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2018 CHEVROLET Traverse OEM Service and Repair Workshop Manual

Go to manual page

YOUR CURRENT VEHICLE

K73 Telematics Communication Interface Control Module: Programming and Setup

K73 Telematics Communication Interface Control Module: Programming and Setup (UE1 without CV3/EF7/Z49)

NOTE

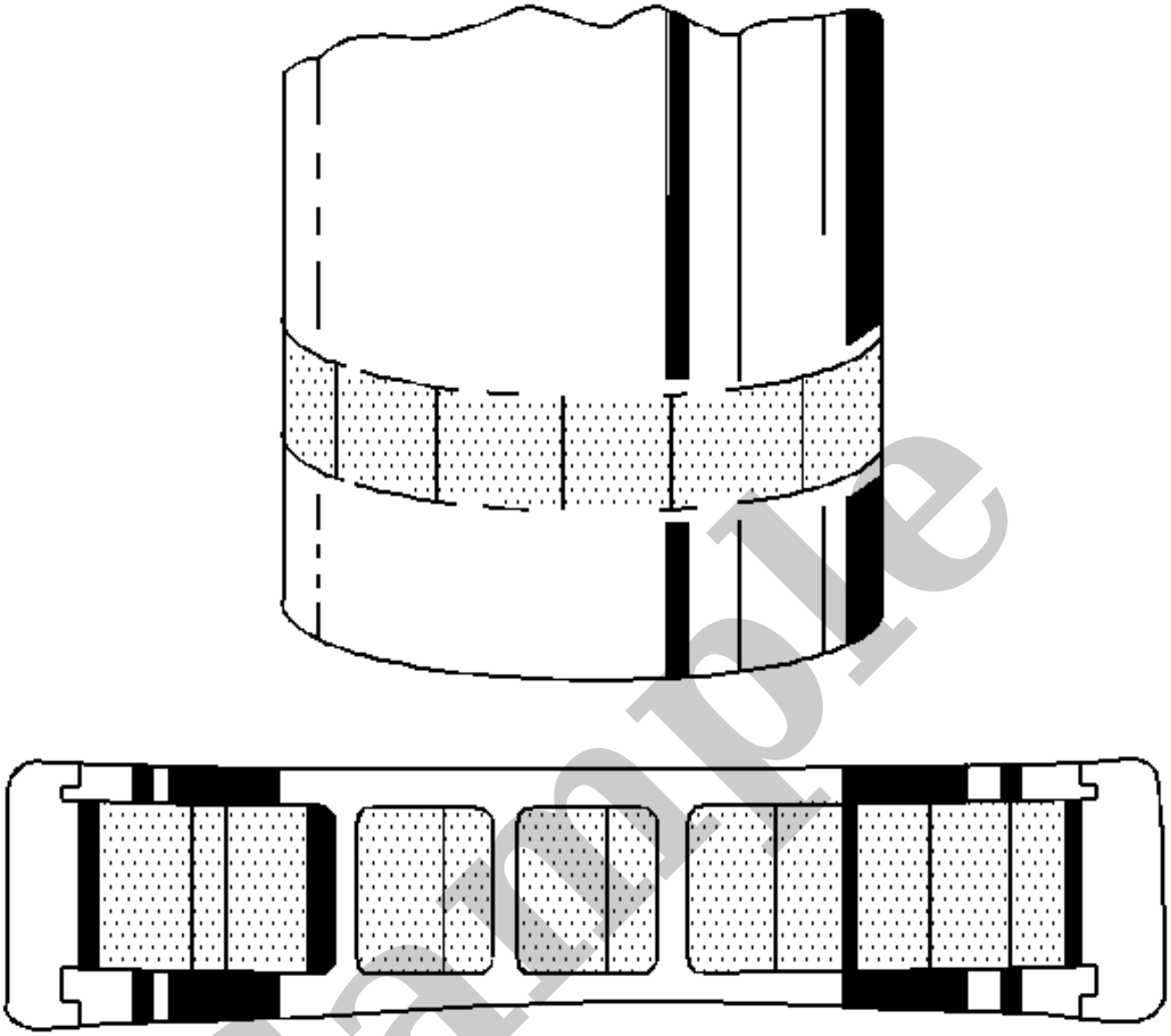
Note

- DO NOT program a control module unless directed to by a service procedure or a service bulletin. If the control module is not properly configured with the correct calibration software, the control module will not control all of the vehicle features properly.
- Ensure the programming tool is equipped with the latest software and is securely connected to the data link connector. If there is an interruption during programming, programming failure or control module damage may occur.
- Stable battery voltage is critical during programming. Any fluctuation, spiking, over voltage or loss of voltage will interrupt programming. When required, install a battery maintainer or power supply that provides a steady and stable voltage. Do not use a battery charger, as charging voltage will often fluctuate when connected to the vehicle. This may interrupt programing. If a battery maintainer is not available, connect a fully charged 12 V jumper or booster pack disconnected from the AC voltage supply.
- Turn OFF or disable systems that may put a load on the vehicles battery such as; interior lights, exterior lights (including daytime running lights), HVAC, radio, etc.
- During the programming procedure, follow the SPS prompts for the correct ignition switch position.
- Clear DTCs after programming is complete. Clearing powertrain DTCs will set the Inspection/Maintenance (I/M) system status indicators to NO.

Diagnostic Aids

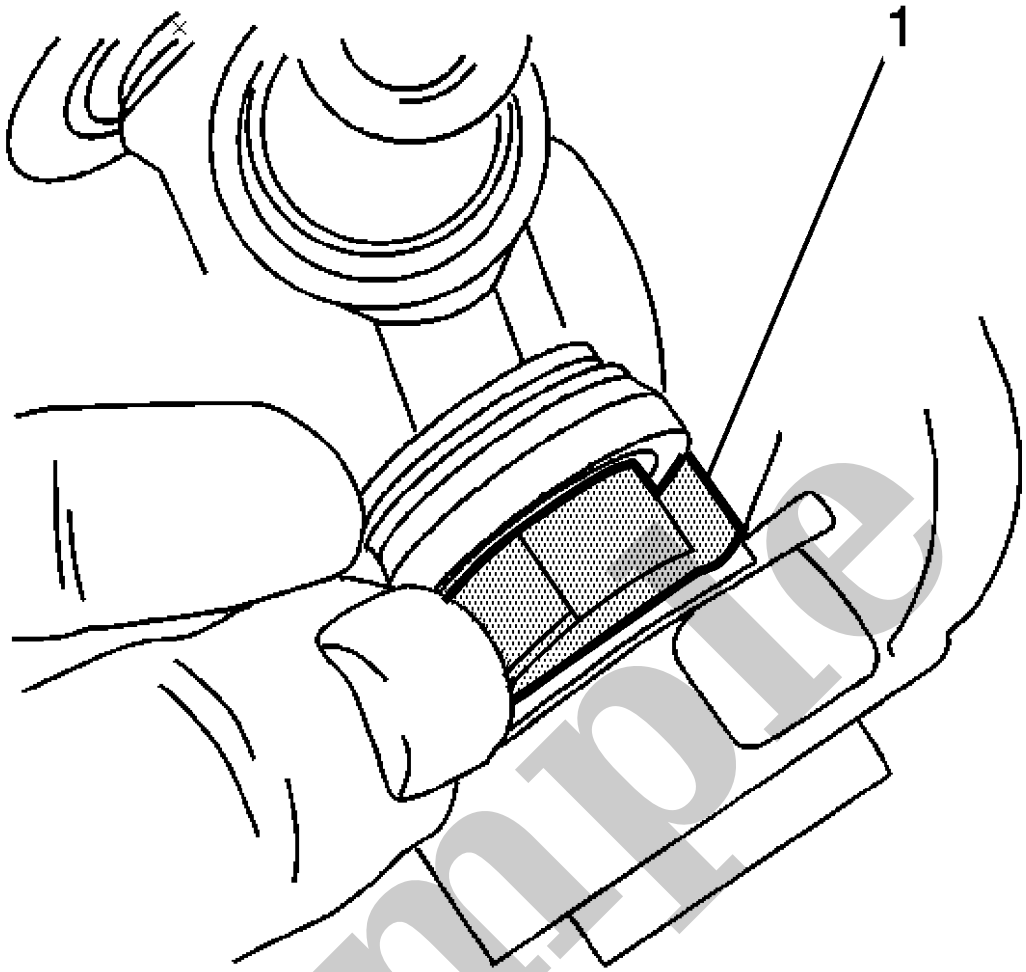
Parameter	System State	Expected Value	Description
Low Voltage Test Status			if the skip shift solenoid actuator control circuit is shorted to ground.
Skip Shift Solenoid Actuator Control Circuit Open Test Status	—	OK	This parameter displays the state of the skip shift solenoid actuator control circuit. The parameter displays Malfunction if the skip shift solenoid actuator control circuit is open.
Specific Humidity	—	%	This parameter displays the ratio of water vapor to dry air shown in a percentage.
Short Term Fuel Trim Test Average Bank 1 or Bank 2	—	3%	This parameter is calculated by the control module based on an intrusive test by the control module. The Short Term FT Test Average used for the short term correction of the fuel delivery in each bank. The scan tool will display a high value for a large amount of short term fuel correction, and 0% for no short term fuel trim correction. The scan tool will display a negative value when fuel system is running too rich and fuel is being removed from the combustion event. The scan tool will display a positive value if the fuel system is running lean and fuel is being added to the combustion event.
Start Up ECT	—	Varies °C/°F	This parameter Indicates the engine coolant temperature at engine start up as calculated by the control module based on the signal from the ECT sensor. The scan tool will display a higher value on a warmer engine, and a lower value on a colder engine.
Start Up IAT	—	Varies °C/°F	This parameter Indicates the intake air temperature at engine start up as calculated by the control module based on the signal from the IAT sensor. The scan tool will display a higher value during warmer under hood temperatures, and a lower value during colder under hood temperatures.
Starter Relay Command	—	Off	This parameter displays the current starter relay command. The scan tool displays ON when the starter relay is commanded on.
Starter Relay Control Circuit High Voltage Test Status	—	OK	This parameter displays the state of the starter relay control circuit. The parameter displays Malfunction if the starter relay control circuit is shorted to voltage.
Starter Relay Control Circuit Low Voltage Test Status	—	OK	This parameter displays the state of the starter relay control circuit. The parameter displays Malfunction if the starter relay control circuit is shorted to ground.

Control Function	Description
High Side Driver 1 Command	Allows command of the high side driver 1 (ON or OFF).
High Side Driver 2 Command	Allows command of the high side driver 2 (ON or OFF).
Line Pressure Command	Allows command of the Line Pressure solenoid. (Increase / Decrease).
Shift Transmission Gear Command	Allows upshift/downshift of the transmission between all gears — if the operating conditions allow a shift to occur (does not cause engine overspeed / underspeed).
Transmission Control Solenoid Valve 1-7 Current Command	Allows command of the transmission solenoids 1-7 (electrical current range 0-1.2 amps).
Transmission Control Solenoid Valve 1-7	Allows command of the solenoid valve 1-7 (OFF or ON).
Transmission Control Solenoid Valve 8-9	Allows command of the solenoid valve 8-9 (OFF or ON).

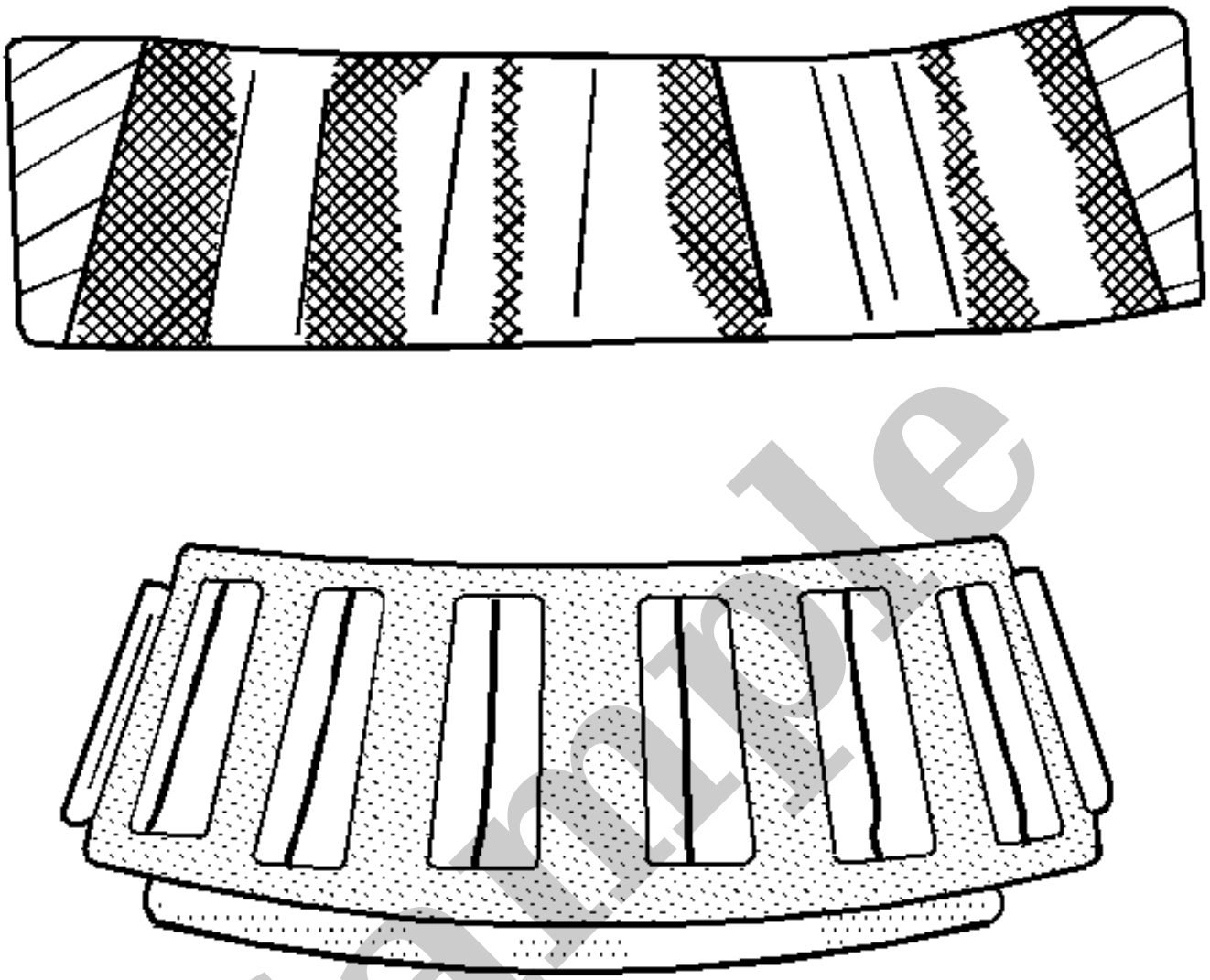


Surface indentations in the raceway can be caused by roll either under impact loading or vibration while the bearing is not rotating. Replace the bearing if rough or noisy. Replace the shaft if damaged.

Indentations



8. If you do not completely remove the bearing cup, lift the spider and insert **J 9522-5** ***u-joint bearing spacer remover*** (1) between the seal and the bearing cup you are removing. Continue pressing the bearing cup out of the yoke.
9. Rotate the propeller shaft . Press the opposite bearing cup out of the yoke.
10. Remove the spider from the yoke.
11. Remove the remaining universal joint parts from the yoke.
12. Inspect the retaining ring grooves for dirt, corrosion, or pieces of the old ring.
13. Inspect the bearing cup bores for burrs or imperfections.
14. Clean the retaining ring grooves. Corrosion, dirt, rust, or pieces of the old retaining ring may prevent the bearing cups from pressing into place or prevent the bearing retainers from properly seating.



Surface indentations in the race way caused by the rollers under impact loading or caused from vibration while the bearing is not rotating. Replace a rough or noisy bearing.

specific task, as opposed to operating the entire system.

- For an application to be used, it must be installed on both the vehicle infotainment system and a compatible mobile device.
- The device must be connected to the system. this may be done wirelessly via Bluetooth ®, or via the vehicle USB port. Refer to the device manufacturers information for the proper connection method.
- When the device is connected, the vehicle infotainment system is used to remotely access and control the application on the mobile device.
- The application must work correctly on the device to work with the vehicle infotainment system.
- The user may be required to log-in to the application on the mobile device before using the application from the vehicle controls.
- Using applications will use the device's data plan.
- The device must be unlocked, and any additional applications should be closed.

Refer to the owner's manual and supplements for information on mobile devices, control, and operation.

Auxiliary Audio Input Jack (If equipped)

The infotainment system may have a 3.5mm (1/8 in.) auxiliary audio input jack located in the center console. The auxiliary audio input jack interfaces directly with the radio. When a portable audio playback device is connected to the auxiliary jack, an internal switch detects the connection and the radio will switch to AUX as the audio source. Audio signals from the device are sent to the radio from the auxiliary jack via the left, right, and common audio signal circuits.

- When a device is first connected to the 3.5mm (1/8 in.) input jack the infotainment system automatically switches to that device. If an auxiliary device has already been connected, press the AUX or CD/AUX button to select the device.
- Playback of an audio device that is connected to the 3.5mm jack can only be controlled using the controls on the device.
- The volume control on the device may need to be adjusted to ensure sufficient playback volume through the infotainment system.

USB Port and SD Card Reader (If equipped)

The USB port and the card reader slot interface with a hub device, internal to the auxiliary jack, USB, and memory card receptacle assembly. The auxiliary jack, USB, and memory card receptacle assembly receives

        - If 2 Ω or greater, repair the open/high resistance in the circuit.
        - If less than 2 Ω, repair the open/high resistance in the ground connection.
    - **If less than 10 Ω.**
4. Verify that a test lamp illuminates between the B+ circuit terminal 10 and ground.
    - **If the test lamp does not illuminate.**

      Repair the open/high resistance in the circuit
    - **If the test lamp illuminates.**
5. Ignition ON, rear seat entertainment system ON.
6. Test for 5 V or greater between the control circuit terminal 9 and ground.
    - **If less than 5 V.**

      Repair the open/high resistance in the circuit
    - **If 5 V or greater.**
7. Ignition OFF.
8. Verify the LVDS cable is properly connected at the P22 Video Display, A33 Media Disc Player and all in-line connectors, and there is no damage to the cable or connections.
    - **If connection problems or cable damage is noted.**

      Perform the appropriate repair or replacement to correct any issues.
    - **If no connection problems or cable damage is noted.**
9. Connect the X2 harness connector at the P22 Video Display.
10. **NOTE**

    Note

    In the following steps, the test tools are used to create a jumper for the LVDS cable from the operating display to the inoperative display.

    Disconnect the X1 harness connector at the operating P22 Video Display.
11. Connect the EL-50334-4 Type A female to Mini B female Adapter to the harness of the operating P22 Video Display. Connect the EL-50334-14 Infotainment Test Cable to the adapter.
12. Disconnect the X1 harness connector at the inoperative P22 Video Display. Connect the EL-50334-14 Infotainment Test Cable to the inoperative P22 Video Display.