		GROUP	MODEL					
Electrical 2012MY Soul (AM) 2012MY Optima (Q								
NUMBER DATE								
	060 August 2014							
	TECHNICAL SERVICE BULLETIN							
SUBJECT:	SUBJECT: COMBINED TSB/SERVICE ACTION: OPTIMA (QF) AND SOUL							
	(AM) AVN AND BASE AI	JDIO SYSTEM UPGF	RADE (SA168)					

This bulletin provides the procedure for upgrading the navigation system and base audio system software of some 2012MY Optima (QF) and some 2012MY Soul (AM) vehicles, to improve Bluetooth[®] connectivity. Kia is requesting the completion of this Service Action on all affected vehicles. Before conducting the procedure, verify that the vehicle is included in the list of the affected VINs.

For vehicles not on the Affected Vehicles list, but with a customer concern as described above, perform the following procedure outlined in this bulletin and submit a warranty claim per "customer concern" (Standard TSB) claim information on page 12.



GDS - Audio Update Module (AUM)

***** NOTICE

This is a software upgrade for the navigation operating system and <u>NOT</u> a map upgrade.

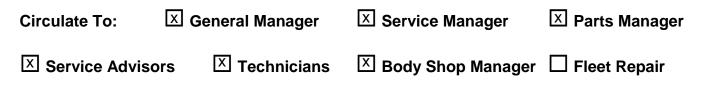
***** NOTICE

A Service Action is a repair program without customer notification that is performed during the warranty period. Any dealer requesting to perform this repair outside the warranty period will require DPSM approval.

Repair status for a VIN is provided on WebDCS (Service> Warranty Coverage> Warranty Coverage Inquiry> Campaign Information). Not completed Recall / Service Action reports are available on WebDCS (Consumer Affairs> Not Completed Recall> Recall VIN> Select Report), which includes a list of affected vehicles.

This issue number is <u>SA168</u>.

File Under: <Electrical>



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SUBJECT: COMBINED TSB/SERVICE ACTION: OPTIMA (QF) AND SOUL (AM) AVN AND BASE AUDIO SYSTEM UPGRADE (SA168)

STEP 1: Optima (QF) / Soul (AM) AVN Operating System Upgrade

(For Optima (QF) / Soul (AM) Base Audio update, proceed to Page 8)

***** NOTICE

- Delete all paired phones from the system and delete the head unit from all phones. If you do not delete phones, the phone(s) will still show and act as paired, but performance or functionality issues may occur. Anytime a software update is performed to either a paired phone or the system, the pairing should be deleted from both phone and system and then paired again after update.
- A fully charged battery is necessary before audio head unit upgrade can take place. It is recommended that the Midtronics GR8-1299 system be used, in ECM mode, during charging. DO NOT connect any other battery charger to the vehicle during audio head unit upgrade.

***** NOTICE

USB sticks containing the 12MY QF/AM AUDIO/AVN upgrade for this TSB may <u>NOT</u> be available at the time of launch. Soon after release of this TSB, the USB sticks will be shipped to each dealer and will be addressed to the Service Manager.



Prior to arrival of the USB sticks, perform the upgrade using the GDS AUM.

- 1. Start the vehicle or connect the Midtronics GR8-1299 charger.
- 2. Record the customer's radio presets before performing the upgrade.
- If performing the update using the GDS AUM, refer to TSB SST 032 or click on User's Guide > GDS AUM on the GDS main screen, as shown below, and follow the on-screen instructions.

Preparation	Disesseis	Vishisle CANIMenand	Densis	O Hardware
	Diagnosis	Vehicle S/W Management	Repair	GDS Basic Operation
Vehicle Info •	Basic Inspection	ECU Upgrade	Replacement	GDS Preparation
Hot Fix	DTC Analysis	Audio Update	Component Info	GDS Diagnosis
By DTC	Data Analysis	ID Register	Circuit Diagram	GDS Vehicle SW Management
By Symptom	Case Analysis	Option Treatment		GDS Repair
▶By Model	E Flight Record	Data Treatment		o vm
►By VIN	Cocilloscope	Inspection / Test		 Appendix
	CARB OBD-II	ECU Mapping Verification		User's guide for optional Item
				GDS TPMS
Go to > 0				ODS AUM

TSB: ELE 060 / SA 168 Optima (QF), Soul (AM) August 2014

4. If performing the update using a USB stick, obtain the 12MY QF/AM AUDIO/AVN update USB stick from your Service Manager and insert it in the vehicle's USB port. Make sure to allow for the sound file to play for two seconds before proceeding to the next step.

* NOTICE

Do not remove the USB thumb drive, AUM connector or turn the radio OFF while the update is in progress.



5. Press the **SETUP** button.



- 1. AVN System Update
- 2. Bluetooth System Update (see page 6)

Update

The combined update will take approximately 10 to 15 minutes to complete.

 VIC
 PUSH
 PUSH

6. Touch **Main** on the screen.

***** NOTICE

Screens shown in this bulletin are for demonstration purposes only and will vary depending on the vehicle.



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SUBJECT: COMBINED TSB/SERVICE ACTION: OPTIMA (QF) AND SOUL (AM) AVN AND BASE AUDIO SYSTEM UPGRADE (SA168)

7. Touch **System Info** on the screen.









8. Touch **Map Upgrade** on the screen.

9. The system will verify the update on the USB thumb drive.

 If update verification is not successful, the system will display an error message. If using a USB thumb drive, make sure it is the correct version.

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SUBJECT: COMBINED TSB SERVICE ACTION: OPTIMA (QF) AND SOUL (AM) AVN AND BASE AUDIO SYSTEM UPGRADE (SA168)

11. If update verification is successful, touch **YES** on the screen to begin installation.



12. The system will begin the upgrade and the progress will be displayed on the bar graph. After the update is complete, the head unit screen will go dark. Turn the radio **ON** and proceed to the next step.

***** NOTICE

Do not remove the USB thumb drive, AUM connector or turn the radio OFF while the update is in progress.

BSP	Upgrading
APP	
ACC	Shutting down system or ejecting
MAP	media may cause system crash.
BLUETOOTH	Please wait until upgrade completed.
MONITOR	
MICOM	

 Access the System Information screen (SETUP > Main > System Info) to confirm the upgrade software version matches the information shown in the table below:

Model	Upgrade Software Version
Optima (QF)	TF_nd.USA.SOP.01.039
Soul (AM)	AM.USA.SOP.00.024



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SUBJECT: COMBINED TSB/SERVICE ACTION: OPTIMA (QF) AND SOUL (AM) AVN AND BASE AUDIO SYSTEM UPGRADE (SA168)

STEP 2: Optima (QF)/ Soul (AM) Bluetooth[®] System Upgrade

 Once the AVN update is complete, proceed with the Bluetooth System Update: Press the **PHONE** button to display the dialing screen.

***** NOTICE

Do not remove the USB thumb drive, AUM connector or turn the radio OFF while the update is in progress.



2. Press **Settings** on the screen.

Phone		3				
Not con	nected				3 per	
Kia Consum	er Assistance	e Center	4.000	Such	6 MNO	
(800) 333-4	KIA		71-200	8 tuv	9 wxyz	
SEND	- Leven	END	×	0	#	
Contacts		*	inters.	🍅 Se	ttings	

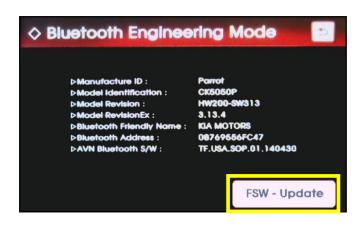
3. To access the Bluetooth Engineering Mode, use a finger to touch the bottom left corner of the screen (1), then, immediately touch area above the **Connections** button (2), as shown.



4. Once in the Bluetooth Engineering Mode screen, press **FSW – Update** to begin the installation.

***** NOTICE

The update will take approximately two (2) minutes to complete.



 The system will begin the upgrade and the progress will be displayed on the bar graph. Once the update is complete, <u>turn the ignition OFF for five</u> (5) seconds. Then, <u>t</u>urn the ignition back **ON** and power up the head unit.



6. Perform step 3 again to access the Bluetooth Engineering Mode screen and confirm the upgrade software version matches the information shown in the table below:

Model	Bluetooth Software Version
Optima(QF) / Soul (AM)	3.32.1 ~ 3.32.42.



- 7. Restore the customer's radio presets as recorded in step 2 (Page 2).
- 8. Verify proper system operation by obtaining the customer's phone(s) and pairing it (them) with the system. If the customer's phone is not available for pairing, inform the customer that the phone must be paired to the head unit.

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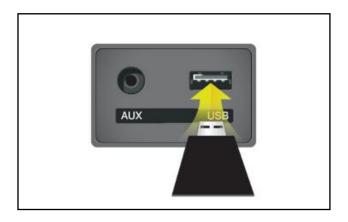
SUBJECT: COMBINED TSB/SERVICE ACTION: OPTIMA (QF) AND SOUL (AM) AVN AND BASE AUDIO SYSTEM UPGRADE (SA168)

Optima (QF) / Soul (AM) Base Audio System Upgrade Procedure:

- 1. Start the vehicle or connect the Midtronics GR8-1299 charger.
- 2. Record the customer's radio presets before performing the upgrade.
- 3. If performing the update using the GDS AUM, refer to TSB SST 032 or click on User's Guide > GDS AUM on the GDS main screen, as shown below, and follow the on-screen instructions.

Vehicle System EignetEngine Control Preparation Diagnosis Vehicle SW Management Repair Vehicle Info Basic Inspection ECU Upgrade Replacement Vehicle Info Basic Inspection ECU Upgrade Replacement B Hot Fix DTC Analysis Audio Update Component Info Sky DTC Data Analysis Option Treatment Circuit Diagram Sky Model Flight Record Data Treatment Consponent Info Sky VIN Gostiloscope Inspection / Test Vinit CARB OBD-II ECU Mapping Verification User's guide for optional Item Outsource GDS TPMS Option Treatment Socio Socio Socio		VCI: Off	VMI Off S Internet Off	-×	User's Guide
Preparation Diagnosis Vehicle SW Management Repair a Vehicle Info Basic Inspection E ECU Upgrade Replacement a Hot Fix D TC Analysis B Audio Update Component Info a By DYC D Data Analysis B ID Register Circuit Diagram a Sy Symptom C case Analysis B Option Treatment a By Nodel Flight Record D Data Treatment a Vince Inspection / Test a CARB OBD-II E CU Maprig Verification a Carso GDB-III E CU Maprig Verification a Component Info User's guide for optional Item a Construction Cost These a Cost Obs Diagnosis Doton Treatment a Cost Repair Vinit a Carso Obs Diagnosis Appendix b Cost Diagnosis Cost Approximation a Cost Strategies Data Treatment a Cost Repair Vinit b Cost Repair Startegies a Cost Repair Distartegies a Cost Repair Distartegies a Cost Repair Distartegies a Cost Repair Distartegies	D) FEEDBA	CK Techline O	User's Guide Notice 0	Configuration Search	User's Guide (User's manual is provided in PDP document form, and may take more than 10 seconds at the very first attempt
Preparation Diagnosis Vehicle SW Management Repair IVehicle Info Basic Inspection II ECU Upgrade Replacement II Hot Fix ID TC Analysis II Degister Component Info IBy Symptom Case Analysis II Degister Circuit Diagram IBy Symptom Case Analysis II Degister Circuit Diagram IBy Nodel Flight Record ID bata Treatment Cost Diagnosis IB CARB OBD-III ECU Mapping Verification Verification Vehicle SW Management IB CARB OBD-III ECU Mapping Verification Verification Verification II Case On Contract Co	Vehicle RIO(UB)/201	2/G 1.6 GDI	System Engine/Engine C	ontrol	Overview
a Vahicle Info B Basic Inspection B ECU Upgrade B Replacement a Vahicle Info B DTC Analysis B Audio Update Component Info By DTC B Data Analysis B D Degister B Circut Diagram By Symptom C Case Analysis B Option Treatment B Contro Treatment By VIN D Oscilloscope B Inspection / Test Component Info B CARB OBD-II B ECU Mapping Verification Component Info Component Info B CARB OBD-II B ECU Mapping Verification Component Info Component Info B CARB OBD-II B ECU Mapping Verification Component Info Component Info B CARB OBD-II B ECU Mapping Verification Component Info Component Info B CARB OBD-II B ECU Mapping Verification Component Info Component Info B CARB OBD-II B ECU Mapping Verification Component Info Component Info B CARB OBD-II B ECU Mapping Verification Component Info Component Info B CARB OBD-II B ECU Mapping Verification Component Info Component Info B CARB OBD-II B ECU Mapping Verification Component Info Component Info	Preparation	Diagnosis	Vehicle S/W Management	Repair	
I Hot Fix B DTC Analysis B Adulo Update Component Info -By DTC B Data Analysis B ID Register Circuit Diagram -By Symptom C case Analysis D Option Treatment Circuit Diagram -By Model Flight Record B Data Treatment Component Info -By VIN O occilloscope I Inspection / Test -Big Component E CUM Mapping Verification Component Info -Big Component B Data Treatment Component Info -Big Component	Vehicle Info 0	Basic Inspection	ECU Upgrade	Replacement	
By DTC II Data Analysis II Degister II Circuit Diagram By Symptom II Case Analysis II Option Treatment II Option Treatment By Model II Flight Record II Data Treatment II Oscilloscope By VIN II Oscilloscope II Inspection / Test II CARB OBD-II II ECU Mapping Verification II ECU Mapping Verification II CARB OBD-II II ECU Mapping Verification II ECU Mapping Verification	Hot Fix	DTC Analysis	Audio Update	Component Info	
By Symptom B Case Analysis B Option Treatment By Model B Flight Record B Data Treatment By VIN B Oscilloscope B Inspection / Test B CARB OBD-II B ECU Mapping Verification C ABB OBD-II B ECU Mapping Verifica	BV DTC	Data Analysis	ID Register	Circuit Diagram	
By Model II Flight Record II Data Treatment By VIN II Oscilloscope II Inspecton / Test III CARB OBD-II III ECU Mapping Verification III COMPANY COMPAN					
By VIN B Oscilloscope B Inspecton / Test B CARB OBD-II B ECU Mapping Verification • Vian CARB OBD-II B ECU Mapping Verification • Vian Control • Vian Contro					
CARB OBD-II B CCU Mapping Verification Construction					
© CDS TPMS © CDS TPMS	- by vilv				
Goto aum		CARB OBD-II	ECU Mapping Ventication		
	Go to 2				GDS AUM
		Car Maple		Level Milling Will	
and the second sec					

4. If performing the update using a USB stick, obtain the 12MY QF/AM AUDIO/AVN update USB stick from your Service Manager and insert it in the vehicle's USB port. Make sure to allow for the sound file to play for one second before proceeding to the next step.



5. Turn the head unit OFF.



Screens shown in this bulletin are for demonstration purposes only and will vary depending on the vehicle.



Press and hold buttons "1" and "4" at the same time for one second. Immediately after releasing buttons "1" and "4", press button "1" four (4) times in a row to access the Engineering Mode screen.



 Once in the Engineering Mode screen, make sure there is a letter "F" in parentheses (F) at the upper left corner of the screen. Then, press button "1" to access the firmware update menu

***** NOTICE

If the (F) is not present on the screen, restart the procedure from step 4.

8. Press button "4" to update **MICOM**.

***** NOTICE

Do not remove the USB thumb drive, AUM connector or turn the radio OFF while the update is in progress.





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SUBJECT: COMBINED TSB/SERVICE ACTION: OPTIMA (QF) AND SOUL (AM) AVN AND BASE AUDIO SYSTEM UPGRADE (SA168)

 The upgrade will begin and system will display Erasing -> Writing -> Verifying on the screen.

***** NOTICE

The update will take approximately one (1) minute to complete.

 Power up the head unit, then, press and hold buttons "1" and "6", at the same time, for one second to check the software version matches the information shown in the table below:

Model	Upgrade Software Version
Optima (QF) / Soul (AM)	V8.00.USA





- 11. Restore the customer's radio presets as recorded in step 2.
- 12. Verify proper system operation by obtaining the customer's phone(s) and pairing it (them) with the system. If the customer's phone is not available for pairing, inform the customer that the phone must be paired to the head unit.

REQUIRED TOOLS:

Part Name	Description	Figure	Comments
GDS AUM / Upgrade USB Drive	12MY QF/AM AUDIO/AVN	The second Part	USB sticks for this TSB may not be available at the time of launch. <u>Perform the upgrade</u> <u>using the GDS AUM.</u>

AFFECTED VEHICLE PRODUCTION RANGE:

Model	Production Date Range
Soul (AM)	2012MY
Optima (QF)	2012MY

SERVICE ACTION CLAIM INFORMATION:

N CODE: M51 C CODE: ZZ3

Claim Type	Causal P/N	Qty.	Repair Description	Labor Op Code	Op Time	Replacement P/N	Qty.
V	96120 2T100	0	(SA168QF) Base Audio Software Upgrade	140A03R0	0.3 M/H	N/A	0
V	96120 2T100	0	(SA168QF) AVN Software Upgrade	140A03R1	0.3 M/H	N/A	0
V	96120 2K350	0	(SA168AM) Base Audio Software Upgrade	140040R0	0.3 M/H	N/A	0
V	96120 2K350	0	(SA168AM) AVN Software Upgrade	140050R0	0.3 M/H	N/A	0

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SUBJECT: COMBINED TSB/SERVICE ACTION: OPTIMA (QF) AND SOUL (AM) AVN AND BASE AUDIO SYSTEM UPGRADE (SA168)

STANDARD WARRANTY CLAIM INFORMATION:

Use this information only to file a warranty claim for vehicles for which:

- 1. A customer complains of the same concern, as described on Page 1.
- 2. The VIN does not appear on the Affected Vehicles list for Service Action 168.
- 3. The vehicle model year and production date range are as identified in this bulletin.

N CODE: M51 C CODE: ZZ3

Claim Type	Causal P/N	Qty.	Repair Description	Labor Op Code	Op Time	Replacement P/N	Qty.
W	96120 2T100	0	(ELE 060) Base Audio Software Upgrade (QF/AM)	28325F05	0.3 M/H	N/A	0
W	96120 2K350	0	(ELE 060) AVN Software Upgrade (QF/AM)	28325F08	0.3 M/H	N/A	0

***** NOTICE

VIN inquiry data for this repair is provided for tracking purposes only. Kia retailers should reference SA168 when accessing the WebDCS system.