

 Preview Solution CBR-2412-6

Volvo Chassis - VN (4) - TPMS fault U3000-05

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Valid For

Volvo Chassis - VN(4)

Model Year - 2025

This CBR solution provides guidance for addressing the U3000-05 fault code in the Wireless Sensor GateWay (WSGW) following the S4312 Service Campaign.

Usage:

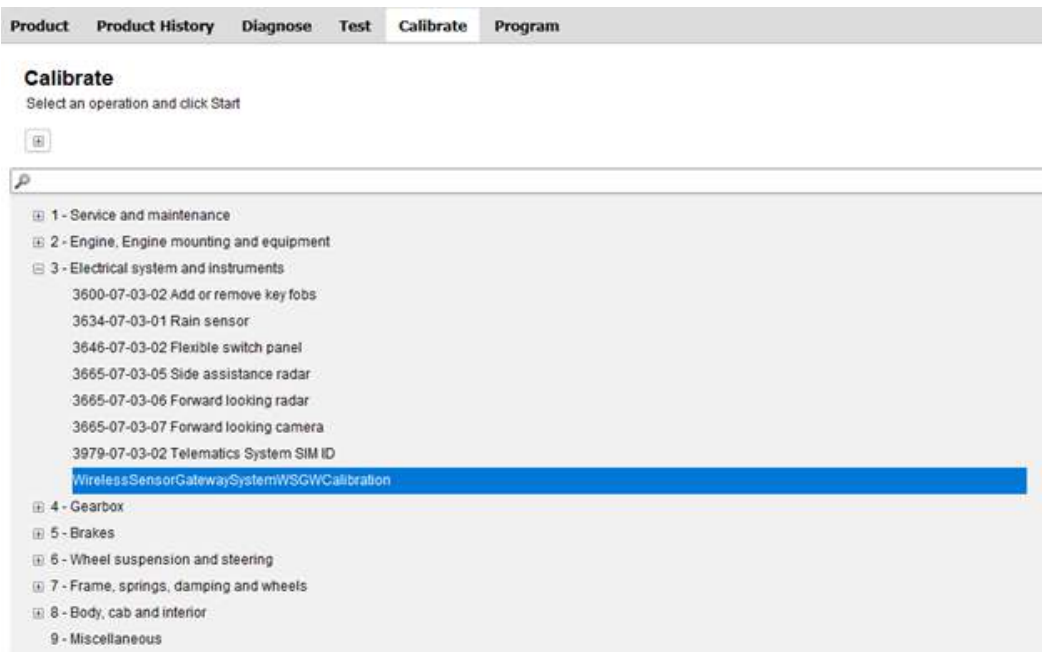
- Use this document **only** when the U3000-05 fault code is active after completing the S4312 Service Campaign.
- This document serves as a temporary solution until a permanent fix becomes available.
- Carefully read and adhere to all instructions. Do not deviate from the steps outlined in this document.

Prerequisites:

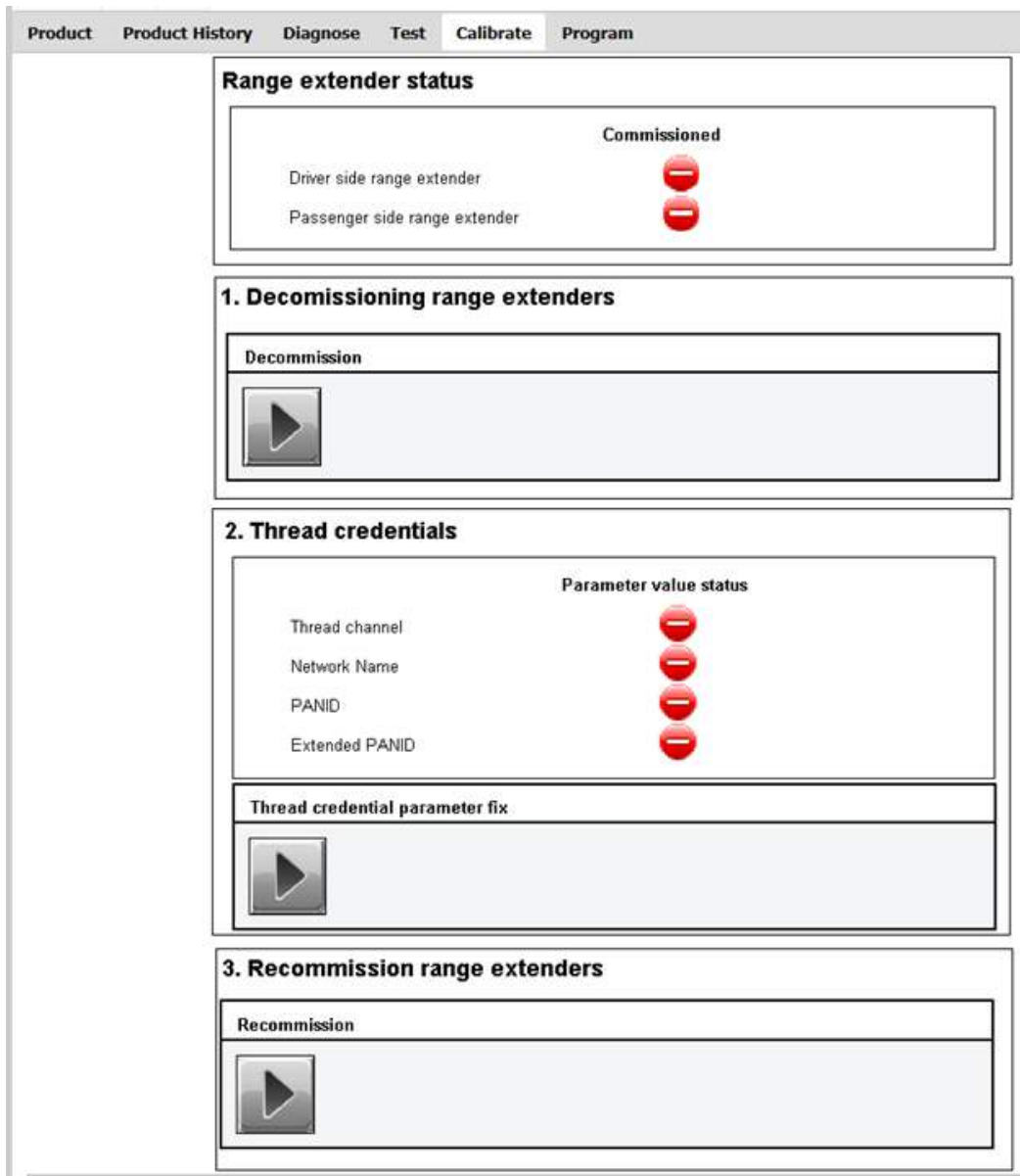
1. Verify that the truck's hardware and software have been updated using the S4312 Service Campaign.
2. Confirm that PTT is updated to version 2.8.301 or later.
3. WirelessSensorGatewaySystemWSGWCalibration has been performed and code is still active. Procedure for the calibration is below.

WirelessSensorGatewaySystemWSGWCalibration:

1. Connect to the truck using PTT.
2. Proceed to Calibrate Tab and select **WirelessSensorGatewaySystemWSGWCalibration**.



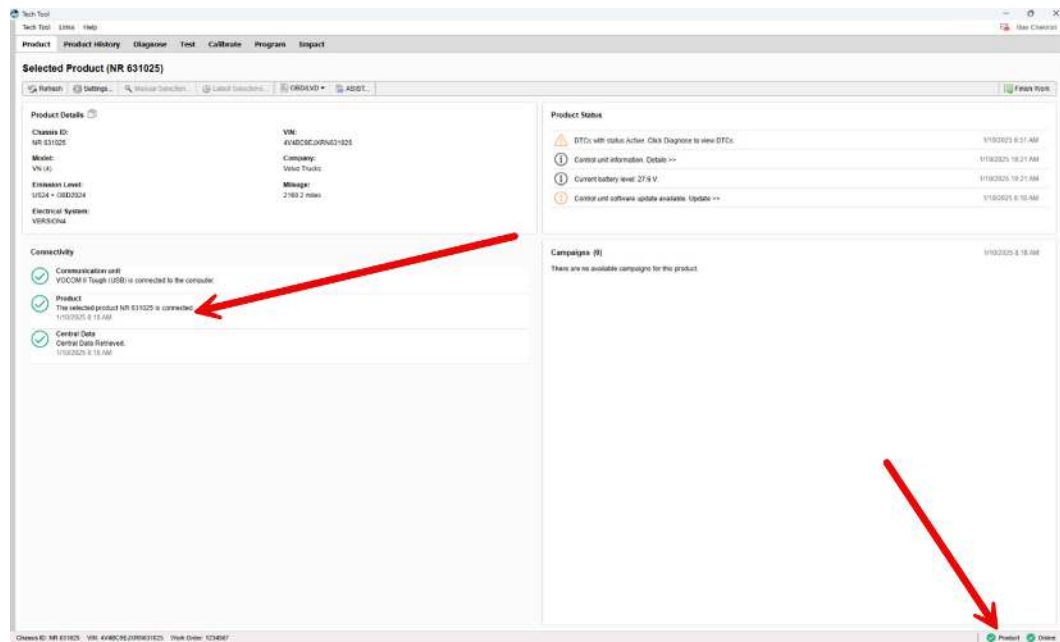
3. Follow the steps in the calibration in order.



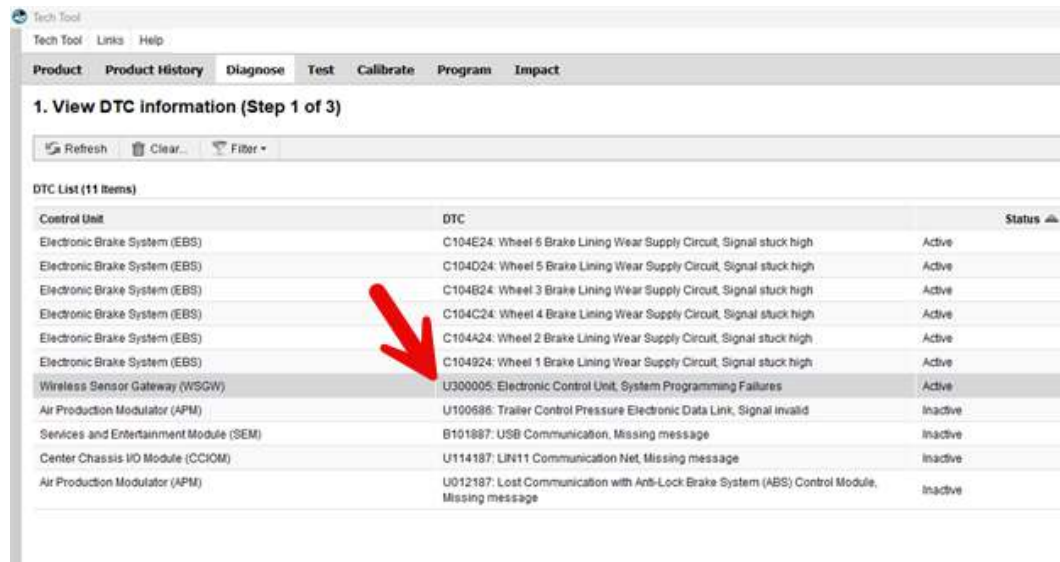
Note: If the calibration does not repair the parameters, please follow the steps below to repair them manually.

Procedure:

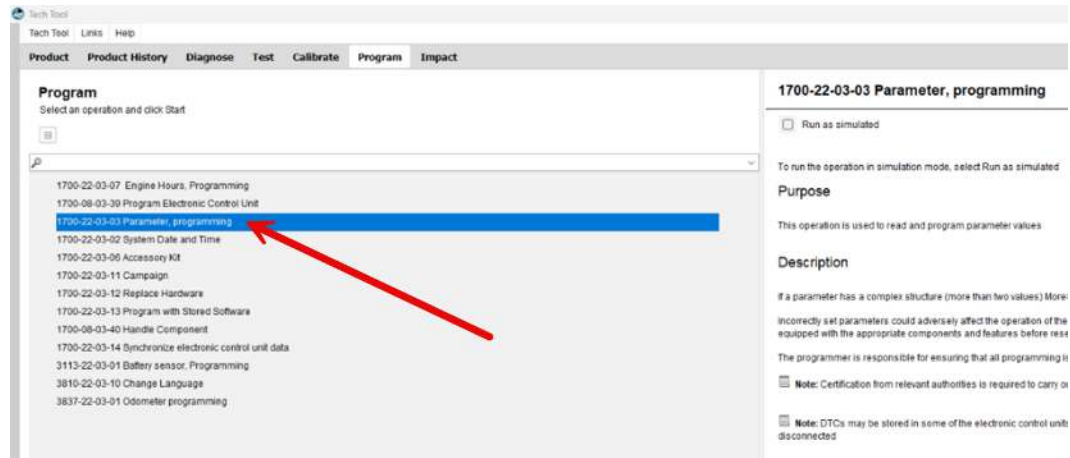
1. Verify connection to the truck:



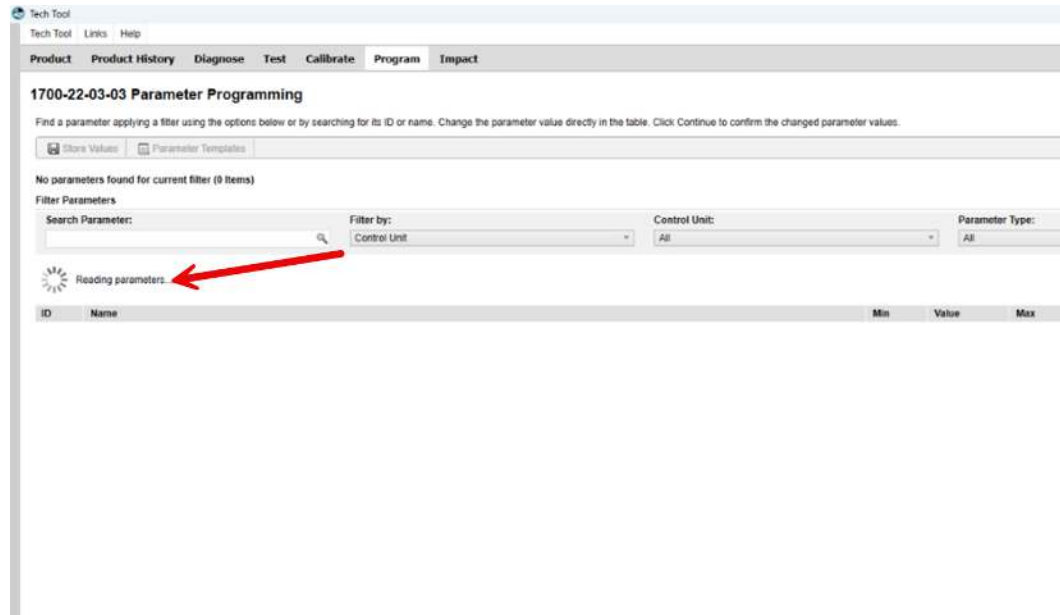
2. Verify the truck has the WSGW U3000-05 fault code before continuing:



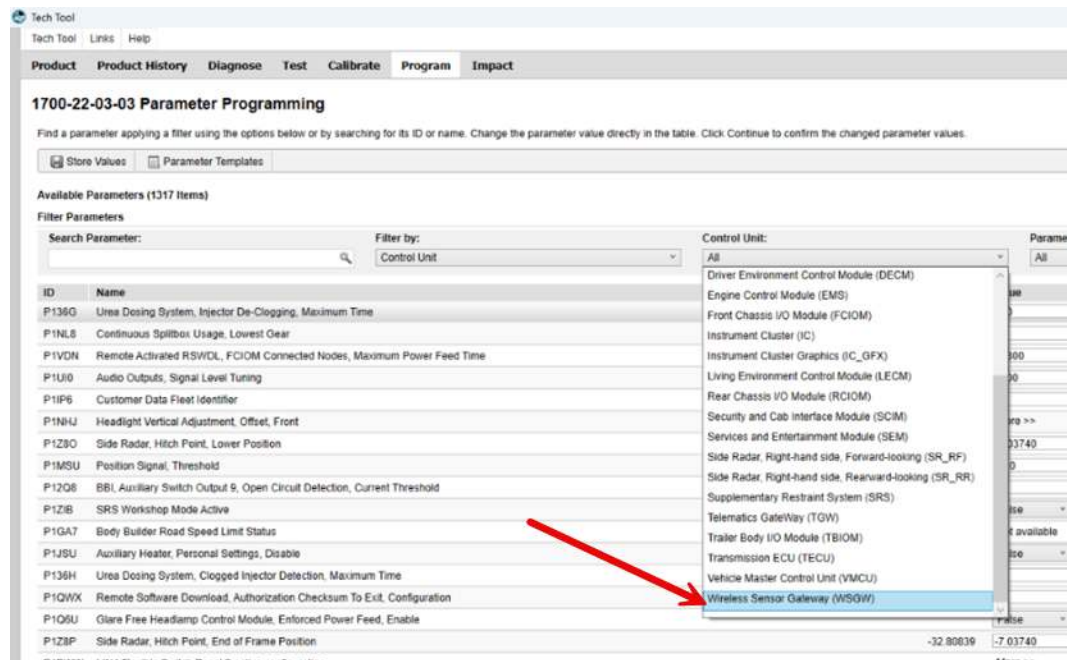
3. Go to the Program Tab, select Parameter Programming, and Press Start:



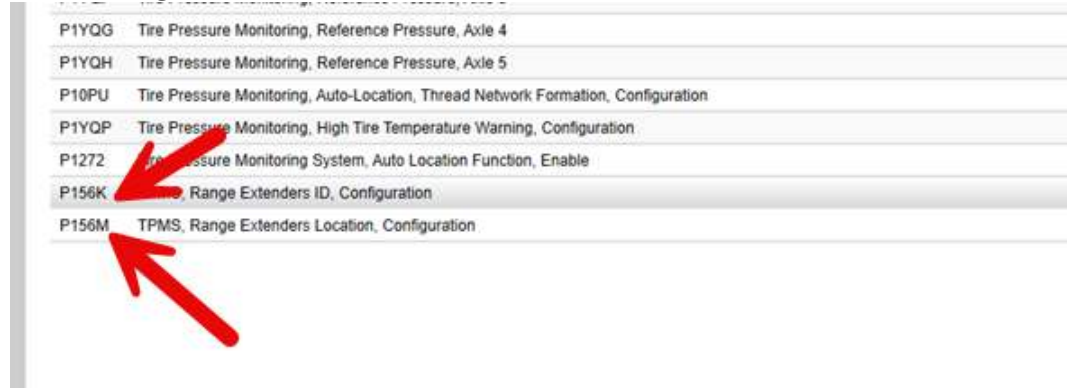
4. Reach and acknowledge the warnings and advisory. Verify the pre-conditions are met and wait for the parameters to load. This will take several seconds:



5. When all the parameters have loaded, select the Wireless Sensor Gateway (WSGW) under the Control Unit field:



Note: You will need to decommission the range extenders, the parameters we will be using are P156K and P156M



6. Record the values in P156K and P156M exactly as they appear. These will be needed for recommission of the range extenders at the end.

Examples:

Complex Parameter

Parameter Programming

ID	Name
P156K	TPMS, Range Extende

First Range Extender Product ID

Second Range Extender Product ID

Third Range Extender Product ID

Fourth Range Extender Product ID

Fifth Range Extender Product ID

Complex Parameter

Parameter Programming

ID	Name
P156M	TPMS, Range Extenders Location
First Range Extender Product Location	Min 0 55 Max 255
Second Range Extender Product Location	Min 0 57 Max 255
Third Range Extender Product Location	Min 0 0 Max 255
Fourth Range Extender Product Location	Min 0 0 Max 255
Fifth Range Extender Product Location	Min 0 0 Max 255

	P156K
First Range Extender Product ID	
Second Range Extender Product ID	

	P156M
First Range Extender Product ID	
Second Range Extender Product ID	

7. Once you have recorded P156K and P156M values, set there values for P156k to blank, and Set values for P156M to 0.

Examples:

Complex Parameter

Parameter Programming

ID	Name
P156K	TPMS, Range Extenders Location
First Range Extender Product ID	
Second Range Extender Product ID	
Third Range Extender Product ID	
Fourth Range Extender Product ID	
Fifth Range Extender Product ID	

Complex Parameter

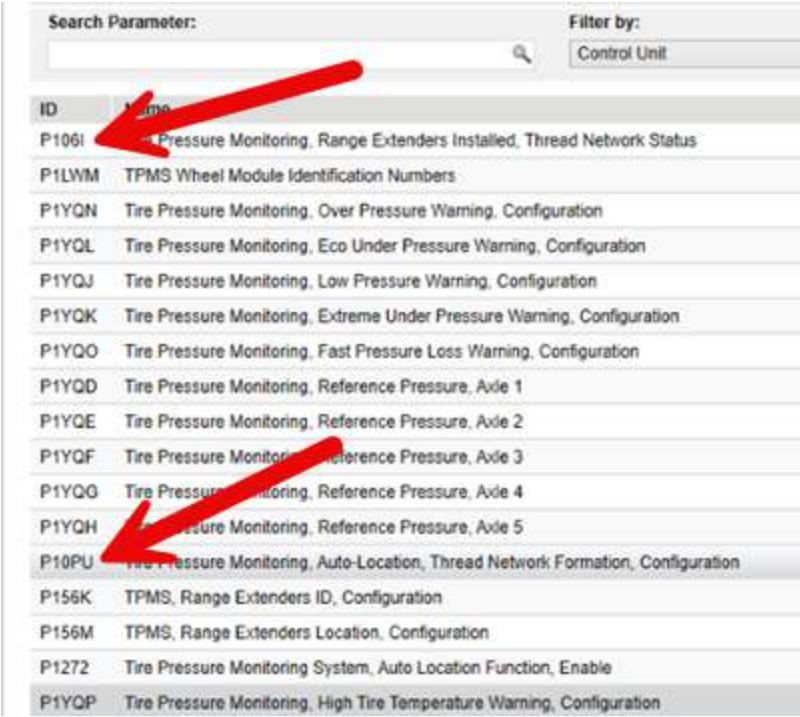
Parameter Programming

ID	Name
P156M	TPMS, Range Extenders Location
First Range Extender Product Location	Min 0 0 Max 255
Second Range Extender Product Location	Min 0 0 Max 255
Third Range Extender Product Location	Min 0 0 Max 255
Fourth Range Extender Product Location	Min 0 0 Max 255
Fifth Range Extender Product Location	Min 0 0 Max 255

Once the values are set to blank and 0, program them in to the truck. The range extenders are now decommissioned.

8. It can take up to 15 minutes for the WSGW to send command to the range extenders to unpair from the network. Please leave the truck in the **KEY ON** position for the 15 minutes till continuing to the next step.

9. After the 15 minutes proceed loading parameter for the WSGW, The two parameters you will need are P106I and P10PU.



10. You will need to copy values from P106I to P10PU. Open P106I and recored values **Exactly as they appear** for Thread channel, Network Name, Extended Personal Area Network ID, Personal Area Network ID, and Mesh local prefix. Please use the table below.

Important Note: Please note that these values will be named slightly differently in P10PU than they appear in P106I.

Thread Channel (1 Value)	Network Name (1 Value)	Extended Personal Area Network ID (8 Values)	Personal Area Network ID (2 Values)	Mesh Local Prefix (8 Values)

Parameter examples from P106I:

Parameter Programming

ID	Name	Details
P106I	Tire Pressure Monitoring, Range Extenders Installed, Thread Network Status	

Thread Network Status: Associated

Hardware Address

Index	Min	Value	Max
0	Min 0	148	Max 255
1	Min 0	52	Max 255
2	Min 0	105	Max 255
3	Min 0	255	Max 255
4	Min 0	254	Max 255
5	Min 0	27	Max 255
6	Min 0	164	Max 255
7	Min 0	83	Max 255

Thread Channel: Min 0 Max 255

Node Type: Leader

Network Name: threadformation

Extended Personal Area Network ID

Index	Min	Value	Max
0	Min 0	10	Max 255
1	Min 0	11	Max 255
2	Min 0	12	Max 255
3	Min 0	13	Max 255
4	Min 0	10	Max 255
5	Min 0	11	Max 255
6	Min 0	12	Max 255

Close

Copy all of these values

Parameter Programming

ID	Name	Details
P106I	Tire Pressure Monitoring, Range Extenders Installed, Thread Network Status	

1 Min 0 11 Max 255

2 Min 0 12 Max 255

3 Min 0 13 Max 255

4 Min 0 10 Max 255

5 Min 0 11 Max 255

6 Min 0 12 Max 255

7 Min 0 13 Max 255

Personal Area Network ID

Index	Min	Value	Max
0	Min 0	12	Max 255
1	Min 0	190	Max 255

Link Local Address:

Mesh Local Address:

Mesh Local Prefix

Index	Min	Value	Max
0	Min 0	253	Max 255
1	Min 0	187	Max 255
2	Min 0	204	Max 255
3	Min 0	221	Max 255
4	Min 0	238	Max 255
5	Min 0	255	Max 255
6	Min 0	0	Max 255
7	Min 0	17	Max 255

Close

Copy both of these values

Copy all of these values

11. Once you have copied the values from the five areas noted above, open P10PU and enter them **EXACTLY** as they appeared and in the same location as in P106I.

Important Note: Please note that the naming in P10PU and P106I will differ slightly. Please see below for the equivalent between P106I and P10PU:

Complex Parameter

Parameter Programming

ID

P106I

Name

Tire F
Threi

Thread Network Status Associated

Hardware Address

0

Min 0

112

Max 255

1

Min 0

172

Max 255

2

Min 0

8

Max 255

3

Min 0

255

Max 255

4

Min 0

254

Max 255

5

Min 0

213

Max 255

6

Min 0

247

Max 255

7

Min 0

69

Max 255

Thread Channel

Min 0

20

Max 255

Node Type

Leader

Network Name

HUBB1LRy9LWp5112

Extended Personal Area Network ID

0

Min 0

181

Max 255

1

Min 0

181

Max 255

2

Min 0

181

Max 255

3

Min 0

181

Max 255

4

Min 0

181

Max 255

5

Min 0

181

Max 255

6

Min 0

25

Max 255

Complex Parameter

Parameter Programming

ID

P10PU

Name

T
T

Thread Network Formation, Enable True

Thread Network, Formation Channel

Min 0

20

Thread Network PAN ID

0

Min 0

25

Max 255

1

Min 0

150

Max 255

Thread Network Extended PAN ID

0

Min 0

181

Max 255

1

Min 0

181

Max 255

2

Min 0

181

Max 255

3

Min 0

181

Max 255

4

Min 0

181

Max 255

5

Min 0

181

Max 255

6

Min 0

25

Max 255

7

Min 0

150

Max 255

Thread Network Name

HUBB1LRy9LWp5112

Thread Network Key

0

Min 0

14

Max 255

1

Min 0

45

Max 255

2

Min 0

119

Max 255

3

Min 0

69

Max 255

4

Min 0

218

Max 255

Complex Parameter

Parameter Programming

ID

P106I

1

Min 0

181

Max 255

2

Min 0

181

Max 255

3

Min 0

181

Max 255

4

Min 0

181

Max 255

5

Min 0

181

Max 255

6

Min 0

25

Max 255

7

Min 0

150

Max 255

Personal Area Network ID

0

Min 0

25

Max 255

1

Min 0

150

Max 255

Link Local Address

b

Mesh Local Address

yP

Mesh Local Prefix

0

Min 0

253

Max 255

1

Min 0

222

Max 255

2

Min 0

173

Max 255

3

Min 0

0

Max 255

4

Min 0

190

Max 255

5

Min 0

239

Max 255

6

Min 0

0

Max 255

7

Min 0

0

Max 255

Complex Parameter

Parameter Programming

ID

P10PU

Thread Network Formation, Enable True

Thread Network, Formation Channel

Min 0

20

Thread Network PAN ID

0

Min 0

25

Max 255

1

Min 0

150

Max 255

Thread Network Extended PAN ID

0

Min 0

181

Max 255

1

Min 0

181

Max 255

2

Min 0

181

Max 255

3

Min 0

181

Max 255

4

Min 0

181

Max 255

5

Min 0

181

Max 255

6

Min 0

25

Max 255

7

Min 0

150

Max 255

Thread Network Name

HUBB1LRy9LWp5112

Thread Network Key

0

Min 0

14

Max 255

1

Min 0

45

Max 255

2

Min 0

119

Max 255

3

Min 0

69

Max 255

4

Min 0

218

Max 255

Complex Parameter

Parameter Programming

ID
P106I

1	Min 0	181	Max 255
2	Min 0	181	Max 255
3	Min 0	181	Max 255
4	Min 0	181	Max 255
5	Min 0	181	Max 255
6	Min 0	25	Max 255
7	Min 0	150	Max 255

Personal Area Network ID

0	Min 0	25	Max 255
1	Min 0	150	Max 255

Link Local Address

Mesh Local Address

Mesh Local Prefix

0	Min 0	253	Max 255
1	Min 0	222	Max 255
2	Min 0	173	Max 255
3	Min 0	0	Max 255
4	Min 0	190	Max 255
5	Min 0	239	Max 255
6	Min 0	0	Max 255
7	Min 0	0	Max 255

Complex Parameter

Parameter Programming

ID
P10PU

4	Min 0	218	Max 255
5	Min 0	219	Max 255
6	Min 0	134	Max 255
7	Min 0	179	Max 255
8	Min 0	88	Max 255
9	Min 0	184	Max 255
10	Min 0	223	Max 255
11	Min 0	119	Max 255
12	Min 0	194	Max 255
13	Min 0	15	Max 255
14	Min 0	246	Max 255
15	Min 0	58	Max 255

Thread Network Mesh Local Prefix

0	Min 0	253	Max 255
1	Min 0	222	Max 255
2	Min 0	173	Max 255
3	Min 0	0	Max 255
4	Min 0	190	Max 255
5	Min 0	239	Max 255
6	Min 0	0	Max 255
7	Min 0	0	Max 255



12. Select OK and Program the parameter

13. Now you will need to recommission the range extenders. Load parameters for WSGW and locate P156K and P156M. Input the values the you recoreded earlier that were set to either blank or 0 in the decommissioning step.

Examples:

Complex Parameter

Parameter Programming

ID	Name
P156M	TPMS, Range Extenders Locatio

First Range Extender Product Location	Min 0	55	Max 255
Second Range Extender Product Location	Min 0	57	Max 255
Third Range Extender Product Location	Min 0	0	Max 255
Fourth Range Extender Product Location	Min 0	0	Max 255
Fifth Range Extender Product Location	Min 0	0	Max 255

Complex Parameter

Parameter Programming

ID	Name
P156K	TPMS, Range Extender
First Range Extender Product ID	01518002924000340001
Second Range Extender Product ID	01518002924000160001
Third Range Extender Product ID	
Fourth Range Extender Product ID	
Fifth Range Extender Product ID	

14. Once you have entered the values, program the two parameters to recommission the range extenders. This can take up to 15 minutes for the WSGW to send command to the range extender to pair to the network. Please leave the key in the ON Position during this time.
15. Once the 15 minutes is up, proceed to Diagnose Tab. Clear the DTCs and verify the U3000-05 code has not returned.

Notes:

1. The P156K values can be found on the range extenders. The first Range Extender Product ID is on the driver side range extender, and the second is on the passenger side range extender.
2. There is a small chance that when this process is performed, the ThreadNetworkKey in P10PU can lose its values. In this case, please create a reliability SR case.
3. In the unlikely chance that the following DTCs occur when decommissioning the range extenders, the WSGW may need to be replaced:
 - Lost communication with TPM REX 1- system internal failure U101A04**
 - Lost communication with TPM REX 2- system internal failure U101B04**
4. If these DTCs are active 15 minutes after commissioning the range extenders, there may have been a problem when commissioning the range extenders:
 - Lost communication with TPM Range Extender 1- System Programming Failure U101A05**
 - Lost communication with TPM Range Extender 2- System Programming Failure U101B05**
5. Please note that having other VN (4) vehicles in the vicinity with powered-on WSGWs and range extenders can lengthen the decommissioning and commissioning time.

Related links and attachments

No links or attachments available



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