| | | GROUP | NUMBER 16-01-024 | |
|--|---|------------------|--------------------------|--|
| Technical Service Bulletin | | DATE MAY 2016 | MODEL(S) SONATA (LFa) | |
| SUBJECT: | 2016MY SONATA ELECTRIC PARKING BRAKE (EPB) LOGIC UPDATE (SERVICE CAMPAIGN TFF) | | | |
| Dealers mu delivery an When a ve | *** Dealer Stock and Retail Vehicles *** Dealers must perform this Service Campaign on all affected vehicles prior to customer retail delivery and whenever an affected vehicle is in the shop for any maintenance or repair. | | | |

Description: 2016MY Sonata vehicles equipped with the optional Electric Parking Brake (EPB) incorporate a feature to measure the clearance between the brake pad and rotor assemblies. If the parking brake is not applied at least once within a 1,000 km period, self-check software will activate the rear brake pads (apply/release) after the vehicle is placed in Park and the ignition is turned off. Due to the system's logic, it is possible for the rear brake pads to remain in contact with the rotors after this verification process, and the rear brakes may "drag" during the next drive cycle requiring the customer to release the parking brake. This bulletin describes the service procedure to update the EPB control logic (controlled by the electronic stability control (ESC) module) to ensure the EPB is left in the correct state following the clearance verification process.

Vehicle Information" screen via WEBDCS to identify open Campaigns.



Applicable Vehicles: Certain 2016 Sonata (LFA) vehicles.

Circulate To: General Manager, Service Manager, Parts Manager, Warranty Manager, Service Advisors, Technicians, Body Shop Manager, Fleet Repair

SUBJECT: 2016MY SONATA (EPB) LOGIC UPDATE (SERVICE CAMPAIGN TFF)

GDS Information:

| Event # | Description |
|---------|-----------------------------------|
| 405 | LFA ESC CONTROL LOGIC IMPROVEMENT |

ROM ID Information Table:

| Model | Model Year | HECU Part Number | Old ROM ID | New ROM ID |
|------------|------------|------------------|------------|------------|
| LFa Sonata | 16MY | 58920-C2600 | 1.4 1.5 | 1.6 |

Warranty Information:

| Model | Op. Code | Operation | Op. Time |
|-------|----------|-------------|----------|
| LFa | 60CA02R0 | ESC Upgrade | 0.3 M/H |

Service Procedure:

- **NOTICE** This Service Procedure is performed using PC-based GDS, or GDS-mobile. For update information and general precautions, please refer to TSBs #15-GI-001 and #15-GI-002.

PC-Based GDS Procedure: AUTO MODE

1. From the ECU Upgrade screen, select **AUTO MODE** and click **Next**.



2. Select **ABS/ESC** for System, and click **OK**.



3. After the Current ROM ID is displayed, select the upgrade event "405.LFA ESC CONTROL LOGIC IMPROVEMENT." Click Upgrade to continue.

| | VCI : | WLAN On 🔍 VMI : Off 🔍 | Internet : Off | D-Number:160419001F Dagw | sis Finish 📃 🗙 |
|--------------------------|---|---|----------------------------------|-----------------------------------|----------------|
| GD | Preparation | Diagnosis Veh | icle S/W Management | Repair | 0 |
| Vehicle SONATA(LF | A)/2016/G 2.4 GDI | System 🕨 | Brake/ABS/ESC | | 0 8 |
| Vehicle S/W Management | ECU Upgrade | | | | |
| ECU Upgrade 🗈 | Event Group | Event List | | Т | в |
| Mode Auto Mode | Current ROM ID Latest ROM ID | 58920-C2600_1.4 58920-C2600_1.6 | | | |
| • System ABSESC | 405 LFA ESC CONTROL | L LOGIC IMPROVEMENT | | | |
| | | Previous | Upgrade | | |
| | Event selection Review and understan Select reprogramming Click the Ungrade butt | d related TSB for vehicle repro event from Upgrade Event put on to begin ECU upgrade. | ogramming, I down menu above, | | 1 |
| Audio Update | | | | | |
| ID Register | | | | | |
| Option Treatment | | | | | |
| Data Treatment | | | | | |
| Inspection / Test | | | | | |
| ECU Mapping Verification | | | | | <u> </u> |
| Setup Manual TSB | Case Analysis DTC Cur | rent Data Actuation Test Flight Rec | ord e-Report Upda | te ECU Upgrade Fault Co Search | ng |

SUBJECT:

2016MY SONATA (EPB) LOGIC UPDATE (SERVICE CAMPAIGN TFF)

- After confirming USB cable is connected between VCI and laptop PC, and that the vehicle's battery has adequate charge, the update will begin. After update progress reaches 100%, turn the ignition OFF for 10 seconds, then back ON again.
- 5. Update completion confirmation window will be displayed, along with ROM ID.



- 6. Check for any incidental diagnostic trouble codes (DTCs) and clear any present.
- 7. Start the engine to confirm proper operation of the vehicle.

PC-Based GDS Procedure: MANUAL MODE

- 1. From the ECU Upgrade screen, select **MANUAL MODE** and click **Next**.
- 2. Select **ABS/ESC** for System, and click **Next**.
- 3. Select the upgrade event "405.LFA ESC CONTROL LOGIC IMPROVEMENT" and click Next.



4. GDS will display latest ROM ID. Select "LFA ESC 58920-C2600", then click Upgrade.



5. A prompt for password will be displayed. Input the password according to the table below.

| Password | |
|----------|--------|
| ок | Cancel |

| MENU | PASSWORD |
|--------------------|----------|
| LF ESC 58920-C2600 | 2600 |

- 6. Vehicle battery voltage will be checked for at least 12 volts to ensure reliable upgrade results. Click **OK** if the results indicate voltage is ok.
- 7. Upgrade will begin and the upgrade progress will appear on the bar graph.
- 8. After upgrade reaches 100%, turn the ignition to **OFF** for 10 seconds, then back **ON**. Click **OK** to continue.
- 9. Click **OK** on the final screen.
- 10. Check for any incidental diagnostic trouble codes (DTCs) and clear any present.
- 11. Start the engine to confirm proper operation of the vehicle.

SUBJECT:

GDS Mobile Procedure: Auto Mode

1. Starting from the ECU Upgrade menu, select AUTO MODE.



 Select ABS/ESC system and click ID Check. Current ROM ID will be displayed along with update ROM ID. Select "405.LFA ESC CONTROL LOGIC IMPROVEMENT." Verify ROM IDs according to the ROM ID Table on page 1. Click Upgrade to continue.

| GDS 5NPE34AB9GH328843 | 05/ | /04/16 | 14:01 |
|---|--|--|------------|
| HOME OffLine SONATA(LFA)/2016/G 2.0 T-G | VCI 🚌 | Ð | 33 |
| ECU Upgrade | | | ₽ |
| ⇔ SONATA(LFA) > 2016 > G 2.0 T-GDI | | | |
| System | | | |
| ABS/ESC CLU | |) | |
| ROM ID | | | |
| Currently in Vehicle 58920-C2600_1.5 | ID Ch | ack | |
| Latest Update 58920-C2600_1.6 | ib cite | COR | |
| Event Group | | TSB | |
| A05.LFA ESC CONTROL LOGIC IMPROVEMENT | | | |
| Previous Upgrade | | | |
| Information | | | ¥ |
| • CAUTION | | | |
| DO NOT start the engine and DO NOT turn the ignition key to during the ECU upgrade. Z. Ensure that the battery is fully charged BEFORE beginning ECU. Gonfirm the target vehicle/system BEFORE berforming a m ECU upgrade. A Review the applicable TSB/procedure before performing an EC Do not touch any system buttons while performing to | the OFf Jupgrad anual/er Uupgra his func | F posit le. rror mo de. stion. | ion ode |

2016MY SONATA (EPB) LOGIC UPDATE (SERVICE CAMPAIGN TFF)

3. Read the caution note, then click **OK** to continue.



4. ECU Upgrading graph will display in two parts. After ECU Upgrading...(2/2) reaches 100%, turn the ignition **OFF** for 10 seconds, then back **ON** again. Click **OK** to continue.



5. Click **OK** after "ECU Upgrade has successfully finished" message is displayed.

| | 100% |
|----------------------|--------------------------------------|
| | Succeed |
| The E | CU Upgrade is successfully finished. |
| ROM ID | |
| Currently in Vehicle | 58920-C2600_1.6 |
| Latest Update | 58920-C2600_1.6 |
| | |

6. Click Yes to search for fault codes in <u>all systems</u>. Clear any DTCs found.

| Notice | | | |
|--------|---------------------|---------------------|--|
| | Do you want run Fai | Ilt Code Searching? | |
| | | | |

7. Start the engine to confirm proper operation of the vehicle.

GDS Mobile Procedure: Manual Mode

- 1. Starting from the ECU Upgrade menu, select MANUAL MODE.
- 2. Select **ABS/ESC** system, and select "**405.LFA ESC CONTROL LOGIC IMPROVEMENT.**" Verify upgrade ROM ID according to the ROM ID Table on page 1. Click **Upgrade** to continue.

| GDS 5NPE34AB9GH328843 | 05 | /04/16 | 14:20 |
|--|----------|--------|-------|
| HOME OffLine SONATA(LFA)/2016/G 2.0 T-G | VCI 🚌 | Ð | 3-3 |
| ECU Upgrade | | | ₽ |
| 📾 SONATA(LFA) > 2016 > G 2.0 T-GDI | | | |
| System | | | |
| ABS/ESC CLU | | ; | |
| Event Group | - 1 | тѕв | |
| 405.LFA ESC CONTROL LOGIC IMPROVEMENT | | Ţ. | |
| LFA ESC 58920-C2600 | | | |
| Latest Update 58920-C2600_1.6 | | | |
| Previous Upgrade | | | |
| Information | | | * |
| Po not touch any system buttons while performing | this fun | ction. | |

3. Input the appropriate password according to the table below, then click OK.

| MENU | PASSWORD | |
|--------------------|----------|---|
| LF ESC 58920-C2600 | 2600 | |
| | | |
| ECU Upgrade | * | 2 |
| Password | | |

| • |
|---|
| |
| |
| |
| |

4. Read the caution note, then click **OK** to continue.

- 5. ECU Upgrading graph will display in two parts. After ECU Upgrading...2/2 reaches 100%, turn the ignition **OFF** for 10 seconds, then back **ON** again. Click **OK** to continue.
- 6. Click **OK** after "ECU Upgrade has successfully finished" message is displayed.
- 7. Click **Yes** to search for fault codes in <u>all systems</u>. Clear any DTCs found.
- 8. Start the engine to confirm proper operation of the vehicle.