. 48341

Advance notice of shipment and the tracking number from Federal express should be emailed to Karl Schmidt and Mark Giordano.

kschmidt@a123systems.com Cell Phone 857-636-1335 mgiordano@a123systems.com Cell Phone 339-203-3099

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SAFETY RECALL

FISKER AUTOMOTIVE, INC.

NUMBER: 51611001.04 DATE: May 22, 2012 MODEL: Karma MODEL YEAR: 2012

TITLE: High Voltage Battery Recall

PARTS REQUIRED:

PART NUMBER	DESCRIPTION
C131118001001	High Voltage Battery Pack
C1800TAG002	Campaign Label

SHOP SUPPLIES:

DESCRIPTION
N/A

SPECIAL TOOLS:

DESCRIPTION
FST1001 – HV Battery Pack Support Cradle
FST1022 – Battery Lifting Kit
FST9001 – Battery Charging Terminal Adaptor
Midtronics MDX Series Tester (or equivalent)

LABOR CODES:

CODE	DESCRIPTION	TIME	DEFECT CODE
16-20-02-08	Recall 51611001	2.5	16-20-02-98
00-99-20-09	Firmware/Software Update (if required)	0.5	00-99-20-98

SUBLET:

CODE	DESCRIPTION	AMOUNT
HDL	Handling	\$200

CAUSAL PART:

PART NUMBER	DESCRIPTION
C131118001001	High Voltage Battery Pack

WARRANTY DISPOSITION:

Vehicles with a valid warranty

CONTACT:

Fisker Automotive 5515 E. La Palma Anaheim CA 92807

Tel: +1 949 - 433 -1368 Fax: +1 714 888 4256

Website: www.fiskerautomotive.com

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