

TT8263EN
December, 2018
Page 1 of 2

SUBJECT: J1939 Source Address (SA) Misuse

MODELS AFFECTED: All Allison Transmission Models

Allison Requirement for Unique Source Address usage (from Datalink Communications section of Allison Technical Data):

Each device communicating on the vehicle J1939 datalink must broadcast a Source Address (SA) as a means of component identification.

Allison uses the following Source Addresses to uniquely identify Allison controllers on J1939 networks: SA 03 (Transmission #1) identifies the Allison TCM. SA 05 (Shift Console #1) and SA 06 (Shift Console #2) identify Allison shift selectors. SA 16 (Retarder – Driveline) identifies retarder related content from the Allison TCM.

Allison strictly prohibits other J1939 devices from using Source Addresses claimed by Allison components unless specifically authorized in the Allison Datalink Tech Data package.

Description of Relevant Complaint:

When selecting **D** (Drive) or **R** (Reverse) from **N** (Neutral), the transmission briefly attains range, then reverts to un-commanded Neutral. There are no active or inactive transmission Diagnostic Trouble Codes. There is no indication from the shift selector (as described in the note below) of transmission operation being inhibited by the Transmission Control Module.



NOTE: When shifts are inhibited, the TCM puts the transmission in **N** (Neutral) and the **RANGE SELECT** character flashes an **R** for reverse inhibit or the **RANGE SELECT** character flashes the highest forward range number for a drive inhibit.

Cause:

The Source Addresses for Allison shift selectors on the J1939 datalink are SA 05 (Shift Console – Primary) and SA 06 (Shift Console – Secondary). It is possible for OEM's or Body Builders to violate the Allison Datalink Communication requirement regarding the use of unique SAs, and broadcast commands from a non-Allison component using an Allison reserved SA, usually as body related interlock. This may result in the behavior described in the above Description of Relevant Complaint.

Action:

If a vehicle is exhibiting symptoms described, record an Allison DOC® snapshot and Passive Databus Viewer file (with Protocol set to J1939 as described in the Allison DOC® Users Guide) illustrating the complaint with numerous Shift Selector commands from **N** (Neutral) to **R** (Reverse) and **N** (Neutral) to **D** (Drive) immediately followed by un-commanded returns to **N** (Neutral). Open a TAC case, and submit the collected data files for attachment to the

MC

Copyright © 2018 Allison Transmission, Inc. All Rights Reserved.

4429740

TAC case. Also, include the name of manufacturer of the vehicle body, and model designation if applicable. Allison Service Engineering will review the submitted files to determine if the described condition is applicable.