| The USB does not work.	• USB memory is damaged. • USB memory has been contaminated. • A separately purchased USB HUB is being used. • A USB extension cable is being used. • A USB which is not a Metal Cover Type USB Memory is being used. • A HDD type, CF, SD Memory is being used. • There are no music files which can be played.	• Please use after formatting the USB into FAT 12/16/32 format. • Remove any foreign substances on the contact surface of the USB memory and multimedia terminal. • Directly connect the USB memory with the multimedia terminal on the vehicle. • Directly connect the USB memory with the multimedia terminal on the vehicle. • Use a standard USB memory. • Use a standard USB memory. • Only MP3, WMA file formats are supported. Please use only the supported music file formats.
The iPod is not recognized even though it has been connected.	• There are no titles which can be played. • The iPod firmware version has not been properly updated. • The iPod device does not recognize downloads.	• Use iTunes to download and save MP3 files into the iPod. • Use iTunes to update the firmware version and reconnect the iPod with the device. • Reset the iPod and reconnect with the device.

Body Electrical System > MTS System > Components and Components Location

Components
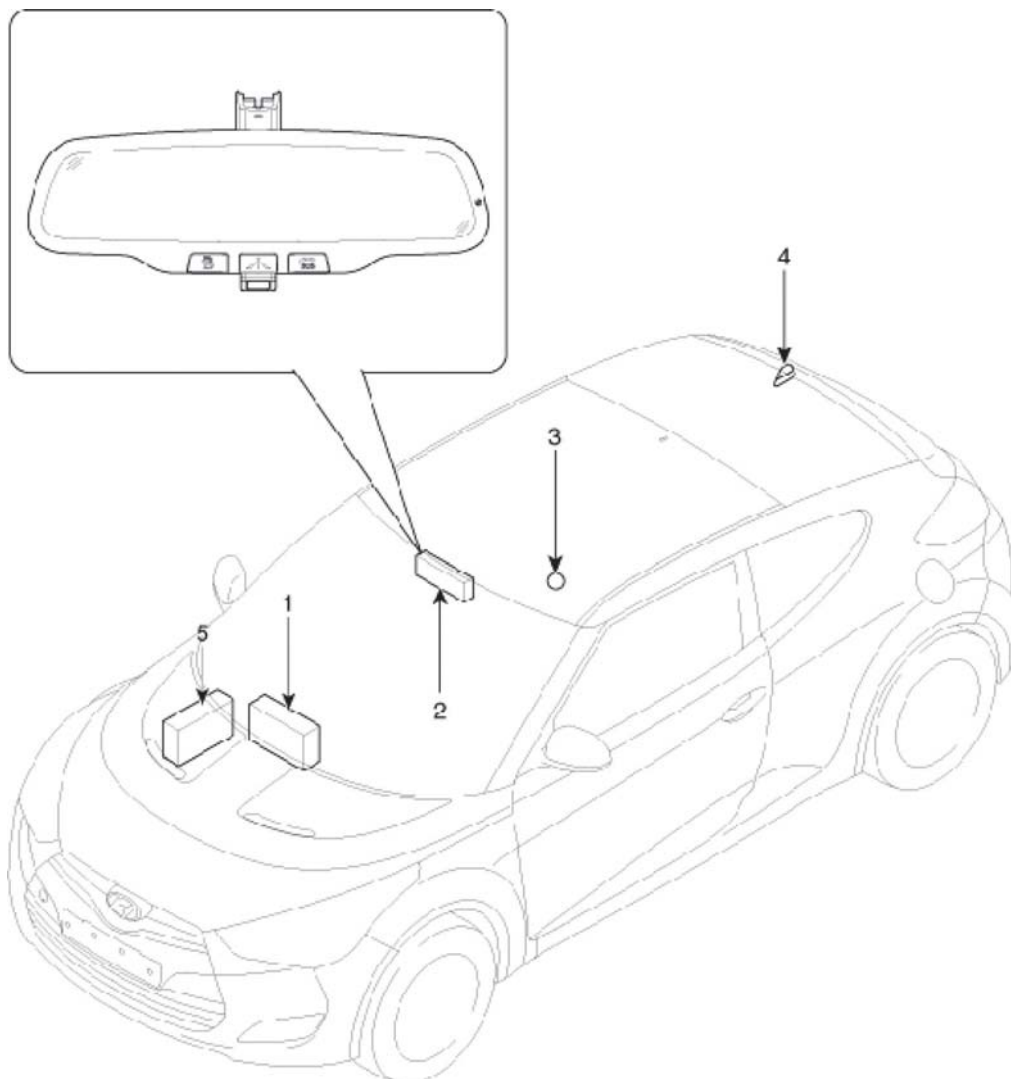
1. AVN	4. Roof Antenna (GPS+CDMA)
2. Room Mirror Switch (Blue Link button, Center button, SOS button)	5. Telematics unit (TMU)
3. Mic	

Body Electrical System > MTS System > Description and Operation

Description

Mobile Telemetics System (MTS)

Hyundai motor companies are now faced with the task of shifting their paradigm from vehicle-centered services to customer valuecentered services, with the ultimate goal of securing global leadership in the fi eld of vehicle IT and telematics.
Hyundai Motor plans to achieve this by realizing a terminal platform fl exible to changes in IT technology, cooperating with global IT companies, creating an eco-system and providing the latest contents & services based on an open environment.
Blue Link is a dynamic, telematics technology that allows Hyundai vehicles to send—and receive—important and useful

information.

The system uses an enhanced cellular network, with automatic roaming, that optimizes connections and prioritizes emergency requests.

With Blue Link you get…

- Automatic emergency assistance, in the unfortunate event of a collision.
- The convenience of point-of-interest search and navigation assistance, as well as the ability to remotely operate various vehicle features.
- The peace of mind of self-diagnostic vehicle reports, and more.

Main Features

1. TMU Concept : Registered driver request the Service from Call Center (Safety and Security, TBT service, etc.)

2. GPS & CDMA Communication : Connect the Call Center by CDMA. Use Simple Navigation System by GPS & CDMA (Only Audio type).

3. Interactive a Voice Recognition & Communication : User can operate the service by Speech Recognition User can use downloaded POI Data by CDMA.

4. Control BCM by Call Center Service : Door Lock/Unlock, Horn/Light, Remote Start/Stop be operate by Service.

Block Diagram
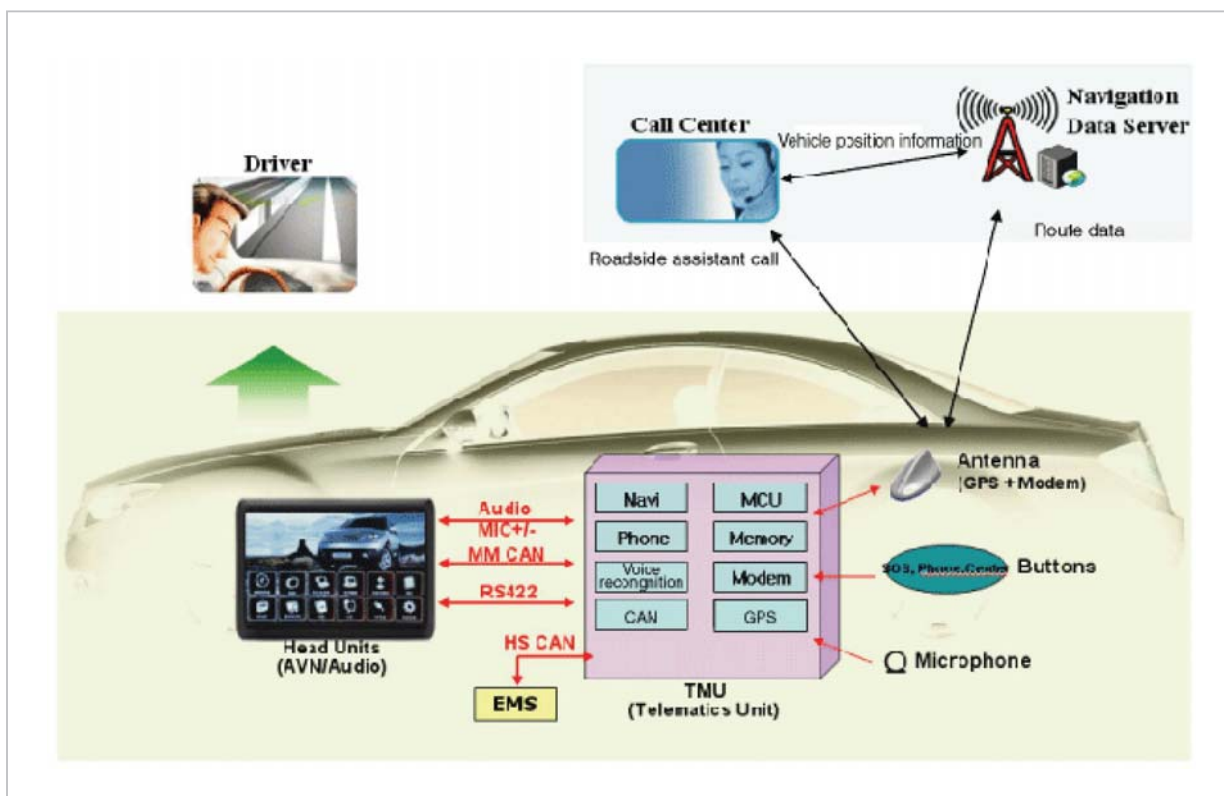
System Components
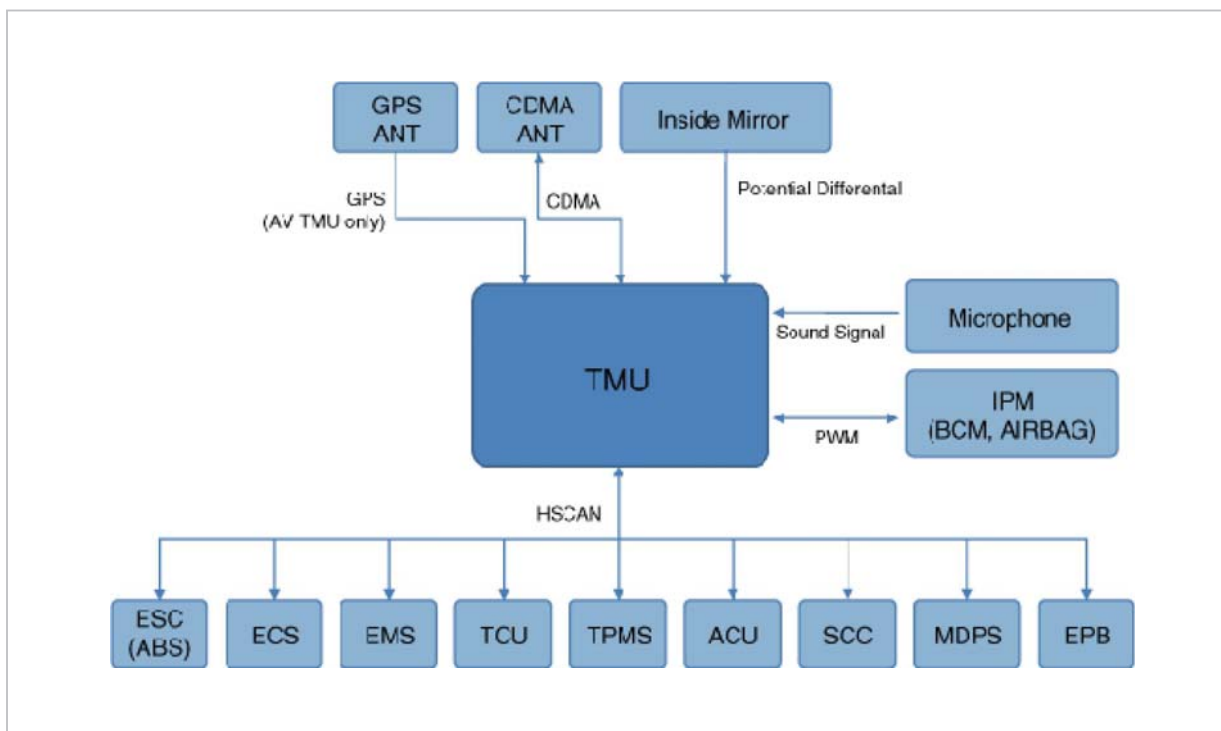
Using procedures

1. Enrolling in Blue Link

   After the enrollment process, you can use to access your Blue Link preferences.

   > **NOTE**
   >
   > For more detail procedure, please refer to the Blue Link owner's manual.

2. Subscribe the Blue Link Packages

   Blue Link services come in three groupings, or packages:

Assurance	• Automatic Collision Notification and Assistance • SOS Emergency Assist • Enhanced Roadside Assist • Monthly Vehicle Report		
Essentials	• Convenience: – Remote Door Lock – Remote Door Unlock – Remote Horn/Lights – Remote Vehicle Start* – Quick Tips – Location Sharing – Voice Text Messaging	• Vehicle Self Diagnostics: – Automatic Diagnostics Trouble Code Notification – Maintenance Alert – Recall Advisor – Service Link	• Safeguard: – Stolen Vehicle Recovery – Stolen Vehicle Slowdown – Vehicle Immobilization – Valet Alert – Panic Notification – Alarm Notification – Geo-Fence – Speed Alert – Curfew Alert
Guidance	• Point of Interest Search by Advanced Voice Recognition • Point of Interest Web Search & Download • Turn-by-Turn Navigation** • Daily Route Guidance with Traffic Conditions • Traffic • Gas Station Locations & Gas Prices • Eco-Coach • Restaurant Ratings & Locations		

	• Weather

Owners can subscribe to Blue Link packages in the following groupings;

  A. Assurance

  B. Assurance + Essentials

  C. Assurance + Essentials + Guidance

3. Setting Blue Link preferences
Many Blue Link features, reports, or alerts require setup, with input from you.

> **NOTE**
>
> For more detail procedure, please refer to the Blue Link owner's manual.

4. Accessing Blue Link preferences

  (1) Smart Phone Mobile Application
    You can download the Blue Link mobile app to your compatible smart phone.
    For more detail procedure, please refer to the Blue Link owner's manual.

  (2) In-car Application
    Controls for Blue Link in-vehicle voice-response use are located on the rearview mirror.

> **NOTE**
>
> For more detail procedure, please refer to the Blue Link owner's manual.

  (3) Web Application
    Many Blue Link features can be customized, activated, or accessed at www.MyHyundai.com.
    This is your important link to getting the most out of your Blue Link system.

> **NOTE**
>
> For more detail procedure, please refer to the Blue Link owner's manual.

Service List

1. Safety and Security

Service Name	Service Trigger
- Auto Crash Notification	When an accident occurred and airbag deployed, ACN notification will be triggered automatically.
- SOS – Emergency Assistance	It will be triggered by manually pressing the SOS button on the inside mirror. It will connect you to emergency assistance helper.
- Alarm/Panic Notification	when the vehicle alarm system is activated, it will be automatically triggered and inform to owner. If the customer push the panic button of key FOB near the vehicle, it will be triggered and notify that driver or vehicle occupant may be in danger
- Enhanced roadside	Push the Interactive Voice Recognition (IVR) button on the inside mirror and ask to operator about the help.
- Speed Alert	Customer can setup notification limit of vehicle speed on the web or by asking operator using IVR call.
- Remote Door Control – Lock	Customer can ask Remote Door Lock service by using the Smart Phone application or on the web(CWP) or asking to operator by IVR call.
- Remote Door Control – Unlock	Customer can ask Remote Door Unlock service by using the Smart Phone application or on the web(CWP) or asking to operator by IVR call.
- Remote Horn and Lights	Customer can ask Horn&Light or Light Only services by using the Smart Phone application or on the web(CWP) or asking to operator by IVR call.

- Stolen Vehicle Recovery	This service can be triggered on request by police only
- Vehicle Immobilization/Slowdown	This service can be triggered on request by police only
- Curfew Alert	The customer can setup notification time interval that vehicle being used on the web or by asking operator using IVR call.
- Vehicle Remote Start	The customer can ask remote start service by using the Smart Phone application or on the web(CWP) or asking to operator by IVR call. (Automatic transmission & Button start only)

2. Voice Recognition Module (VRM)

Service Name	Service Trigger

- Eco Coach	1 Showing the eco-coach window.
	   The customer can see the average efficiency curve of fuel consumption by selecting eco-coach software button into the Info menu or saying "eco-coach on" using PTT button on the inside mirror.
	- Selecting eco-coach button
	- Saying "Eco-coach on" menu : Press PTT button on the inside mirror, after heard "Please say command" sound, say "Eco- coach on"
	2 See the fuel consumption on the web.
	   Refer to the telematics web service manual for detail information.

- Maintenance Alert Notification	Refer the telematics web service manual for detail information about setup mile triggered diagnostic service
- Automated DTC notification	If the vehicle found any problem on the vehicle itself, this information will be sent for server automatically.
- Recall and campaign advisor	When any recall or campaign notification for his vehicle is sent by the HMC, it will be shown on the screen. The customer can heard notification by using IVR call, after heard the notification, the popup will be removed automatically.
- Web- Based Diagnostics	The customer can check the status of vehicle using telematics web server. Refer to the telematics web service manual for more information.
- Scheduled Diagnostics	There are two kinds of scheduled diagnostic options. Please see telematics web service manual for more information.

3. Geographic Information System (GIS)

Service Name	Service Trigger
- Traffic Flow Accident Construction Control	The customer can heard construction or accident condition on the driving road flow using IVR call. Please ask operator after IVR call connected.
- Daily Route Guide with Traffic	The customer can heard traffic comparison between several road using IVR call. Please ask Operator after IVR call connected. Before listen this service, the customer should establish the routes on the web. Refer to the telematics web service manual for more information.
- Gas Station Location and Fuel Prices	The customer can heard Gas station location and Fuel prices using IVR call, and this Point of Interests (POI) information can be downloaded on the vehicle. In case of Audio HU (Standard type), customer
- Geo-Fence	The customer can setup valid boundary of vehicle driving. It can be used for Varlet geo-fence or normal geofence. Both can be setup by web or by asking operator using IVR call.
- Operator Navigation	The customer can heard navigation using IVR call. Please ask "Operator" on the IVR call, and ask your heading
- POI by Guided IVR with Operator Backup	POI download can be requested via IVR call.

|	
- POI Download by Operator	POI download can be requested via IVR call.
- POI Download via Web Portal	POI download can be requested using web portal.
- POI Searching by IVR (TMU and Phone)	POI download can be requested via IVR call.
- Location Sharing	For this service, the customer should pre-registration friend information on the web. When your friend ask inform hi's/she's location to you, it can will be download by a kinds of POI.

4. Operator Service & ETC

| Service Name	Service Trigger
- IVR Owner's Manual	The Customer can heard how to using about any kinds of vehicle Manual. Please ask operator on the IVR call.
- Operator Assisted Owner's Manual	The Customer can heard how to using about any kinds of vehicle Manual. Please ask operator on the IVR call.
- Q-feedback	This is one of diagnostic services. When customer heard any unusual noise on the vehicle, customer can ask checking the vehicle using IVR call.

Service Name	Service Trigger
- Voice Text Messaging	
- Provisioning	
- TMU Disable Mode	"blueLink not active. Please call xxx-xxx-xxxx" will be showing when any button pushed after disable the telematics services.
- TMU Swap	The Proper TMU (TeleMatics Unit) should be installed on the vehicle. "Incorrect Telematics Unit Contact Dealer" will be showing if incorrect TMU is installed.

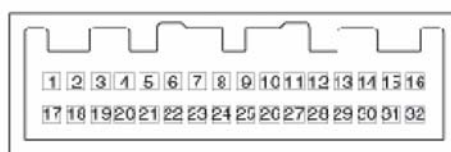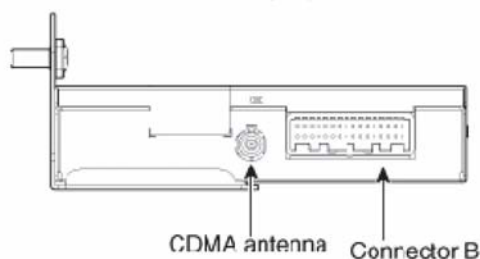**Body Electrical System > MTS System > Telemetics Unit (TMU) > Components and Components Location**

Component
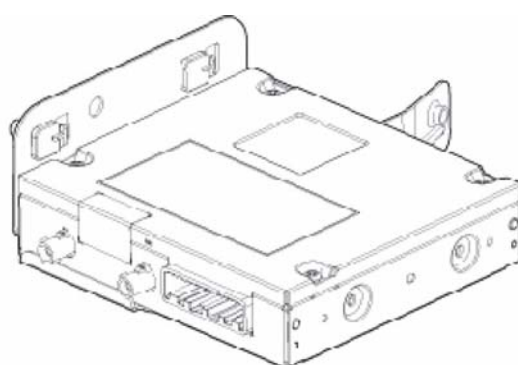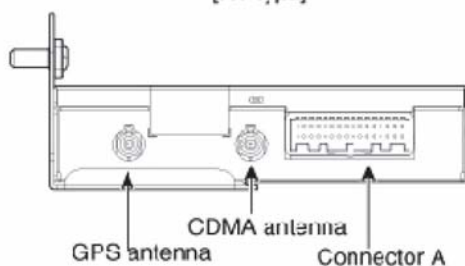
[AV type] [AVN type]

GPS antenna CDMA antenna Connector A CDMA antenna Connector B

GPS antenna

CDMA antenna

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 |

| | Connector A | | | | Connector B | | | |
Pin No.	Description	Pin No.	Description	Pin No.	Description	Pin No.	Description
1	Ground	17	-	1	Ground	17	-
2	Ground	18	V_battery	2	Ground	18	V_battery
3	Reverse (Audic)	19	Ignition 1	3	-	19	Ignition 1
4	Keypad_GND	20	ACC	4	Keypad_GND	20	ACC
5	MIC output -	21	Airbag input	5	MIC output -	21	Airbag input
6	MIC output +	22	Keypad input	6	MIC output +	22	Keypad input
7	BCM Tx	23	BCM Rx	7	BCM Tx	23	BCM Rx
8	-	24	MIC sheild	8	RS422 Shield GND	24	MIC sheild
9	-	25	-	9	RS422_Rx -	25	RS422_Tx -
10	-	26	-	10	RS422_Rx +	26	RS422_Tx -
11	-	27	-	11	-	27	-
12	HSCAN -	28	MIC input +	12	HSCAN -	28	MIC input +
13	HSCAN +	29	MIC input -	13	HSCAN +	29	MIC input -
14	-	30	-	14	-	30	-
15	Audio output -	31	MMCAN -	15	Audio output -	31	MMCAN -
16	Audio output +	32	MMCAN +	16	Audio output +	32	MMCAN +

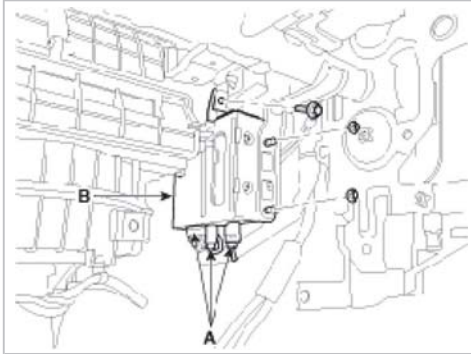## Body Electrical System > MTS System > Telemetics Unit (TMU) > Repair procedures

Removal

> **NOTE**
>
> • Take care not to scratch the crash pad and related parts.

1. Disconnect the negative (-) battery terminal.
2. Remove the glove box housing.
   (Refer to the BD group "Interior - Crash pad")

3. Disconnect the connectors (A) and loosen the bolt (1EA) and the nuts (2EA), then remove the Telematics unit (B).

Installation

1. Install the Telematics unit.

2. Install the glove box housing.

3. Connect the negative (-) battery terminal.

Inspection

1. After replacing the AVN, connect to "call center" by pushing the Blue Link button.

2. If Blue Link service connected successfully, and then technician can hear the "Welcome to Hyundai Bluelink" sound.

> **NOTE**
>
> After replacing the AVN, the TMU automatically read the Vehicle Identity Number (VIN) and send it to Blue Link service center.
> In this reason, technician have to test that Blue Link connect normally.

Body Electrical System > MTS System > Mic > Repair procedures
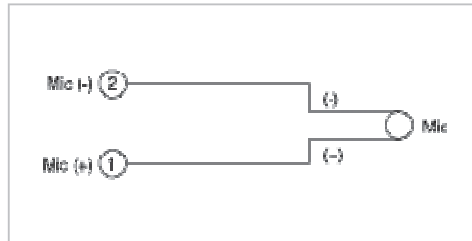
Inspection

1. Disconnect the negative(-) battery terminal.

2. Remove the roof trim.
   (Refer to the BD group - "Roof trim")

3. Remove the handsfree mic (A) after disconnect the connector from roof top.
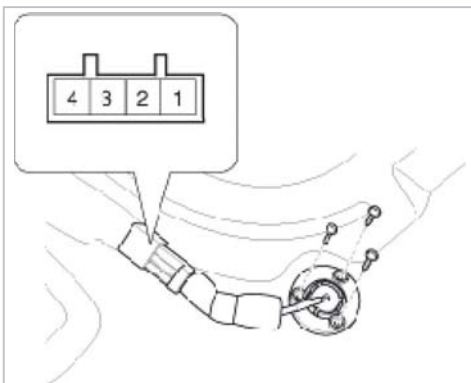
> **CAUTION**
>
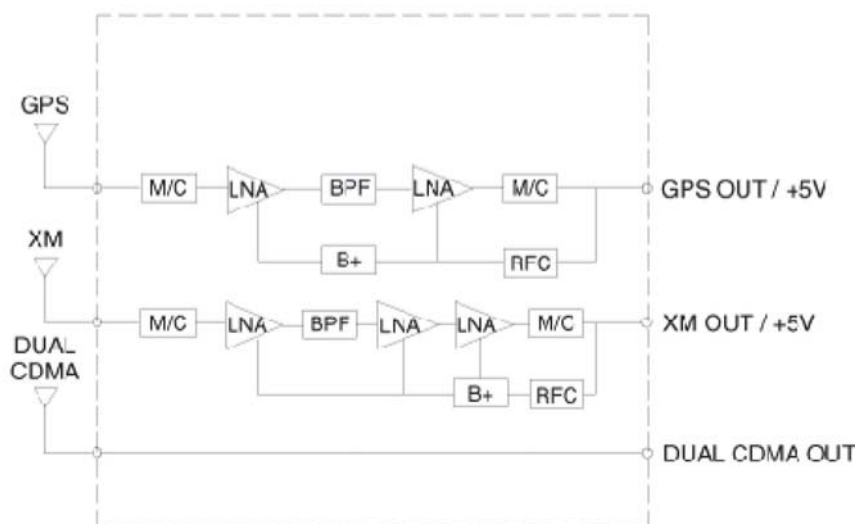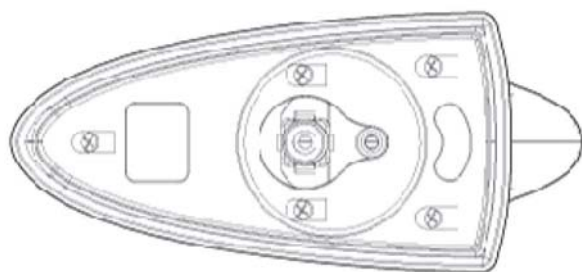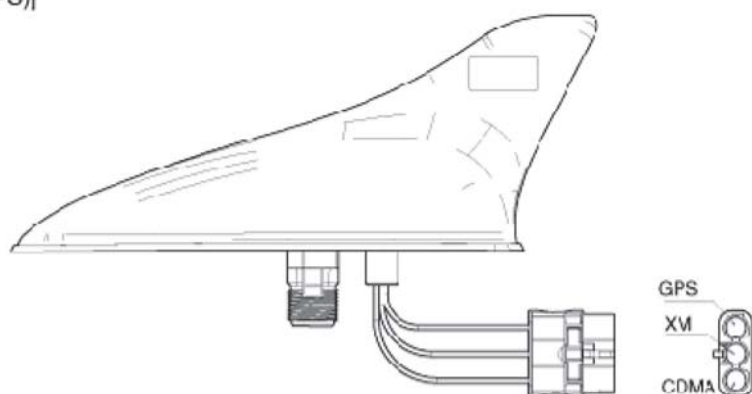> Be careful not to damage the roof trim when removing the hands free mic.

4. Check the continuity of Mic between terminals.

Body Electrical System > MTS System > MTS Antenna > Components and Components Location

Components

[Roof antenna(GPS)]

GPS
XM
CDMA

GPS
XM
DUAL
CDMA

M/C — LNA — BPF — LNA — M/C — GPS OUT / +5V
B+ — RFC

M/C — LNA — BPF — LNA — LNA — M/C — XM OUT / +5V
B+ — RFC

DUAL CDMA OUT

Body Electrical System > MTS System > MTS Antenna > Repair procedures

Removal

Roof Antenna (GPS)

1. Remove the rear roof trim.
   (Refer to the BD group - "Roof trim")

2. Disconnect the cables (A) from the roof antenna.