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2002 Jeep LIBERTY Service Manual

Go to manual page

The HomeLink® transceiver operates on a non-switched source of battery current so the unit will remain functional, regardless of the ignition switch position. For more information on the features, programming procedures and operation of the HomeLink® transceiver, see the owner's manual in the vehicle glove box.

Each of the three HomeLink® transceiver push buttons controls an independent radio transmitter channel. Each of these three channels can be trained to transmit a different Radio Frequency (RF) signal for the remote operation of garage door openers, motorized gate openers, home or office lighting, security systems or just about any other device that can be equipped with a RF receiver in the 280 to 435 MegaHertz (MHz) RF range for remote operation. The transceiver is capable of operating systems using either rolling code or non-rolling code technology. The system will not transmit RF signals if the Vehicle Theft Alarm (VTA) is enabled.

The HomeLink® transceiver cannot be repaired, and is available for service only with the visor assembly. If any part of the component is inoperative or damaged, the complete visor assembly must be replaced (Refer to Body/Interior/VISOR/Removal and Installation).

Erasing Homelink® Transceiver Codes

ERASING HOMELINK® TRANSCEIVER CODES

NOTE

Individual channels cannot be erased. Erasing the HomeLink® transceiver codes will erase ALL programmed codes. Individual buttons cannot be erased but can be reprogrammed.

To erase programming from all three buttons:

1. Press and hold the two outer HomeLink® transceiver buttons until the indicator light begins to flash after about 20 seconds.

   NOTE

   Do not press the button for longer that 30 seconds.

2. Release both buttons.

HomeLink® is now in learning mode and can be programmed at any time. Please (Refer to Electrical/8C - Power Accessories/Universal Transmitter/Standard Procedure).

Reprogramming Homelink® Transceiver Codes

REPROGRAMMING HOMELINK® TRANSCEIVER CODES

WARNING

Vehicle exhaust contains carbon monoxide, a dangerous gas. Do not run the engine while training the universal transmitter. Failure to follow these instructions may result in possible serious or fatal injury.

WARNING

Your motorized door or gate may open and close while you are training the HomeLink® transceiver if the vehicle is in range of the motorized device. Do not train the HomeLink® transceiver if people or pets are in the path of the door or gate. A moving door or gate can cause serious injury or death to people and pets or damage to objects.

NOTE

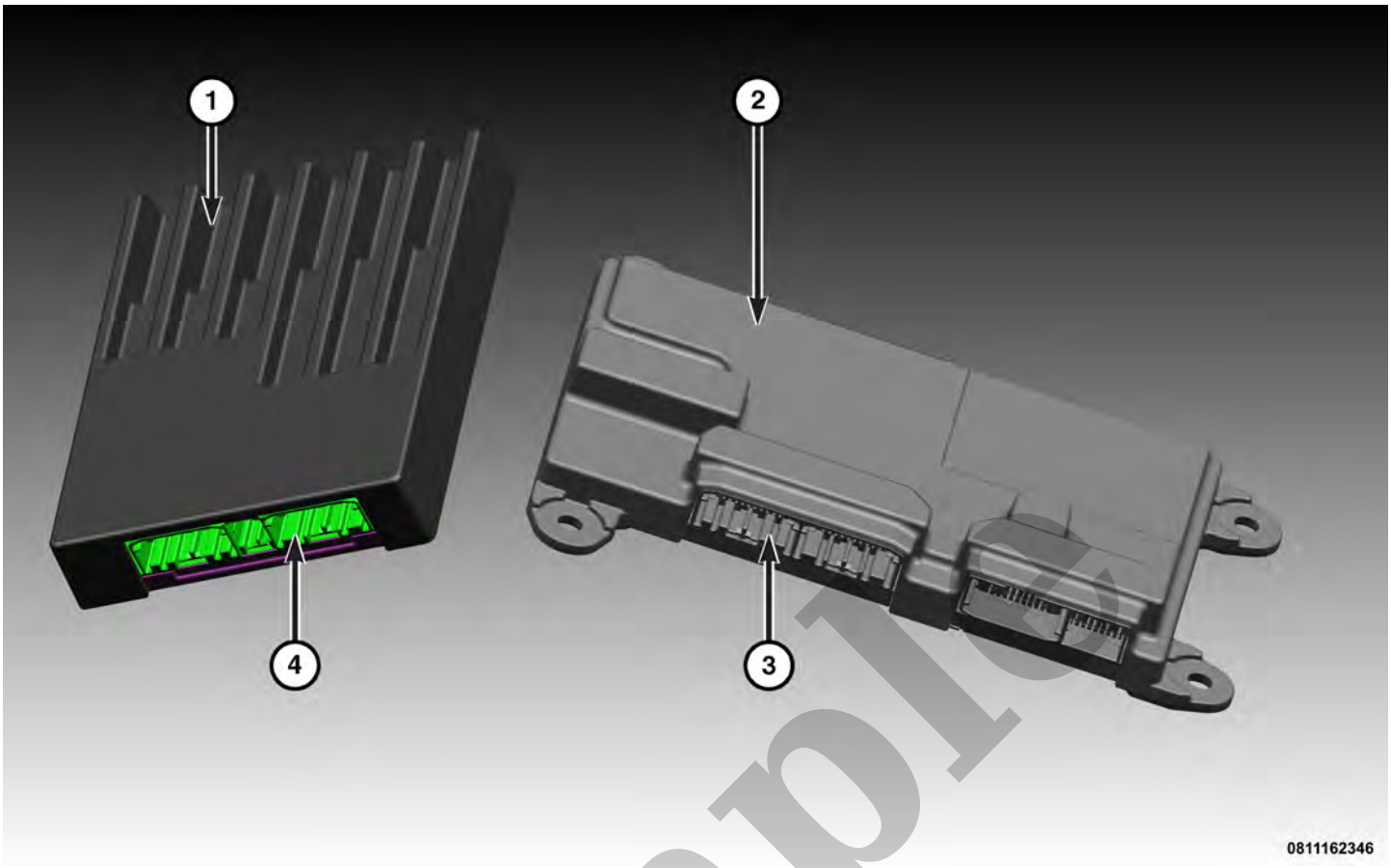
If programming the HomeLink® transceiver is unsuccessful using the following procedure, refer to the Owner's Manual for the current customer assistance phone number.

CANADIAN PROGRAMMING/GATE PROGRAMMING

Canadian RF laws require transmitter signals to time-out after several seconds of transmission which may not be long enough for the HomeLink® transceiver to pick up the RF signal during programming. Similar to this Canadian law, some U.S. gate openers are designed to time-out in the same manner.

If you live in Canada or you are having difficulties programming a gate opener by using the programming procedures, **replace "Reprogramming HomeLink® Transceiver Codes" step 3** with the following:

NOTE

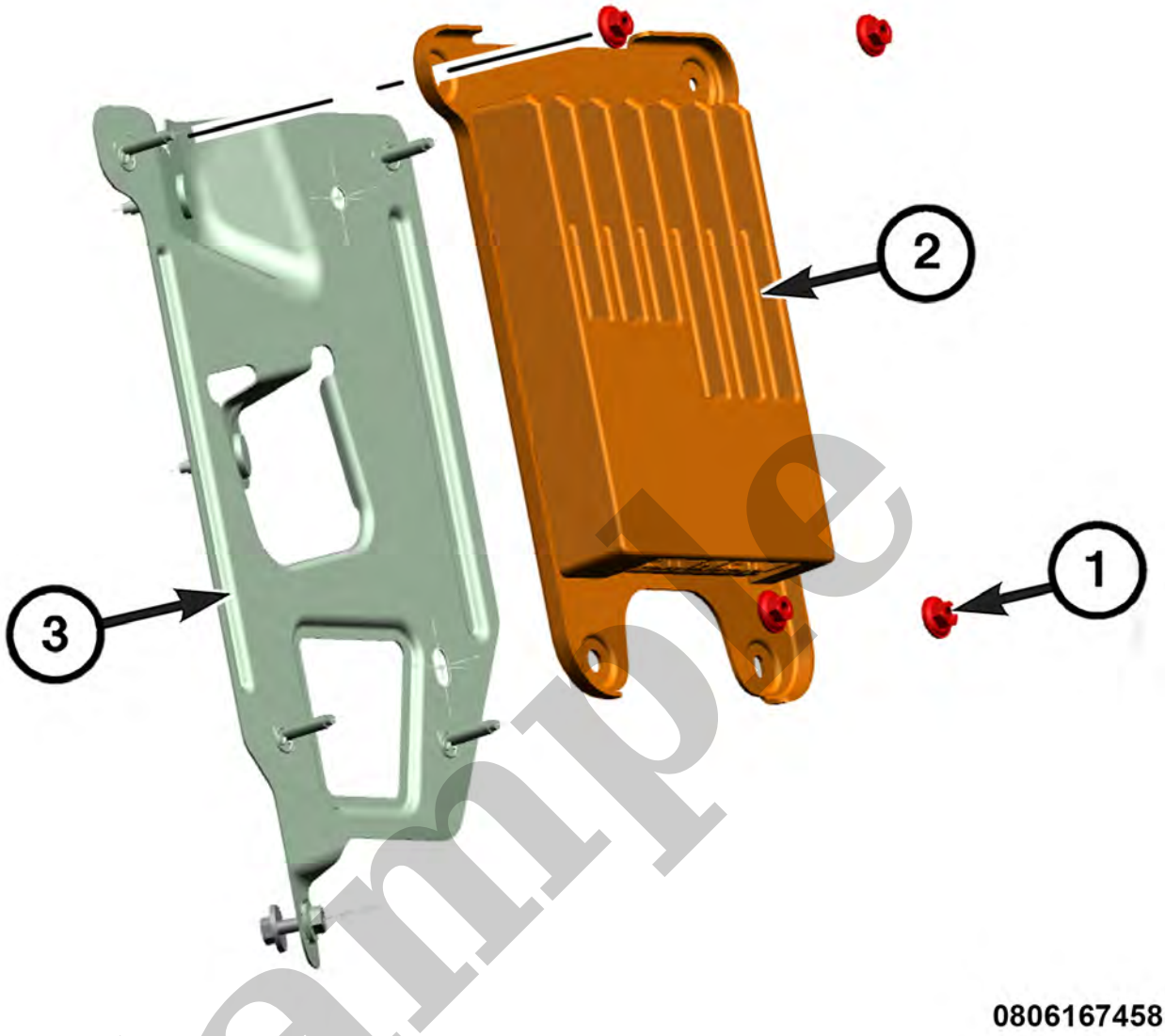


1 - 12-Channel 506 Watt Amplifier
2 - 17-Channel 960 Watt Amplifier
3 - Four Integral Connector Receptacles
4 - Three Integral Connector Receptacles

The Premium I Sound System has a 6-channel amplifier with Active Noise Cancellation (ANC) built into the radio and includes six speakers in the system.

The Alpine Premium II Sound System uses a 12-channel 506 watt amplifier and includes nine speakers plus a subwoofer in the system. The McIntosh Premium III Sound System uses a 17-channel 960 watt amplifier and includes 18 speakers plus a subwoofer in the system.

The 12 channel amplifier has three integral connector receptacles that connect the amplifier to the vehicle electrical system through dedicated take outs and connectors of the body wire harness. The 17-channel amplifier has four integral connector receptacles that connect the amplifier to the vehicle electrical system through dedicated take outs and connectors of the body wire harness.



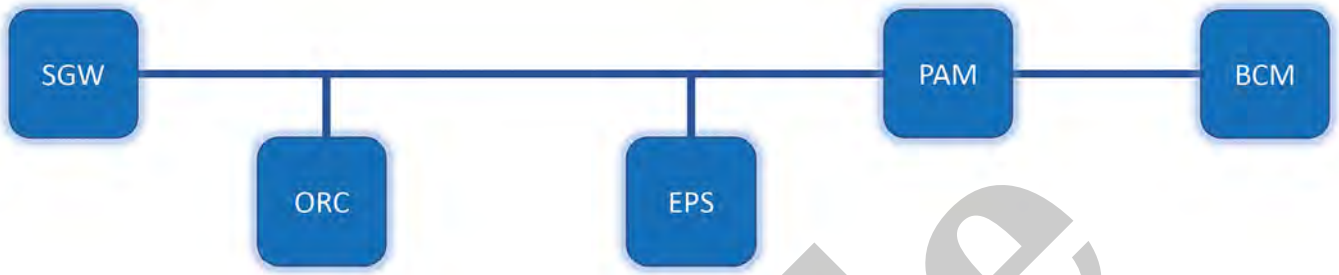
1 - Fasteners
2 - Amplifier
3 - Amplifier Bracket

5. If necessary, remove the fasteners and separate the amplifier from the amplifier bracket.

INSTALLATION

Follow the removal procedure in reverse for general reassembly of the components on the vehicle. The steps listed below are calling out specific procedures that should be followed during installation.

- Tighten the fasteners securely.



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For a complete CAN FD-2 BUS SYSTEM wiring diagram, **(refer to the Wiring Information)** .

CAN FD-3 LAYOUT

CAN-Chassis (CAN-FD-3)

<table>
<tr><th>CAN</th><th>CIRCUIT ID</th><th>CIRCUIT DESCRIPTION</th><th colspan="2">DOMINANT MODULES</th><th colspan="11">NON-DOMINANT MODULES</th></tr>
<tr><td rowspan="3">FD-3</td><td rowspan="2">D284</td><td rowspan="2">CAN FD (+)</td><td rowspan="3">Powertrain Control Module (PCM)</td><td rowspan="3">Radio Frequency Hub (RFH) Module</td><td>Automatic Sway Bar System (ASBS)</td><td>Electronic Shift Module (ESM)</td><td>Power Inverter Module (PIM)</td><td>Instrument Panel Cluster (IPC)</td><td>Security Gateway Module (SGW)</td><td>Global Navigation Motion Module (GNMM)</td><td>Drive Train Control Module (DTCM)</td><td>Electronic Slip Differential Module (ELSD)</td><td>Driver Monitoring System Module (DMSM)</td><td>Ele St I M (E</td></tr>
<tr><td>[3]</td><td colspan="2">[2] [3]</td><td>[3] [4]</td><td>[2] [3] [4]</td><td>[1] [3] [4]</td><td colspan="4">[1] [3]</td></tr>
<tr><td>D285</td><td>CAN FD (-)</td><td colspan="3">Body Control Module (BCM)</td><td>Transmission Control Module (TCM)</td><td colspan="2">Brake System Module (BSM)</td><td colspan="3">Central ADAS Decision Moc (CADM)</td></tr>
<tr><td colspan="3"></td><td>[2] [3]</td><td>[3]</td><td colspan="5">[1] [2] [3]</td><td colspan="2">(LOW) [1] [2] [3]</td><td>(MI [2]</td></tr>
</table>

[1] Daisy Chained Module On This CAN.

[2] Module is connected to more than one CAN.

[3] Module has internal Trust-Anchor.

[4] Module is connected to Automotive Ethernet.

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For a complete CAN FD-10 BUS SYSTEM wiring diagram, **(refer to the Wiring Information)** .

CAN FD-11 LAYOUT

CAN-Chassis (CAN-FD-11)

CAN	CIRCUIT ID	CIRCUIT DESCRIPTION	DOMINANT MODULES		NON-DOMINANT MODULES	
FD-11	D316	CAN FD (+)	Battery Pack Control Module (BPCM)	Power Inverter Module (PIM)	Integrated Dual Charge Module (IDCM)	Security Gateway Module (SGW)
	D315	CAN FD (-)	**[3]**	**[2] [3]**	**[3]**	**[2] [3] [4]**

[2] Module is connected to more than one CAN.

[3] Module has internal Trust-Anchor.

[4] Module is connected to Automotive Ethernet.

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For a complete CAN FD-SB-2 BUS SYSTEM wiring diagram, **(refer to the Wiring Information)** .

CAN FD-SB-3 LAYOUT

CAN-Chassis (CAN-FD-SB-3)

CAN	CIRCUIT ID	CIRCUIT DESCRIPTION	DOMINANT MODULES			NON-DOMINANT MODULES
FD-SB–3	D322	CAN FD (+)	Long Range Radar Front (LRRF)	Central ADAS Decision Module (CADM) 2		**NOT APPLICABLE**
	D321	CAN FD (-)	**[2] [3]**	(MID) **[2] [3] [4]**	(HIGH) **[2] [3] [4]**	

[2] Module is connected to more than one CAN.

[3] Module has internal Trust-Anchor.

[4] Module is connected to Automotive Ethernet.

on a specific power supply for example 5 volts. It allows for an easier transfer of information by using lower voltages such as 3.5, 2.5 volts, and even lower while still maintaining the same data/signaling transmission and performance. The combined bandwidth that LVDS communication offers is in the Gbps range with data/signaling transmission rates in the 500-1,000 Mbps.

LVDS MODULE APPLICATION TABLE

Low Voltage Digital Signal (LVDS)	**AUTONOMOUS DRIVING**		**CHASSIS**		
	AD 1	**AD 2**	**CHA 1**	**CHA 7**	**CHA 8**
Master Module	Central ADAS Decision Module (CADM)	Driver Monitoring System Module (DMSM)	Radio	Night Vision Processing Module (NVPM)	Night Vision Processing Module (NVPM)
Slave Module	Long Range Camera Front (LRCF)	Driver Monitoring Camera (DMC)	Rear View Camera Module (RVCM)	Night Vision Camera Module (NVCM)	Instrument Panel Cluster (IPC)

Low Voltage Digital Signal (LVDS)	**CHASSIS**	**INFOTAINMENT**	
	CHA 10	**INF 1**	**INF 4**
Master Module	Radio	Radio	Instrument Panel Cluster (IPC)
Slave Module	Interior Camera Module 1 (IRCM 1)	Display Screen Module (DSM)	Heads Up Display Module (HUDM)

LIN LAYOUT

LIN

In addition to the CAN bus network, certain ECUs may also be equipped with a Local Interface Network (LIN) data bus. The LIN data bus is a single wire low-speed (up to 20 Kbps) serial link bus used to provide direct communication between a LIN master module, slave modules and certain switch or sensor inputs. Once the master module sends a request on the LIN bus, the slave modules have the capability of both sending and receiving information over LIN. There is also a private security bus network between the Radio Frequency Hub (RFH) Module and the Keyless Ignition Node (KIN) known as the Security K Line Communication Bus.

NOTE

Below are some of the LINs available on this vehicle depending upon vehicle configuration.

LIN BUS MODULE APPLICATION TABLE

Local Interconnect Network (LIN)						
Master Module	**CIRCUIT ID**	**Slave Module**				
Ambient Light Module (ALM)	D831 to D833	Lighting Unit(s)				
Body Control Module (BCM) LIN 1	D401	Interior Camera Module (ICM)	Intelligent Battery Sensor (IBS)			
Body Control Module (BCM) LIN 2	D402	Transfer Case Selector Switch	Steering Column Control Module (SCCM)	Wireless Charging Pad Module (WCPM)		
Body Control Module (BCM) LIN 3	D403	Window Smart Motor Rear Left (WSMRL)	Window Smart Motor Rear Right (WSMRR)	Switch Bank Module Rear Left (SBMRL)	Switch Bank Module Rear Right (SBMRR)	Hands Free Release Module (HFRM)
Body Control Module (BCM) LIN 4	D404	Cruise Control Steering Wheel Commands (CSWC)	Driver Detection Module	Steering Column Control Module (SCCM)		