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Symptom/Vehicle Issue: Decreased Remote Start And RKE Range. Tire Pressure Sensors Values Are Not Displayed

Discussion: Issues with the remote start antenna can cause decreased RKE/remote start range and loss of tire pressure monitor sensors (TPMS) values. Aftermarket sensors, electronics and window tint can also decrease RKE and TPM performance.

Diagnosis: Upon scanning the vehicle for DTCs you may find one or more of the following DTC's: Remote start antenna DTC B1A76-13. If the cluster displays dashes instead of the tire pressure sensors. In addition to B1A76-13 you may find one or more of the following TPMS DTC's: C1501-31 / C1502-31 / C1503-31 / C1504-31 / C151D-00.

A failed remote start antenna can cause issues with multiple tire pressure sensors. But the most susceptible sensor locations are listed below based on platform:

- DT - Rear TPM sensors
- JL/JT – Front TPM sensors
- KL – Front TPM sensors
- LA, LD, LX – Front TPM sensors
- MP – Front TPM sensors
- RU – Front TPM sensors
- VF – Rear TPM sensors
- WD/WK – Front TPM sensors
- WL/WS – Front TPM sensors

This document does not authorize warranty repairs. This communication documents a record of past experiences. STAR Online does not provide any conclusions about what is wrong with the vehicle. Rather, it captures all previous cases known that appear to be similar or related to the vehicle symptom / condition. You are the expert, and you are responsible for deciding on the appropriate course of action.

Contact STAR Center, or your Technical Assistance Center Via TechCONNECT or eCONTACT ticket if no solution is found



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Checking the Remote Start Antenna:

Before replacing any component, it's always recommended to review the antenna for any physical damages. Perform the following steps to verify the remote start antenna (RSA) is the root cause of the concern.

1. Make sure that remote start antenna connector is correctly connected and fully seated to RF hub. Check the remote start connector pin for any damage.
2. Visually inspect the RSA coax cable for damage.
3. Wiggle the coax cable and monitor if the DTC becomes active or stored.
4. Disconnect and reconnect the Remote Start Antenna cable at the RF Hub Module.
5. With a known good RSA, connect it directly to the RF Hub and monitor if any RKE range or TPMS issues are resolved.
6. If issues are still present, the key fobs, RFH, and TPMS should be investigated further.
7. If there are no connection issues found and the normal operation returns with a known good remote start antenna. Replace the remote start antenna.

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If you are still experiencing an issue with the vehicles RKE or TPM system and the remote start antenna testing was inconclusive. The issue may be caused by aftermarket components installed on the vehicle.

Common aftermarket components which engineering have found affect RKE and TPM operation are listed below:

Aftermarket TPM sensors commonly found on aftermarket wheels. These sensors do not conform to the performance and standards of Mopar factory sensors. The TPM sensor part number should be confirmed with the vehicles VIN number to ensure it's not only a Mopar part, but also the correct sensor for that vehicle.

Aftermarket alarm and GPS systems. These can interfere and mask RKE and TPM Radio Frequency (RF) signals.

Window Tint. The RF signals generated by the Fob and TPM sensors cannot pass through the vehicles metal structure. The transmitted RF signals can only pass through the vehicles glass windows. While window tint of any kind can block the passage of RF through the vehicles glass. Ceramic tint greatly inhibits transmission of RF signals.

Repair Procedure: Remove any aftermarket components which may interfere with RKE and TPM signals. Replace the remote start antenna if a deemed necessary by your testing.

Verification: Confirm normal RKE range and TPMS values are restored.

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