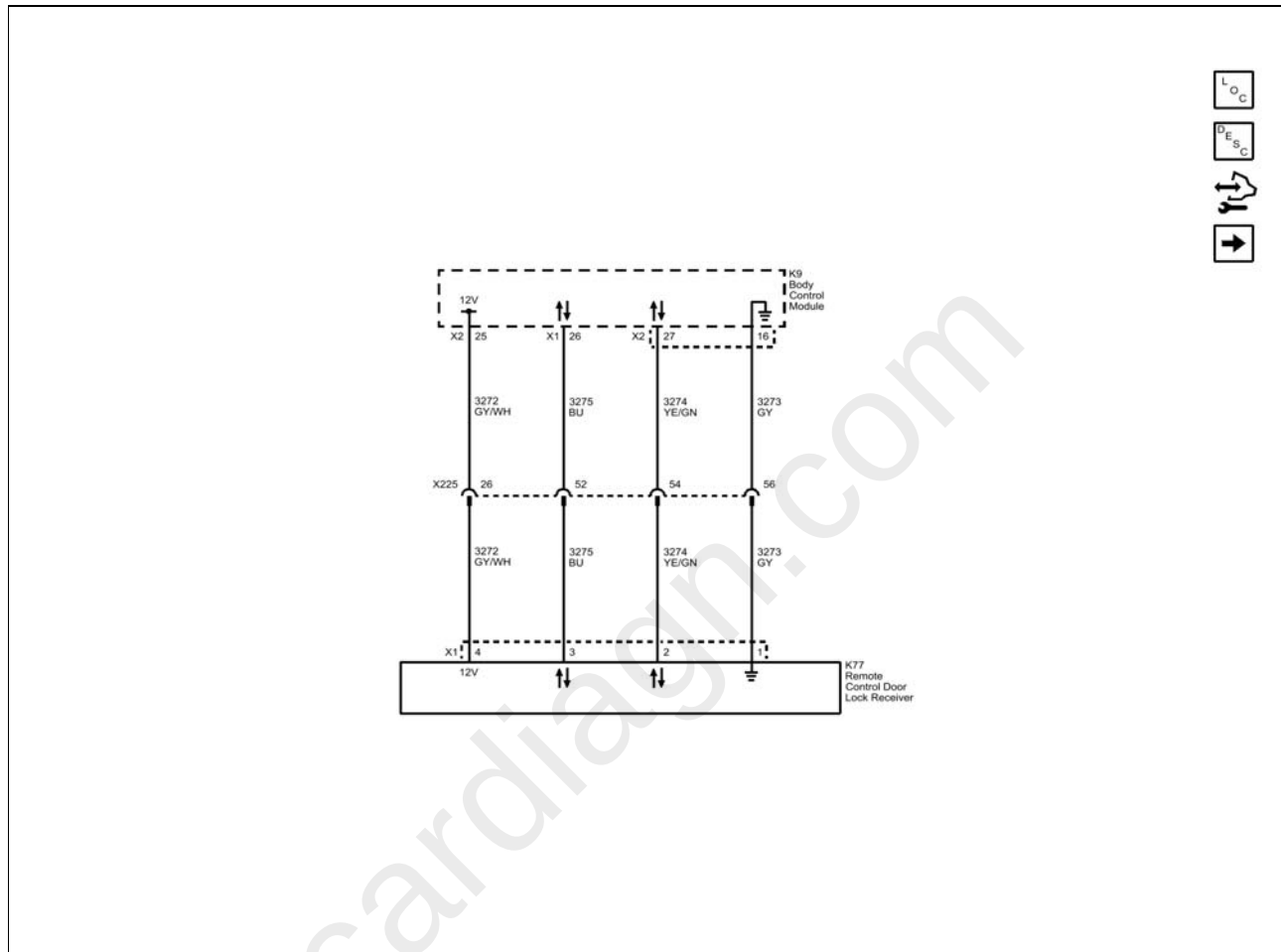


**SCHEMATIC WIRING DIAGRAMS > REMOTE FUNCTION WIRING SCHEMATICS >
KEYLESS ENTRY - ACTIVE**

Fig 1: Keyless Entry - Active

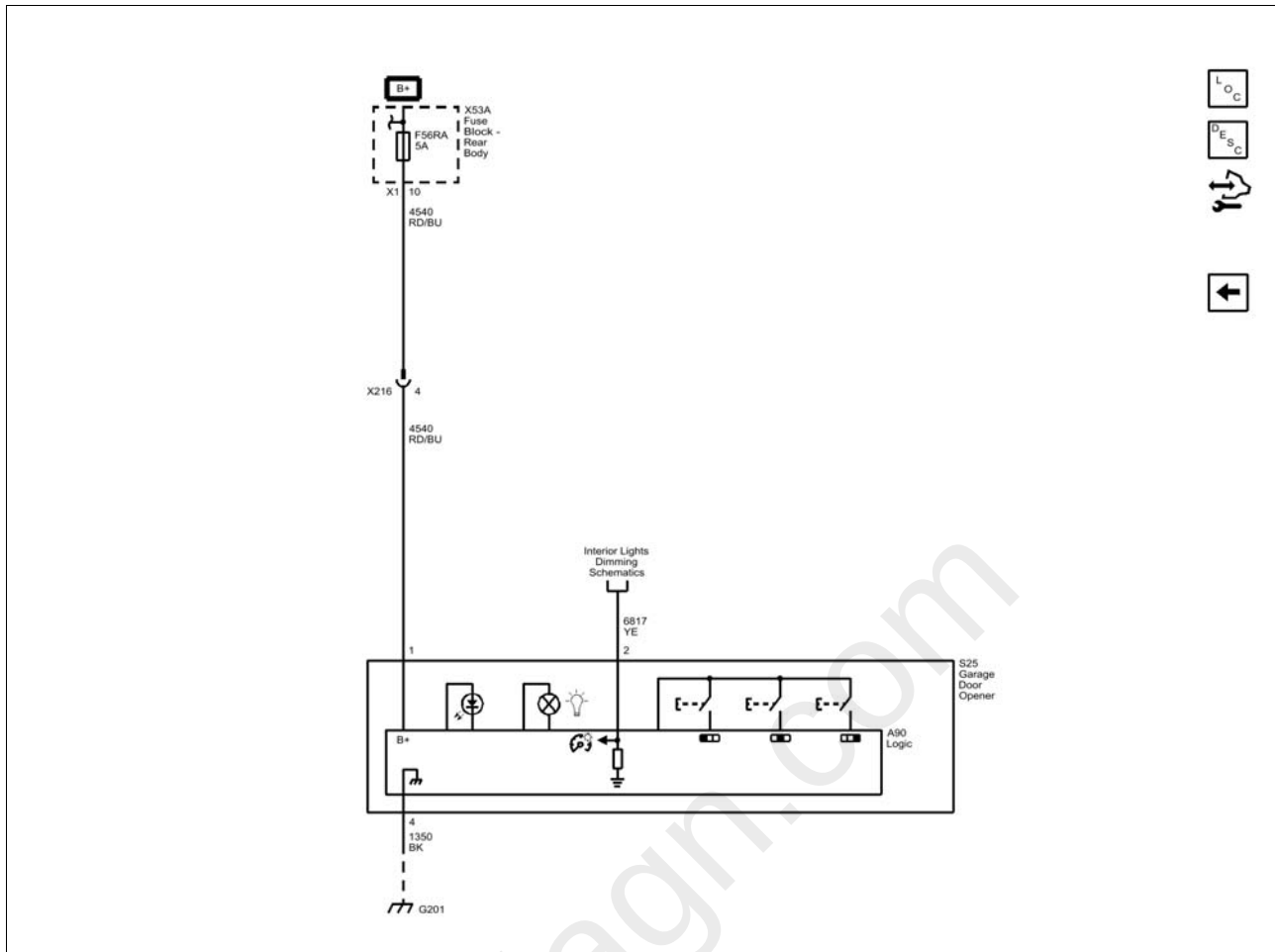


Courtesy of GENERAL MOTORS COMPANY

**SCHEMATIC WIRING DIAGRAMS > REMOTE FUNCTION WIRING SCHEMATICS >
KEYLESS ENTRY - PASSIVE AND KEYLESS START**

**SCHEMATIC WIRING DIAGRAMS > REMOTE FUNCTION WIRING SCHEMATICS >
GARAGE DOOR OPENER (UG1)**

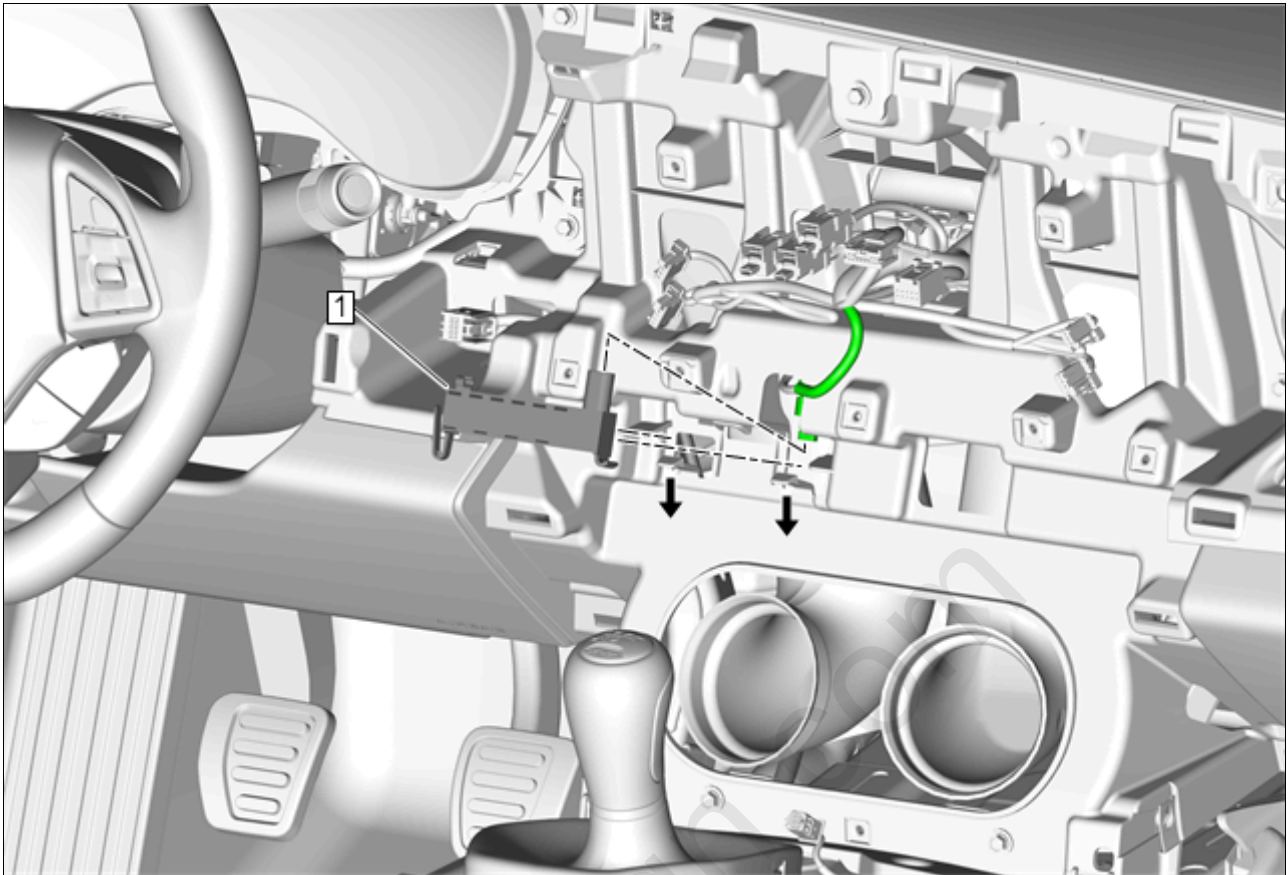
Fig 1: Garage Door Opener (UG1)



Courtesy of GENERAL MOTORS COMPANY

REPAIR INSTRUCTIONS > LOW FREQUENCY INSTRUMENT PANEL ANTENNA REPLACEMENT

Fig 1: Low Frequency Instrument Panel Antenna

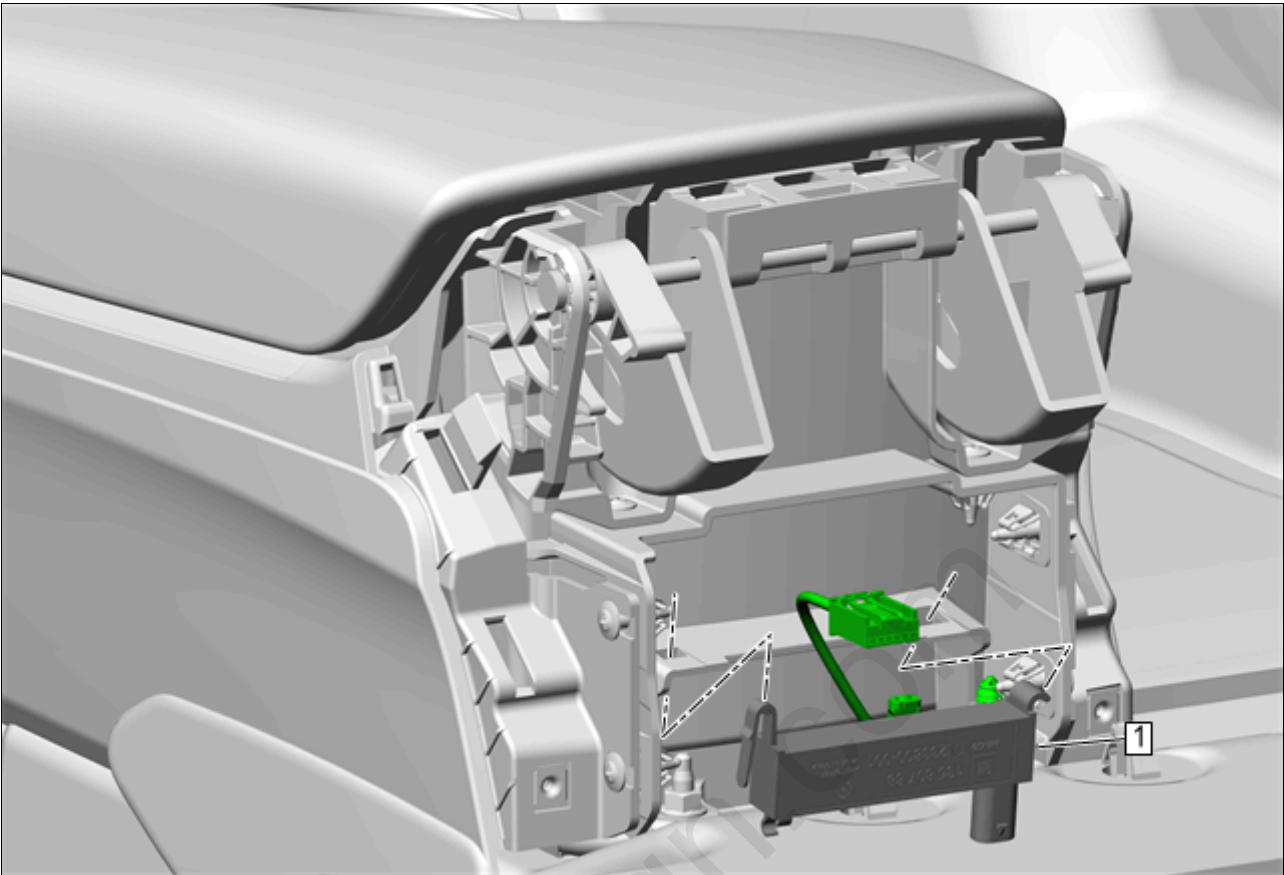


Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Heater and Air Conditioning User Interface Control Replacement	
1	Low Frequency Instrument Panel Antenna Procedure 1. Disconnect the electrical connector. 2. Release the retaining tabs.

REPAIR INSTRUCTIONS > LOW FREQUENCY CONSOLE ANTENNA REPLACEMENT

Fig 1: Low Frequency Console Antenna

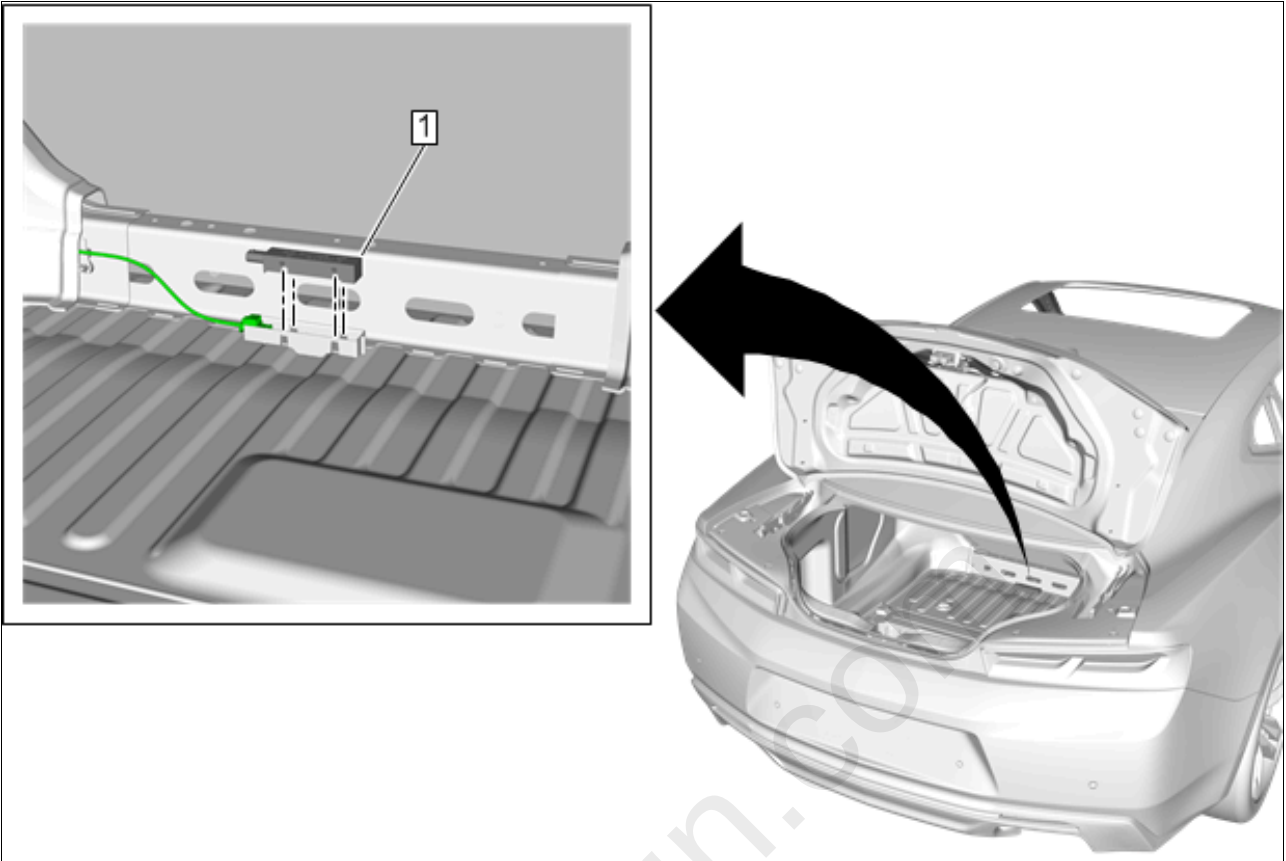


Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Front Floor Console Rear Trim Panel-Endcap»Remove — Front Floor Console Rear Trim Panel Replacement (Side Panel Front)Front Floor Console Rear Trim Panel Replacement (Endcap)	
1	Low Frequency Console Antenna Procedure 1. Disconnect the electrical connector. 2. Release the retaining tabs.

REPAIR INSTRUCTIONS > LOW FREQUENCY REAR COMPARTMENT ANTENNA REPLACEMENT

Fig 1: Low Frequency Rear Compartment Antenna

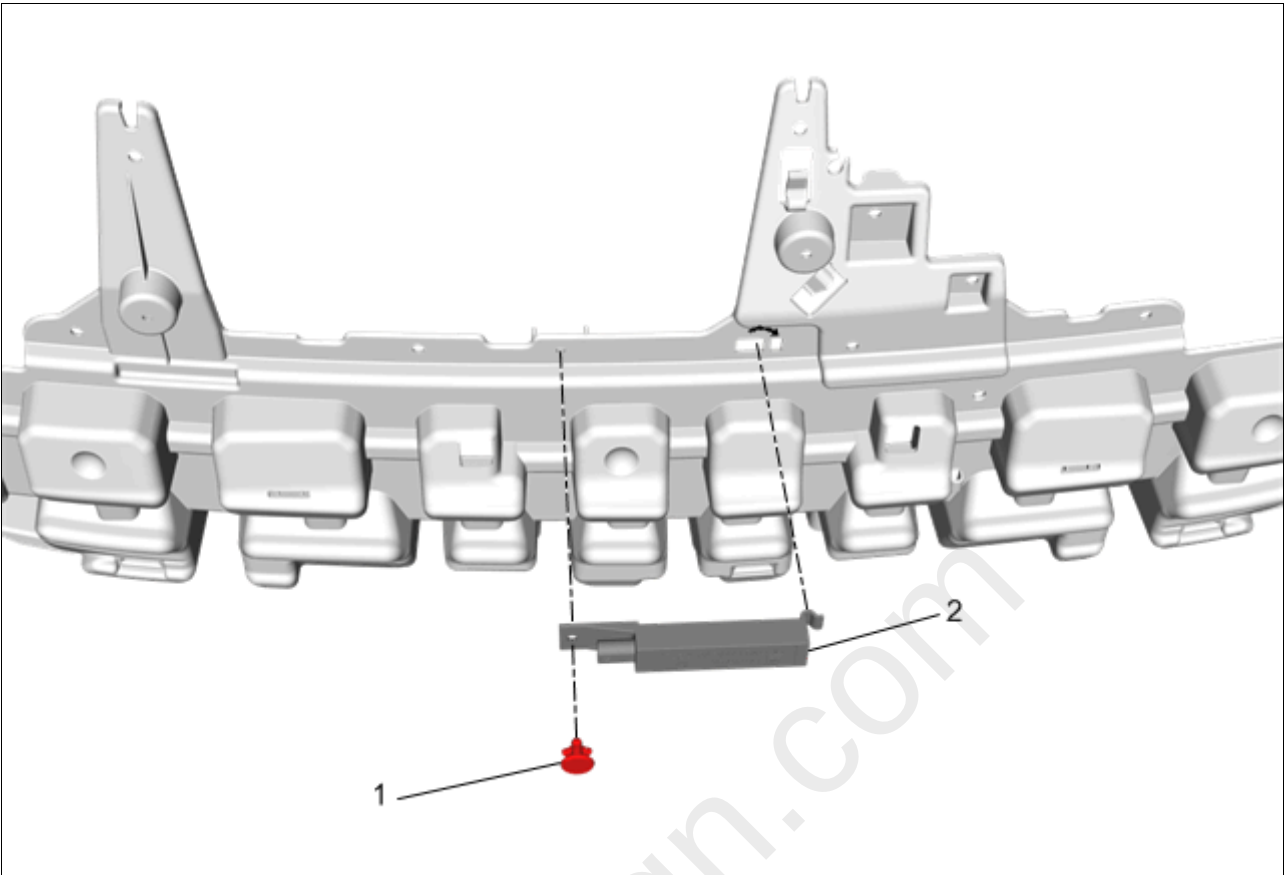


Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Rear Compartment Floor Panel Front Trim Replacement	
1	Low Frequency Rear Compartment Antenna Procedure 1. Disconnect the electrical connector. 2. Release the retaining tabs.

REPAIR INSTRUCTIONS > LOW FREQUENCY REAR BUMPER ANTENNA
REPLACEMENT

Fig 1: Low Frequency Rear Bumper Antenna

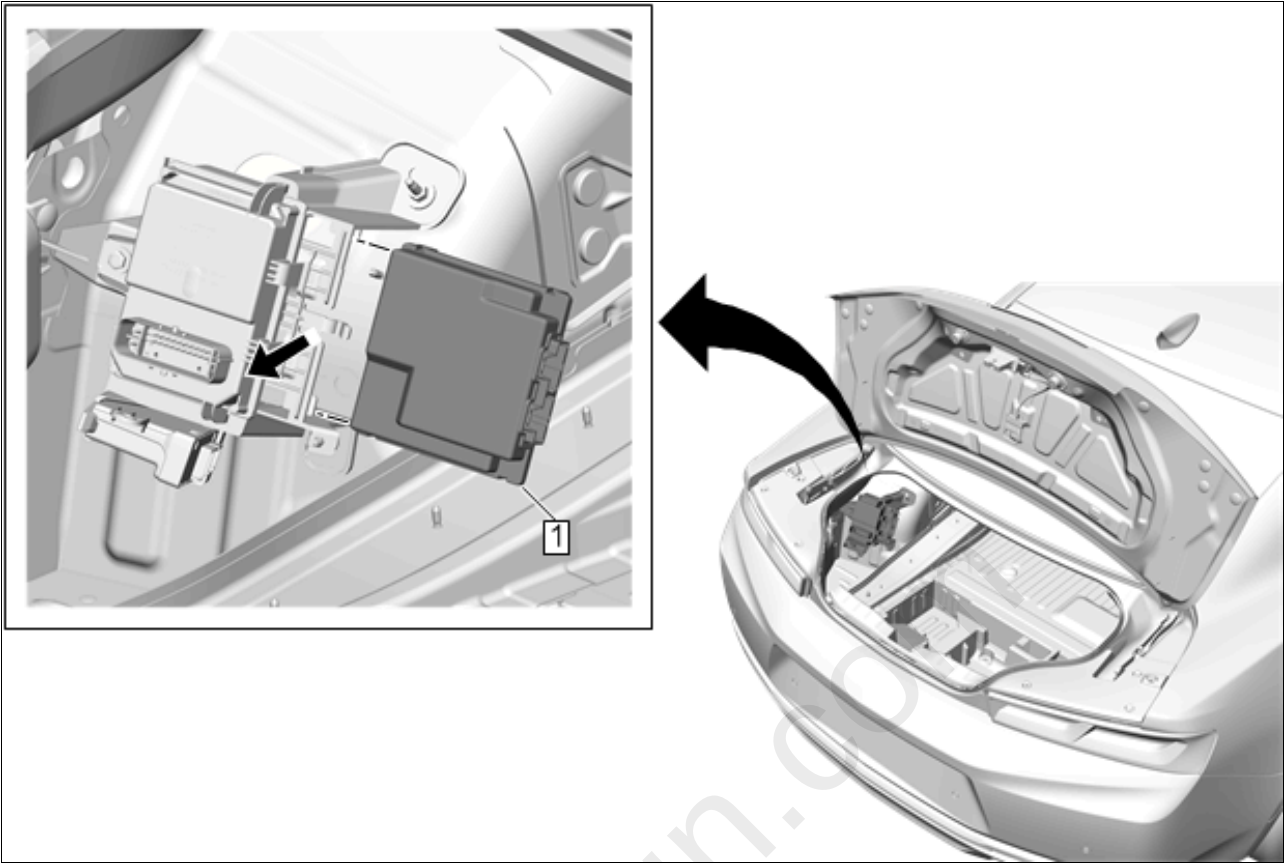


Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Rear Bumper Fascia Energy Absorber Replacement	
1	Low Frequency Rear Bumper Antenna Retainer
2	Low Frequency Rear Bumper Antenna Procedure 1. Release the plastic retaining tabs. 2. Disconnect the electrical connector.

REPAIR INSTRUCTIONS > KEYLESS ENTRY CONTROL MODULE REPLACEMENT

Fig 1: Keyless Entry Control Module

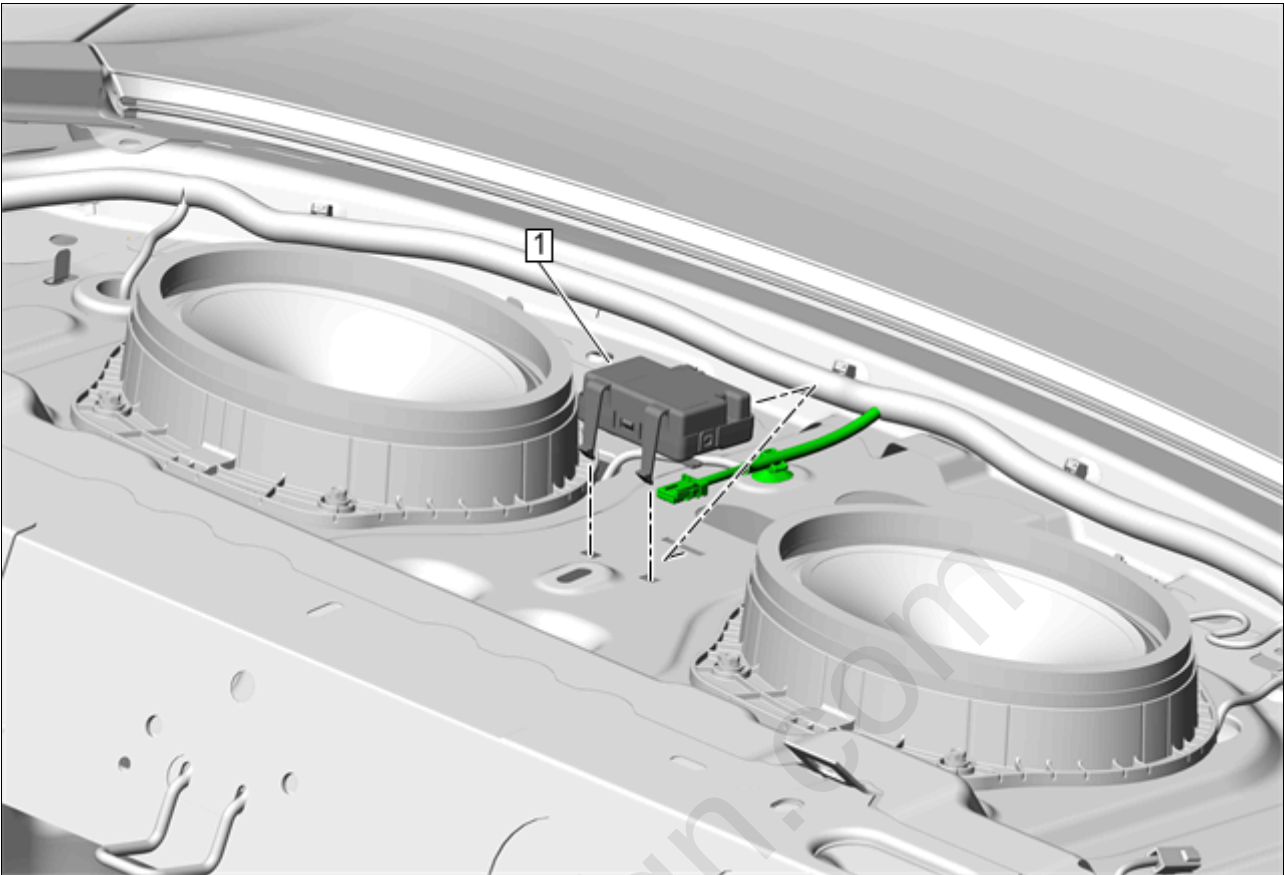


Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Rear Compartment Side Trim Replacement - Left Side (Coupe) Rear Compartment Side Trim Replacement - Left Side (Convertible)	
1	Keyless Entry Control Module Procedure 1. Disconnect the electrical connectors. 2. Release the retaining tab. 3. Control Module References for programming and set up procedures, if required.

REPAIR INSTRUCTIONS > REMOTE CONTROL DOOR LOCK RECEIVER REPLACEMENT (COUPE)

Fig 1: Remote Control Door Lock Receiver (Coupe)

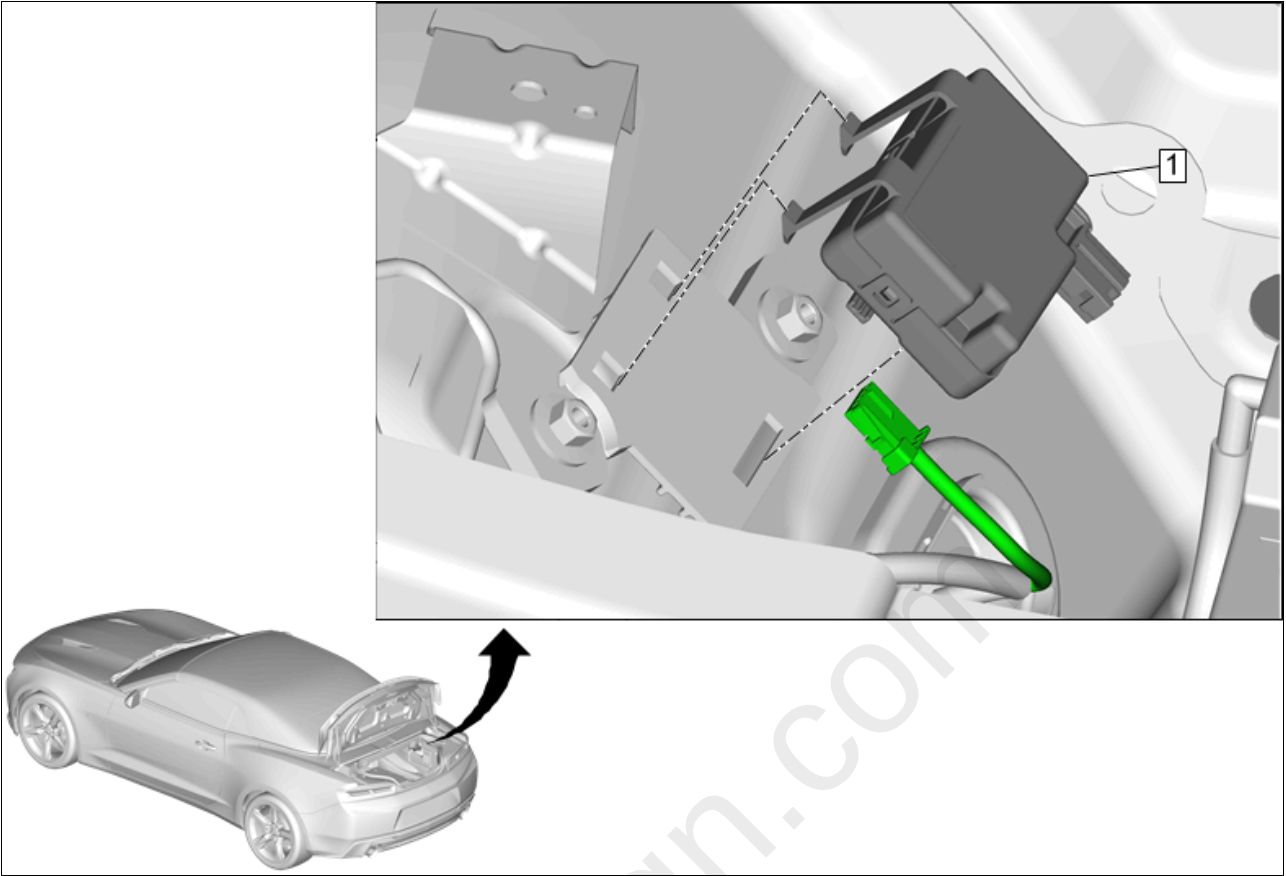


Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Rear Window Panel Trim Replacement	
1	Remote Control Door Lock Receiver Procedure 1. Disconnect the electrical connectors. 2. Release the retaining tab.

**REPAIR INSTRUCTIONS > REMOTE CONTROL DOOR LOCK RECEIVER
REPLACEMENT (CONVERTIBLE)**

Fig 1: Remote Control Door Lock Receiver (Convertible)

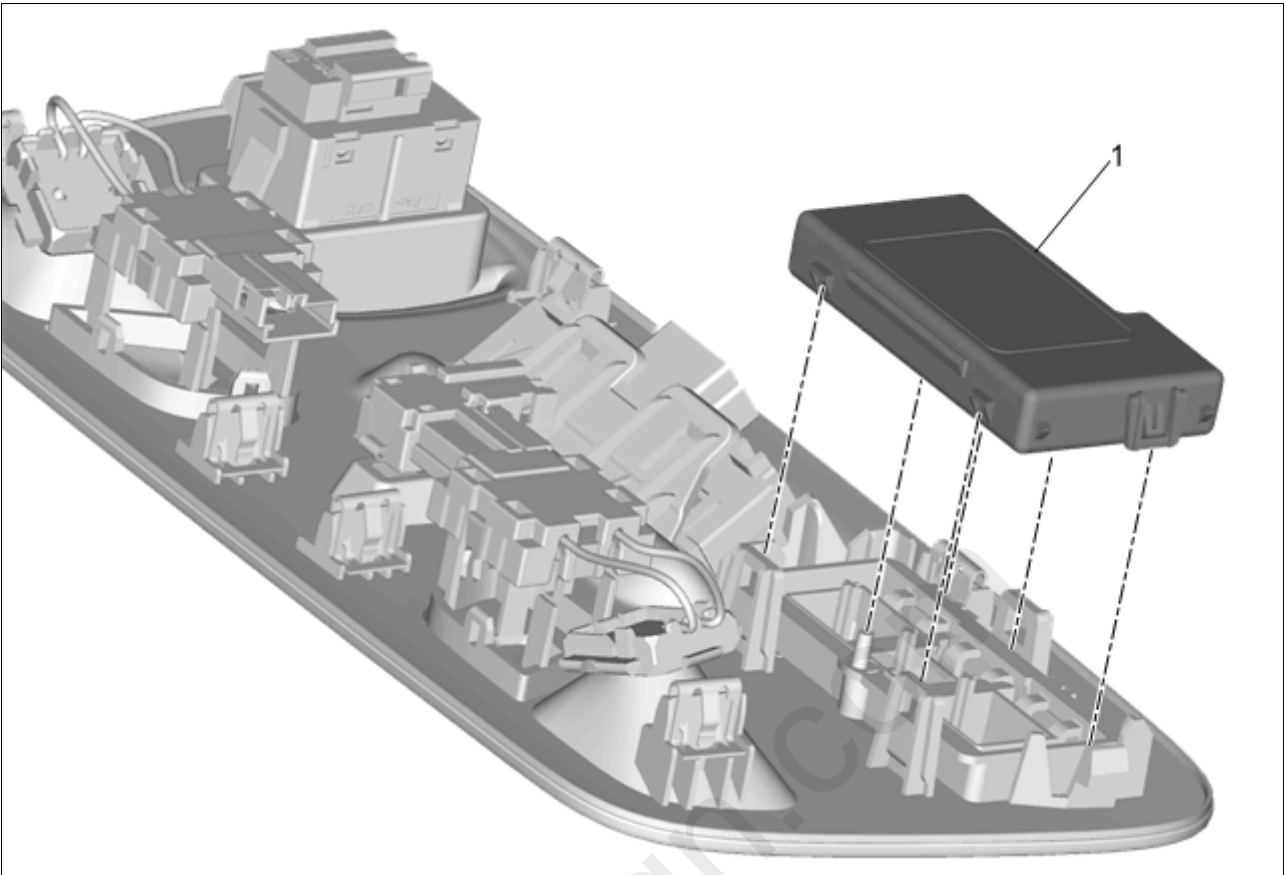


Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Place the folding top in the full closed position.	
1	Remote Control Door Lock Receiver Procedure 1. Disconnect the electrical connector. 2. Release the retaining tabs.

REPAIR INSTRUCTIONS > GARAGE DOOR OPENER TRANSMITTER REPLACEMENT (COUPE)

Fig 1: Garage Door Opener Transmitter (Coupe)

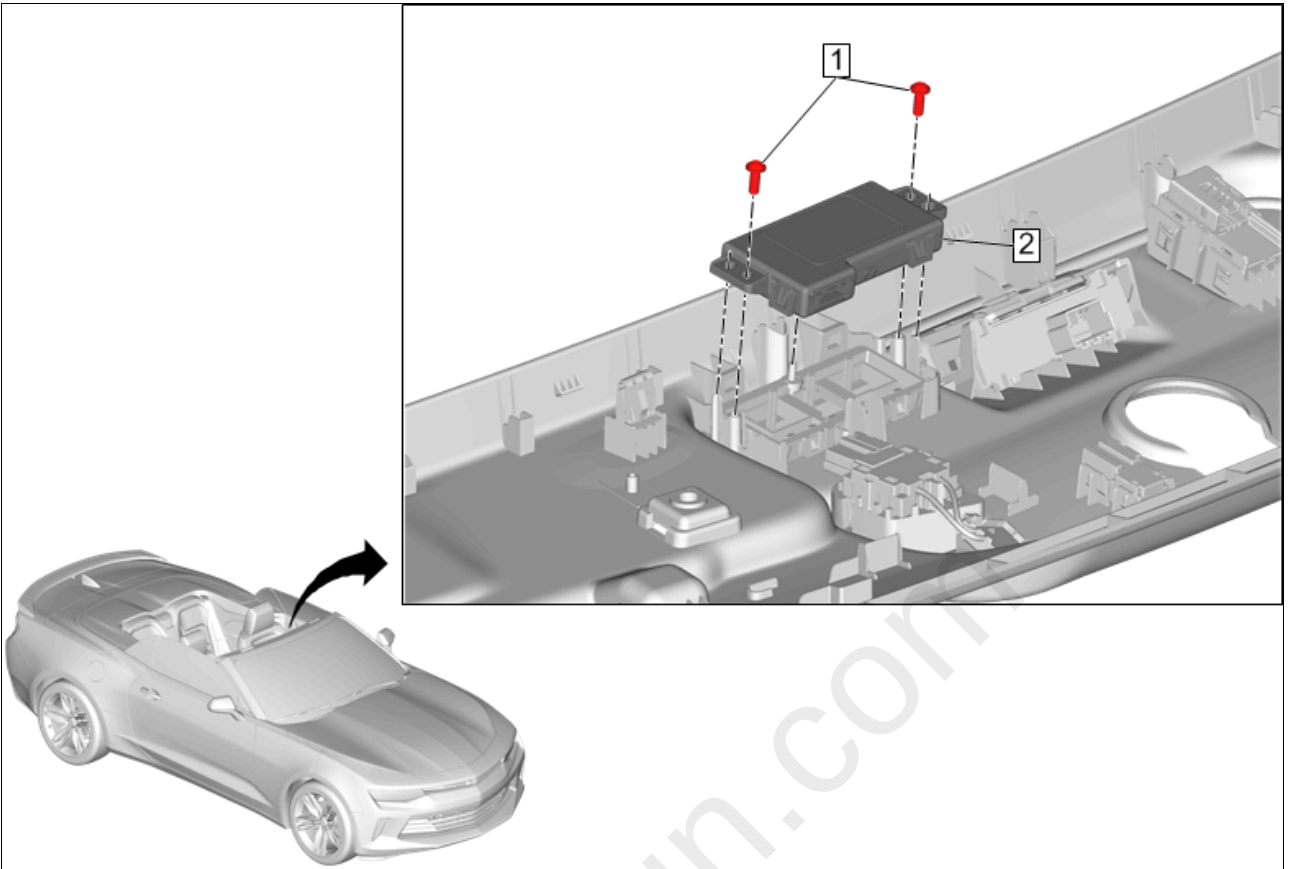


Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Roof Console Replacement	
1	Garage Door Opener Transmitter Procedure Use a plastic flat-bladed tool to remove the push-in retainers.

REPAIR INSTRUCTIONS > GARAGE DOOR OPENER TRANSMITTER REPLACEMENT (CONVERTIBLE)

Fig 1: Garage Door Opener Transmitter (Convertible)

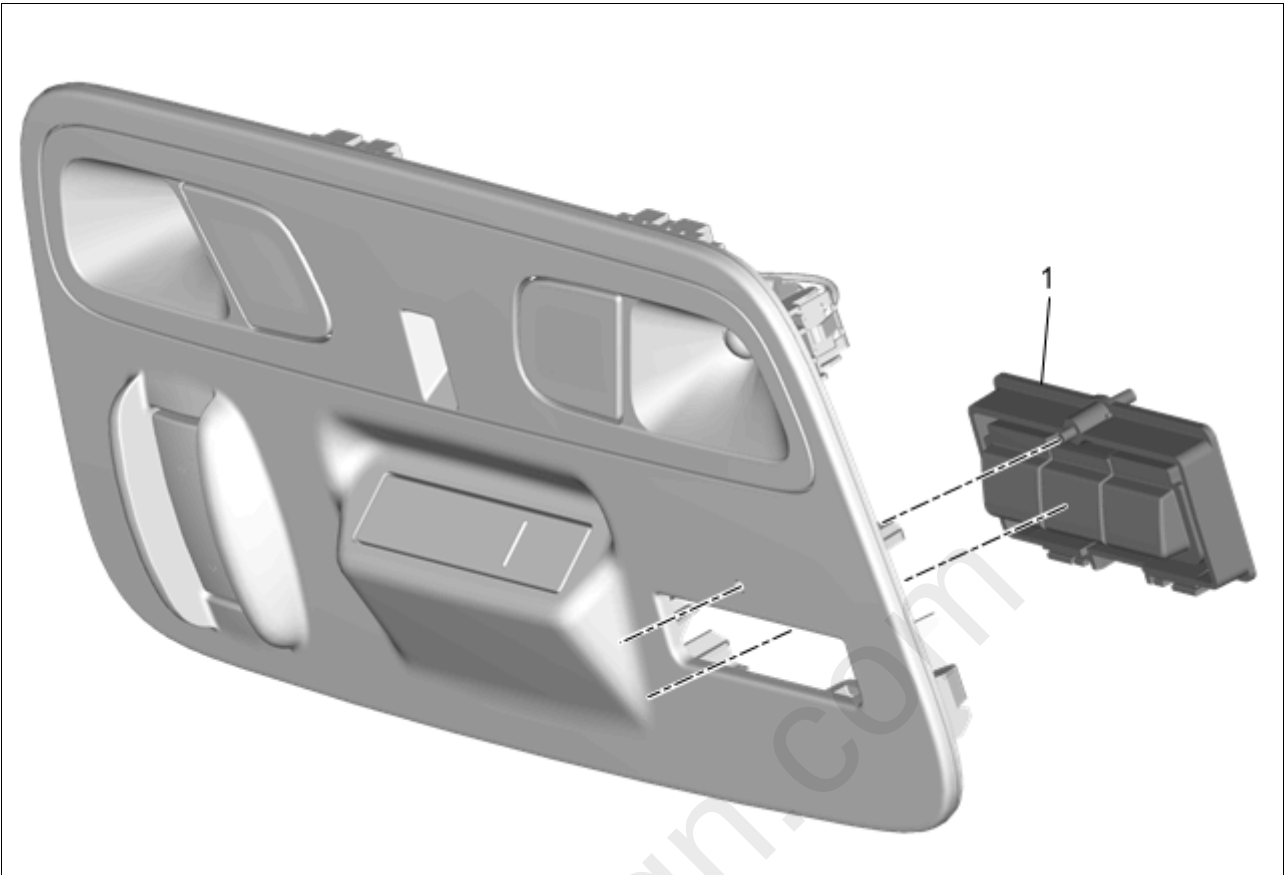


Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Windshield Upper Garnish Molding Replacement	
1	Windshield Garnish Molding Bolt (Qty: 2)
	CAUTION: Fastener Caution
	Tighten 2.5 N.m (22 lb in)
2	Garage Door Opener Transmitter

REPAIR INSTRUCTIONS > GARAGE DOOR OPENER TRANSMITTER PUSHBUTTON REPLACEMENT (COUPE)

Fig 1: Garage Door Opener Transmitter Pushbutton (Coupe)

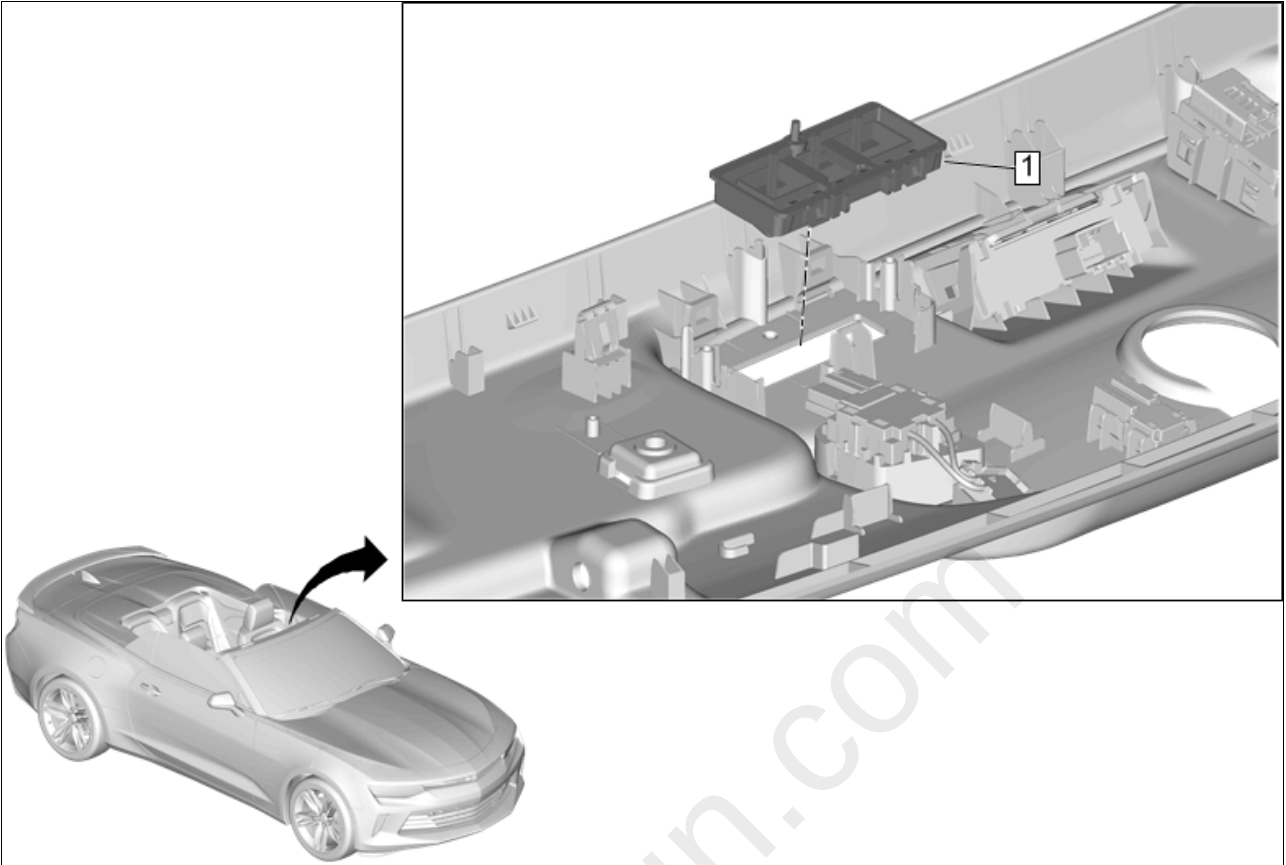


Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Garage Door Opener Transmitter Replacement (Coupe)	
1	Garage Door Opener Transmitter Pushbutton

REPAIR INSTRUCTIONS > GARAGE DOOR OPENER TRANSMITTER PUSHBUTTON REPLACEMENT (CONVERTIBLE)

Fig 1: Garage Door Opener Transmitter Pushbutton (Convertible)



Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Garage Door Opener Transmitter Replacement (Convertible)	
1	Garage Door Opener Transmitter Pushbutton

**REPAIR INSTRUCTIONS > REMOTE CONTROL DOOR LOCK AND THEFT
DETERRENT TRANSMITTER PROGRAMMING > PROGRAMMING TRANSMITTERS**

Transmitters can be programming in various ways using the procedures outlined below. Using the Replacing Transmitters procedures will first erase all the known transmitters from the vehicle. Any existing transmitters and any new transmitters will then be programmed. This procedure should be used any time a transmitter is required to be unlearned or erased from a vehicle. If a new transmitter is being learned to a vehicle to replace a damaged, inoperative, or stolen transmitter, the Replacing Transmitters procedure must be used. This ensures that the old transmitter cannot be used to access or start the vehicle after programming.

The Adding Transmitters procedure does not erase any transmitters prior to programming. The procedure will simply program the transmitter into the next available slot. The Adding Transmitters procedure should only be used when adding an additional transmitter to the vehicle. The Adding Keys procedure should never be used to program a transmitter to a vehicle that is having a transmitter replaced, regardless of

the cause for the replacement.

REPAIR INSTRUCTIONS > REMOTE CONTROL DOOR LOCK AND THEFT DETERRENT TRANSMITTER PROGRAMMING > REPLACING TRANSMITTERS (WITHOUT SPS)



NOTE:

- *This procedure will unlearn all previously learned transmitters. All transmitters that are to be programmed must be with the vehicle at the time of service.*
- *This procedure will take approximately 30 minutes to complete.*
- *A total of 8 transmitters can be learned to a single vehicle.*
- *This procedure will only learn the vehicle transmitter information. This procedure will not learn any immobilizer information between the body control module (BCM) and engine control module (ECM).*
- *This procedure may be used with or without existing learned transmitters being present. If existing transmitters are present, keep the transmitters away from the vicinity of the vehicle. Failure to keep learned transmitters away from the vehicle will result in the learn changing to the Adding Transmitters procedure.*

1. Insert the mechanical key of the new transmitter into the key lock cylinder located on the outside of the driver door and turn the key to the unlock position five times within ten seconds. The Driver Information Center (DIC) will display Remote Learn Pending, Please Wait.
2. After ten minutes, the DIC will display Press Engine Start Button To Learn. Press the ignition mode switch. The DIC will again display Remote Learn Pending, Please Wait.
3. Repeat Step 2 two additional times, for a total of thirty minutes. All previously known transmitters have now been unlearned. Remaining transmitters can be relearned during the next steps. The DIC display will now display Ready For Remote # 1.



NOTE:

The transmitter pocket is the rear cup holder in the center console. The transmitter must be placed with the buttons faced down in the cup holder. If a large keyring prevents the transmitter from being properly placed, remove the keyring and place the transmitter in the cup holder. Failure to position the transmitter properly will result in an inability to program.

4. Place the new transmitter into the transmitter pocket.
5. Press and release the ignition mode switch. When the transmitter is learned, the DIC will indicate that it is ready to program the next transmitter.

6. Remove the transmitter from the transmitter pocket and press the unlock button. To program additional transmitters, repeat Steps 4 through 6.
7. When all additional transmitters are programmed, press and hold the ignition mode switch for 5 seconds to exit programming mode.

REPAIR INSTRUCTIONS > REMOTE CONTROL DOOR LOCK AND THEFT DETERRENT TRANSMITTER PROGRAMMING > REPLACING TRANSMITTERS (WITH SPS)



NOTE:

- *This procedure will unlearn all previously learned transmitters. All transmitters that are to be programmed must be with the vehicle.*
- *This procedure may be used with or without existing learned transmitters being present.*
- *This procedure will take more than 15 minutes to complete.*
- *A total of eight transmitters can be learned to a single vehicle.*
- *This procedure will only learn the vehicle transmitter information. This procedure will not learn any immobilizer information between the body control module (BCM) and engine control module (ECM).*
- *If the battery voltage is low, charge the battery before continuing with the procedure.*

1. Connect a scan tool to the vehicle and access SPS.
2. Ensure that all power consuming devices are turned OFF on the vehicle.
3. Select the SPS application and follow the on-screen instructions.
4. Select Reprogram ECU.
5. Select IMMO Immobilizer Learn - Setup.
6. Select the Program Transponder or Remote Key (Delete) function.



NOTE:

1. *At multiple times during the learn procedure, SPS will instruct you to turn the ignition to the run position. Make sure the vehicle is actually in the run mode before continuing on the SPS terminal. If the igniting is not in the run mode, the learn procedure will fail. To verify the vehicle is in Run mode, verify the green LED is illuminated on the ignition mode switch.*
2. *The transmitter pocket is the rear cup holder in the center console. The transmitter must be placed with the buttons faced down in the cup holder. If a*

large keyring prevents the transmitter from being properly placed, remove the keyring and place the transmitter in the cup holder. Failure to position the transmitter properly will result in an inability to program.

7. Follow the on-screen instructions.
8. After programming all transmitters, Programming Complete, is displayed.
9. Press and hold the ignition mode switch for 15 seconds.
10. Press the lock and unlock button on each transmitter that was programmed. This will awaken each transmitter and allow passive and active keyless entry functions to be established.
11. With a scan tool, clear any DTCs.
12. Verify each transmitter that was programmed is operating properly. Operate each of the keyless entry functions using the buttons on the transmitter and then start the vehicle. When verifying operation, make sure that no other transmitters are near the vehicle.

REPAIR INSTRUCTIONS > REMOTE CONTROL DOOR LOCK AND THEFT DETERRENT TRANSMITTER PROGRAMMING > ADDING TRANSMITTERS (WITHOUT SPS)



NOTE:

- *To initiate, this procedure requires that 2 learned transmitters be available.*
- *A total of eight transmitters can be learned to a single vehicle.*
- *This procedure adds transmitters only. The procedure does not erase previously learned transmitters.*

1. Place the recognized transmitters in the vehicle cupholder.
2. Insert the mechanical key of the new transmitter into the key lock cylinder located on the outside of the driver door and turn the key to the unlock position five times within ten seconds. The Driver Information Center (DIC) will display Ready For Remote #2, 3, 4 or 5.



NOTE:

The transmitter pocket is the rear cup holder in the center console. The transmitter must be placed with the buttons faced down in the cup holder. If a large keyring prevents the transmitter from being properly placed, remove the keyring and place the transmitter in the cup holder. Failure to position the transmitter properly will result in an inability to program.

3. Place the new transmitter into the transmitter pocket.

4. Press and release the ignition mode switch. When the transmitter is learned, the DIC will indicate that it is ready to program the next transmitter.
5. Remove the transmitter from the transmitter pocket and press the transmitter unlock button. To program additional transmitters, repeat Steps 3 through 5.
6. When all additional transmitters are programmed, press and hold the ignition mode switch for 15 seconds to exit programming mode.

REPAIR INSTRUCTIONS > REMOTE CONTROL DOOR LOCK AND THEFT DETERRENT TRANSMITTER PROGRAMMING > ADDING TRANSMITTERS (WITH SPS)



NOTE:

- *This procedure may be used with or without existing learned transmitters being present.*
- *This procedure will take more than 15 minutes to complete.*
- *A total of eight transmitters can be learned to a single vehicle.*
- *This procedure will only learn the vehicle transmitter information. This procedure will not learn any immobilizer information between the body control module (BCM) and engine control module (ECM).*
- *If the battery voltage is low, charge the battery before continuing with the procedure.*

1. Connect a scan tool to the vehicle and access SPS.
2. Ensure that all power consuming devices are turned OFF on the vehicle.
3. Select the SPS application and follow the on-screen instructions.
4. Select Reprogram ECU.
5. Select IMMO Immobilizer Learn - Setup.
6. Select the Program Transponder or Remote Key (Add) function.



NOTE:

1. *At multiple times during the learn procedure, SPS will instruct you to turn the ignition to the run position. Make sure the vehicle is actually in the run mode before continuing on the SPS terminal. If the igniting is not in the run mode, the learn procedure will fail. To verify the vehicle is in Run mode, verify the green LED is illuminated on the ignition mode switch.*
2. *The transmitter pocket is the rear cup holder in the center console. The transmitter must be placed with the buttons faced down in the cup holder. If a*

large keyring prevents the transmitter from being properly placed, remove the keyring and place the transmitter in the cup holder. Failure to position the transmitter properly will result in an inability to program.

7. Follow the on-screen instructions.
8. After programming all transmitters, Programming Complete, is displayed.
9. Press and hold the ignition mode switch for 15 seconds.
10. Press the lock and unlock button on each transmitter that was programmed. This will awaken each transmitter and allow passive and active keyless entry functions to be established.
11. With a scan tool, clear any DTCs.
12. Verify each transmitter that was programmed is operating properly. Operate each of the keyless entry functions using the buttons on the transmitter and then start the vehicle. When verifying operation, make sure that no other transmitters are near the vehicle.

DESCRIPTION AND OPERATION > GARAGE DOOR OPENER DESCRIPTION AND OPERATION

The garage door opener is fixed and rolling code capable. Rolling code is a system that allows the code that the customer's receiver receives from the garage door opener to change every time the garage door opener is used within operating range of the receiver. Rolling code programming requires the customer to push a learn/program button on the garage door opener receiver at their home. This button is usually located on the receiver unit under a cover (light cover) on one end of the unit. The customer must follow the garage door opener manufacturer's instructions to program/learn the receiver to accept the Universal Home Remote System as an authorized opener for their unit. When the receiver and the garage door opener are initially programmed together, a code is established and a new code is created for every new transmission. The software in the receiver recognizes the garage door opener and accepts the new code.

The garage door opener is compatible with most, but not all types and brands of transmitters.

The garage door opener is a transmitter operating between 288-434 MHz. The power and range of the transmitter is limited to comply with laws governing the generation of radio frequency interference. The transmitter is programmed by the user to accept the signal generated by the user's transmitters.

The garage door opener has 3 buttons that may be programmed for individual transmitter/receiver combinations to control up to 3 garage door openers, security gates, lighting systems, etc. Each button represents a transmitter code section of the transmitter, which operates separately from any other button, and may be considered a separate transmitter. Operation consists of simply pressing a button to activate the corresponding transmitter.

DESCRIPTION AND OPERATION > KEYLESS ENTRY SYSTEM DESCRIPTION AND OPERATION

The keyless entry system is a vehicle entry device. The keyless entry system is used in conjunction with the door locks to unlock the vehicle. Keyless entry will lock/unlock the vehicle doors or open the rear

compartment lid when a corresponding button on the keyless entry transmitter is pressed. This is accomplished by the transmitter sending a radio frequency to the remote control door lock receiver antenna that has a direct link to the body control module (BCM). The BCM interprets the signal and activates the requested function or request the appropriate control module to activate the function via a serial data message. A low transmitter battery or radio frequency interference from aftermarket devices, such as 2-way radios, power inverters, computers, etc., may cause a system malfunction. High radio frequency traffic areas, such as gas stations that use pay-at-the-pump radio frequency transponders, may also cause interference that could lead to a malfunction. Keyless entry allows you to operate the following features:

- Door lock/unlock
- Liftgate lock/unlock, if equipped
- Trunk release, if equipped
- Power liftgate, if equipped
- Panic alarm/vehicle locator
- Remote vehicle starting, if equipped

The keyless entry system has the following components:

- Keyless entry transmitters
- Body control module
- Remote control door lock receiver

DESCRIPTION AND OPERATION > KEYLESS ENTRY SYSTEM DESCRIPTION AND OPERATION > KEYLESS ENTRY TRANSMITTERS



NOTE:

When the vehicle key is in the ignition, keyless entry functions from all keyless entry transmitter are disabled.

The keyless entry transmitters are used to perform various entry functions while away from the immediate area of the vehicle. Keyless entry functions may work at up to 20 m (65 ft) away from the vehicle. Ambient conditions may affect the performance of the keyless entry transmitter and reduce the range at which keyless entry functions operate. Up to eight transmitters may be programmed to a single vehicle. The keyless entry transmitter is an integral part of the vehicle key.

DESCRIPTION AND OPERATION > KEYLESS ENTRY SYSTEM DESCRIPTION AND OPERATION > ONSTAR® REMOTE LINK (IF EQUIPPED)

A vehicle operator may have the ability to perform some of the keyless entry functions using applications

on personal devices such as a smart phone. Unwanted or inadvertent door lock/unlock activation may be requested by the OnStar® Remote Link application. It is possible that a customer may be unaware of account usage, resulting in an unwanted or phantom door lock/unlock. If normal system diagnosis results in an inability to verify the customer's concern, contact Technical Assistance Center (TAC).

DESCRIPTION AND OPERATION > KEYLESS ENTRY SYSTEM DESCRIPTION AND OPERATION > BODY CONTROL MODULE (BCM)

The BCM is a multifunction module that operates the keyless entry system. When a radio frequency message is received from a keyless entry transmitter, the BCM interprets this signal and performs the specific function, i.e. door lock, door unlock, or vehicle locate.

DESCRIPTION AND OPERATION > KEYLESS ENTRY SYSTEM DESCRIPTION AND OPERATION > REMOTE CONTROL DOOR LOCK RECEIVER

The remote control door lock receiver acts as an antenna for the keyless entry system and communicates with the BCM through a dedicated serial data link. When a button is pressed on a keyless entry transmitter, the remote control door lock receiver receives this signal and sends the request to the BCM. The BCM interprets the signal and performs the specific function, i.e. door lock, door unlock, or vehicle locate.

DESCRIPTION AND OPERATION > KEYLESS ENTRY SYSTEM DESCRIPTION AND OPERATION > UNLOCK DOORS

Momentarily press the transmitter UNLOCK button in order to perform the following functions:

- Unlock only the driver door or all doors and liftgate (if equipped); this is customized through the driver information center.
- Illuminate the interior lamps for a determined length of time or until the ignition is turned ON.
- Flash the exterior lights; this is customized through the driver information center.
- Disarm the content theft deterrent system, if equipped.
- Deactivate the content theft deterrent system when in the alarm mode.

DESCRIPTION AND OPERATION > KEYLESS ENTRY SYSTEM DESCRIPTION AND OPERATION > LOCK ALL DOORS

Press the transmitter LOCK button to perform the following functions:

- Lock all vehicle doors.
- Immediately turn OFF the interior lamps.

- Flash the exterior lights and/or sound the horn; this is customized through the driver information center.
- Arm the content theft deterrent system.

DESCRIPTION AND OPERATION > KEYLESS ENTRY SYSTEM DESCRIPTION AND OPERATION > TRUNK RELEASE, IF EQUIPPED

Press the trunk release button on the transmitter to open the trunk.

DESCRIPTION AND OPERATION > KEYLESS ENTRY SYSTEM DESCRIPTION AND OPERATION > POWER LIFTGATE, IF EQUIPPED

Press and hold the power liftgate button to perform the following functions:

- Open or close the liftgate using the power liftgate function.
- Flash the tail lamps.
- Sound the interior power liftgate chime.

DESCRIPTION AND OPERATION > KEYLESS ENTRY SYSTEM DESCRIPTION AND OPERATION > VEHICLE LOCATOR/PANIC ALARM

A single press of the panic button performs the following functions. Some functions may be dependent on personalization settings:

- Pulse the horn three times.
- Flash the exterior lamps three times.

A press and hold of the panic button performs the following functions:

- Illuminate the interior lamps.
- Pulse the horn and flash the exterior lamps for 30 seconds or until the following conditions occur:
 - The panic button is pressed.
 - The ignition switch is turned to the RUN position with a valid key.

DESCRIPTION AND OPERATION > KEYLESS ENTRY SYSTEM DESCRIPTION AND OPERATION > REMOTE VEHICLE START, IF EQUIPPED

The remote vehicle start function allows engine starting while not in the vehicle. It also allows the vehicle HVAC system and other vehicle systems to enable, providing a comfortable vehicle upon entry. The

remote vehicle start sequence begins by pressing and releasing the lock button and then pressing and holding the remote vehicle start buttons on the keyless entry transmitter. The turn signal lamps will illuminate to indicate the vehicle has received the remote start request. Each time a remote vehicle start is performed, the vehicle doors are locked, however they may then be unlocked/locked with the transmitter at any time. Only the first and second vehicle transmitters are able to control the remote vehicle start function. Any additional remote transmitters programmed to the vehicle will perform all other remote functions. Once activated, the engine is allowed to run for 10 minutes. The remote vehicle start time may be extended by an additional 10 minutes by again pressing and releasing the lock button and then pressing and holding the remote vehicle start buttons on the transmitter. This feature is called a remote vehicle start continue and allows a maximum of 20 minutes of engine running. If the remote vehicle start continue is performed at 7 minutes into the initial 10 minute time-out, a total of 17 minutes of engine running would occur. The remote vehicle start event may be suspended at any time by pressing only the remote vehicle start button on the transmitter or by entering the vehicle and turning ON the hazard lamps.

In between ignition cycles, only two remote vehicle start events may occur or be attempted. Once two events or attempts have been made, future remote vehicle start events will be suspended until the vehicle is started using the ignition.

DESCRIPTION AND OPERATION > KEYLESS ENTRY SYSTEM DESCRIPTION AND OPERATION > ENABLE/DISABLE REMOTE VEHICLE START

Using the driver information center, remote vehicle start may be enabled or disabled as a part of vehicle personalization. Refer to the vehicle owners manual for more information.

DESCRIPTION AND OPERATION > KEYLESS ENTRY SYSTEM DESCRIPTION AND OPERATION > HOOD AJAR SWITCH

The hood switch provides status of the hood to the BCM for remote vehicle start purposes. The switch is integrated into the hood latch assembly.

DESCRIPTION AND OPERATION > KEYLESS ENTRY SYSTEM DESCRIPTION AND OPERATION > REMOTE VEHICLE START CIRCUIT DESCRIPTION

The BCM receives a signal from the keyless entry transmitter indicating a remote vehicle start request. A message is then sent to the BCM which determines if a crank request message will be sent to the ECM to allow engine starting. To determine if conditions are correct for a remote vehicle start event, the BCM will ensure the following conditions are met:

- A valid hood ajar switch closed signal is present.
- The doors are locked.
- The low fuel warning light is off.
- The hazard switch is OFF.
- The vehicle power mode is correct.

- No content theft deterrent alarm triggers are present.

When the BCM determines all conditions meet those required for a remote vehicle start event, a message is sent via serial data to the ECM. The ECM relies on the remote vehicle start message from the BCM to enable remote vehicle start when the crank request signal is received. If the ECM does not receive a valid remote vehicle start message, it will not attempt to start the engine. While the ECM is in remote vehicle start mode it will suspend engine operation if any of the following additional conditions occur:

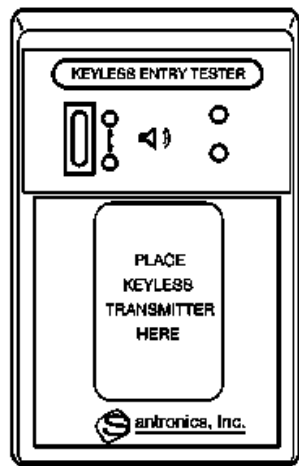
- Vehicle speed is greater than 0
- Transmission is not in PARK
- Excessive engine coolant temperature
- Low oil pressure
- The malfunction indicator lamp (MIL) is commanded ON
- Engine crank time is greater than 30 seconds
- Excessive engine speed
- Accelerator pedal position too high
- Remote start timer equals 0
- Immobilizer system indicates tamper

DESCRIPTION AND OPERATION > KEYLESS ENTRY SYSTEM DESCRIPTION AND OPERATION > KEYLESS ENTRY PERSONALIZATION

Vehicle lock/unlock functions and remote vehicle start settings may be personalized. For functional descriptions and personalization instructions, refer to the vehicle owners manual.

SPECIAL TOOLS AND EQUIPMENT > SPECIAL TOOLS

Illustration	Tool Number/ Description
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EL 43241
Keyless Entry Tester

cardiagn.com