

Test Log Report: SAE J1939-84 HD OBD Scan Tool Test 2.2 Beta 1

Date: 06/15/2016 Time: 10:13:19

Vehicle Identification

VIN 3HCDJSNR2HL648684

Baud Rate: 500 kpbs

HD OBD Devices

SA: 0, Engine #1
 CAL ID: OUDAKCMD
 CVN: 0xF0D0D410
 ESN: 124KM2Y4408232 MAKE INT MODEL 7571031515

SA: 85, Diesel Particulate Filter Controller
 CAL ID: OUBNCXC
 CVN: 0x17887FE8
 ESN: 00000000 MAKE MODEL 6X2u07D1500000000

SA: 85, Diesel Particulate Filter Controller
 CAL ID: NOx-SAE14a ATI1
 CVN: 0x138973A8
 ESN: 00000000 MAKE MODEL 6X2u07D1500000000

SA: 85, Diesel Particulate Filter Controller
 CAL ID: NOx-SAE14a AT01
 CVN: 0xC9F94B8C
 ESN: 00000000 MAKE MODEL 6X2u07D1500000000

SA: 85, Diesel Particulate Filter Controller
 CAL ID: F812D
 CVN: 0x000002B2
 ESN: 00000000 MAKE MODEL 6X2u07D1500000000

SA: 85, Diesel Particulate Filter Controller
 CAL ID: PMS12330A100
 CVN: 0xD7169BE8
 ESN: 00000000 MAKE MODEL 6X2u07D1500000000

Non HD OBD Devices

None

Address Claim

4061.031 908	07	18 EA FF FE 00 EE 00 (Tx)
4061.033 408	12	18 EE FF 21 2B 00 60 05 00 1A 00 10 (Address Claim)
Found Body Controller for SA 33		
4061.036 908	12	18 EE FF 00 00 00 40 05 00 00 00 00 (Address Claim)
Found Engine #1 for SA 0		
4061.036 908	12	18 EE FF 55 2D 9D 4C 01 00 45 00 01 (Address Claim)
Found Diesel Particulate Filter Controller for SA 85		
4061.039 408	12	18 EE FF 0B 00 00 40 0B 00 09 00 00 (Address Claim)
Found Brakes - System Controller for SA 11		
4061.044 908	12	18 EE FF 17 43 47 60 05 00 13 00 00 (Address Claim)
Found Instrument Cluster #1 for SA 23		
4062.284 908	12	18 EE FF F9 00 00 00 1A 00 82 00 00 (Address Claim)(Tx)

Part 0 Test 1 [Require user to enter base vehicle data]

User Entered VIN: 3HCDJSNR2HL648684
 VIN Model Year is: 2017
 User Entered Vehicle Model Year: 2017
 User Entered Engine Model Year: 2016
 User Entered Number of emission ECUs: 6
 User Entered Clear Fault Check: y

Part 1: KOEO Data Collection

Part 1 Test 2 [Gather broadcast data for engine speed (e.g., SPN 190)]

Part 1 Test 3 [Global **DM5** (request 59904 for PGN 65230 (SPN 1220))]

```

4102.616 908      07      18 EA FF F9 CE FE 00 (Tx)
4102.621 908      12      18 FE CE 55 FF FF 14 00 00 00 00 00 (DM5)
Found Module 85 : OBD compliance number = 20
4102.626 908      12      18 FE CE 00 00 01 14 37 E0 1E E0 1E (DM5)
Found Module 0 : OBD compliance number = 20

```

Part 1 Test 4 [Direct **DM24** (request 59904 for PGN 64950 (SPNs 3297, 4100-4103))]

```

      4104.472 408      07      18 EA 00 F9 B6 FD 00 (Tx)
      4108.985 908      532     18 FD B6 00 83 03 1E 01 66 00 18 01 BE 00 1C 02 5C 00 1C
01 6E 00 18

01 54 00 1C 02 55 02 1E 01 56 02 1E 01 54 02 1E 01 D5 04 1E 01 2E 02 1E 01 C8 03 1E 01 C7
03 1E 01 6C

00 1C 01 1B 00 1C 02 F7 00 1C 04 64 00 1E 01 AF 00 1C 02 69 00 1C 01 A5 15 1C 01 9E 00 1C
02 5B 00 1C

01 5E 00 1C 01 9D 00 1C 02 D3 03 1E 01 D2 03 1E 01 27 0A 1E 01 39 04 1C 01 AB 00 1C 02 A4
04 1C 01 9D

12 1E 02 AA 0C 1C 02 AE 0C 1C 02 B3 0C 1C 02 95 03 1E 04 BF 03 1E 01 C0 03 1E 01 C1 03 1E
01 C2 03 1E

01 C3 03 1E 01 C4 03 1E 01 41 06 1E 01 42 06 1E 01 33 00 1C 01 00 02 1C 01 01 02 1C 01 20
02 1C 02 1B

02 1C 01 1C 02 1C 01 1D 02 1C 01 1E 02 1C 01 1F 02 1C 01 10 02 1E 02 11 02 1E 02 12 02 1E
02 13 02 1E

02 E7 0A 1C 02 88 0D 1C 02 B7 00 1C 02 95 04 18 02 99 04 1C 02 E5 0C 1C 02 A5 04 1C 01 A4
0C 1C 02 EC

0F 1C 01 91 0C 1C 02 85 05 1C 02 86 05 1C 02 87 05 1C 02 88 05 1C 02 89 05 1C 02 8A 05 1C
02 C1 14 1C

02 9C 06 1C 01 CB 14 1C 01 5A 15 1C 02 CD 16 1C 01 45 11 1E 01 98 0D 1E 02 90 0C 18 02 9A
0C 1C 02 E1

06 1C 01 9A 0D 1E 01 A2 0D 1E 01 08 11 1E 02 0B 11 1E 02 D7 0B 1E 01 19 0E 1C 02 3F 0A 1C
01 74 0E 1C

01 60 00 1F 01 AC 00 1F 01 8B 02 1B 01 8C 02 1B 01 8D 02 1B 01 8E 02 1B 01 8F 02 1B 01 90
02 1B 01 D4

02 1B 01 2B 05 1B 01 2C 05 1B 01 2D 05 1B 01 2E 05 1B 01 2F 05 1B 01 30 05 1B 01 46 0A 1B
01 63 0A 1B

01 97 0C 1B 01 90 12 1B 01 0A 10 1D 01 E8 0C 1F 02 FD 0B 1D 02 DF 0C 1D 02 DE 0C 1D 02 E0
0C 1D 02 E6

0C 1D 01 C4 04 1D 01 BD 04 1D 01 1F 10 1D 01 22 10 1D 02 BE 04 1F 04 C0 04 1F 01 57 15 1D
02 EF 0B 1B

01 2A 05 1B 01 BC 0D 1D 01 B7 1C 1D 01 B9 1C 1D 01 7B 06 1B 01 E1 1C 1D 01 73 1A 1F 01 A5
1C 1D 01

```

(DM24)

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Received SPN 899 - supports freeze frame
Received SPN 102 - supports freeze frame - supports scaled results - supports data
stream

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Navistar_N13_Sample_Data.txt

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Received SPN 190 - supports freeze frame - supports data stream
Received SPN 92 - supports freeze frame - supports data stream
Received SPN 110 - supports freeze frame - supports scaled results - supports data
stream
Received SPN 84 - supports freeze frame - supports data stream
Received SPN 597 - supports freeze frame
Received SPN 598 - supports freeze frame
Received SPN 596 - supports freeze frame
Received SPN 1237 - supports freeze frame
Received SPN 558 - supports freeze frame
Received SPN 968 - supports freeze frame
Received SPN 967 - supports freeze frame
Received SPN 108 - supports freeze frame - supports data stream
Received SPN 27 - supports freeze frame - supports data stream
Received SPN 247 - supports freeze frame - supports data stream
Received SPN 100 - supports freeze frame
Received SPN 175 - supports freeze frame - supports data stream
Received SPN 105 - supports freeze frame - supports data stream
Received SPN 5541 - supports freeze frame - supports data stream
Received SPN 158 - supports freeze frame - supports data stream
Received SPN 91 - supports freeze frame - supports data stream
Received SPN 94 - supports freeze frame - supports data stream
Received SPN 157 - supports freeze frame - supports data stream
Received SPN 979 - supports freeze frame
Received SPN 978 - supports freeze frame
Received SPN 2599 - supports freeze frame
Received SPN 1081 - supports freeze frame - supports data stream
Received SPN 171 - supports freeze frame - supports data stream
Received SPN 1188 - supports freeze frame - supports data stream
Received SPN 4765 - supports freeze frame
Received SPN 3242 - supports freeze frame - supports data stream
Received SPN 3246 - supports freeze frame - supports data stream
Received SPN 3251 - supports freeze frame - supports data stream
Received SPN 917 - supports freeze frame
Received SPN 959 - supports freeze frame
Received SPN 960 - supports freeze frame
Received SPN 961 - supports freeze frame
Received SPN 962 - supports freeze frame
Received SPN 963 - supports freeze frame
Received SPN 964 - supports freeze frame
Received SPN 1601 - supports freeze frame
Received SPN 1602 - supports freeze frame
Received SPN 51 - supports freeze frame - supports data stream
Received SPN 512 - supports freeze frame - supports data stream
Received SPN 513 - supports freeze frame - supports data stream
Received SPN 544 - supports freeze frame - supports data stream
Received SPN 539 - supports freeze frame - supports data stream
Received SPN 540 - supports freeze frame - supports data stream
Received SPN 541 - supports freeze frame - supports data stream
Received SPN 542 - supports freeze frame - supports data stream
Received SPN 543 - supports freeze frame - supports data stream
Received SPN 528 - supports freeze frame
Received SPN 529 - supports freeze frame
Received SPN 530 - supports freeze frame
Received SPN 531 - supports freeze frame
Received SPN 2791 - supports freeze frame - supports data stream
Received SPN 3464 - supports freeze frame - supports data stream
Received SPN 183 - supports freeze frame - supports data stream
Received SPN 1173 - supports freeze frame - supports scaled results - supports data
stream
Received SPN 1177 - supports freeze frame - supports data stream
Received SPN 3301 - supports freeze frame - supports data stream
Received SPN 1189 - supports freeze frame - supports data stream
Received SPN 3236 - supports freeze frame - supports data stream
Received SPN 4076 - supports freeze frame - supports data stream
Received SPN 3217 - supports freeze frame - supports data stream
Received SPN 1413 - supports freeze frame - supports data stream
Received SPN 1414 - supports freeze frame - supports data stream
Received SPN 1415 - supports freeze frame - supports data stream
Received SPN 1416 - supports freeze frame - supports data stream

```

Navistar_N13_Sample_Data.txt

```

Received SPN 1417 - supports freeze frame - supports data stream
Received SPN 1418 - supports freeze frame - supports data stream
Received SPN 5313 - supports freeze frame - supports data stream
Received SPN 1692 - supports freeze frame - supports data stream
Received SPN 5323 - supports freeze frame - supports data stream
Received SPN 5466 - supports freeze frame - supports data stream
Received SPN 5837 - supports freeze frame - supports data stream
Received SPN 4421 - supports freeze frame
Received SPN 3480 - supports freeze frame
Received SPN 3216 - supports freeze frame - supports scaled results - supports data
stream
Received SPN 3226 - supports freeze frame - supports data stream
Received SPN 1761 - supports freeze frame - supports data stream
Received SPN 3482 - supports freeze frame
Received SPN 3490 - supports freeze frame
Received SPN 4360 - supports freeze frame
Received SPN 4363 - supports freeze frame
Received SPN 3031 - supports freeze frame
Received SPN 3609 - supports freeze frame - supports data stream
Received SPN 2623 - supports freeze frame - supports data stream
Received SPN 3700 - supports freeze frame - supports data stream
Received SPN 96
Received SPN 172
Received SPN 651 - supports scaled results
Received SPN 652 - supports scaled results
Received SPN 653 - supports scaled results
Received SPN 654 - supports scaled results
Received SPN 655 - supports scaled results
Received SPN 656 - supports scaled results
Received SPN 724 - supports scaled results
Received SPN 1323 - supports scaled results
Received SPN 1324 - supports scaled results
Received SPN 1325 - supports scaled results
Received SPN 1326 - supports scaled results
Received SPN 1327 - supports scaled results
Received SPN 1328 - supports scaled results
Received SPN 2630 - supports scaled results
Received SPN 2659 - supports scaled results
Received SPN 3223 - supports scaled results
Received SPN 4752 - supports scaled results
Received SPN 4106 - supports data stream
Received SPN 3304
Received SPN 3069 - supports data stream
Received SPN 3295 - supports data stream
Received SPN 3294 - supports data stream
Received SPN 3296 - supports data stream
Received SPN 3302 - supports data stream
Received SPN 1220 - supports data stream
Received SPN 1213 - supports data stream
Received SPN 4127 - supports data stream
Received SPN 4130 - supports data stream
Received SPN 1214
Received SPN 1216
Received SPN 5463 - supports data stream
Received SPN 3055 - supports scaled results
Received SPN 1322 - supports scaled results
Received SPN 3516 - supports data stream
Received SPN 7351 - supports data stream
Received SPN 7353 - supports data stream
Received SPN 1659 - supports scaled results
Received SPN 7393 - supports data stream
Received SPN 6771
Received SPN 7333 - supports data stream
4109.181 908 07 18 EA 55 F9 B6 FD 00 (Tx)
4109.201 408 120 18 FD B6 55 A7 13 1B 00 0C 11 1B 00 9A 0C 1B 00 BA 12 1B
00 B2 14 1B

00 BC 12 1B 00 12 15 1B 00 BB 12 1B 00 C7 14 1B 00 E4 0D 1B 00 15 15 1B 00 A0 13 1B 00 90
0C 1B 00 6D

```

16 1B 00 EB 10 1B 00 EE 10 1B 00 22 0D 1B 00 98 0D 1B 00 B3 0C 1B 00 9A 0D 1B 00 FE 0F 1B
00 A2 0D 1B

00 60 0F 1B 00 A2 1C 1B 00 73 1A 1B 00 7C 1A 1B 00 76 1A 1B 00 73 16 1B 00 4E 15 1D 00
(DM24)

Received SPN 5031 - supports scaled results

Received SPN 4364 - supports scaled results

Received SPN 3226 - supports scaled results

Received SPN 4794 - supports scaled results

Received SPN 5298 - supports scaled results

Received SPN 4796 - supports scaled results

Received SPN 5394 - supports scaled results

Received SPN 4795 - supports scaled results

Received SPN 5319 - supports scaled results

Received SPN 3556 - supports scaled results

Received SPN 5397 - supports scaled results

Received SPN 5024 - supports scaled results

Received SPN 3216 - supports scaled results

Received SPN 5741 - supports scaled results

Received SPN 4331 - supports scaled results

Received SPN 4334 - supports scaled results

Received SPN 3362 - supports scaled results

Received SPN 3480 - supports scaled results

Received SPN 3251 - supports scaled results

Received SPN 3482 - supports scaled results

Received SPN 4094 - supports scaled results

Received SPN 3490 - supports scaled results

Received SPN 3936 - supports scaled results

Received SPN 7330 - supports scaled results

Received SPN 6771 - supports scaled results

Received SPN 6780 - supports scaled results

Received SPN 6774 - supports scaled results

Received SPN 5747 - supports scaled results

Received SPN 5454 - supports data stream

FAIL: SPN #514 wasn't supported in the data stream

FAIL: SPN #2978 wasn't supported in the data stream

WARNING: More than 1 alternative SPN 4076 supported in DM24 data stream

WARNING: SPN #5827 wasn't supported in the data stream

FAIL: SPN #235 wasn't supported in the data stream

FAIL: SPN #248 wasn't supported in the data stream

FAIL: SPN #5829 wasn't supported in the data stream

FAIL: SPN #6895 wasn't supported in the data stream

WARNING: SPN #96 wasn't supported in the data stream

FAIL: Shared SPN #3515 wasn't supported in DM24 data stream

FAIL: SPN #38 wasn't supported in DM24 data stream

Part 1 Test 5 [Global VIN Request 59904 for PGN 65260 (SPN 237)]

4109.265 908 07 18 EA FF F9 EC FE 00 (Tx)

4109.714 908 22 18 FE EC 00 33 48 43 44 4A 53 4E 52 32 48 4C 36 34 38 36
38 34 2A

(VIN) - Timing Error: Response Time = 269 ms (> 220 ms)

Part 1 Test 6 [Global DM56 (request 59904 for PGN 64711 (SPNs 5844 and 5845))]

4111.455 408 07 18 EA FF F9 C7 FC 00 (Tx)

Part 1 Test 6 [Global DM56 (request 59904 for PGN 64711 (SPNs 5844 and 5845))]

4113.454 408 07 18 EA FF F9 C7 FC 00 (Tx)

Part 1 Test 6 [Global DM56 (request 59904 for PGN 64711 (SPNs 5844 and 5845))]

4115.443 408 07 18 EA FF F9 C7 FC 00 (Tx)

Received No Engine MY and Family

Part 1 Test 7 [Global DM19 (request 59904 for PGN 54016 (SPNs 1634 and 1635))]

4117.447 408 07 18 EA FF F9 00 D3 00 (Tx)

Navistar_N13_Sample_Data.txt

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    4117.631 408      24      18 D3 00 00 10 D4 D0 F0 4F 55 44 41 4B 43 4D 44 00 00 00
00 00 00 00

00 (DM19)
    CAL ID of #OUDAKCMD      and CVN of #F0 D0 D4 10 received from SA#0
    4118.268 408      104      1C D3 00 55 E8 7F 88 17 4F 55 42 4E 43 58 43 00 00 00 00
00 00 00 00

00 A8 73 89 13 4E 4F 78 2D 53 41 45 31 34 61 20 41 54 49 31 00 8C 4B F9 C9 4E 4F 78 2D 53
41 45 31 34

61 20 41 54 4F 31 00 B2 02 00 00 46 38 31 32 44 00 00 00 00 00 00 00 00 00 00 E8 9B 16
D7 50 4D 53

31 32 33 33 30 41 31 30 30 00 00 00 00 (DM19)
    CAL ID of #OUBNCXC      and CVN of #17 88 7F E8 received from SA#85
    CAL ID of #NOx-SAE14a ATI1      and CVN of #13 89 73 A8 received from SA#85
    CAL ID of #NOx-SAE14a AT01      and CVN of #C9 F9 4B 8C received from SA#85
    CAL ID of #F812D      and CVN of #00 00 02 B2 received from SA#85
    CAL ID of #PMS12330A100      and CVN of #D7 16 9B E8 received from SA#85
WARNING: Received a DM19 with more than one CALID/CVN (5)

```

Part 1 Test 7 [Destination Specific (DS) DM19 to all OBD ECUs (plus all ECUs that responded to global DM19)]

```

    4120.446 408      07      18 EA 00 F9 00 D3 00 (Tx)
    4120.596 408      24      18 D3 00 00 10 D4 D0 F0 4F 55 44 41 4B 43 4D 44 00 00 00
00 00 00 00

00 (DM19)
    4120.612 408      07      18 EA 55 F9 00 D3 00 (Tx)
    4120.627 908      104      1C D3 00 55 E8 7F 88 17 4F 55 42 4E 43 58 43 00 00 00 00
00 00 00 00

00 A8 73 89 13 4E 4F 78 2D 53 41 45 31 34 61 20 41 54 49 31 00 8C 4B F9 C9 4E 4F 78 2D 53
41 45 31 34

61 20 41 54 4F 31 00 B2 02 00 00 46 38 31 32 44 00 00 00 00 00 00 00 00 00 00 E8 9B 16
D7 50 4D 53

31 32 33 33 30 41 31 30 30 00 00 00 00 (DM19)

```

Part 1 Test 8 [Global DM20 (request 59904 for PGN 49664 (SPNs 3048, 3049, 3066-3068))]

```

    4120.641 408      07      18 EA FF F9 00 C2 00 (Tx)
    4121.305 408      78      18 C2 00 00 EB 00 16 00 CA 14 F8 00 00 03 00 B8 12 F8 0A
00 16 00 BC

14 F8 00 00 00 00 C6 14 F8 04 00 16 00 F2 0B F8 06 00 16 00 EA 0C F8 00 00 00 00 F8 0B F8
0A 00 16 00

C9 14 F8 03 00 16 00 EC 0B F8 00 00 00 00 EF 0B F8 10 00 16 00 (DM20)
Received SPN 5322 from SA 0 from DM20 with numerator 0, denominator 3
Received SPN 4792 from SA 0 from DM20 with numerator 10, denominator 22
Received SPN 5308 from SA 0 from DM20 with numerator 0, denominator 0
Received SPN 5318 from SA 0 from DM20 with numerator 4, denominator 22
Received SPN 3058 from SA 0 from DM20 with numerator 6, denominator 22
Received SPN 3306 from SA 0 from DM20 with numerator 0, denominator 0
Received SPN 3064 from SA 0 from DM20 with numerator 10, denominator 22
Received SPN 5321 from SA 0 from DM20 with numerator 3, denominator 22
Received SPN 3052 from SA 0 from DM20 with numerator 0, denominator 0
Received SPN 3055 from SA 0 from DM20 with numerator 16, denominator 22

```

Part 1 Test 9 [Destination Specific (DS) Component ID request (PGN 59904) for PGN 65259 (SPNs 586, 587, and 588)]

Navistar_N13_Sample_Data.txt

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4123.439 908      07      18 EA 00 F9 EB FE 00 (Tx)
4123.820 908      50      18 FE EB 00 49 4E 54 20 20 2A 37 35 37 31 30 33 31 35 31
35 2A 31 32

34 4B 4D 32 59 34 34 30 38 32 33 32 00 00 00 2A 30 00 00 00 00 00 00 00 00 00 2A (ESN)
Received a make of INT from SA 0
Received a model of 7571031515 from SA 0
FAIL: Direct ESN Message from SA 0 has a character that is not alpha-numeric at
position 36
FAIL: Direct ESN Message from SA 0 has a character that is not alpha-numeric at
position 37
FAIL: Direct ESN Message from SA 0 has a character that is not alpha-numeric at
position 38
Received a serial number of 124KM2Y4408232 from SA 0
FAIL: Direct ESN Message from SA 0 has a character that is not numeric in the last six
characters

of the serial number (at position 35)
FAIL: Direct ESN Message from SA 0 has a character that is not numeric in the last six
characters

of the serial number (at position 36)
FAIL: Direct ESN Message from SA 0 has a character that is not numeric in the last six
characters

of the serial number (at position 37)
4123.859 408      07      18 EA 55 F9 EB FE 00 (Tx)
4123.875 408      43      18 FE EB 55 2A 36 58 32 75 30 37 44 31 35 30 30 30 30 30
30 30 30 2A

30 30 30 30 30 30 30 30 2A 4F 55 42 4E 43 58 43 00 00 00 2A (ESN)
Received a make of from SA 85
WARNING: Received a make from SA 85 that is an incorrect length (0). Must be between
2 and 5

characters long
Received a model of 6X2u07D1500000000 from SA 85
Received a serial number of 00000000 from SA 85

Part 1 Test 9 [Global Component ID request (PGN 59904) for PGN 65259 (SPNs 586, 587, and
588)]

4123.892 408      07      18 EA FF F9 EB FE 00 (Tx)
4124.141 408      31      1C FE EB 0B 42 4E 44 57 53 2A 45 43 38 30 41 42 53 20 2A
30 36 33 38

31 35 31 37 31 31 2A 2A (ESN)
Received a make of BNDWS from SA 11
Received a model of EC80ABS from SA 11
Received a serial number of 0638151711 from SA 11
4124.196 408      39      18 FE EB 17 49 4E 54 2A 36 31 31 32 32 33 30 43 39 36 2A
30 31 36 30

33 35 36 34 38 36 38 34 2A 36 34 38 36 38 34 2A (ESN)
Received a make of INT from SA 23
Received a model of 6112230C96 from SA 23
Received a serial number of 016035648684 from SA 23
4124.218 408      43      18 FE EB 55 2A 36 58 32 75 30 37 44 31 35 30 30 30 30 30
30 30 30 2A

30 30 30 30 30 30 30 30 2A 4F 55 42 4E 43 58 43 00 00 00 2A (ESN)
Received a make of from SA 85
Received a model of 6X2u07D1500000000 from SA 85
Received a serial number of 00000000 from SA 85
4124.320 408      50      18 FE EB 00 49 4E 54 20 20 2A 37 35 37 31 30 33 31 35 31
35 2A 31 32

34 4B 4D 32 59 34 34 30 38 32 33 32 00 00 00 2A 30 00 00 00 00 00 00 00 00 00 2A (ESN)
Received a make of INT from SA 0
Received a model of 7571031515 from SA 0

```

Received a serial number of 124KM2Y4408232 from SA 0

Part 1 Test 10 [Global DM11 (request 59904 for PGN 65235)]

4126.435 408 07 18 EA FF F9 D3 FE 00 (Tx)

Part 1 Test 10 [Get Diag Info From ECUs]

Part 1 Test 11 [Global DM21 (request 59904 for PGN 49408 (SPNs 3069, 3294-3296))]

4134.474 908 07 18 EA FF F9 00 C1 00 (Tx)
 4134.483 408 12 18 C1 FF 00 00 00 00 00 00 00 00 (DM21)
 Global DM21 from SA 0 received

Part 1 Test 11 [DS DM21 to OBD ECUs]

4136.417 908 07 18 EA 00 F9 00 C1 00 (Tx)
 4136.419 908 12 18 C1 F9 00 00 00 00 00 00 00 00 (DM21)
 Direct DM21 Message received from SA 0
 4136.432 908 07 18 EA 55 F9 00 C1 00 (Tx)
 4136.434 408 12 18 E8 FF 55 01 FF FF FF FF 00 C1 00
 Received a NACK

Part 1 Test 12 [Direct DM7 w/TID 247 + each DM24 SPN + FMI 31]

4136.455 908 12 18 E3 00 F9 F7 66 00 1F FF FF FF FF (DM7)(Tx)
 4136.769 408 40 18 A4 00 00 F7 66 00 10 55 00 00 00 00 00 00 F7 66 00
 12 55 00 00

00 00 00 00 00 F7 66 00 0A 0C 00 00 00 00 00 00 (DM30)
 Received DM30 test results for SPN #102 and FMI 16 from SA 0
 Received DM30 test results for SPN #102 and FMI 18 from SA 0
 Received DM30 test results for SPN #102 and FMI 10 from SA 0
 4136.787 408 12 18 E3 00 F9 F7 6E 00 1F FF FF FF FF (DM7)(Tx)
 4137.108 908 40 18 A4 00 00 F7 6E 00 11 44 00 00 00 00 00 00 F7 6E 00
 12 44 00 00

00 00 00 00 00 F7 6E 00 10 44 00 00 00 00 00 00 (DM30)
 Received DM30 test results for SPN #110 and FMI 17 from SA 0
 Received DM30 test results for SPN #110 and FMI 18 from SA 0
 Received DM30 test results for SPN #110 and FMI 16 from SA 0
 4137.130 908 12 18 E3 00 F9 F7 95 04 1F FF FF FF FF (DM7)(Tx)
 4137.208 408 16 18 A4 00 00 F7 95 04 10 44 00 00 00 00 00 00 (DM30)
 Received DM30 test results for SPN #1173 and FMI 16 from SA 0
 4137.218 908 12 18 E3 00 F9 F7 90 0C 1F FF FF FF FF (DM7)(Tx)
 4137.547 908 40 18 A4 00 00 F7 90 0C 15 EC 00 00 00 00 00 00 F7 90 0C
 14 EC 00 00

00 00 00 00 00 F7 90 0C 02 EC 00 00 00 00 00 00 (DM30)
 Received DM30 test results for SPN #3216 and FMI 21 from SA 0
 Received DM30 test results for SPN #3216 and FMI 20 from SA 0
 Received DM30 test results for SPN #3216 and FMI 2 from SA 0
 4137.571 408 12 18 E3 00 F9 F7 8B 02 1F FF FF FF FF (DM7)(Tx)
 4137.767 908 28 18 A4 00 00 F7 8B 02 10 3F 01 00 00 00 00 00 F7 8B 02
 12 3F 01 00

00 00 00 00 00 (DM30)
 Received DM30 test results for SPN #651 and FMI 16 from SA 0
 Received DM30 test results for SPN #651 and FMI 18 from SA 0
 4137.783 908 12 18 E3 00 F9 F7 8C 02 1F FF FF FF FF (DM7)(Tx)
 4137.977 408 28 18 A4 00 00 F7 8C 02 10 3F 01 00 00 00 00 00 F7 8C 02
 12 3F 01 00

00 00 00 00 00 (DM30)
 Received DM30 test results for SPN #652 and FMI 16 from SA 0
 Received DM30 test results for SPN #652 and FMI 18 from SA 0
 4137.992 408 12 18 E3 00 F9 F7 8D 02 1F FF FF FF FF (DM7)(Tx)
 4138.186 908 28 18 A4 00 00 F7 8D 02 10 3F 01 00 00 00 00 00 F7 8D 02
 12 3F 01 00

Navistar_N13_Sample_Data.txt

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00 00 00 00 00 (DM30)
    Received DM30 test results for SPN #653 and FMI 16 from SA 0
    Received DM30 test results for SPN #653 and FMI 18 from SA 0
    4138.202 408      12      18 E3 00 F9 F7 8E 02 1F FF FF FF FF (DM7)(Tx)
    4138.396 408      28      18 A4 00 00 F7 8E 02 10 3F 01 00 00 00 00 00 F7 8E 02
12 3F 01 00

00 00 00 00 00 (DM30)
    Received DM30 test results for SPN #654 and FMI 16 from SA 0
    Received DM30 test results for SPN #654 and FMI 18 from SA 0
    4138.411 908      12      18 E3 00 F9 F7 8F 02 1F FF FF FF FF (DM7)(Tx)
    4138.606 408      28      18 A4 00 00 F7 8F 02 10 3F 01 00 00 00 00 00 F7 8F 02
12 3F 01 00

00 00 00 00 00 (DM30)
    Received DM30 test results for SPN #655 and FMI 16 from SA 0
    Received DM30 test results for SPN #655 and FMI 18 from SA 0
    4138.623 408      12      18 E3 00 F9 F7 90 02 1F FF FF FF FF (DM7)(Tx)
    4138.815 908      28      18 A4 00 00 F7 90 02 10 3F 01 00 00 00 00 00 F7 90 02
12 3F 01 00

00 00 00 00 00 (DM30)
    Received DM30 test results for SPN #656 and FMI 16 from SA 0
    Received DM30 test results for SPN #656 and FMI 18 from SA 0
    4138.835 408      12      18 E3 00 F9 F7 D4 02 1F FF FF FF FF (DM7)(Tx)
    4139.344 908      64      18 A4 00 00 F7 D4 02 14 3E 01 00 00 00 00 00 F7 D4 02
15 3E 01 00

00 00 00 00 00 F7 D4 02 02 84 00 00 00 00 00 00 00 F7 D4 02 02 84 00 00 00 00 00 00 F7
D4 02 02 84

00 00 00 00 00 00 00 (DM30)
    Received DM30 test results for SPN #724 and FMI 20 from SA 0
    Received DM30 test results for SPN #724 and FMI 21 from SA 0
    Received DM30 test results for SPN #724 and FMI 2 from SA 0
    Received DM30 test results for SPN #724 and FMI 2 from SA 0
    WARNING: Duplicate test results received from SPN #724 and FMI 2 from SA 0
    Received DM30 test results for SPN #724 and FMI 2 from SA 0
    WARNING: Duplicate test results received from SPN #724 and FMI 2 from SA 0
    4139.374 408      12      18 E3 00 F9 F7 2B 05 1F FF FF FF FF (DM7)(Tx)
    4139.464 908      16      18 A4 00 00 F7 2B 05 1F 0C 00 00 00 00 00 00 (DM30)
    Received DM30 test results for SPN #1323 and FMI 31 from SA 0
    4139.481 408      12      18 E3 00 F9 F7 2C 05 1F FF FF FF FF (DM7)(Tx)
    4139.554 908      16      18 A4 00 00 F7 2C 05 1F 0C 00 00 00 00 00 00 (DM30)
    Received DM30 test results for SPN #1324 and FMI 31 from SA 0
    4139.569 408      12      18 E3 00 F9 F7 2D 05 1F FF FF FF FF (DM7)(Tx)
    4139.644 408      16      18 A4 00 00 F7 2D 05 1F 0C 00 00 00 00 00 00 (DM30)
    Received DM30 test results for SPN #1325 and FMI 31 from SA 0
    4139.657 908      12      18 E3 00 F9 F7 2E 05 1F FF FF FF FF (DM7)(Tx)
    4139.734 408      16      18 A4 00 00 F7 2E 05 1F 0C 00 00 00 00 00 00 (DM30)
    Received DM30 test results for SPN #1326 and FMI 31 from SA 0
    4139.743 908      12      18 E3 00 F9 F7 2F 05 1F FF FF FF FF (DM7)(Tx)
    4139.834 408      16      18 A4 00 00 F7 2F 05 1F 0C 00 00 00 00 00 00 (DM30)
    Received DM30 test results for SPN #1327 and FMI 31 from SA 0
    4139.851 908      12      18 E3 00 F9 F7 30 05 1F FF FF FF FF (DM7)(Tx)
    4139.924 408      16      18 A4 00 00 F7 30 05 1F 0C 00 00 00 00 00 00 (DM30)
    Received DM30 test results for SPN #1328 and FMI 31 from SA 0
    4139.939 408      12      18 E3 00 F9 F7 46 0A 1F FF FF FF FF (DM7)(Tx)
    4140.013 908      16      18 A4 00 00 F7 46 0A 10 4E 01 00 00 00 00 00 (DM30)
    Received DM30 test results for SPN #2630 and FMI 16 from SA 0
    4140.026 408      12      18 E3 00 F9 F7 63 0A 1F FF FF FF FF (DM7)(Tx)
    4140.343 408      40      18 A4 00 00 F7 63 0A 14 4E 01 00 00 00 00 00 F7 63 0A
15 4E 01 00

00 00 00 00 00 F7 63 0A 0A 3E 01 00 00 00 00 00 00 (DM30)
    Received DM30 test results for SPN #2659 and FMI 20 from SA 0
    Received DM30 test results for SPN #2659 and FMI 21 from SA 0
    Received DM30 test results for SPN #2659 and FMI 10 from SA 0
    4140.363 908      12      18 E3 00 F9 F7 97 0C 1F FF FF FF FF (DM7)(Tx)

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    4140.572 908      28      18 A4 00 00 F7 97 0C 00 44 00 00 00 00 00 00 F7 97 0C
01 44 00 00

00 00 00 00 00 (DM30)
    Received DM30 test results for SPN #3223 and FMI 0 from SA 0
    Received DM30 test results for SPN #3223 and FMI 1 from SA 0
    4140.583 408      12      18 E3 00 F9 F7 90 12 1F FF FF FF FF (DM7)(Tx)
    4140.672 908      16      18 A4 00 00 F7 90 12 04 44 00 00 00 00 00 00 (DM30)
    Received DM30 test results for SPN #4752 and FMI 4 from SA 0
    4140.689 408      12      18 E3 00 F9 F7 EF 0B 1F FF FF FF FF (DM7)(Tx)
    4140.882 408      28      18 A4 00 00 F7 EF 0B 0F 89 01 00 00 00 00 00 00 F7 EF 0B
11 89 01 00

00 00 00 00 00 (DM30)
    Received DM30 test results for SPN #3055 and FMI 15 from SA 0
    Received DM30 test results for SPN #3055 and FMI 17 from SA 0
    4140.901 908      12      18 E3 00 F9 F7 2A 05 1F FF FF FF FF (DM7)(Tx)
    4140.992 408      16      18 A4 00 00 F7 2A 05 0E 55 00 00 00 00 00 00 (DM30)
    Received DM30 test results for SPN #1322 and FMI 14 from SA 0
    4141.008 908      12      18 E3 00 F9 F7 7B 06 1F FF FF FF FF (DM7)(Tx)
    4142.403 908      12      18 E3 55 F9 F7 A7 13 1F FF FF FF FF (DM7)(Tx)
    4142.421 908      40      18 A4 00 55 F7 A7 13 0A 00 01 00 FB FF FF FF FF F7 A7 13
0A 0C 00 00

FB FF FF FF FF F7 A7 13 0A 12 00 00 FB FF FF FF FF (DM30)
    Received DM30 test results for SPN #5031 and FMI 10 from SA 85
    Received DM30 test results for SPN #5031 and FMI 10 from SA 85
    WARNING: Duplicate test results received from SPN #5031 and FMI 10 from SA 85
    Received DM30 test results for SPN #5031 and FMI 10 from SA 85
    WARNING: Duplicate test results received from SPN #5031 and FMI 10 from SA 85
    4142.437 908      12      18 E3 55 F9 F7 0C 11 1F FF FF FF FF (DM7)(Tx)
    4142.454 908      16      18 A4 00 55 F7 0C 11 12 00 01 00 FB FF FF FF FF (DM30)
    Received DM30 test results for SPN #4364 and FMI 18 from SA 85
    4142.470 908      12      18 E3 55 F9 F7 9A 0C 1F FF FF FF FF (DM7)(Tx)
    4142.486 408      52      18 A4 00 55 F7 9A 0C 0A 00 01 00 FB FF FF FF FF F7 9A 0C
02 EC 00 00

FB FF FF FF FF F7 9A 0C 14 EC 00 00 FB FF FF FF FF F7 9A 0C 15 EC 00 00 FB FF FF FF FF
(DM30)
    Received DM30 test results for SPN #3226 and FMI 10 from SA 85
    Received DM30 test results for SPN #3226 and FMI 2 from SA 85
    Received DM30 test results for SPN #3226 and FMI 20 from SA 85
    Received DM30 test results for SPN #3226 and FMI 21 from SA 85
    4142.510 908      12      18 E3 55 F9 F7 BA 12 1F FF FF FF FF (DM7)(Tx)
    4142.524 908      16      18 A4 00 55 F7 BA 12 1F 20 00 00 FB FF FF FF FF (DM30)
    Received DM30 test results for SPN #4794 and FMI 31 from SA 85
    4142.535 408      12      18 E3 55 F9 F7 B2 14 1F FF FF FF FF (DM7)(Tx)
    4142.551 908      28      18 A4 00 55 F7 B2 14 12 20 00 00 FB FF FF FF FF F7 B2 14
11 32 01 00

FB FF FF FF FF (DM30)
    Received DM30 test results for SPN #5298 and FMI 18 from SA 85
    Received DM30 test results for SPN #5298 and FMI 17 from SA 85
    4142.561 408      12      18 E3 55 F9 F7 BC 12 1F FF FF FF FF (DM7)(Tx)
    4142.574 408      16      18 A4 00 55 F7 BC 12 1F 44 00 00 FB FF FF FF FF (DM30)
    Received DM30 test results for SPN #4796 and FMI 31 from SA 85
    4142.586 408      12      18 E3 55 F9 F7 12 15 1F FF FF FF FF (DM7)(Tx)
    4142.599 408      16      18 A4 00 55 F7 12 15 05 20 00 00 FB FF FF FF FF (DM30)
    Received DM30 test results for SPN #5394 and FMI 5 from SA 85
    4142.610 408      12      18 E3 55 F9 F7 BB 12 1F FF FF FF FF (DM7)(Tx)
    4142.624 908      16      18 A4 00 55 F7 BB 12 1F 8A 01 00 FB FF FF FF FF (DM30)
    Received DM30 test results for SPN #4795 and FMI 31 from SA 85
    4142.635 408      12      18 E3 55 F9 F7 C7 14 1F FF FF FF FF (DM7)(Tx)
    4142.649 908      16      18 A4 00 55 F7 C7 14 1F 1F 01 00 FB FF FF FF FF (DM30)
    Received DM30 test results for SPN #5319 and FMI 31 from SA 85
    FAIL: Invalid slot identifier of 287 received with SPN #5319 and FMI 31 from SA 85
    4142.661 408      12      18 E3 55 F9 F7 E4 0D 1F FF FF FF FF (DM7)(Tx)
    4142.674 908      28      18 A4 00 55 F7 E4 0D 12 20 00 00 FB FF FF FF FF F7 E4 0D
02 63 01 00

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FB FF FF FF FF (DM30)
Received DM30 test results for SPN #3556 and FMI 18 from SA 85
Received DM30 test results for SPN #3556 and FMI 2 from SA 85
4142.689 408 12 18 E3 55 F9 F7 15 15 1F FF FF FF FF (DM7)(Tx)
4142.704 408 16 18 A4 00 55 F7 15 15 1F D0 00 00 FB FF FF FF FF (DM30)
Received DM30 test results for SPN #5397 and FMI 31 from SA 85
4142.722 408 12 18 E3 55 F9 F7 A0 13 1F FF FF FF FF (DM7)(Tx)
4142.740 408 40 18 A4 00 55 F7 A0 13 0A 12 00 00 FB FF FF FF FF F7 A0 13
0A 00 01 00

FB FF FF FF FF F7 A0 13 0A 0C 00 00 FB FF FF FF FF (DM30)
Received DM30 test results for SPN #5024 and FMI 10 from SA 85
Received DM30 test results for SPN #5024 and FMI 10 from SA 85
WARNING: Duplicate test results received from SPN #5024 and FMI 10 from SA 85
Received DM30 test results for SPN #5024 and FMI 10 from SA 85
WARNING: Duplicate test results received from SPN #5024 and FMI 10 from SA 85
4142.751 408 12 18 E3 55 F9 F7 90 0C 1F FF FF FF FF (DM7)(Tx)
4142.764 408 16 18 A4 00 55 F7 90 0C 0A 00 01 00 FB FF FF FF FF (DM30)
Received DM30 test results for SPN #3216 and FMI 10 from SA 85
4142.774 408 12 18 E3 55 F9 F7 6D 16 1F FF FF FF FF (DM7)(Tx)
4142.790 408 40 18 A4 00 55 F7 6D 16 0A 00 01 00 FB FF FF FF FF F7 6D 16
07 0C 00 00

FB FF FF FF FF F7 6D 16 07 0C 00 00 FB FF FF FF FF (DM30)
Received DM30 test results for SPN #5741 and FMI 10 from SA 85
Received DM30 test results for SPN #5741 and FMI 7 from SA 85
Received DM30 test results for SPN #5741 and FMI 7 from SA 85
WARNING: Duplicate test results received from SPN #5741 and FMI 7 from SA 85
4142.800 408 12 18 E3 55 F9 F7 EB 10 1F FF FF FF FF (DM7)(Tx)
4142.813 908 16 18 A4 00 55 F7 EB 10 12 D0 00 00 FB FF FF FF FF (DM30)
Received DM30 test results for SPN #4331 and FMI 18 from SA 85
4142.822 908 12 18 E3 55 F9 F7 EE 10 1F FF FF FF FF (DM7)(Tx)
4142.838 908 16 18 A4 00 55 F7 EE 10 12 63 01 00 FB FF FF FF FF (DM30)
Received DM30 test results for SPN #4334 and FMI 18 from SA 85
4142.845 908 12 18 E3 55 F9 F7 22 0D 1F FF FF FF FF (DM7)(Tx)
4142.858 908 16 18 A4 00 55 F7 22 0D 1F D0 00 00 FB FF FF FF FF (DM30)
Received DM30 test results for SPN #3362 and FMI 31 from SA 85
4142.869 408 12 18 E3 55 F9 F7 98 0D 1F FF FF FF FF (DM7)(Tx)
4142.883 908 16 18 A4 00 55 F7 98 0D 11 63 01 00 FB FF FF FF FF (DM30)
Received DM30 test results for SPN #3480 and FMI 17 from SA 85
4142.901 908 12 18 E3 55 F9 F7 B3 0C 1F FF FF FF FF (DM7)(Tx)
4142.913 908 16 18 A4 00 55 F7 B3 0C 02 34 00 00 FB FF FF FF FF (DM30)
Received DM30 test results for SPN #3251 and FMI 2 from SA 85
4142.925 908 12 18 E3 55 F9 F7 9A 0D 1F FF FF FF FF (DM7)(Tx)
4142.946 908 40 18 A4 00 55 F7 9A 0D 10 20 00 00 FB FF FF FF FF F7 9A 0D
02 82 01 00

FB FF FF FF FF F7 9A 0D 07 20 00 00 FB FF FF FF FF (DM30)
Received DM30 test results for SPN #3482 and FMI 16 from SA 85
Received DM30 test results for SPN #3482 and FMI 2 from SA 85
Received DM30 test results for SPN #3482 and FMI 7 from SA 85
4142.967 908 12 18 E3 55 F9 F7 FE 0F 1F FF FF FF FF (DM7)(Tx)
4142.983 908 16 18 A4 00 55 F7 FE 0F 1F 20 00 00 FB FF FF FF FF (DM30)
Received DM30 test results for SPN #4094 and FMI 31 from SA 85
4143.004 908 12 18 E3 55 F9 F7 A2 0D 1F FF FF FF FF (DM7)(Tx)
4143.018 908 16 18 A4 00 55 F7 A2 0D 07 20 00 00 FB FF FF FF FF (DM30)
Received DM30 test results for SPN #3490 and FMI 7 from SA 85
4143.030 908 12 18 E3 55 F9 F7 60 0F 1F FF FF FF FF (DM7)(Tx)
4143.049 408 16 18 A4 00 55 F7 60 0F 10 D0 00 00 FB FF FF FF FF (DM30)
Received DM30 test results for SPN #3936 and FMI 16 from SA 85
4143.057 908 12 18 E3 55 F9 F7 A2 1C 1F FF FF FF FF (DM7)(Tx)
4143.074 908 28 18 A4 00 55 F7 A2 1C 02 20 00 00 00 00 00 00 00 F7 A2 1C
02 20 00 00

FB FF FF FF FF (DM30)
Received DM30 test results for SPN #7330 and FMI 2 from SA 85
Received DM30 test results for SPN #7330 and FMI 2 from SA 85
WARNING: Duplicate test results received from SPN #7330 and FMI 2 from SA 85
4143.087 908 12 18 E3 55 F9 F7 73 1A 1F FF FF FF FF (DM7)(Tx)
4143.104 408 28 18 A4 00 55 F7 73 1A 0A D0 00 00 FB FF FF FF FF F7 73 1A

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01 20 00 00

FB FF FF FF FF (DM30)

Received DM30 test results for SPN #6771 and FMI 10 from SA 85

Received DM30 test results for SPN #6771 and FMI 1 from SA 85

4143.127 408 12 18 E3 55 F9 F7 7C 1A 1F FF FF FF FF (DM7)(Tx)

4143.143 908 16 18 A4 00 55 F7 7C 1A 02 32 01 00 FB FF FF FF FF (DM30)

Received DM30 test results for SPN #6780 and FMI 2 from SA 85

4143.154 408 12 18 E3 55 F9 F7 76 1A 1F FF FF FF FF (DM7)(Tx)

4143.168 408 16 18 A4 00 55 F7 76 1A 07 D0 00 00 FB FF FF FF FF (DM30)

Received DM30 test results for SPN #6774 and FMI 7 from SA 85

4143.179 408 12 18 E3 55 F9 F7 73 16 1F FF FF FF FF (DM7)(Tx)

4143.193 408 16 18 A4 00 55 F7 73 16 0A 20 00 00 FB FF FF FF FF (DM30)

Received DM30 test results for SPN #5747 and FMI 10 from SA 85

FAIL: No SPNs for Fuel system pressure control low were received

FAIL: No SPNs for Fuel system pressure control high were received

FAIL: No SPNs for Low Flow were received

FAIL: No SPNs for High Flow were received

FAIL: No SPNs for Cooler performance were received

Part 1 Test 13 [Global DM5 (request 59904 for PGN 65230 (SPNs 1218-1223))]

4143.219 408 07 18 EA FF F9 CE FE 00 (Tx)

4143.223 908 12 18 FE CE 55 FF FF 14 00 00 00 00 00 (DM5)

Global DM5 received from SA 85

FAIL: Received DM5 from SA 85 with 255 Active Trouble Codes, was expecting 0

FAIL: Received DM5 from SA 85 with 255 Previously Active Trouble Codes, was expecting

0

Comprehensive components support is: not supported (0)

Comprehensive components status is: test complete or not supported (0)

FAIL: Global DM5 has improper comprehensive components support and status

Misfire monitoring support is: not supported (0)

Misfire monitoring status is: test complete or not supported (0)

Fuel system monitoring support is: not supported (0)

Fuel system monitoring status is: test complete or not supported (0)

Catalyst monitoring support is: not supported (0)

Catalyst monitoring status is: test complete or not supported (0)

Heated catalyst monitoring support is: not supported (0)

Heated catalyst monitoring status is: test complete or not supported (0)

Evaporative system monitoring support is: not supported (0)

Evaporative system monitoring status is: test complete or not supported (0)

Secondary air system monitoring support is: not supported (0)

Secondary air system monitoring status is: test complete or not supported (0)

A/C system refrigerant monitoring support is: not supported (0)

A/C system refrigerant monitoring status is: test complete or not supported (0)

Exhaust sensor monitoring support is: not supported (0)

Exhaust sensor monitoring status is: test complete or not supported (0)

Exhaust gas sensor heater monitoring support is: not supported (0)

Exhaust gas sensor heater monitoring status is: test complete or not supported (0)

EGR system monitoring support is: not supported (0)

EGR system monitoring status is: test complete or not supported (0)

Cold start aid system monitoring support is: not supported (0)

Cold start aid system monitoring status is: test complete or not supported (0)

Boost pressure control support is: not supported (0)

Boost pressure control status is: test complete or not supported (0)

Diesel Particulate Filter (DPF) support is: not supported (0)

Diesel Particulate Filter (DPF) status is: test complete or not supported (0)

NOx converting catalyst and/or NOx adsorber support is: not supported (0)

NOx converting catalyst and/or NOx adsorber status is: test complete or not supported

(0)

NMHC converting catalyst support is: not supported (0)

NMHC converting catalyst status is: test complete or not supported (0)

4143.228 408 12 18 FE CE 00 00 00 14 37 E0 1E E0 1E (DM5)

Global DM5 received from SA 0

Comprehensive components support is: supported (1)

Comprehensive components status is: test complete or not supported (0)

Misfire monitoring support is: supported (1)

Misfire monitoring status is: test not complete (1)

Fuel system monitoring support is: supported (1)

Fuel system monitoring status is: test not complete (1)

Catalyst monitoring support is: not supported (0)
 Catalyst monitoring status is: test complete or not supported (0)
 Heated catalyst monitoring support is: not supported (0)
 Heated catalyst monitoring status is: test complete or not supported (0)
 Evaporative system monitoring support is: not supported (0)
 Evaporative system monitoring status is: test complete or not supported (0)
 Secondary air system monitoring support is: not supported (0)
 Secondary air system monitoring status is: test complete or not supported (0)
 A/C system refrigerant monitoring support is: not supported (0)
 A/C system refrigerant monitoring status is: test complete or not supported (0)
 Exhaust sensor monitoring support is: supported (1)
 Exhaust sensor monitoring status is: test not complete (1)
 Exhaust gas sensor heater monitoring support is: supported (1)
 Exhaust gas sensor heater monitoring status is: test not complete (1)
 EGR system monitoring support is: supported (1)
 EGR system monitoring status is: test not complete (1)
 Cold start aid system monitoring support is: not supported (0)
 Cold start aid system monitoring status is: test complete or not supported (0)
 Boost pressure control support is: supported (1)
 Boost pressure control status is: test not complete (1)
 Diesel Particulate Filter (DPF) support is: supported (1)
 Diesel Particulate Filter (DPF) status is: test not complete (1)
 NOx converting catalyst and/or NOx adsorber support is: supported (1)
 NOx converting catalyst and/or NOx adsorber status is: test not complete (1)
 NMHC converting catalyst support is: supported (1)
 NMHC converting catalyst status is: test not complete (1)
 Vehicle composite of DM5 for Comprehensive component monitoring status is 0
 Vehicle composite of DM5 for Fuel System monitoring status is 1
 Vehicle composite of DM5 for Misfire monitoring status is 1
 Vehicle composite of DM5 for Comprehensive component monitoring support is 1
 Vehicle composite of DM5 for Fuel system monitoring support is 1
 Vehicle composite of DM5 for Misfire monitoring support is 1
 Vehicle composite of DM5 for EGR/VVT system monitoring support is 1
 Vehicle composite of DM5 for Exhaust Gas Sensor heater monitoring support is 1
 Vehicle composite of DM5 for Exhaust Gas Sensor monitoring support is 1
 Vehicle composite of DM5 for A/C system refrigerant monitoring support is 0
 Vehicle composite of DM5 for Secondary air system monitoring support is 0
 Vehicle composite of DM5 for Evaporative system monitoring support is 0
 Vehicle composite of DM5 for Heated catalyst monitoring support is 0
 Vehicle composite of DM5 for Catalyst monitoring support is 0
 Vehicle composite of DM5 for NMHC converting catalyst monitoring support is 1
 Vehicle composite of DM5 for NOx converting catalyst and/or NOx absorber monitoring support is 1
 Vehicle composite of DM5 for Diesel Particulate Filter (DPF) monitoring support is 1
 Vehicle composite of DM5 for Boost pressure control system monitoring support is 1
 Vehicle composite of DM5 for EGR/VVT system monitoring status is 1
 Vehicle composite of DM5 for Exhaust Gas Sensor heater monitoring status is 1
 Vehicle composite of DM5 for Exhaust Gas Sensor monitoring status is 1
 Vehicle composite of DM5 for A/C system refrigerant monitoring status is 0
 Vehicle composite of DM5 for Secondary air system monitoring status is 0
 Vehicle composite of DM5 for Evaporative system monitoring status is 0
 Vehicle composite of DM5 for Heated catalyst monitoring status is 0
 Vehicle composite of DM5 for Catalyst monitoring status is 0
 Vehicle composite of DM5 for NMHC converting catalyst monitoring status is 1
 Vehicle composite of DM5 for NOx converting catalyst and/or NOx absorber monitoring status is 1
 Vehicle composite of DM5 for Diesel Particulate Filter (DPF) monitoring status is 1
 Vehicle composite of DM5 for Boost pressure control system monitoring status is 1

Part 1 Test 13 [DS DM5 to OBD ECUs]

```

4145.450 908      07      18 EA 00 F9 CE FE 00 (Tx)
4145.454 908      12      18 FE CE 00 00 00 14 37 E0 1E E0 1E (DM5)
Direct DM5 Message received from SA 0
4145.464 408      07      18 EA 55 F9 CE FE 00 (Tx)
4145.469 908      12      18 FE CE 55 FF FF 14 00 00 00 00 00 (DM5)
Direct DM5 Message received from SA 85
  
```

Part 1 Test 14 [Global DM26 (request 59904 for PGN 64952 (SPNs 3302-3305))]

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```

4145.477 908      07      18 EA FF F9 B8 FD 00 (Tx)
4145.484 908      12      18 FD B8 00 00 00 00 37 40 1C E0 1E (DM26)
Received a Global DM26 from SA 0
Comprehensive components support is: enabled (1)
Comprehensive components status is: test complete or not supported (0)
Misfire monitoring support is: enabled (1)
Misfire monitoring status is: test not complete (1)
Fuel system monitoring support is: enabled (1)
Fuel system monitoring status is: test not complete (1)
Catalyst monitoring support is: disabled or not supported (0)
Catalyst monitoring status is: test complete or not supported (0)
Heated catalyst monitoring support is: disabled or not supported (0)
Heated catalyst monitoring status is: test complete or not supported (0)
Evaporative system monitoring support is: disabled or not supported (0)
Evaporative system monitoring status is: test complete or not supported (0)
Secondary air system monitoring support is: disabled or not supported (0)
Secondary air system monitoring status is: test complete or not supported (0)
A/C system refrigerant monitoring support is: disabled or not supported (0)
A/C system refrigerant monitoring status is: test complete or not supported (0)
Exhaust Gas sensor monitoring support is: disabled or not supported (0)
Exhaust Gas sensor monitoring status is: test not complete (1)
Exhaust Gas sensor heater monitoring support is: enabled (1)
Exhaust Gas sensor heater monitoring status is: test not complete (1)
EGR system monitoring support is: disabled or not supported (0)
EGR system monitoring status is: test not complete (1)
Boost pressure control support is: disabled or not supported (0)
Boost pressure control status is: test not complete (1)
Diesel Particulate Filter (DPF) support is: enabled (1)
Diesel Particulate Filter (DPF) status is: test not complete (1)
NOx converting catalyst and/or NOx adsorber support is: enabled (1)
NOx converting catalyst and/or NOx adsorber status is: test not complete (1)
NMHC converting catalyst support is: enabled (1)
NMHC converting catalyst status is: test not complete (1)
FAIL: Global DM26 for SA 0 has exhaust gas sensor monitoring supported in DM5 but not

```

supported/complete in DM26

FAIL: Global DM26 for SA 0 has EGR system monitoring supported in DM5 but not supported/complete

in DM26

FAIL: Global DM26 for SA 0 has Boost pressure control supported in DM5 but not supported/complete

in DM26

Part 1 Test 14 [DS DM26 to OBD ECUs]

```

4147.400 408      07      18 EA 00 F9 B8 FD 00 (Tx)
4147.401 408      12      18 FD B8 00 00 00 00 37 40 1C E0 1E (DM26)
Direct DM26 Message received from SA 0
4147.416 408      07      18 EA 55 F9 B8 FD 00 (Tx)
4147.417 408      12      18 E8 FF 55 01 FF FF FF FF B8 FD 00
Received a NACK

```

Part 1 Test 15 [Gather broadcast DM1 data from all ECUs (PGN 65226 (SPNs 1213-1215, 3038, 1706))]

```

4147.491 908      12      18 FE CA 21 00 FF 95 F2 ED 01 FF FF (DM1)
Received a DM1 from SA 33
4147.949 408      12      18 FE CA 17 00 FF 00 00 00 00 FF FF (DM1)
Received a DM1 from SA 23
4148.152 908      12      18 FE CA 0B F3 FF 00 00 00 00 FF FF (DM1)
Received a DM1 from SA 11
4148.162 908      12      18 FE CA 00 00 FF 00 00 00 00 FF FF (DM1)
Received a DM1 from SA 0

```

Part 1 Test 16 [Global DM2 (request 59904 for PGN 65227 (SPNs 1213-1215, 3038, 1706))]

```

4154.385 408      07      18 EA FF F9 CB FE 00 (Tx)
4154.389 908      12      18 FE CB 00 00 FF 00 00 00 00 FF FF (DM2)

```

Global DM2 response received from SA 0
 4154.403 908 12 18 FE CB 17 00 FF 00 00 00 00 FF FF (DM2)
 WARNING: Non-OBD Module response being used
 Global DM2 response received from SA 23
 4154.553 408 22 1C FE CB 21 00 FF B4 E0 ED 17 D0 07 09 06 D0 07 13 03 15
 F3 EE 01

(DM2)

WARNING: Non-OBD Module response being used
 Global DM2 response received from SA 33
 Global DM2 from SA 33 has previously active SPN 516276 FMI 13
 Global DM2 from SA 33 has previously active SPN 2000 FMI 9
 Global DM2 from SA 33 has previously active SPN 2000 FMI 19
 Global DM2 from SA 33 has previously active SPN 520981 FMI 14

Part 1 Test 16 [DS DM2 to all OBD ECUs]

4156.380 408 07 18 EA 00 F9 CB FE 00 (Tx)
 4156.386 408 12 18 FE CB 00 00 FF 00 00 00 00 FF FF (DM2)
 4156.401 408 07 18 EA 55 F9 CB FE 00 (Tx)
 4156.403 408 12 18 E8 FF 55 01 FF FF FF FF CB FE 00
 Received a NACK

Part 1 Test 17 [Global DM6 (request 59904 for PGN 65227 (SPNs 1213-1215, 3038, 1706))]

4156.414 908 07 18 EA FF F9 CF FE 00 (Tx)
 4156.416 408 12 18 FE CF 00 00 FF 00 00 00 00 FF FF (DM6)
 Global DM6 response received from SA 0

Part 1 Test 17 [DS DM6 to all OBD ECUs]

4158.376 408 07 18 EA 00 F9 CF FE 00 (Tx)
 4158.382 908 12 18 FE CF 00 00 FF 00 00 00 00 FF FF (DM6)
 Direct DM6 Message received from SA 0
 4158.397 408 07 18 EA 55 F9 CF FE 00 (Tx)
 4158.400 408 12 18 E8 FF 55 01 FF FF FF FF CF FE 00
 Received a NACK

Part 1 Test 18 [Global DM12 (request 59904 for PGN 65236 (SPNs 1213-1215, 3038, 1706))]

4158.408 908 07 18 EA FF F9 D4 FE 00 (Tx)
 4158.412 908 12 18 FE D4 00 00 FF 00 00 00 00 FF FF (DM12)
 Global DM12 response received from SA 0
 4158.430 408 12 18 FE D4 17 00 FF 00 00 00 00 FF FF (DM12)
 WARNING: Non-OBD Module response being used
 Global DM12 response received from SA 23

Part 1 Test 18 [DS DM12 to all OBD ECUs]

4160.376 908 07 18 EA 00 F9 D4 FE 00 (Tx)
 4160.379 408 12 18 FE D4 00 00 FF 00 00 00 00 FF FF (DM12)
 Direct DM12 Message received from SA 0
 4160.387 908 07 18 EA 55 F9 D4 FE 00 (Tx)
 4160.391 408 12 18 E8 FF 55 01 FF FF FF FF D4 FE 00
 Received a NACK

Part 1 Test 19 [Global DM23 (request 59904 for PGN 64949 (SPNs 1213-1215, 3038, 1706))]

4160.399 908 07 18 EA FF F9 B5 FD 00 (Tx)
 4160.409 408 12 18 FD B5 00 00 FF 00 00 00 00 FF FF (DM23)
 Global DM23 response received from SA 0

Part 1 Test 19 [DS DM23 to all OBD ECUs]

4162.380 908 07 18 EA 00 F9 B5 FD 00 (Tx)
 4162.386 408 12 18 FD B5 00 00 FF 00 00 00 00 FF FF (DM23)
 Direct DM23 Message received from SA 0
 4162.394 908 07 18 EA 55 F9 B5 FD 00 (Tx)
 4162.397 908 12 18 E8 FF 55 01 FF FF FF FF B5 FD 00
 Received a NACK

Part 1 Test 20 [Global DM28 (request 59904 for PGN 64896 (SPNs 1213-1215, 3038, 1706))]

```

4162.421 908      07      18 EA FF F9 80 FD 00 (Tx)
4162.605 908      22      18 FD 80 00 00 FF AB 00 02 01 EC 0F 11 01 E1 1C 13 01 9A
0C 13 01

```

(DM28)

```

Global DM28 response received from SA 0
Global DM28 from SA 0 has Permanent SPN 171 FMI 2
FAIL: Global DM28 response received from SA 0 has a permanent DTC of SPN 171 FMI 2
Global DM28 from SA 0 has Permanent SPN 4076 FMI 17
FAIL: Global DM28 response received from SA 0 has a permanent DTC of SPN 4076 FMI 17
Global DM28 from SA 0 has Permanent SPN 7393 FMI 19
FAIL: Global DM28 response received from SA 0 has a permanent DTC of SPN 7393 FMI 19
Global DM28 from SA 0 has Permanent SPN 3226 FMI 19
FAIL: Global DM28 response received from SA 0 has a permanent DTC of SPN 3226 FMI 19

```

Part 1 Test 20 [DS DM28 to all OBD ECUs]

```

4164.379 908      07      18 EA 00 F9 80 FD 00 (Tx)
4164.512 908      22      18 FD 80 00 00 FF AB 00 02 01 EC 0F 11 01 E1 1C 13 01 9A
0C 13 01

```

(DM28)

```

Direct DM28 Message received from SA 0
Direct DM28 from SA 0 has Permanent SPN 171 FMI 2
Direct DM28 from SA 0 has Permanent SPN 4076 FMI 17
Direct DM28 from SA 0 has Permanent SPN 7393 FMI 19
Direct DM28 from SA 0 has Permanent SPN 3226 FMI 19
4164.533 908      07      18 EA 55 F9 80 FD 00 (Tx)
4164.534 908      12      18 E8 FF 55 01 FF FF FF FF 80 FD 00
Received a NACK

```

Part 1 Test 21 [Global DM27 (request 59904 for PGN 64898 (SPNs 1213-1215,3038,1706))]

```

4164.551 908      07      18 EA FF F9 82 FD 00 (Tx)
4164.552 408      12      18 FD 82 00 00 FF 00 00 00 00 FF FF (DM27)
Global DM27 response received from SA 0

```

Part 1 Test 21 [DS DM27 to all OBD ECUs that supported DM27]

```

4166.374 908      07      18 EA 00 F9 82 FD 00 (Tx)
4166.379 408      12      18 FD 82 00 00 FF 00 00 00 00 FF FF (DM27)
Direct DM27 Message received from SA 0
4166.391 908      07      18 EA 55 F9 82 FD 00 (Tx)
4166.396 908      12      18 E8 FF 55 01 FF FF FF FF 82 FD 00
Received a NACK

```

Part 1 Test 22 [Global DM29 (request 59904 for PGN 40448 (SPNs 4104-4108))]

```

4166.421 908      07      18 EA FF F9 00 9E 00 (Tx)
4166.429 408      12      18 9E FF 00 00 00 00 00 04 FF FF FF (DM29)
Global DM29 response received from SA 0
FAIL: Global DM29 received from SA 0 has Permanent DTC counts > 0 (4)

```

Part 1 Test 22 [DS DM29 to all OBD ECUs]

```

4168.369 908      07      18 EA 00 F9 00 9E 00 (Tx)
4168.376 408      12      18 9E F9 00 00 00 00 00 04 FF FF FF (DM29)
Direct DM29 Message received from SA 0
4168.395 908      07      18 EA 55 F9 00 9E 00 (Tx)
4168.398 908      12      18 E8 FF 55 01 FF FF FF FF 00 9E 00
Received a NACK

```

Part 1 Test 23 [Global DM31 (request 59904 for PGN 47128 (SPNs 1214-1215, 4113, 4117))]

```

4168.420 908      07      18 EA FF F9 00 A3 00 (Tx)

```

Part 1 Test 23 [Global DM31 (request 59904 for PGN 47128 (SPNs 1214-1215, 4113, 4117))]

4170.359 908 07 18 EA FF F9 00 A3 00 (Tx)

Part 1 Test 23 [Global DM31 (request 59904 for PGN 47128 (SPNs 1214-1215, 4113, 4117))]

4172.360 908 07 18 EA FF F9 00 A3 00 (Tx)

Part 1 Test 24 [DS DM25 (request 59904 for PGN 64951 (SPNs 3300, 1214-1215)) to each ECU that

responded to global DM24 with supported FF SPNs]

4174.357 408 07 18 EA 00 F9 B7 FD 00 (Tx)
4174.425 908 12 18 FD B7 00 00 00 00 00 00 FF FF FF (DM25)

Part 1 Test 25 [DS DM20 (request 59904 for PGN 49664 (SPNs 3048-3049, 3066-3068)) to OBD ECUs]

4174.456 408 07 18 EA 00 F9 00 C2 00 (Tx)
4175.084 908 78 18 C2 00 00 EB 00 16 00 CA 14 F8 00 00 03 00 B8 12 F8 0A
00 16 00 BC
14 F8 00 00 00 00 C6 14 F8 04 00 16 00 F2 0B F8 06 00 16 00 EA 0C F8 00 00 00 00 F8 0B F8
0A 00 16 00

C9 14 F8 03 00 16 00 EC 0B F8 00 00 00 00 EF 0B F8 10 00 16 00 (DM20)

Direct DM20 Message received from SA 0

DM20 from SA 0 has an ignition counter of 235

4175.106 408 07 18 EA 55 F9 00 C2 00 (Tx)
4175.108 408 12 18 E8 FF 55 01 FF FF FF FF 00 C2 00
Received a NACK

Part 1 Test 26 [Gather broadcast data for all DM24 supported datastream]

4175.117 408 12 0C F0 04 00 F8 7D 7D 00 00 00 F0 7D (EEC1)
DM24 Data Stream: Received message for SPN 512 from SA 0
4175.117 408 12 0C F0 04 00 F8 7D 7D 00 00 00 F0 7D (EEC1)
DM24 Data Stream: Received message for SPN 513 from SA 0
4175.117 408 12 0C F0 04 00 F8 7D 7D 00 00 00 F0 7D (EEC1)
DM24 Data Stream: Received message for SPN 190 from SA 0
4175.120 908 12 18 F0 0F 00 FF FF FF FF FF FF FF
DM24 Data Stream: Received message for SPN 3226 from SA 0
WARNING: Global DM24 Data Stream has invalid data received for SPN 3226 from SA 0 -
Data Stream

is supported and has received invalid data of 3076.750000

4175.120 908 12 0C F0 03 00 D1 00 00 FF FF FF 00 FF
DM24 Data Stream: Received message for SPN 92 from SA 0
4175.120 908 12 0C F0 03 00 D1 00 00 FF FF FF 00 FF
DM24 Data Stream: Received message for SPN 91 from SA 0
4175.127 408 12 0C F0 04 00 F8 7D 7D 00 00 00 F0 7D (EEC1)
DM24 Data Stream: Received message for SPN 512 from SA 0
4175.127 408 12 0C F0 04 00 F8 7D 7D 00 00 00 F0 7D (EEC1)
DM24 Data Stream: Received message for SPN 513 from SA 0
4175.127 408 12 0C F0 04 00 F8 7D 7D 00 00 00 F0 7D (EEC1)
DM24 Data Stream: Received message for SPN 190 from SA 0
4175.137 408 12 0C F0 04 00 F8 7D 7D 00 00 00 F0 7D (EEC1)
DM24 Data Stream: Received message for SPN 512 from SA 0
4175.137 408 12 0C F0 04 00 F8 7D 7D 00 00 00 F0 7D (EEC1)
DM24 Data Stream: Received message for SPN 513 from SA 0
4175.137 408 12 0C F0 04 00 F8 7D 7D 00 00 00 F0 7D (EEC1)
DM24 Data Stream: Received message for SPN 190 from SA 0
4175.146 408 12 18 FE F1 21 F7 FF FF 03 00 FF FF F0
WARNING: DM24 Data Stream has received data for SPN 84 from non-OBD module with SA 33
DM24 Data Stream: Received message for SPN 84 from SA 33
WARNING: Global DM24 Data Stream has invalid data received for SPN 84 from SA 33 -
Data Stream is

supported and has received invalid data of 255.996094

4175.168 408 12 18 F0 0F 00 FF FF FF FF FF FF FF FF

DM24 Data Stream: Received message for SPN 3226 from SA 0
 WARNING: Global DM24 Data Stream has invalid data received for SPN 3226 from SA 0 - Data Stream

is supported and has received invalid data of 3076.750000
 4175.168 908 12 0C F0 03 00 D1 00 00 FF FF FF 00 FF
 DM24 Data Stream: Received message for SPN 92 from SA 0
 4175.168 908 12 0C F0 03 00 D1 00 00 FF FF FF 00 FF
 DM24 Data Stream: Received message for SPN 91 from SA 0
 4175.168 908 12 18 FE DF 00 7F 50 00 00 7E 00 00 FF
 DM24 Data Stream: Received message for SPN 514 from SA 0
 FAIL: Direct DM24 Data Stream has invalid data received for SPN 514 from SA 0 - Data Stream is

not supported and has not received all 0xFFs
 4175.168 908 12 18 FE DF 00 7F 50 00 00 7E 00 00 FF
 DM24 Data Stream: Received message for SPN 2978 from SA 0
 FAIL: Direct DM24 Data Stream has invalid data received for SPN 2978 from SA 0 - Data Stream is

not supported and has not received all 0xFFs
 4175.169 908 12 18 FE F1 0B FF 00 00 FF FF FF FF FF
 WARNING: DM24 Data Stream has received data for SPN 84 from non-OBD module with SA 11
 DM24 Data Stream: Received message for SPN 84 from SA 11
 WARNING: More than one ECU has provided SPN 84 in the datastream
 4175.190 908 12 18 FE F1 00 F7 00 00 00 FF 00 1F C0
 DM24 Data Stream: Received message for SPN 84 from SA 0
 WARNING: More than one ECU has provided SPN 84 in the datastream
 4175.191 908 12 18 FD 94 00 00 00 FF FF 00 00 FF FF
 DM24 Data Stream: Received message for SPN 27 from SA 0
 4175.191 908 12 10 FC FD 00 FF FF FF FF 29 64 FF FF
 DM24 Data Stream: Received message for SPN 5313 from SA 0
 4175.191 908 12 10 FC FD 00 FF FF FF FF 29 64 FF FF
 DM24 Data Stream: Received message for SPN 5314 from SA 0
 4175.192 908 12 18 FE EF 00 00 FF FF 00 80 80 FF FA
 DM24 Data Stream: Received message for SPN 94 from SA 0
 4175.193 408 12 18 FE F2 00 00 00 FF FF FF FF 00 FF
 DM24 Data Stream: Received message for SPN 183 from SA 0
 4175.193 408 12 18 FD D0 00 FF FF FF FF 31 FF FF FF
 DM24 Data Stream: Received message for SPN 3563 from SA 0
 WARNING: Direct DM24 Data Stream has invalid data received for SPN 3563 from SA 0 - Data Stream

is not supported and has not received all 0xFFs
 4175.220 908 12 18 F0 0F 00 FF FF FF FF FF FF FF
 DM24 Data Stream: Received message for SPN 3226 from SA 0
 WARNING: Global DM24 Data Stream has invalid data received for SPN 3226 from SA 0 - Data Stream

is supported and has received invalid data of 3076.750000
 4175.220 908 12 0C F0 03 00 D1 00 00 FF FF FF 00 FF
 DM24 Data Stream: Received message for SPN 92 from SA 0
 4175.220 908 12 0C F0 03 00 D1 00 00 FF FF FF 00 FF
 DM24 Data Stream: Received message for SPN 91 from SA 0
 4175.246 408 12 18 FE F1 21 F7 FF FF 03 00 FF FF F0
 WARNING: DM24 Data Stream has received data for SPN 84 from non-OBD module with SA 33
 DM24 Data Stream: Received message for SPN 84 from SA 33
 WARNING: Global DM24 Data Stream has invalid data received for SPN 84 from SA 33 - Data Stream is

supported and has received invalid data of 255.996094
 4175.269 908 12 18 FE F1 0B FF 00 00 FF FF FF FF FF
 WARNING: DM24 Data Stream has received data for SPN 84 from non-OBD module with SA 11
 DM24 Data Stream: Received message for SPN 84 from SA 11
 4175.290 908 12 18 FE F1 00 F7 00 00 00 FF 00 1F C0
 DM24 Data Stream: Received message for SPN 84 from SA 0
 4175.291 908 12 18 FD 94 00 00 00 FF FF 00 00 FF FF
 DM24 Data Stream: Received message for SPN 27 from SA 0
 4175.291 908 12 10 FC FD 00 FF FF FF FF 29 64 FF FF
 DM24 Data Stream: Received message for SPN 5313 from SA 0

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```

4175.291 908      12      10 FC FD 00 FF FF FF FF 29 64 FF FF
DM24 Data Stream: Received message for SPN 5314 from SA 0
4175.292 408      12      18 FE DB 00 FF FF C7 00 FF FF FF FF
DM24 Data Stream: Received message for SPN 157 from SA 0
4175.292 408      12      18 FE DB 00 FF FF C7 00 FF FF FF FF
DM24 Data Stream: Received message for SPN 164 from SA 0
4175.292 908      12      18 FE F2 00 00 00 FF FF FF FF 00 FF
DM24 Data Stream: Received message for SPN 183 from SA 0
4175.345 908      12      18 FE F1 21 F7 FF FF 03 00 FF FF F0
WARNING: DM24 Data Stream has received data for SPN 84 from non-OBd module with SA 33
DM24 Data Stream: Received message for SPN 84 from SA 33
WARNING: Global DM24 Data Stream has invalid data received for SPN 84 from SA 33 -
Data Stream is

```

supported and has received invalid data of 255.996094

```

4175.369 408      12      18 FE F1 0B FF 00 00 FF FF FF FF FF
WARNING: DM24 Data Stream has received data for SPN 84 from non-OBd module with SA 11
DM24 Data Stream: Received message for SPN 84 from SA 11
4175.389 908      12      18 FD 9B 00 FF FF FF FF FF FF FF FF FF
DM24 Data Stream: Received message for SPN 3516 from SA 0
4175.389 908      12      18 FD 9B 00 FF FF FF FF FF FF FF FF FF
DM24 Data Stream: Received message for SPN 3518 from SA 0
4175.389 908      12      18 FD 9B 00 FF FF FF FF FF FF FF FF FF
DM24 Data Stream: Received message for SPN 7346 from SA 0
4175.389 908      12      18 FD 9B 00 FF FF FF FF FF FF FF FF FF
DM24 Data Stream: Received message for SPN 3515 from SA 0
4175.391 408      12      18 FD 8C 00 00 00 FF FF FF FF FF FF FF
DM24 Data Stream: Received message for SPN 3609 from SA 0
4175.391 408      12      18 FD 8C 00 00 00 FF FF FF FF FF FF FF
DM24 Data Stream: Received message for SPN 3610 from SA 0
4175.392 408      12      18 FE F1 00 F7 00 00 00 FF 00 1F C0
DM24 Data Stream: Received message for SPN 84 from SA 0
4175.393 908      12      18 FD 94 00 00 00 FF FF 00 00 FF FF
DM24 Data Stream: Received message for SPN 27 from SA 0
4175.393 908      12      10 FC FD 00 FF FF FF FF 29 64 FF FF
DM24 Data Stream: Received message for SPN 5313 from SA 0
4175.393 908      12      10 FC FD 00 FF FF FF FF 29 64 FF FF
DM24 Data Stream: Received message for SPN 5314 from SA 0
4175.395 908      12      18 FE 69 00 93 29 FF FF FF FF 90 27
DM24 Data Stream: Received message for SPN 1637 from SA 0
4175.395 908      12      18 FE F2 00 00 00 FF FF FF FF 00 FF
DM24 Data Stream: Received message for SPN 183 from SA 0
4175.396 408      12      18 FE F6 00 FF 00 63 31 FF FF FF FF
DM24 Data Stream: Received message for SPN 102 from SA 0
4175.396 408      12      18 FE F6 00 FF 00 63 31 FF FF FF FF
DM24 Data Stream: Received message for SPN 106 from SA 0
WARNING: Direct DM24 Data Stream has invalid data received for SPN 106 from SA 0 -
Data Stream is

```

not supported and has not received all 0xFFs

```

4175.420 908      12      18 FE DF 00 7F 50 00 00 7E 00 00 FF
DM24 Data Stream: Received message for SPN 514 from SA 0
FAIL: Direct DM24 Data Stream has invalid data received for SPN 514 from SA 0 - Data
Stream is

```

not supported and has not received all 0xFFs

```

4175.420 908      12      18 FE DF 00 7F 50 00 00 7E 00 00 FF
DM24 Data Stream: Received message for SPN 2978 from SA 0
FAIL: Direct DM24 Data Stream has invalid data received for SPN 2978 from SA 0 - Data
Stream is

```

not supported and has not received all 0xFFs

```

4175.446 408      12      0C F0 04 21 FF FF FF FF FF FF F0 FF (EEC1)
FAIL: DM24 Data Stream has received data for SPN 512 from non-OBd module with SA 33
DM24 Data Stream: Received message for SPN 512 from SA 33
WARNING: Global DM24 Data Stream has invalid data received for SPN 512 from SA 33 -
Data Stream

```

is supported and has received invalid data of 130.000000

```

4175.446 408      12      0C F0 04 21 FF FF FF FF FF FF F0 FF (EEC1)

```

FAIL: DM24 Data Stream has received data for SPN 513 from non-OBD module with SA 33
 DM24 Data Stream: Received message for SPN 513 from SA 33
 WARNING: Global DM24 Data Stream has invalid data received for SPN 513 from SA 33 - Data Stream

is supported and has received invalid data of 130.000000

4175.446 408 12 0C F0 04 21 FF FF FF FF FF FF F0 FF (EEC1)
 FAIL: DM24 Data Stream has received data for SPN 190 from non-OBD module with SA 33
 DM24 Data Stream: Received message for SPN 190 from SA 33
 FAIL: More than one ECU has provided SPN 190 in the datastream
 4175.447 908 12 18 FD B2 55 FF FF FF FF 00 00 FF FF
 DM24 Data Stream: Received message for SPN 3251 from SA 85
 WARNING: Direct DM24 Data Stream has invalid data received for SPN 3251 from SA 85 - Data Stream

is not supported and has not received all 0xFFs

4175.448 408 12 18 FE FC 21 FF B6 FF FF FF FF FF FF
 WARNING: DM24 Data Stream has received data for SPN 96 from non-OBD module with SA 33
 DM24 Data Stream: Received message for SPN 96 from SA 33
 4175.448 408 12 18 FE FC 21 FF B6 FF FF FF FF FF FF
 WARNING: DM24 Data Stream has received data for SPN 38 from non-OBD module with SA 33
 DM24 Data Stream: Received message for SPN 38 from SA 33
 4175.449 908 12 18 FE F7 21 FF FF FF FF 08 01 02 01
 INFO: DM24 Data Stream has received data for SPN 158 from non-OBD module with SA 33
 DM24 Data Stream: Received message for SPN 158 from SA 33
 4175.449 908 12 18 FE F7 21 FF FF FF FF 08 01 02 01
 INFO: DM24 Data Stream has received data for SPN 168 from non-OBD module with SA 33
 DM24 Data Stream: Received message for SPN 168 from SA 33
 4175.490 408 12 18 FE F5 00 C5 FF FF 43 26 FF FF FF
 DM24 Data Stream: Received message for SPN 108 from SA 0
 4175.490 908 12 18 FD B2 00 10 2F FF FF 00 00 FF FF
 DM24 Data Stream: Received message for SPN 3251 from SA 0
 FAIL: More than one ECU has provided SPN 3251 in the datastream
 4175.493 408 12 18 FE EE 00 6F FF 43 2B FF FF FF FF
 DM24 Data Stream: Received message for SPN 110 from SA 0
 4175.493 408 12 18 FE EE 00 6F FF 43 2B FF FF FF FF
 DM24 Data Stream: Received message for SPN 175 from SA 0
 4175.494 408 12 18 FD 7C 00 F8 83 00 00 C0 CF E3 FF
 DM24 Data Stream: Received message for SPN 3700 from SA 0
 4175.602 408 12 18 FE F7 55 FF FF FF FF 05 01 FF FF
 DM24 Data Stream: Received message for SPN 158 from SA 85
 4175.602 408 12 18 FE F7 55 FF FF FF FF 05 01 FF FF
 DM24 Data Stream: Received message for SPN 168 from SA 85
 4175.667 908 12 18 FE DF 00 7F 50 00 00 7E 00 00 FF
 DM24 Data Stream: Received message for SPN 514 from SA 0
 FAIL: Direct DM24 Data Stream has invalid data received for SPN 514 from SA 0 - Data Stream is

not supported and has not received all 0xFFs

4175.667 908 12 18 FE DF 00 7F 50 00 00 7E 00 00 FF
 DM24 Data Stream: Received message for SPN 2978 from SA 0
 FAIL: Direct DM24 Data Stream has invalid data received for SPN 2978 from SA 0 - Data Stream is

not supported and has not received all 0xFFs

4175.691 908 12 18 FE EF 00 00 FF FF 00 80 80 FF FA
 DM24 Data Stream: Received message for SPN 94 from SA 0
 4175.692 408 12 18 FD 66 00 6D FF FF FF FF FF FF FF
 DM24 Data Stream: Received message for SPN 4076 from SA 0
 4175.692 408 12 18 FD 66 00 6D FF FF FF FF FF FF FF
 DM24 Data Stream: Received message for SPN 4193 from SA 0
 4175.692 908 12 18 FD D0 00 FF FF FF FF 31 FF FF FF
 DM24 Data Stream: Received message for SPN 3563 from SA 0
 WARNING: Direct DM24 Data Stream has invalid data received for SPN 3563 from SA 0 - Data Stream

is not supported and has not received all 0xFFs

4175.693 408 12 18 FD 7B 55 2C FF 61 B2 00 00 6A 45
 DM24 Data Stream: Received message for SPN 5466 from SA 85
 4175.693 408 12 18 FD 7B 55 2C FF 61 B2 00 00 6A 45

DM24 Data Stream: Received message for SPN 3719 from SA 85

WARNING: Direct DM24 Data Stream has invalid data received for SPN 3719 from SA 85 - Data Stream

is not supported and has not received all 0xFFs

4175.694 908 12 18 FE F7 00 FF FF FF FF FF FF 03 01

DM24 Data Stream: Received message for SPN 158 from SA 0

4175.694 908 12 18 FE F7 00 FF FF FF FF FF FF 03 01

DM24 Data Stream: Received message for SPN 168 from SA 0

4175.791 908 12 18 FE DB 00 FF FF C7 00 FF FF FF FF

DM24 Data Stream: Received message for SPN 157 from SA 0

4175.791 908 12 18 FE DB 00 FF FF C7 00 FF FF FF FF

DM24 Data Stream: Received message for SPN 164 from SA 0

4175.890 408 12 18 FD 8C 00 00 00 FF FF FF FF FF FF

DM24 Data Stream: Received message for SPN 3609 from SA 0

4175.890 408 12 18 FD 8C 00 00 00 FF FF FF FF FF FF

DM24 Data Stream: Received message for SPN 3610 from SA 0

4175.893 408 12 18 FE F6 00 FF 00 63 31 FF FF FF FF

DM24 Data Stream: Received message for SPN 102 from SA 0

4175.893 408 12 18 FE F6 00 FF 00 63 31 FF FF FF FF

DM24 Data Stream: Received message for SPN 106 from SA 0

WARNING: Direct DM24 Data Stream has invalid data received for SPN 106 from SA 0 - Data Stream is

not supported and has not received all 0xFFs

4175.894 908 12 18 FE 56 00 82 FF FF FF 1F 1F FF FF

DM24 Data Stream: Received message for SPN 3031 from SA 0

4175.945 908 12 18 FE DC 00 69 00 00 00 96 01 00 00

DM24 Data Stream: Received message for SPN 235 from SA 0

WARNING: Direct DM24 Data Stream has invalid data received for SPN 235 from SA 0 - Data Stream is

not supported and has not received all 0xFFs

4175.947 408 12 18 FD B2 55 FF FF FF FF 00 00 FF FF

DM24 Data Stream: Received message for SPN 3251 from SA 85

WARNING: Direct DM24 Data Stream has invalid data received for SPN 3251 from SA 85 - Data Stream

is not supported and has not received all 0xFFs

4175.989 908 12 18 FD B2 00 10 2F FF FF 00 00 FF FF

DM24 Data Stream: Received message for SPN 3251 from SA 0

4176.049 408 12 18 FE F5 17 FF FF FF FF FF FF FF FF

FAIL: DM24 Data Stream has received data for SPN 108 from non-OBd module with SA 23

DM24 Data Stream: Received message for SPN 108 from SA 23

WARNING: Global DM24 Data Stream has invalid data received for SPN 108 from SA 23 - Data Stream

is supported and has received invalid data of 127.500000

4176.190 908 12 18 FE EF 00 00 FF FF 00 80 80 FF FA

DM24 Data Stream: Received message for SPN 94 from SA 0

4176.191 908 12 18 FD D0 00 FF FF FF FF 31 FF FF FF

DM24 Data Stream: Received message for SPN 3563 from SA 0

WARNING: Direct DM24 Data Stream has invalid data received for SPN 3563 from SA 0 - Data Stream

is not supported and has not received all 0xFFs

4176.290 408 12 18 FE DB 00 FF FF C7 00 FF FF FF FF

DM24 Data Stream: Received message for SPN 157 from SA 0

4176.290 408 12 18 FE DB 00 FF FF C7 00 FF FF FF FF

DM24 Data Stream: Received message for SPN 164 from SA 0

4176.387 908 12 18 FD 9B 00 FF FF FF FF FF FF FF FF

DM24 Data Stream: Received message for SPN 3516 from SA 0

4176.387 908 12 18 FD 9B 00 FF FF FF FF FF FF FF FF

DM24 Data Stream: Received message for SPN 3518 from SA 0

4176.387 908 12 18 FD 9B 00 FF FF FF FF FF FF FF FF

DM24 Data Stream: Received message for SPN 7346 from SA 0

4176.387 908 12 18 FD 9B 00 FF FF FF FF FF FF FF FF

DM24 Data Stream: Received message for SPN 3515 from SA 0

4176.389 908 12 18 FD 8C 00 00 00 FF FF FF FF FF FF

DM24 Data Stream: Received message for SPN 3609 from SA 0

```

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4176.389 908      12      18 FD 8C 00 00 00 FF FF FF FF FF FF
DM24 Data Stream: Received message for SPN 3610 from SA 0
4176.393 408      12      18 FE 69 00 93 29 FF FF FF FF 90 27
DM24 Data Stream: Received message for SPN 1637 from SA 0
4176.393 908      12      18 FE F6 00 FF 00 63 31 FF FF FF FF
DM24 Data Stream: Received message for SPN 102 from SA 0
4176.393 908      12      18 FE F6 00 FF 00 63 31 FF FF FF FF
DM24 Data Stream: Received message for SPN 106 from SA 0
WARNING: Direct DM24 Data Stream has invalid data received for SPN 106 from SA 0 -
Data Stream is

not supported and has not received all 0xFFs
4176.444 908      12      0C F0 04 21 FF FF FF FF FF FF F0 FF (EEC1)
FAIL: DM24 Data Stream has received data for SPN 512 from non-OBd module with SA 33
DM24 Data Stream: Received message for SPN 512 from SA 33
WARNING: Global DM24 Data Stream has invalid data received for SPN 512 from SA 33 -
Data Stream

is supported and has received invalid data of 130.000000
4176.444 908      12      0C F0 04 21 FF FF FF FF FF FF F0 FF (EEC1)
FAIL: DM24 Data Stream has received data for SPN 513 from non-OBd module with SA 33
DM24 Data Stream: Received message for SPN 513 from SA 33
WARNING: Global DM24 Data Stream has invalid data received for SPN 513 from SA 33 -
Data Stream

is supported and has received invalid data of 130.000000
4176.444 908      12      0C F0 04 21 FF FF FF FF FF FF F0 FF (EEC1)
FAIL: DM24 Data Stream has received data for SPN 190 from non-OBd module with SA 33
DM24 Data Stream: Received message for SPN 190 from SA 33
4176.446 408      12      18 FD B2 55 FF FF FF FF 00 00 FF FF
DM24 Data Stream: Received message for SPN 3251 from SA 85
WARNING: Direct DM24 Data Stream has invalid data received for SPN 3251 from SA 85 -
Data Stream

is not supported and has not received all 0xFFs
4176.446 908      12      18 FE FC 21 FF B6 FF FF FF FF FF FF
WARNING: DM24 Data Stream has received data for SPN 96 from non-OBd module with SA 33
DM24 Data Stream: Received message for SPN 96 from SA 33
4176.446 908      12      18 FE FC 21 FF B6 FF FF FF FF FF FF
WARNING: DM24 Data Stream has received data for SPN 38 from non-OBd module with SA 33
DM24 Data Stream: Received message for SPN 38 from SA 33
4176.448 408      12      18 FE F7 21 FF FF FF FF 08 01 02 01
INFO: DM24 Data Stream has received data for SPN 158 from non-OBd module with SA 33
DM24 Data Stream: Received message for SPN 158 from SA 33
4176.448 408      12      18 FE F7 21 FF FF FF FF 08 01 02 01
INFO: DM24 Data Stream has received data for SPN 168 from non-OBd module with SA 33
DM24 Data Stream: Received message for SPN 168 from SA 33
4176.488 908      12      18 FE F5 00 C5 FF FF 43 26 FF FF FF
DM24 Data Stream: Received message for SPN 108 from SA 0
4176.489 408      12      18 FD B2 00 10 2F FF FF 00 00 FF FF
DM24 Data Stream: Received message for SPN 3251 from SA 0
4176.491 908      12      18 FE EE 00 6F FF 43 2B FF FF FF FF
DM24 Data Stream: Received message for SPN 110 from SA 0
4176.491 908      12      18 FE EE 00 6F FF 43 2B FF FF FF FF
DM24 Data Stream: Received message for SPN 175 from SA 0
4176.492 908      12      18 FD 7C 00 F8 83 00 00 C0 CF E3 FF
DM24 Data Stream: Received message for SPN 3700 from SA 0
4176.600 908      12      18 FE F7 55 FF FF FF FF 05 01 FF FF
DM24 Data Stream: Received message for SPN 158 from SA 85
4176.600 908      12      18 FE F7 55 FF FF FF FF 05 01 FF FF
DM24 Data Stream: Received message for SPN 168 from SA 85
4176.690 908      12      18 FD 66 00 6D FF FF FF FF FF FF FF
DM24 Data Stream: Received message for SPN 4076 from SA 0
4176.690 908      12      18 FD 66 00 6D FF FF FF FF FF FF FF
DM24 Data Stream: Received message for SPN 4193 from SA 0
4176.691 408      12      18 FD 7B 55 2C FF 61 B2 00 00 6A 45
DM24 Data Stream: Received message for SPN 5466 from SA 85
4176.691 408      12      18 FD 7B 55 2C FF 61 B2 00 00 6A 45
DM24 Data Stream: Received message for SPN 3719 from SA 85
WARNING: Direct DM24 Data Stream has invalid data received for SPN 3719 from SA 85 -

```

Data Stream

is not supported and has not received all 0xFFs

4176.693 408 12 18 FE F7 00 FF FF FF FF FF FF 03 01

DM24 Data Stream: Received message for SPN 158 from SA 0

4176.693 408 12 18 FE F7 00 FF FF FF FF FF FF 03 01

DM24 Data Stream: Received message for SPN 168 from SA 0

4176.892 908 12 18 FE 56 00 82 FF FF FF 1F 1F FF FF

DM24 Data Stream: Received message for SPN 3031 from SA 0

4176.944 408 12 18 FE DC 00 69 00 00 00 96 01 00 00

DM24 Data Stream: Received message for SPN 235 from SA 0

WARNING: Direct DM24 Data Stream has invalid data received for SPN 235 from SA 0 - Data Stream is

not supported and has not received all 0xFFs

4177.047 908 12 18 FE F5 17 FF FF FF FF FF FF FF FF

FAIL: DM24 Data Stream has received data for SPN 108 from non-OBD module with SA 23

DM24 Data Stream: Received message for SPN 108 from SA 23

WARNING: Global DM24 Data Stream has invalid data received for SPN 108 from SA 23 - Data Stream

is supported and has received invalid data of 127.500000

4177.386 408 12 18 FD 9B 00 FF FF FF FF FF FF FF FF

DM24 Data Stream: Received message for SPN 3516 from SA 0

4177.386 408 12 18 FD 9B 00 FF FF FF FF FF FF FF FF

DM24 Data Stream: Received message for SPN 3518 from SA 0

4177.386 408 12 18 FD 9B 00 FF FF FF FF FF FF FF FF

DM24 Data Stream: Received message for SPN 7346 from SA 0

4177.386 408 12 18 FD 9B 00 FF FF FF FF FF FF FF FF

DM24 Data Stream: Received message for SPN 3515 from SA 0

4177.392 908 12 18 FE 69 00 93 29 FF FF FF FF 90 27

DM24 Data Stream: Received message for SPN 1637 from SA 0

4177.443 408 12 0C F0 04 21 FF FF FF FF FF FF F0 FF (EEC1)

FAIL: DM24 Data Stream has received data for SPN 512 from non-OBD module with SA 33

DM24 Data Stream: Received message for SPN 512 from SA 33

WARNING: Global DM24 Data Stream has invalid data received for SPN 512 from SA 33 - Data Stream

is supported and has received invalid data of 130.000000

4177.443 408 12 0C F0 04 21 FF FF FF FF FF FF F0 FF (EEC1)

FAIL: DM24 Data Stream has received data for SPN 513 from non-OBD module with SA 33

DM24 Data Stream: Received message for SPN 513 from SA 33

WARNING: Global DM24 Data Stream has invalid data received for SPN 513 from SA 33 - Data Stream

is supported and has received invalid data of 130.000000

4177.443 408 12 0C F0 04 21 FF FF FF FF FF FF F0 FF (EEC1)

FAIL: DM24 Data Stream has received data for SPN 190 from non-OBD module with SA 33

DM24 Data Stream: Received message for SPN 190 from SA 33

4177.445 408 12 18 FE FC 21 FF B6 FF FF FF FF FF FF

WARNING: DM24 Data Stream has received data for SPN 96 from non-OBD module with SA 33

DM24 Data Stream: Received message for SPN 96 from SA 33

4177.445 408 12 18 FE FC 21 FF B6 FF FF FF FF FF FF

WARNING: DM24 Data Stream has received data for SPN 38 from non-OBD module with SA 33

DM24 Data Stream: Received message for SPN 38 from SA 33

4177.446 908 12 18 FE F7 21 FF FF FF FF 08 01 02 01

INFO: DM24 Data Stream has received data for SPN 158 from non-OBD module with SA 33

DM24 Data Stream: Received message for SPN 158 from SA 33

4177.446 908 12 18 FE F7 21 FF FF FF FF 08 01 02 01

INFO: DM24 Data Stream has received data for SPN 168 from non-OBD module with SA 33

DM24 Data Stream: Received message for SPN 168 from SA 33

4177.487 408 12 18 FE F5 00 C5 FF FF 43 26 FF FF FF

DM24 Data Stream: Received message for SPN 108 from SA 0

4177.489 908 12 18 FE EE 00 6F FF 43 2B FF FF FF FF

DM24 Data Stream: Received message for SPN 110 from SA 0

4177.489 908 12 18 FE EE 00 6F FF 43 2B FF FF FF FF

DM24 Data Stream: Received message for SPN 175 from SA 0

4177.491 408 12 18 FD 7C 00 F8 83 00 00 C0 CF E3 FF

DM24 Data Stream: Received message for SPN 3700 from SA 0

4177.599 408 12 18 FE F7 55 FF FF FF FF 05 01 FF FF

Navistar_N13_Sample_Data.txt

```

DM24 Data Stream: Received message for SPN 158 from SA 85
4177.599 408      12      18 FE F7 55 FF FF FF FF 05 01 FF FF
DM24 Data Stream: Received message for SPN 168 from SA 85
4177.688 908      12      18 FD 66 00 6D FF FF FF FF FF FF FF FF
DM24 Data Stream: Received message for SPN 4076 from SA 0
4177.688 908      12      18 FD 66 00 6D FF FF FF FF FF FF FF FF
DM24 Data Stream: Received message for SPN 4193 from SA 0
4177.690 408      12      18 FD 7B 55 2C FF 61 B2 00 00 6A 45
DM24 Data Stream: Received message for SPN 5466 from SA 85
4177.690 408      12      18 FD 7B 55 2C FF 61 B2 00 00 6A 45
DM24 Data Stream: Received message for SPN 3719 from SA 85
WARNING: Direct DM24 Data Stream has invalid data received for SPN 3719 from SA 85 -
Data Stream

is not supported and has not received all 0xFFs
4177.691 908      12      18 FE F7 00 FF FF FF FF FF FF 03 01
DM24 Data Stream: Received message for SPN 158 from SA 0
4177.691 908      12      18 FE F7 00 FF FF FF FF FF FF 03 01
DM24 Data Stream: Received message for SPN 168 from SA 0
4177.891 408      12      18 FE 56 00 82 FF FF FF 1F 1F FF FF
DM24 Data Stream: Received message for SPN 3031 from SA 0
4177.942 908      12      18 FE DC 00 69 00 00 00 96 01 00 00
DM24 Data Stream: Received message for SPN 235 from SA 0
WARNING: Direct DM24 Data Stream has invalid data received for SPN 235 from SA 0 -
Data Stream is

not supported and has not received all 0xFFs
4178.046 408      12      18 FE F5 17 FF FF FF FF FF FF FF FF
FAIL: DM24 Data Stream has received data for SPN 108 from non-OBd module with SA 23
DM24 Data Stream: Received message for SPN 108 from SA 23
WARNING: Global DM24 Data Stream has invalid data received for SPN 108 from SA 23 -
Data Stream

is supported and has received invalid data of 127.500000
4178.162 408      12      18 FE E5 00 12 04 00 00 8D 0C 00 00
DM24 Data Stream: Received message for SPN 247 from SA 0
4179.529 908      43      18 FE E3 00 C0 12 A9 10 3B CE 00 19 B5 40 1F D8 E0 2E DD
70 17 FF FA

9E 09 D0 52 33 3C DC 7D A5 FF FF 3D 01 00 00 FF FF FF FF FF
DM24 Data Stream: Received message for SPN 539 from SA 0
4179.529 908      43      18 FE E3 00 C0 12 A9 10 3B CE 00 19 B5 40 1F D8 E0 2E DD
70 17 FF FA

9E 09 D0 52 33 3C DC 7D A5 FF FF 3D 01 00 00 FF FF FF FF FF
DM24 Data Stream: Received message for SPN 540 from SA 0
4179.529 908      43      18 FE E3 00 C0 12 A9 10 3B CE 00 19 B5 40 1F D8 E0 2E DD
70 17 FF FA

9E 09 D0 52 33 3C DC 7D A5 FF FF 3D 01 00 00 FF FF FF FF FF
DM24 Data Stream: Received message for SPN 541 from SA 0
4179.529 908      43      18 FE E3 00 C0 12 A9 10 3B CE 00 19 B5 40 1F D8 E0 2E DD
70 17 FF FA

9E 09 D0 52 33 3C DC 7D A5 FF FF 3D 01 00 00 FF FF FF FF FF
DM24 Data Stream: Received message for SPN 542 from SA 0
4179.529 908      43      18 FE E3 00 C0 12 A9 10 3B CE 00 19 B5 40 1F D8 E0 2E DD
70 17 FF FA

9E 09 D0 52 33 3C DC 7D A5 FF FF 3D 01 00 00 FF FF FF FF FF
DM24 Data Stream: Received message for SPN 543 from SA 0
4179.529 908      43      18 FE E3 00 C0 12 A9 10 3B CE 00 19 B5 40 1F D8 E0 2E DD
70 17 FF FA

9E 09 D0 52 33 3C DC 7D A5 FF FF 3D 01 00 00 FF FF FF FF FF
DM24 Data Stream: Received message for SPN 544 from SA 0
4184.151 908      12      18 FE E5 00 12 04 00 00 8D 0C 00 00
DM24 Data Stream: Received message for SPN 247 from SA 0
4184.521 908      43      18 FE E3 00 C0 12 A9 10 3B CE 00 19 B5 40 1F D8 E0 2E DD
70 17 FF FA

```


Navistar_N13_Sample_Data.txt

```

9E 09 D0 52 33 3C DC 7D A5 FF FF 3D 01 00 00 FF FF FF FF FF
  DM24 Data Stream: Received message for SPN 539 from SA 0
  4184.521 908      43      18 FE E3 00 C0 12 A9 10 3B CE 00 19 B5 40 1F D8 E0 2E DD
70 17 FF FA

9E 09 D0 52 33 3C DC 7D A5 FF FF 3D 01 00 00 FF FF FF FF FF
  DM24 Data Stream: Received message for SPN 540 from SA 0
  4184.521 908      43      18 FE E3 00 C0 12 A9 10 3B CE 00 19 B5 40 1F D8 E0 2E DD
70 17 FF FA

9E 09 D0 52 33 3C DC 7D A5 FF FF 3D 01 00 00 FF FF FF FF FF
  DM24 Data Stream: Received message for SPN 541 from SA 0
  4184.521 908      43      18 FE E3 00 C0 12 A9 10 3B CE 00 19 B5 40 1F D8 E0 2E DD
70 17 FF FA

9E 09 D0 52 33 3C DC 7D A5 FF FF 3D 01 00 00 FF FF FF FF FF
  DM24 Data Stream: Received message for SPN 542 from SA 0
  4184.521 908      43      18 FE E3 00 C0 12 A9 10 3B CE 00 19 B5 40 1F D8 E0 2E DD
70 17 FF FA

9E 09 D0 52 33 3C DC 7D A5 FF FF 3D 01 00 00 FF FF FF FF FF
  DM24 Data Stream: Received message for SPN 543 from SA 0
  4184.521 908      43      18 FE E3 00 C0 12 A9 10 3B CE 00 19 B5 40 1F D8 E0 2E DD
70 17 FF FA

9E 09 D0 52 33 3C DC 7D A5 FF FF 3D 01 00 00 FF FF FF FF FF
  DM24 Data Stream: Received message for SPN 544 from SA 0
  4188.055 408      12      18 FE E5 00 12 04 00 00 8D 0C 00 00
  DM24 Data Stream: Received message for SPN 247 from SA 0
  4189.513 408      43      18 FE E3 00 C0 12 A9 10 3B CE 00 19 B5 40 1F D8 E0 2E DD
70 17 FF FA

9E 09 D0 52 33 3C DC 7D A5 FF FF 3D 01 00 00 FF FF FF FF FF
  DM24 Data Stream: Received message for SPN 539 from SA 0
  4189.513 408      43      18 FE E3 00 C0 12 A9 10 3B CE 00 19 B5 40 1F D8 E0 2E DD
70 17 FF FA

9E 09 D0 52 33 3C DC 7D A5 FF FF 3D 01 00 00 FF FF FF FF FF
  DM24 Data Stream: Received message for SPN 540 from SA 0
  4189.513 408      43      18 FE E3 00 C0 12 A9 10 3B CE 00 19 B5 40 1F D8 E0 2E DD
70 17 FF FA

9E 09 D0 52 33 3C DC 7D A5 FF FF 3D 01 00 00 FF FF FF FF FF
  DM24 Data Stream: Received message for SPN 541 from SA 0
  4189.513 408      43      18 FE E3 00 C0 12 A9 10 3B CE 00 19 B5 40 1F D8 E0 2E DD
70 17 FF FA

9E 09 D0 52 33 3C DC 7D A5 FF FF 3D 01 00 00 FF FF FF FF FF
  DM24 Data Stream: Received message for SPN 542 from SA 0
  4189.513 408      43      18 FE E3 00 C0 12 A9 10 3B CE 00 19 B5 40 1F D8 E0 2E DD
70 17 FF FA

9E 09 D0 52 33 3C DC 7D A5 FF FF 3D 01 00 00 FF FF FF FF FF
  DM24 Data Stream: Received message for SPN 543 from SA 0
  4189.513 408      43      18 FE E3 00 C0 12 A9 10 3B CE 00 19 B5 40 1F D8 E0 2E DD
70 17 FF FA

9E 09 D0 52 33 3C DC 7D A5 FF FF 3D 01 00 00 FF FF FF FF FF
  DM24 Data Stream: Received message for SPN 544 from SA 0
  WARNING: DM24 Data Stream: Did not receive 3 messages from SA 0 at the average rate of
20 ms for

SPN 512.  May be RPM Dependent.
  They were sent 10 and 10 ms apart
  WARNING: DM24 Data Stream: Did not receive 3 messages from SA 0 at the average rate of
20 ms for

SPN 513.  May be RPM Dependent.
  They were sent 10 and 10 ms apart

```

They were sent 10 and 10 ms apart

Part 1 Test 26 [DS messages to ECU that indicated support in DM24 for upon request SPNs]

4196.334 908 07 18 EA 00 F9 7B FD 00 (Tx)

Response Time =

```
4197.658 908      12      18 FD 7B 55 2C FF 61 B2 00 00 6A 45  - Timing Error:
```

```
4198.657 408      12      18 FD 7B 55 2C FF 61 B2 00 00 6A 45  - Timing Error:
```

```
4199.655 908      12      18 FD 7B 55 2C FF 61 B2 00 00 6A 45  - Timing Error:
```

```
4200.654 408      12      18 FD 7B 55 2C FF 61 B2 00 00 6A 45 - Timing Error:
```

Direct DM24 message to source address #0 for PGN 64891 timed out

4201.312 908 07 18 EA 55 F9 98 FD 00 (Tx)

```

4201.329 408          44          18 FD 98 55 05 00 00 00 FF FF FF FF FF FF FF FF FF FF
FF FF FF

```

```
FF FF FF FF FF FF FF FF FF FF FF FF FF 00 00 00 00 00 00 00 00
```

Direct PGN 64920 received from SA 85

Sending message with direct SA 0 for PGN 65253

4201.341 908 07 18 EA 00 F9 E5 FE 00 (Tx)

4201.355	408	12	18	FE	E5	00	12	04	00	00	8D	0C	00	00
----------	-----	----	----	----	----	----	----	----	----	----	----	----	----	----

Direct PGN 65253 received from SA 0

Sending message with direct SA 0 for PGN 64962

4201.369 908 07 18 EA 00 F9 C2 FD 00 (Tx)

```
4201.373 408      12      18 FD C2 00 FF FF FF FF FF FF 04 FF
```

Direct PGN 64962 received from SA 0

Sending message with direct SA 0 for PGN 65154

4201.383 908 07 18 EA 00 F9 82 FE 00 (Tx)

4201.392 908	12	1C FE 82 00 FF 63 FF 63 FF 63 FF 63
--------------	----	-------------------------------------

Direct PGN 65154 received from SA 0

Sending message with direct SA 0 for PGN 64981

4201.398 908 07 18 EA 00 F9 D5 FD 00 (Tx)

```
4201.402 908      12      18 FD D5 00 FF FF FF FF 00 00 F3 FF
```

Direct PGN 64981 received from SA 0

Sending message with direct SA 0 for PGN 64587

4201.413 908 07 18 EA 00 F9 4B FC 00 (Tx)

4202.005 408 12 18 FC 4B 00 FF FF FF FF FF FF 00 00 - Timing Error:

Response Time =

591 ms (> 220 ms)

Direct PGN 64587 received from SA 0

Part 1 Test 26 [If no response/no valid data for any upon request SPN indicated as supported in DM24,

```
send global message to request that SPN(s)]
```

Sending message with global SA for PGN 64891

```
4202.029 908      07      18 EA FF F9 7B FD 00 (Tx)
```

FAIL: Direct and Global DM24s for PGN 64891 and SPN 5466 did not have valid data received

Part 1 Results: Fail

Part 2: Key On Engine Running Data Collection

Part 2 Test 1 [Gather broadcast data for engine speed (e.g., SPN 190)]

Part 2 Test 2 [Global **DM5** (request 59904 for PGN 65230 (SPNs 1218-1223))]

```

4292.205 408      07      18 EA FF F9 CE FE 00 (Tx)
4292.207 908      12      18 FE CE 00 00 00 14 37 E0 1E E0 1E (DM5)
Global DM5 received from SA 0
Comprehensive components support is: supported (1)
Comprehensive components status is: test complete or not supported (0)
Misfire monitoring support is: supported (1)
Misfire monitoring status is: test not complete (1)
Fuel system monitoring support is: supported (1)
Fuel system monitoring status is: test not complete (1)
Catalyst monitoring support is: not supported (0)
Catalyst monitoring status is: test complete or not supported (0)
Heated catalyst monitoring support is: not supported (0)
Heated catalyst monitoring status is: test complete or not supported (0)
Evaporative system monitoring support is: not supported (0)
Evaporative system monitoring status is: test complete or not supported (0)
Secondary air system monitoring support is: not supported (0)
Secondary air system monitoring status is: test complete or not supported (0)
A/C system refrigerant monitoring support is: not supported (0)
A/C system refrigerant monitoring status is: test complete or not supported (0)
Exhaust sensor monitoring support is: supported (1)
Exhaust sensor monitoring status is: test not complete (1)
Exhaust gas sensor heater monitoring support is: supported (1)
Exhaust gas sensor heater monitoring status is: test not complete (1)
EGR system monitoring support is: supported (1)
EGR system monitoring status is: test not complete (1)
Cold start aid system monitoring support is: not supported (0)
Cold start aid system monitoring status is: test complete or not supported (0)
Boost pressure control support is: supported (1)
Boost pressure control status is: test not complete (1)
Diesel Particulate Filter (DPF) support is: supported (1)
Diesel Particulate Filter (DPF) status is: test not complete (1)
NOx converting catalyst and/or NOx adsorber support is: supported (1)
NOx converting catalyst and/or NOx adsorber status is: test not complete (1)
NMHC converting catalyst support is: supported (1)
NMHC converting catalyst status is: test not complete (1)
4292.209 908      12      18 FE CE 55 FF FF 14 00 00 00 00 00 (DM5)
Global DM5 received from SA 85
FAIL: Received DM5 from SA 85 with 255 Active Trouble Codes, was expecting 0
FAIL: Received DM5 from SA 85 with 255 Previously Active Trouble Codes, was expecting
0
Comprehensive components support is: not supported (0)
Comprehensive components status is: test complete or not supported (0)
FAIL: Global DM5 has improper comprehensive components support and status
Misfire monitoring support is: not supported (0)
Misfire monitoring status is: test complete or not supported (0)
Fuel system monitoring support is: not supported (0)
Fuel system monitoring status is: test complete or not supported (0)
Catalyst monitoring support is: not supported (0)
Catalyst monitoring status is: test complete or not supported (0)
Heated catalyst monitoring support is: not supported (0)
Heated catalyst monitoring status is: test complete or not supported (0)
Evaporative system monitoring support is: not supported (0)
Evaporative system monitoring status is: test complete or not supported (0)

```

Secondary air system monitoring support is: not supported (0)
 Secondary air system monitoring status is: test complete or not supported (0)
 A/C system refrigerant monitoring support is: not supported (0)
 A/C system refrigerant monitoring status is: test complete or not supported (0)
 Exhaust sensor monitoring support is: not supported (0)
 Exhaust sensor monitoring status is: test complete or not supported (0)
 Exhaust gas sensor heater monitoring support is: not supported (0)
 Exhaust gas sensor heater monitoring status is: test complete or not supported (0)
 EGR system monitoring support is: not supported (0)
 EGR system monitoring status is: test complete or not supported (0)
 Cold start aid system monitoring support is: not supported (0)
 Cold start aid system monitoring status is: test complete or not supported (0)
 Boost pressure control support is: not supported (0)
 Boost pressure control status is: test complete or not supported (0)
 Diesel Particulate Filter (DPF) support is: not supported (0)
 Diesel Particulate Filter (DPF) status is: test complete or not supported (0)
 NOx converting catalyst and/or NOx adsorber support is: not supported (0)
 NOx converting catalyst and/or NOx adsorber status is: test complete or not supported (0)
 (0) NMHC converting catalyst support is: not supported (0)
 NMHC converting catalyst status is: test complete or not supported (0)
 Vehicle composite of DM5 for Comprehensive component monitoring status is 0
 Vehicle composite of DM5 for Fuel System monitoring status is 1
 Vehicle composite of DM5 for Misfire monitoring status is 1
 Vehicle composite of DM5 for Comprehensive component monitoring support is 1
 Vehicle composite of DM5 for Fuel system monitoring support is 1
 Vehicle composite of DM5 for Misfire monitoring support is 1
 Vehicle composite of DM5 for EGR/VVT system monitoring support is 1
 Vehicle composite of DM5 for Exhaust Gas Sensor heater monitoring support is 1
 Vehicle composite of DM5 for Exhaust Gas Sensor monitoring support is 1
 Vehicle composite of DM5 for A/C system refrigerant monitoring support is 0
 Vehicle composite of DM5 for Secondary air system monitoring support is 0
 Vehicle composite of DM5 for Evaporative system monitoring support is 0
 Vehicle composite of DM5 for Heated catalyst monitoring support is 0
 Vehicle composite of DM5 for Catalyst monitoring support is 0
 Vehicle composite of DM5 for NMHC converting catalyst monitoring support is 1
 Vehicle composite of DM5 for NOx converting catalyst and/or NOx absorber monitoring support is 1
 Vehicle composite of DM5 for Diesel Particulate Filter (DPF) monitoring support is 1
 Vehicle composite of DM5 for Boost pressure control system monitoring support is 1
 Vehicle composite of DM5 for EGR/VVT system monitoring status is 1
 Vehicle composite of DM5 for Exhaust Gas Sensor heater monitoring status is 1
 Vehicle composite of DM5 for Exhaust Gas Sensor monitoring status is 1
 Vehicle composite of DM5 for A/C system refrigerant monitoring status is 0
 Vehicle composite of DM5 for Secondary air system monitoring status is 0
 Vehicle composite of DM5 for Evaporative system monitoring status is 0
 Vehicle composite of DM5 for Heated catalyst monitoring status is 0
 Vehicle composite of DM5 for Catalyst monitoring status is 0
 Vehicle composite of DM5 for NMHC converting catalyst monitoring status is 1
 Vehicle composite of DM5 for NOx converting catalyst and/or NOx absorber monitoring status is 1
 Vehicle composite of DM5 for Diesel Particulate Filter (DPF) monitoring status is 1
 Vehicle composite of DM5 for Boost pressure control system monitoring status is 1

Part 2 Test 2 [DS DM5] to OBD ECUs]

```

4294.196 908      07      18 EA 00 F9 CE FE 00 (Tx)
4294.204 408      12      18 FE CE 00 00 00 14 37 E0 1E E0 1E (DM5)
Direct DM5 Message received from SA 0
4294.219 908      07      18 EA 55 F9 CE FE 00 (Tx)
4294.222 908      12      18 FE CE 55 FF FF 14 00 00 00 00 00 (DM5)
Direct DM5 Message received from SA 85
  
```

Part 2 Test 3 [DS DM24] (request 59904 for PGN 64950 (SPNs 3297, 4100-4103)) to each OBD ECU]

```

4294.242 908      07      18 EA 00 F9 B6 FD 00 (Tx)
0003.779 612      532      18 FD B6 00 83 03 1E 01 66 00 18 01 BE 00 1C 02 5C 00 1C
01 6E 00 18
  
```

01 54 00 1C 02 55 02 1E 01 56 02 1E 01 54 02 1E 01 D5 04 1E 01 2E 02 1E 01 C8 03 1E 01 C7
03 1E 01 6C

00 1C 01 1B 00 1C 02 F7 00 1C 04 64 00 1E 01 AF 00 1C 02 69 00 1C 01 A5 15 1C 01 9E 00 1C
02 5B 00 1C

01 5E 00 1C 01 9D 00 1C 02 D3 03 1E 01 D2 03 1E 01 27 0A 1E 01 39 04 1C 01 AB 00 1C 02 A4
04 1C 01 9D

12 1E 02 AA 0C 1C 02 AE 0C 1C 02 B3 0C 1C 02 95 03 1E 04 BF 03 1E 01 C0 03 1E 01 C1 03 1E
01 C2 03 1E

01 C3 03 1E 01 C4 03 1E 01 41 06 1E 01 42 06 1E 01 33 00 1C 01 00 02 1C 01 01 02 1C 01 20
02 1C 02 1B

02 1C 01 1C 02 1C 01 1D 02 1C 01 1E 02 1C 01 1F 02 1C 01 10 02 1E 02 11 02 1E 02 12 02 1E
02 13 02 1E

02 E7 0A 1C 02 88 0D 1C 02 B7 00 1C 02 95 04 18 02 99 04 1C 02 E5 0C 1C 02 A5 04 1C 01 A4
0C 1C 02 EC

0F 1C 01 91 0C 1C 02 85 05 1C 02 86 05 1C 02 87 05 1C 02 88 05 1C 02 89 05 1C 02 8A 05 1C
02 C1 14 1C

02 9C 06 1C 01 CB 14 1C 01 5A 15 1C 02 CD 16 1C 01 45 11 1E 01 98 0D 1E 02 90 0C 18 02 9A
0C 1C 02 E1

06 1C 01 9A 0D 1E 01 A2 0D 1E 01 08 11 1E 02 0B 11 1E 02 D7 0B 1E 01 19 0E 1C 02 3F 0A 1C
01 74 0E 1C

01 60 00 1F 01 AC 00 1F 01 8B 02 1B 01 8C 02 1B 01 8D 02 1B 01 8E 02 1B 01 8F 02 1B 01 90
02 1B 01 D4

02 1B 01 2B 05 1B 01 2C 05 1B 01 2D 05 1B 01 2E 05 1B 01 2F 05 1B 01 30 05 1B 01 46 0A 1B
01 63 0A 1B

01 97 0C 1B 01 90 12 1B 01 0A 10 1D 01 E8 0C 1F 02 FD 0B 1D 02 DF 0C 1D 02 DE 0C 1D 02 E0
0C 1D 02 E6

0C 1D 01 C4 04 1D 01 BD 04 1D 01 1F 10 1D 01 22 10 1D 02 BE 04 1F 04 C0 04 1F 01 57 15 1D
02 EF 0B 1B

01 2A 05 1B 01 BC 0D 1D 01 B7 1C 1D 01 B9 1C 1D 01 7B 06 1B 01 E1 1C 1D 01 73 1A 1F 01 A5
1C 1D 01

(DM24)

Direct DM24 Message received from SA 0

0003.827 612 07 18 EA 55 F9 B6 FD 00 (Tx)

0003.848 612 120 18 FD B6 55 A7 13 1B 00 0C 11 1B 00 9A 0C 1B 00 BA 12 1B
00 B2 14 1B

00 BC 12 1B 00 12 15 1B 00 BB 12 1B 00 C7 14 1B 00 E4 0D 1B 00 15 15 1B 00 A0 13 1B 00 90
0C 1B 00 6D

16 1B 00 EB 10 1B 00 EE 10 1B 00 22 0D 1B 00 98 0D 1B 00 B3 0C 1B 00 9A 0D 1B 00 FE 0F 1B
00 A2 0D 1B

00 60 0F 1B 00 A2 1C 1B 00 73 1A 1B 00 7C 1A 1B 00 76 1A 1B 00 73 16 1B 00 4E 15 1D 00

(DM24)

Direct DM24 Message received from SA 85

Part 2 Test 4 [Global DM20 (request 59904 for PGN 49664 (SPNs 3048-3049, 3066-3068))]

0003.878 612 07 18 EA FF F9 00 C2 00 (Tx)

0004.538 612 78 18 C2 00 00 EC 00 16 00 CA 14 F8 00 00 03 00 B8 12 F8 0A
00 16 00 BC

14 F8 00 00 00 00 C6 14 F8 04 00 16 00 F2 0B F8 06 00 16 00 EA 0C F8 00 00 00 00 F8 0B F8
0A 00 16 00

C9 14 F8 03 00 16 00 EC 0B F8 00 00 00 00 EF 0B F8 10 00 16 00 (DM20)

Received SPN 5322 from SA 0 from DM20
 Received SPN 4792 from SA 0 from DM20
 Received SPN 5308 from SA 0 from DM20
 Received SPN 5318 from SA 0 from DM20
 Received SPN 3058 from SA 0 from DM20
 Received SPN 3306 from SA 0 from DM20
 Received SPN 3064 from SA 0 from DM20
 Received SPN 5321 from SA 0 from DM20
 Received SPN 3052 from SA 0 from DM20
 Received SPN 3055 from SA 0 from DM20

Part 2 Test 4 [DS DM20]

0006.191 112 07 18 EA 00 F9 00 C2 00 (Tx)
 0006.804 612 78 18 C2 00 00 EC 00 16 00 CA 14 F8 00 00 03 00 B8 12 F8 0A
 00 16 00 BC

14 F8 00 00 00 00 C6 14 F8 04 00 16 00 F2 0B F8 06 00 16 00 EA 0C F8 00 00 00 00 F8 0B F8
 0A 00 16 00

C9 14 F8 03 00 16 00 EC 0B F8 00 00 00 00 EF 0B F8 10 00 16 00 (DM20)

Direct DM20 Message received from SA 0
 DM20 from SA 0 has an ignition counter of 236
 0006.820 112 07 18 EA 55 F9 00 C2 00 (Tx)
 0006.822 612 12 18 E8 FF 55 01 FF FF FF FF 00 C2 00
 Received a NACK

Part 2 Test 5 [DS DM19 (request 59904 for PGN 54016 (SPNs 1634-1635)) to all ECUs that responded to

global DM19 in Step I]

0006.848 112 07 18 EA 00 F9 00 D3 00 (Tx)
 0006.984 112 24 18 D3 00 00 10 D4 D0 F0 4F 55 44 41 4B 43 4D 44 00 00 00
 00 00 00 00

00 (DM19)
 0006.994 112 07 18 EA 55 F9 00 D3 00 (Tx)
 0007.017 612 104 1C D3 00 55 E8 7F 88 17 4F 55 42 4E 43 58 43 00 00 00 00
 00 00 00 00

00 A8 73 89 13 4E 4F 78 2D 53 41 45 31 34 61 20 41 54 49 31 00 8C 4B F9 C9 4E 4F 78 2D 53
 41 45 31 34

61 20 41 54 4F 31 00 B2 02 00 00 46 38 31 32 44 00 00 00 00 00 00 00 00 00 00 00 E8 9B 16
 D7 50 4D 53

31 32 33 33 30 41 31 30 30 00 00 00 00 (DM19)

Part 2 Test 6 [DS DM56 (request 59904 for PGN 64711 (SPNs 5844 and 5845)) to OBD ECUs]

Test skipped because DM56 is not supported

Part 2 Test 7 [Destination Specific (DS) Component ID request (PGN 59904) for PGN 65259 (SPNs 586,

587, and 588)]

0007.052 612 07 18 EA 00 F9 EB FE 00 (Tx)
 0007.433 612 50 18 FE EB 00 49 4E 54 20 20 2A 37 35 37 31 30 33 31 35 31
 35 2A 31 32

34 4B 4D 32 59 34 34 30 38 32 33 32 00 00 00 2A 30 00 00 00 00 00 00 00 00 00 2A (ESN)
 0007.448 112 07 18 EA 55 F9 EB FE 00 (Tx)
 0007.463 112 43 18 FE EB 55 2A 36 58 32 75 30 37 44 31 35 30 30 30 30 30
 30 30 30 2A

30 30 30 30 30 30 30 30 2A 4F 55 42 4E 43 58 43 00 00 00 2A (ESN)

FAIL: SA 11 failed to respond to a Direct ESN Message when the engine was one.

Responded when

the engine was off

FAIL: SA 23 failed to respond to a Direct ESN Message when the engine was one.

Responded when

the engine was off

Part 2 Test 7 [Global Component ID request (PGN 59904) for PGN 65259 (SPNs 586, 587o, and 588)]

0007.485 112 07 18 EA FF F9 EB FE 00 (Tx)
0007.794 612 39 18 FE EB 17 49 4E 54 2A 36 31 31 32 32 33 30 43 39 36 2A
30 31 36 30

33 35 36 34 38 36 38 34 2A 36 34 38 36 38 34 2A (ESN)

Received a make of INT from SA 23

Received a model of 6112230C96 from SA 23

Received a serial number of 016035648684 from SA 23

0007.812 612 43 18 FE EB 55 2A 36 58 32 75 30 37 44 31 35 30 30 30 30 30
30 30 30 2A

30 30 30 30 30 30 30 30 2A 4F 55 42 4E 43 58 43 00 00 00 2A (ESN)

Received a make of from SA 85

Received a model of 6X2u07D1500000000 from SA 85

Received a serial number of 00000000 from SA 85

0007.912 612 50 18 FE EB 00 49 4E 54 20 20 2A 37 35 37 31 30 33 31 35 31
35 2A 31 32

34 4B 4D 32 59 34 34 30 38 32 33 32 00 00 00 2A 30 00 00 00 00 00 00 00 00 00 2A (ESN)

Received a make of INT from SA 0

Received a model of 7571031515 from SA 0

Received a serial number of 124KM2Y4408232 from SA 0

Part 2 Test 8 [DS DM26 (request 59904 for PGN 64952 (SPNs 3301-3305)) to OBD ECUs]

0010.166 112 07 18 EA 00 F9 B8 FD 00 (Tx)
0010.168 612 12 18 FD B8 00 57 00 00 37 40 1C E0 1E (DM26)
Direct DM26 Message received from SA 0
0010.182 112 07 18 EA 55 F9 B8 FD 00 (Tx)
0010.187 112 12 18 E8 FF 55 01 FF FF FF FF B8 FD 00
Received a NACK

Part 2 Test 8 [Global DM26]

0010.212 112 07 18 EA FF F9 B8 FD 00 (Tx)
0010.218 612 12 18 FD B8 00 57 00 00 37 40 1C E0 1E (DM26)
Received a Global DM26 from SA 0

Part 2 Test 9 [Global DM21 (request 59904 for PGN 49408 (SPNs 3069, 3294-3296))]

0012.163 112 07 18 EA FF F9 00 C1 00 (Tx)
0012.165 612 12 18 C1 FF 00 00 00 00 00 00 00 01 00 (DM21)
Global DM21 from SA 0 received

Part 2 Test 9 [DS DM21 to OBD ECUs]

0014.161 112 07 18 EA 00 F9 00 C1 00 (Tx)
0014.162 112 12 18 C1 F9 00 00 00 00 00 00 00 01 00 (DM21)
Direct DM21 Message received from SA 0
0014.177 112 07 18 EA 55 F9 00 C1 00 (Tx)
0014.181 112 12 18 E8 FF 55 01 FF FF FF FF 00 C1 00
Received a NACK

Part 2 Test 10 [DS DM7 to OBD ECUs w/TID 247+ each DM24 SPN +FMI 31]

0014.204 612 12 18 E3 00 F9 F7 66 00 1F FF FF FF FF (DM7)(Tx)
0014.521 612 40 18 A4 00 00 F7 66 00 10 55 00 00 00 00 00 00 00 F7 66 00
12 55 00 00

Navistar_N13_Sample_Data.txt

```

00 00 00 00 00 F7 66 00 0A 0C 00 00 00 00 00 00 00 (DM30)
    Received DM30 test results for SPN #102 and FMI 16 from SA 0
    Received DM30 test results for SPN #102 and FMI 18 from SA 0
    Received DM30 test results for SPN #102 and FMI 10 from SA 0
    0014.538 112      12      18 E3 00 F9 F7 6E 00 1F FF FF FF FF (DM7)(Tx)
    0014.851 112      40      18 A4 00 00 F7 6E 00 11 44 00 00 00 00 00 00 F7 6E 00
12 44 00 00

00 00 00 00 00 F7 6E 00 10 44 00 00 00 00 00 00 00 (DM30)
    Received DM30 test results for SPN #110 and FMI 17 from SA 0
    Received DM30 test results for SPN #110 and FMI 18 from SA 0
    Received DM30 test results for SPN #110 and FMI 16 from SA 0
    0014.872 612      12      18 E3 00 F9 F7 95 04 1F FF FF FF FF (DM7)(Tx)
    0014.950 612      16      18 A4 00 00 F7 95 04 10 44 00 00 00 00 00 00 (DM30)
    Received DM30 test results for SPN #1173 and FMI 16 from SA 0
    0014.967 612      12      18 E3 00 F9 F7 90 0C 1F FF FF FF FF (DM7)(Tx)
    0015.280 112      40      18 A4 00 00 F7 90 0C 15 EC 00 00 00 00 00 00 00 F7 90 0C
14 EC 00 00

00 00 00 00 00 F7 90 0C 02 EC 00 00 00 00 00 00 00 (DM30)
    Received DM30 test results for SPN #3216 and FMI 21 from SA 0
    Received DM30 test results for SPN #3216 and FMI 20 from SA 0
    Received DM30 test results for SPN #3216 and FMI 2 from SA 0
    0015.304 112      12      18 E3 00 F9 F7 8B 02 1F FF FF FF FF (DM7)(Tx)
    0015.500 612      28      18 A4 00 00 F7 8B 02 10 3F 01 00 00 00 00 00 00 F7 8B 02
12 3F 01 00

00 00 00 00 00 (DM30)
    Received DM30 test results for SPN #651 and FMI 16 from SA 0
    Received DM30 test results for SPN #651 and FMI 18 from SA 0
    0015.514 612      12      18 E3 00 F9 F7 8C 02 1F FF FF FF FF (DM7)(Tx)
    0015.709 612      28      18 A4 00 00 F7 8C 02 10 3F 01 00 00 00 00 00 00 F7 8C 02
12 3F 01 00

00 00 00 00 00 (DM30)
    Received DM30 test results for SPN #652 and FMI 16 from SA 0
    Received DM30 test results for SPN #652 and FMI 18 from SA 0
    0015.727 612      12      18 E3 00 F9 F7 8D 02 1F FF FF FF FF (DM7)(Tx)
    0015.929 112      28      18 A4 00 00 F7 8D 02 10 3F 01 00 00 00 00 00 00 F7 8D 02
12 3F 01 00

00 00 00 00 00 (DM30)
    Received DM30 test results for SPN #653 and FMI 16 from SA 0
    Received DM30 test results for SPN #653 and FMI 18 from SA 0
    0015.949 112      12      18 E3 00 F9 F7 8E 02 1F FF FF FF FF (DM7)(Tx)
    0016.158 612      28      18 A4 00 00 F7 8E 02 10 3F 01 00 00 00 00 00 00 F7 8E 02
12 3F 01 00

00 00 00 00 00 (DM30)
    Received DM30 test results for SPN #654 and FMI 16 from SA 0
    Received DM30 test results for SPN #654 and FMI 18 from SA 0
    0016.173 612      12      18 E3 00 F9 F7 8F 02 1F FF FF FF FF (DM7)(Tx)
    0016.368 612      28      18 A4 00 00 F7 8F 02 10 3F 01 00 00 00 00 00 00 F7 8F 02
12 3F 01 00

00 00 00 00 00 (DM30)
    Received DM30 test results for SPN #655 and FMI 16 from SA 0
    Received DM30 test results for SPN #655 and FMI 18 from SA 0
    0016.379 612      12      18 E3 00 F9 F7 90 02 1F FF FF FF FF (DM7)(Tx)
    0016.588 112      28      18 A4 00 00 F7 90 02 10 3F 01 00 00 00 00 00 00 F7 90 02
12 3F 01 00

00 00 00 00 00 (DM30)
    Received DM30 test results for SPN #656 and FMI 16 from SA 0
    Received DM30 test results for SPN #656 and FMI 18 from SA 0
    0016.603 112      12      18 E3 00 F9 F7 D4 02 1F FF FF FF FF (DM7)(Tx)
    0017.097 612      64      18 A4 00 00 F7 D4 02 14 3E 01 00 00 00 00 00 00 F7 D4 02
15 3E 01 00

00 00 00 00 00 F7 D4 02 02 84 00 00 00 00 00 00 00 F7 D4 02 02 84 00 00 00 00 00 00 00 F7

```


D4 02 02 84

00 00 00 00 00 00 00 (DM30)

Received DM30 test results for SPN #724 and FMI 20 from SA 0

Received DM30 test results for SPN #724 and FMI 21 from SA 0

Received DM30 test results for SPN #724 and FMI 2 from SA 0

Received DM30 test results for SPN #724 and FMI 2 from SA 0

Received DM30 test results for SPN #724 and FMI 2 from SA 0

0017.119 112 12 18 E3 00 F9 F7 2B 05 1F FF FF FF FF (DM7)(Tx)

0017.197 112 16 18 A4 00 00 F7 2B 05 1F 0C 00 00 00 B4 00 00 00 (DM30)

Received DM30 test results for SPN #1323 and FMI 31 from SA 0

DM30 from SA 0 has non-initialized test results 0/180/0 for SPN 1323 FMI 31 TID 247 - they are

being added to the table

0017.209 112 12 18 E3 00 F9 F7 2C 05 1F FF FF FF FF (DM7)(Tx)

0017.287 112 16 18 A4 00 00 F7 2C 05 1F 0C 00 00 00 B4 00 00 00 (DM30)

Received DM30 test results for SPN #1324 and FMI 31 from SA 0

DM30 from SA 0 has non-initialized test results 0/180/0 for SPN 1324 FMI 31 TID 247 - they are

being added to the table

0017.303 112 12 18 E3 00 F9 F7 2D 05 1F FF FF FF FF (DM7)(Tx)

0017.376 612 16 18 A4 00 00 F7 2D 05 1F 0C 00 00 00 B4 00 00 00 (DM30)

Received DM30 test results for SPN #1325 and FMI 31 from SA 0

DM30 from SA 0 has non-initialized test results 0/180/0 for SPN 1325 FMI 31 TID 247 - they are

being added to the table

0017.394 612 12 18 E3 00 F9 F7 2E 05 1F FF FF FF FF (DM7)(Tx)

0017.476 612 16 18 A4 00 00 F7 2E 05 1F 0C 00 00 00 B4 00 00 00 (DM30)

Received DM30 test results for SPN #1326 and FMI 31 from SA 0

DM30 from SA 0 has non-initialized test results 0/180/0 for SPN 1326 FMI 31 TID 247 - they are

being added to the table

0017.487 612 12 18 E3 00 F9 F7 2F 05 1F FF FF FF FF (DM7)(Tx)

0017.576 612 16 18 A4 00 00 F7 2F 05 1F 0C 00 00 00 B4 00 00 00 (DM30)

Received DM30 test results for SPN #1327 and FMI 31 from SA 0

DM30 from SA 0 has non-initialized test results 0/180/0 for SPN 1327 FMI 31 TID 247 - they are

being added to the table

0017.596 612 12 18 E3 00 F9 F7 30 05 1F FF FF FF FF (DM7)(Tx)

0017.686 112 16 18 A4 00 00 F7 30 05 1F 0C 00 00 00 B4 00 00 00 (DM30)

Received DM30 test results for SPN #1328 and FMI 31 from SA 0

DM30 from SA 0 has non-initialized test results 0/180/0 for SPN 1328 FMI 31 TID 247 - they are

being added to the table

0017.714 612 12 18 E3 00 F9 F7 46 0A 1F FF FF FF FF (DM7)(Tx)

0017.796 112 16 18 A4 00 00 F7 46 0A 10 4E 01 00 00 00 00 00 00 (DM30)

Received DM30 test results for SPN #2630 and FMI 16 from SA 0

0017.813 112 12 18 E3 00 F9 F7 63 0A 1F FF FF FF FF (DM7)(Tx)

0018.125 612 40 18 A4 00 00 F7 63 0A 14 4E 01 00 00 00 00 00 00 F7 63 0A 15 4E 01 00

00 00 00 00 00 F7 63 0A 0A 3E 01 00 00 00 00 00 00 (DM30)

Received DM30 test results for SPN #2659 and FMI 20 from SA 0

Received DM30 test results for SPN #2659 and FMI 21 from SA 0

Received DM30 test results for SPN #2659 and FMI 10 from SA 0

0018.141 612 12 18 E3 00 F9 F7 97 0C 1F FF FF FF FF (DM7)(Tx)

0018.335 112 28 18 A4 00 00 F7 97 0C 00 44 00 A5 83 1F 86 FF FF F7 97 0C 01 44 00 00

00 00 00 00 (DM30)

Received DM30 test results for SPN #3223 and FMI 0 from SA 0

Received DM30 test results for SPN #3223 and FMI 1 from SA 0

DM30 from SA 0 has non-initialized test results 33701/34335/65535 for SPN 3223 FMI 0 TID 247 -

they are being added to the table

```
0018.350 612      12      18 E3 00 F9 F7 90 12 1F FF FF FF FF (DM7)(Tx)
0018.425 112      16      18 A4 00 00 F7 90 12 04 44 00 00 00 00 00 00 (DM30)
Received DM30 test results for SPN #4752 and FMI 4 from SA 0
0018.433 612      12      18 E3 00 F9 F7 EF 0B 1F FF FF FF FF (DM7)(Tx)
0018.624 612      28      18 A4 00 00 F7 EF 0B 0F 89 01 48 71 56 71 FF FF F7 EF 0B
11 89 01 48
```

71 FF FF 39 71 (DM30)

Received DM30 test results for SPN #3055 and FMI 15 from SA 0

Received DM30 test results for SPN #3055 and FMI 17 from SA 0

DM30 from SA 0 has non-initialized test results 29000/29014/65535 for SPN 3055 FMI 15

TID 247 -

they are being added to the table

DM30 from SA 0 has non-initialized test results 29000/65535/28985 for SPN 3055 FMI 17

TID 247 -

they are being added to the table

```
0018.645 112      12      18 E3 00 F9 F7 2A 05 1F FF FF FF FF (DM7)(Tx)
0018.734 612      16      18 A4 00 00 F7 2A 05 0E 55 00 00 00 00 00 00 (DM30)
Received DM30 test results for SPN #1322 and FMI 14 from SA 0
0018.750 112      12      18 E3 00 F9 F7 7B 06 1F FF FF FF FF (DM7)(Tx)
FAIL: Direct DM7 message to source address #85 timed out
0020.158 612      12      18 E3 55 F9 F7 A7 13 1F FF FF FF FF (DM7)(Tx)
0020.173 112      40      18 A4 00 55 F7 A7 13 0A 00 01 00 FB FF FF FF FF F7 A7 13
0A 0C 00 00
```

FB FF FF FF FF F7 A7 13 0A 12 00 00 FB FF FF FF FF (DM30)

Received DM30 test results for SPN #5031 and FMI 10 from SA 85

Received DM30 test results for SPN #5031 and FMI 10 from SA 85

Received DM30 test results for SPN #5031 and FMI 10 from SA 85

0020.186 612 12 18 E3 55 F9 F7 0C 11 1F FF FF FF FF (DM7)(Tx)

0020.202 112 16 18 A4 00 55 F7 0C 11 12 00 01 00 FB FF FF FF FF (DM30)

Received DM30 test results for SPN #4364 and FMI 18 from SA 85

0020.210 612 12 18 E3 55 F9 F7 9A 0C 1F FF FF FF FF (DM7)(Tx)

```
0020.223 612      52      18 A4 00 55 F7 9A 0C 0A 00 01 00 FB FF FF FF FF F7 9A 0C
02 EC 00 00
```

FB FF FF FF FF F7 9A 0C 14 EC 00 00 FB FF FF FF FF F7 9A 0C 15 EC 00 00 FB FF FF FF FF (DM30)

Received DM30 test results for SPN #3226 and FMI 10 from SA 85

Received DM30 test results for SPN #3226 and FMI 2 from SA 85

Received DM30 test results for SPN #3226 and FMI 20 from SA 85

Received DM30 test results for SPN #3226 and FMI 21 from SA 85

0020.238 612 12 18 E3 55 F9 F7 BA 12 1F FF FF FF FF (DM7)(Tx)

0020.251 612 16 18 A4 00 55 F7 BA 12 1F 20 00 00 FB FF FF FF FF (DM30)

Received DM30 test results for SPN #4794 and FMI 31 from SA 85

0020.261 612 12 18 E3 55 F9 F7 B2 14 1F FF FF FF FF (DM7)(Tx)

```
0020.278 112      28      18 A4 00 55 F7 B2 14 12 20 00 00 FB FF FF FF FF F7 B2 14
11 32 01 00
```

FB FF FF FF FF (DM30)

Received DM30 test results for SPN #5298 and FMI 18 from SA 85

Received DM30 test results for SPN #5298 and FMI 17 from SA 85

0020.296 112 12 18 E3 55 F9 F7 BC 12 1F FF FF FF FF (DM7)(Tx)

0020.311 612 16 18 A4 00 55 F7 BC 12 1F 44 00 00 FB FF FF FF FF (DM30)

Received DM30 test results for SPN #4796 and FMI 31 from SA 85

0020.320 112 12 18 E3 55 F9 F7 12 15 1F FF FF FF FF (DM7)(Tx)

0020.331 612 16 18 A4 00 55 F7 12 15 05 20 00 00 FB FF FF FF FF (DM30)

Received DM30 test results for SPN #5394 and FMI 5 from SA 85

0020.343 612 12 18 E3 55 F9 F7 BB 12 1F FF FF FF FF (DM7)(Tx)

0020.356 612 16 18 A4 00 55 F7 BB 12 1F 8A 01 00 FB FF FF FF FF (DM30)

Received DM30 test results for SPN #4795 and FMI 31 from SA 85

0020.366 112 12 18 E3 55 F9 F7 C7 14 1F FF FF FF FF (DM7)(Tx)

0020.381 612 16 18 A4 00 55 F7 C7 14 1F 1F 01 00 FB FF FF FF FF (DM30)

Received DM30 test results for SPN #5319 and FMI 31 from SA 85

0020.389 112 12 18 E3 55 F9 F7 E4 0D 1F FF FF FF FF (DM7)(Tx)

0020.402 112 28 18 A4 00 55 F7 E4 0D 12 20 00 00 FB FF FF FF FF F7 E4 0D

02 63 01 00

FB FF FF FF FF (DM30)

Received DM30 test results for SPN #3556 and FMI 18 from SA 85

Received DM30 test results for SPN #3556 and FMI 2 from SA 85

0020.413 112 12 18 E3 55 F9 F7 15 15 1F FF FF FF FF (DM7)(Tx)

0020.426 612 16 18 A4 00 55 F7 15 15 1F D0 00 00 FB FF FF FF FF (DM30)

Received DM30 test results for SPN #5397 and FMI 31 from SA 85

0020.446 112 12 18 E3 55 F9 F7 A0 13 1F FF FF FF FF (DM7)(Tx)

0020.463 612 40 18 A4 00 55 F7 A0 13 0A 12 00 00 FB FF FF FF FF F7 A0 13

0A 00 01 00

FB FF FF FF FF F7 A0 13 0A 0C 00 00 FB FF FF FF FF (DM30)

Received DM30 test results for SPN #5024 and FMI 10 from SA 85

Received DM30 test results for SPN #5024 and FMI 10 from SA 85

Received DM30 test results for SPN #5024 and FMI 10 from SA 85

0020.472 112 12 18 E3 55 F9 F7 90 0C 1F FF FF FF FF (DM7)(Tx)

0020.486 612 16 18 A4 00 55 F7 90 0C 0A 00 01 00 FB FF FF FF FF (DM30)

Received DM30 test results for SPN #3216 and FMI 10 from SA 85

0020.495 112 12 18 E3 55 F9 F7 6D 16 1F FF FF FF FF (DM7)(Tx)

0020.507 612 40 18 A4 00 55 F7 6D 16 0A 00 01 00 FB FF FF FF FF F7 6D 16

07 0C 00 00

FB FF FF FF FF F7 6D 16 07 0C 00 00 FB FF FF FF FF (DM30)

Received DM30 test results for SPN #5741 and FMI 10 from SA 85

Received DM30 test results for SPN #5741 and FMI 7 from SA 85

Received DM30 test results for SPN #5741 and FMI 7 from SA 85

0020.520 112 12 18 E3 55 F9 F7 EB 10 1F FF FF FF FF (DM7)(Tx)

0020.531 612 16 18 A4 00 55 F7 EB 10 12 D0 00 00 FB FF FF FF FF (DM30)

Received DM30 test results for SPN #4331 and FMI 18 from SA 85

0020.543 112 12 18 E3 55 F9 F7 EE 10 1F FF FF FF FF (DM7)(Tx)

0020.556 112 16 18 A4 00 55 F7 EE 10 12 63 01 00 FB FF FF FF FF (DM30)

Received DM30 test results for SPN #4334 and FMI 18 from SA 85

0020.566 112 12 18 E3 55 F9 F7 22 0D 1F FF FF FF FF (DM7)(Tx)

0020.581 112 16 18 A4 00 55 F7 22 0D 1F D0 00 B9 03 E8 03 20 03 (DM30)

Received DM30 test results for SPN #3362 and FMI 31 from SA 85

DM30 from SA 85 has non-initialized test results 953/1000/800 for SPN 3362 FMI 31 TID
247 - they

are being added to the table

0020.590 112 12 18 E3 55 F9 F7 98 0D 1F FF FF FF FF (DM7)(Tx)

0020.606 612 16 18 A4 00 55 F7 98 0D 11 63 01 00 FB FF FF FF FF (DM30)

Received DM30 test results for SPN #3480 and FMI 17 from SA 85

0020.624 112 12 18 E3 55 F9 F7 B3 0C 1F FF FF FF FF (DM7)(Tx)

0020.636 112 16 18 A4 00 55 F7 B3 0C 02 34 00 00 FB FF FF FF FF (DM30)

Received DM30 test results for SPN #3251 and FMI 2 from SA 85

0020.647 112 12 18 E3 55 F9 F7 9A 0D 1F FF FF FF FF (DM7)(Tx)

0020.663 112 40 18 A4 00 55 F7 9A 0D 10 20 00 00 FB FF FF FF FF F7 9A 0D

02 82 01 00

FB FF FF FF FF F7 9A 0D 07 20 00 00 FB FF FF FF FF (DM30)

Received DM30 test results for SPN #3482 and FMI 16 from SA 85

Received DM30 test results for SPN #3482 and FMI 2 from SA 85

Received DM30 test results for SPN #3482 and FMI 7 from SA 85

0020.671 612 12 18 E3 55 F9 F7 FE 0F 1F FF FF FF FF (DM7)(Tx)

0020.686 112 16 18 A4 00 55 F7 FE 0F 1F 20 00 00 FB FF FF FF FF (DM30)

Received DM30 test results for SPN #4094 and FMI 31 from SA 85

0020.694 612 12 18 E3 55 F9 F7 A2 0D 1F FF FF FF FF (DM7)(Tx)

0020.706 112 16 18 A4 00 55 F7 A2 0D 07 20 00 00 FB FF FF FF FF (DM30)

Received DM30 test results for SPN #3490 and FMI 7 from SA 85

0020.717 612 12 18 E3 55 F9 F7 60 0F 1F FF FF FF FF (DM7)(Tx)

0020.731 112 16 18 A4 00 55 F7 60 0F 10 D0 00 00 FB FF FF FF FF (DM30)

Received DM30 test results for SPN #3936 and FMI 16 from SA 85

0020.740 612 12 18 E3 55 F9 F7 A2 1C 1F FF FF FF FF (DM7)(Tx)

0020.756 612 28 18 A4 00 55 F7 A2 1C 02 20 00 00 00 00 00 00 F7 A2 1C

02 20 00 00

FB FF FF FF FF (DM30)

Received DM30 test results for SPN #7330 and FMI 2 from SA 85

Received DM30 test results for SPN #7330 and FMI 2 from SA 85

Navistar_N13_Sample_Data.txt

```

0020.775 612      12      18 E3 55 F9 F7 73 1A 1F FF FF FF FF (DM7)(Tx)
0020.792 612      28      18 A4 00 55 F7 73 1A 0A D0 00 00 FB FF FF FF FF F7 73 1A
01 20 00 00

FB FF FF FF FF (DM30)
Received DM30 test results for SPN #6771 and FMI 10 from SA 85
Received DM30 test results for SPN #6771 and FMI 1 from SA 85
0020.799 612      12      18 E3 55 F9 F7 7C 1A 1F FF FF FF FF (DM7)(Tx)
0020.816 112      16      18 A4 00 55 F7 7C 1A 02 32 01 00 FB FF FF FF FF (DM30)
Received DM30 test results for SPN #6780 and FMI 2 from SA 85
0020.823 612      12      18 E3 55 F9 F7 76 1A 1F FF FF FF FF (DM7)(Tx)
0020.836 112      16      18 A4 00 55 F7 76 1A 07 D0 00 00 FB FF FF FF FF (DM30)
Received DM30 test results for SPN #6774 and FMI 7 from SA 85
0020.846 612      12      18 E3 55 F9 F7 73 16 1F FF FF FF FF (DM7)(Tx)
0020.861 112      16      18 A4 00 55 F7 73 16 0A 20 00 00 FB FF FF FF FF (DM30)
Received DM30 test results for SPN #5747 and FMI 10 from SA 85

Part 2 Test 11 [Global DM27 (request 59904 for PGN 64898 (SPNs 1213-1215,3038,1706))]]

0020.872 612      07      18 EA FF F9 82 FD 00 (Tx)
0020.881 112      12      18 FD 82 00 00 FF 00 00 00 00 FF FF (DM27)
Global DM27 response received from SA 0

Part 2 Test 11 [DS DM27 to all OBD ECUs that supported DM27]

0022.160 612      07      18 EA 00 F9 82 FD 00 (Tx)
0022.168 612      12      18 FD 82 00 00 FF 00 00 00 00 FF FF (DM27)
Direct DM27 Message received from SA 0

Part 2 Test 12 [Global DM29 (request 59904 for PGN 40448 (SPNs 4104-4108))]]

0022.188 612      07      18 EA FF F9 00 9E 00 (Tx)
0022.198 612      12      18 9E FF 00 00 00 00 00 04 FF FF FF (DM29)
Global DM29 response received from SA 0
FAIL: Global DM29 received from SA 0 has Permanent DTC counts > 0 (4)

Part 2 Test 12 [DS DM29 to all OBD ECUs]

0024.143 612      07      18 EA 00 F9 00 9E 00 (Tx)
0024.145 612      12      18 9E F9 00 00 00 00 00 04 FF FF FF (DM29)
Direct DM29 Message received from SA 0
0024.155 612      07      18 EA 55 F9 00 9E 00 (Tx)
0024.160 612      12      18 E8 FF 55 01 FF FF FF FF 00 9E 00
Received a NACK

Part 2 Test 13 [DS DM31 (request 59904 for PGN 47128 (SPNs 1214-1215, 4113, 4117)) to OBD
ECUs]

Test skipped because DM31 is not supported

Part 2 Test 14 [DS DM25 (request 59904 for PGN 64951 (SPNs 3300, 1214-1215)) to each ECU
that
responded to global DM24 with supported FF SPNs in Step 1]

0024.192 112      07      18 EA 00 F9 B7 FD 00 (Tx)
0024.255 112      12      18 FD B7 00 00 00 00 00 00 FF FF FF (DM25)

Part 2 Test 15 [Global DM33 (request 59904 for PGN 41216 (SPNs 4124-4126))]]

0024.264 112      07      18 EA FF F9 00 A1 00 (Tx)
0024.804 112      67      18 A1 00 00 00 78 00 00 00 FF FF FF FF 01 00 00 00 00 FF
FF FF FF 02

00 00 00 00 FF FF FF FF 03 00 00 00 00 00 00 00 00 04 02 00 00 00 00 00 00 05 00 00 00
00 FF FF FF

FF 06 00 00 00 00 FF FF FF FF (DM33)
Global DM33 response received from SA 0

```

Part 2 Test 15 [DS DM33 to OBD ECUs]

```

    0026.159 612      07      18 EA 00 F9 00 A1 00 (Tx)
    0026.651 112      67      18 A1 00 00 00 78 00 00 00 FF FF FF FF 01 00 00 00 00 FF
FF FF FF 02
00 00 00 00 FF FF FF FF 03 00 00 00 00 00 00 00 00 04 02 00 00 00 00 00 00 05 00 00 00
00 FF FF FF

```

```

FF 06 00 00 00 00 FF FF FF FF (DM33)

```

```

Received Direct DM33 from SA 0

```

```

    0026.669 612      07      18 EA 55 F9 00 A1 00 (Tx)
    0026.671 612      12      18 E8 FF 55 01 FF FF FF FF 00 A1 00
Received a NACK

```

Part 2 Test 16 [Global DM34 (request 59904 for PGN 40960 (SPNs 4127-4132))]

```

    0026.688 612      07      18 EA FF F9 00 A0 00 (Tx)
    0026.691 112      12      18 A0 FF 00 03 03 FF FF FF FF FF FF (DM34)
Global DM34 response received from SA 0

```

Part 2 Test 16 [DS DM34 to OBD ECUs]

```

    0028.139 612      07      18 EA 00 F9 00 A0 00 (Tx)
    0028.148 612      12      18 A0 F9 00 03 03 FF FF FF FF FF FF (DM34)
Received Direct DM34 from SA 0
    0028.163 112      07      18 EA 55 F9 00 A0 00 (Tx)
    0028.164 612      12      18 E8 FF 55 01 FF FF FF FF 00 A0 00
Received a NACK

```

Part 2 Test 17 [Gather broadcast data for all DM24 supported datastream]

```

    0028.174 612      12      18 FD 9B 00 FF FF FF FF FF FF FF FF
DM24 Data Stream: Received message for SPN 3516 from SA 0
    0028.174 612      12      18 FD 9B 00 FF FF FF FF FF FF FF FF
DM24 Data Stream: Received message for SPN 3518 from SA 0
    0028.174 612      12      18 FD 9B 00 FF FF FF FF FF FF FF FF
DM24 Data Stream: Received message for SPN 7346 from SA 0
    0028.174 612      12      18 FD 9B 00 FF FF FF FF FF FF FF FF
DM24 Data Stream: Received message for SPN 3515 from SA 0
    0028.176 112      12      18 FD 8C 00 00 00 FF FF FF FF FF FF
DM24 Data Stream: Received message for SPN 3609 from SA 0
WARNING: Global DM24 Data Stream has invalid data received for SPN 3609 from SA 0 -
Data Stream

```

```

is supported and has received invalid data of 0.000000

```

```

    0028.176 112      12      18 FD 8C 00 00 00 FF FF FF FF FF FF
DM24 Data Stream: Received message for SPN 3610 from SA 0
    0028.177 112      12      18 FE F1 00 F7 00 00 00 FF 00 1F C0
DM24 Data Stream: Received message for SPN 84 from SA 0
    0028.178 612      12      18 FD 94 00 00 00 FF FF 76 0E FF FF
DM24 Data Stream: Received message for SPN 27 from SA 0
    0028.179 112      12      10 FC FD 00 FF FF FF FF 37 50 FF FF
DM24 Data Stream: Received message for SPN 5313 from SA 0
    0028.179 112      12      10 FC FD 00 FF FF FF FF 37 50 FF FF
DM24 Data Stream: Received message for SPN 5314 from SA 0
    0028.181 112      12      18 FE 69 00 73 28 FF FF FF FF E6 27
DM24 Data Stream: Received message for SPN 1637 from SA 0
    0028.181 112      12      18 FE F2 00 2E 00 00 00 FF FF 00 FF
DM24 Data Stream: Received message for SPN 183 from SA 0
    0028.181 612      12      0C F0 04 00 F0 7E 81 C4 12 00 F3 81 (EEC1)
DM24 Data Stream: Received message for SPN 512 from SA 0
WARNING: Global DM24 Data Stream has invalid data received for SPN 512 from SA 0 -
Data Stream is

```

```

supported and has received invalid data of 1.000000

```

```

    0028.181 612      12      0C F0 04 00 F0 7E 81 C4 12 00 F3 81 (EEC1)
DM24 Data Stream: Received message for SPN 513 from SA 0
    0028.181 612      12      0C F0 04 00 F0 7E 81 C4 12 00 F3 81 (EEC1)
DM24 Data Stream: Received message for SPN 190 from SA 0

```

```

Navistar_N13_Sample_Data.txt
0028.181 612      12      18 FE F6 00 FF 00 5A 32 FF FF FF FF
DM24 Data Stream: Received message for SPN 102 from SA 0
0028.181 612      12      18 FE F6 00 FF 00 5A 32 FF FF FF FF
DM24 Data Stream: Received message for SPN 106 from SA 0
WARNING: Direct DM24 Data Stream has invalid data received for SPN 106 from SA 0 -
Data Stream is

not supported and has not received all 0xFFs
0028.205 612      12      18 F0 0F 00 FF FF FF FF FF FF FF FF
DM24 Data Stream: Received message for SPN 3226 from SA 0
0028.205 612      12      0C F0 03 00 D1 00 0A FF FF FF 6E FF
DM24 Data Stream: Received message for SPN 92 from SA 0
0028.205 612      12      0C F0 03 00 D1 00 0A FF FF FF 6E FF
DM24 Data Stream: Received message for SPN 91 from SA 0
0028.206 112      12      18 FE DF 00 7F 24 01 07 7E 86 04 FF
DM24 Data Stream: Received message for SPN 514 from SA 0
FAIL: Direct DM24 Data Stream has invalid data received for SPN 514 from SA 0 - Data
Stream is

not supported and has not received all 0xFFs
0028.206 112      12      18 FE DF 00 7F 24 01 07 7E 86 04 FF
DM24 Data Stream: Received message for SPN 2978 from SA 0
FAIL: Direct DM24 Data Stream has invalid data received for SPN 2978 from SA 0 - Data
Stream is

not supported and has not received all 0xFFs
0028.249 112      12      18 FD B2 55 FF FF FF FF 00 00 FF FF
DM24 Data Stream: Received message for SPN 3251 from SA 85
0028.250 612      12      0C F0 04 21 FF FF FF FF FF FF F0 FF (EEC1)
FAIL: DM24 Data Stream has received data for SPN 512 from non-OBd module with SA 33
DM24 Data Stream: Received message for SPN 512 from SA 33
WARNING: Global DM24 Data Stream has invalid data received for SPN 512 from SA 33 -
Data Stream

is supported and has received invalid data of 130.000000
0028.250 612      12      0C F0 04 21 FF FF FF FF FF FF F0 FF (EEC1)
FAIL: DM24 Data Stream has received data for SPN 513 from non-OBd module with SA 33
DM24 Data Stream: Received message for SPN 513 from SA 33
0028.250 612      12      0C F0 04 21 FF FF FF FF FF FF F0 FF (EEC1)
FAIL: DM24 Data Stream has received data for SPN 190 from non-OBd module with SA 33
DM24 Data Stream: Received message for SPN 190 from SA 33
0028.250 612      12      18 FE F1 21 F7 FF FF 03 00 FF FF F0
WARNING: DM24 Data Stream has received data for SPN 84 from non-OBd module with SA 33
DM24 Data Stream: Received message for SPN 84 from SA 33
WARNING: Global DM24 Data Stream has invalid data received for SPN 84 from SA 33 -
Data Stream is

supported and has received invalid data of 255.996094
0028.254 112      12      18 FE FC 21 FF B6 FF FF FF FF FF FF
WARNING: DM24 Data Stream has received data for SPN 96 from non-OBd module with SA 33
DM24 Data Stream: Received message for SPN 96 from SA 33
0028.254 112      12      18 FE FC 21 FF B6 FF FF FF FF FF FF
WARNING: DM24 Data Stream has received data for SPN 38 from non-OBd module with SA 33
DM24 Data Stream: Received message for SPN 38 from SA 33
0028.255 612      12      18 FE F7 21 FF FF FF FF 1C 01 16 01
INFO: DM24 Data Stream has received data for SPN 158 from non-OBd module with SA 33
DM24 Data Stream: Received message for SPN 158 from SA 33
0028.255 612      12      18 FE F7 21 FF FF FF FF 1C 01 16 01
INFO: DM24 Data Stream has received data for SPN 168 from non-OBd module with SA 33
DM24 Data Stream: Received message for SPN 168 from SA 33
0028.264 612      12      18 FE F1 0B FF 00 00 FF FF FF FF FF
WARNING: DM24 Data Stream has received data for SPN 84 from non-OBd module with SA 11
DM24 Data Stream: Received message for SPN 84 from SA 11
WARNING: More than one ECU has provided SPN 84 in the datastream
0028.275 612      12      18 FE F5 00 C5 FF FF 46 26 FF FF FF
DM24 Data Stream: Received message for SPN 108 from SA 0
0028.276 112      12      18 FD B2 00 06 30 FF FF 00 00 FF FF
DM24 Data Stream: Received message for SPN 3251 from SA 0
WARNING: Global DM24 Data Stream has invalid data received for SPN 3251 from SA 0 -
Data Stream

```

is supported and has received invalid data of 0.000000

```

0028.278 112      12      18 FE EE 00 6F FF 60 2B FF FF FF FF
DM24 Data Stream: Received message for SPN 110 from SA 0
0028.278 112      12      18 FE EE 00 6F FF 60 2B FF FF FF FF
DM24 Data Stream: Received message for SPN 175 from SA 0
0028.279 112      12      18 FD 7C 00 F8 83 00 00 C0 CF E3 FF
DM24 Data Stream: Received message for SPN 3700 from SA 0
0028.349 612      12      18 FE F1 21 F7 FF FF 03 00 FF FF F0
WARNING: DM24 Data Stream has received data for SPN 84 from non-OBd module with SA 33
0028.364 612      12      18 FE F1 0B FF 00 00 FF FF FF FF FF
WARNING: DM24 Data Stream has received data for SPN 84 from non-OBd module with SA 11
0028.404 112      12      18 FE F7 55 FF FF FF FF 15 01 FF FF
DM24 Data Stream: Received message for SPN 158 from SA 85
0028.404 112      12      18 FE F7 55 FF FF FF FF 15 01 FF FF
DM24 Data Stream: Received message for SPN 168 from SA 85
0028.449 612      12      18 FE F1 21 F7 FF FF 03 00 FF FF F0
WARNING: DM24 Data Stream has received data for SPN 84 from non-OBd module with SA 33
0028.464 112      12      18 FE F1 0B FF 00 00 FF FF FF FF FF
WARNING: DM24 Data Stream has received data for SPN 84 from non-OBd module with SA 11
0028.476 612      12      18 FE EF 00 B8 FF FF 26 80 80 FF FA
DM24 Data Stream: Received message for SPN 94 from SA 0
0028.477 112      12      18 FD 66 00 6F FF FF FF FF FF FF FF
DM24 Data Stream: Received message for SPN 4076 from SA 0
0028.477 112      12      18 FD 66 00 6F FF FF FF FF FF FF FF
DM24 Data Stream: Received message for SPN 4193 from SA 0
0028.478 112      12      18 FD D0 00 FF FF FF FF 32 FF FF FF
DM24 Data Stream: Received message for SPN 3563 from SA 0
WARNING: Direct DM24 Data Stream has invalid data received for SPN 3563 from SA 0 -
Data Stream

```

is not supported and has not received all 0xFFs

```

0028.480 112      12      18 FE F7 00 FF FF FF FF FF FF 13 01
DM24 Data Stream: Received message for SPN 158 from SA 0
0028.480 112      12      18 FE F7 00 FF FF FF FF FF FF 13 01
DM24 Data Stream: Received message for SPN 168 from SA 0
0028.493 612      12      18 FD 7B 55 2C FF CB B2 00 00 78 45
DM24 Data Stream: Received message for SPN 5466 from SA 85
0028.493 612      12      18 FD 7B 55 2C FF CB B2 00 00 78 45
DM24 Data Stream: Received message for SPN 3719 from SA 85
0028.576 612      12      18 FE DB 00 FF FF F3 4F FF FF FF FF
DM24 Data Stream: Received message for SPN 157 from SA 0
0028.576 612      12      18 FE DB 00 FF FF F3 4F FF FF FF FF
DM24 Data Stream: Received message for SPN 164 from SA 0
0028.630 612      43      18 FE E3 00 C0 12 A9 10 3B BE 00 19 B5 40 1F D8 E0 2E D7
C0 44 FF FA
9E 09 D0 52 33 3C DC 7D A5 FF FF 3D 01 00 00 FF FF FF FF FF
DM24 Data Stream: Received message for SPN 539 from SA 0
0028.630 612      43      18 FE E3 00 C0 12 A9 10 3B BE 00 19 B5 40 1F D8 E0 2E D7
C0 44 FF FA
9E 09 D0 52 33 3C DC 7D A5 FF FF 3D 01 00 00 FF FF FF FF FF
DM24 Data Stream: Received message for SPN 540 from SA 0
0028.630 612      43      18 FE E3 00 C0 12 A9 10 3B BE 00 19 B5 40 1F D8 E0 2E D7
C0 44 FF FA
9E 09 D0 52 33 3C DC 7D A5 FF FF 3D 01 00 00 FF FF FF FF FF
DM24 Data Stream: Received message for SPN 541 from SA 0
0028.630 612      43      18 FE E3 00 C0 12 A9 10 3B BE 00 19 B5 40 1F D8 E0 2E D7
C0 44 FF FA
9E 09 D0 52 33 3C DC 7D A5 FF FF 3D 01 00 00 FF FF FF FF FF
DM24 Data Stream: Received message for SPN 542 from SA 0
0028.630 612      43      18 FE E3 00 C0 12 A9 10 3B BE 00 19 B5 40 1F D8 E0 2E D7
C0 44 FF FA
9E 09 D0 52 33 3C DC 7D A5 FF FF 3D 01 00 00 FF FF FF FF FF
DM24 Data Stream: Received message for SPN 543 from SA 0
0028.630 612      43      18 FE E3 00 C0 12 A9 10 3B BE 00 19 B5 40 1F D8 E0 2E D7

```

C0 44 FF FA

9E 09 D0 52 33 3C DC 7D A5 FF FF 3D 01 00 00 FF FF FF FF FF

DM24 Data Stream: Received message for SPN 544 from SA 0

0028.680 112 12 18 FE 56 00 82 FF FF FF 1F 1F FF FF

DM24 Data Stream: Received message for SPN 3031 from SA 0

0028.833 612 12 18 FC 4B 00 FF FF FF FF FF FF C0 79

DM24 Data Stream: Received message for SPN 6895 from SA 0

0028.833 612 12 18 FC 4B 00 FF FF FF FF FF FF C0 79

DM24 Data Stream: Received message for SPN 7333 from SA 0

0028.870 112 12 18 FE DC 00 69 00 00 00 96 01 00 00

DM24 Data Stream: Received message for SPN 235 from SA 0

WARNING: Direct DM24 Data Stream has invalid data received for SPN 235 from SA 0 - Data Stream is

not supported and has not received all 0xFFs

0028.972 612 12 18 FE F5 17 FF FF FF FF FF FF FF FF

FAIL: DM24 Data Stream has received data for SPN 108 from non-OBd module with SA 23

DM24 Data Stream: Received message for SPN 108 from SA 23

0029.248 612 12 0C F0 04 21 FF FF FF FF FF FF F0 FF (EEC1)

FAIL: DM24 Data Stream has received data for SPN 512 from non-OBd module with SA 33

0029.248 612 12 0C F0 04 21 FF FF FF FF FF FF F0 FF (EEC1)

FAIL: DM24 Data Stream has received data for SPN 513 from non-OBd module with SA 33

0029.248 612 12 0C F0 04 21 FF FF FF FF FF FF F0 FF (EEC1)

FAIL: DM24 Data Stream has received data for SPN 190 from non-OBd module with SA 33

0029.251 612 12 18 FE FC 21 FF B6 FF FF FF FF FF FF

WARNING: DM24 Data Stream has received data for SPN 96 from non-OBd module with SA 33

0029.251 612 12 18 FE FC 21 FF B6 FF FF FF FF FF FF

WARNING: DM24 Data Stream has received data for SPN 38 from non-OBd module with SA 33

0029.253 612 12 18 FE F7 21 FF FF FF FF 1C 01 16 01

INFO: DM24 Data Stream has received data for SPN 158 from non-OBd module with SA 33

0029.253 612 12 18 FE F7 21 FF FF FF FF 1C 01 16 01

INFO: DM24 Data Stream has received data for SPN 168 from non-OBd module with SA 33

0029.971 612 12 18 FE F5 17 FF FF FF FF FF FF FF FF

FAIL: DM24 Data Stream has received data for SPN 108 from non-OBd module with SA 23

0030.247 112 12 0C F0 04 21 FF FF FF FF FF FF F0 FF (EEC1)

FAIL: DM24 Data Stream has received data for SPN 512 from non-OBd module with SA 33

0030.247 112 12 0C F0 04 21 FF FF FF FF FF FF F0 FF (EEC1)

FAIL: DM24 Data Stream has received data for SPN 513 from non-OBd module with SA 33

0030.247 112 12 0C F0 04 21 FF FF FF FF FF FF F0 FF (EEC1)

FAIL: DM24 Data Stream has received data for SPN 190 from non-OBd module with SA 33

0030.250 612 12 18 FE FC 21 FF B9 FF FF FF FF FF FF

WARNING: DM24 Data Stream has received data for SPN 96 from non-OBd module with SA 33

0030.250 612 12 18 FE FC 21 FF B9 FF FF FF FF FF FF

WARNING: DM24 Data Stream has received data for SPN 38 from non-OBd module with SA 33

0030.252 112 12 18 FE F7 21 FF FF FF FF 1C 01 16 01

INFO: DM24 Data Stream has received data for SPN 158 from non-OBd module with SA 33

0030.252 112 12 18 FE F7 21 FF FF FF FF 1C 01 16 01

INFO: DM24 Data Stream has received data for SPN 168 from non-OBd module with SA 33

0030.974 112 12 18 FE F5 17 FF FF FF FF FF FF FF FF

FAIL: DM24 Data Stream has received data for SPN 108 from non-OBd module with SA 23

0032.963 112 12 18 FE E5 00 13 04 00 00 8E 0C 00 00

DM24 Data Stream: Received message for SPN 247 from SA 0

0048.497 112 12 18 FE E7 00 FF FF FF FF 00 00 00 00

DM24 Data Stream: Received message for SPN 248 from SA 0

WARNING: Direct DM24 Data Stream has invalid data received for SPN 248 from SA 0 - Data Stream is

not supported and has not received all 0xFFs

FAIL: DM24 Data Stream: Did not receive 1 messages from SA 0 for SPN 512. Received 0

FAIL: DM24 Data Stream: Did not receive 1 messages from SA 0 for SPN 3609. Received 0

FAIL: DM24 Data Stream: Did not receive 1 messages from SA 0 for SPN 3251. Received 0

FAIL: DM24 Data Stream: Did not receive 1 messages from SA 33 for SPN 512. Received 0

Part 2 Test 17 [DS messages to ECU that indicated support in DM24 for on request SPNs]

Sending message with direct SA 0 for PGN 64891

0050.113 612 07 18 EA 00 F9 7B FD 00 (Tx)

0050.459 612 12 18 FD 7B 55 2C FF E0 B2 00 00 7B 45 - Timing Error:

Response Time =

Navistar_N13_Sample_Data.txt

```

346 ms ( > 220 ms)
  0051.458 112      12      18 FD 7B 55 2C FF E1 B2 00 00 7B 45 - Timing Error:
Response Time =

1344 ms ( > 220 ms)
  0052.456 112      12      18 FD 7B 55 2C FF E2 B2 00 00 7B 45 - Timing Error:
Response Time =

2342 ms ( > 220 ms)
  0053.454 612      12      18 FD 7B 55 2C FF E3 B2 00 00 7C 45 - Timing Error:
Response Time =

3341 ms ( > 220 ms)
  0054.453 112      12      18 FD 7B 55 2C FF E4 B2 00 00 7C 45 - Timing Error:
Response Time =

4339 ms ( > 220 ms)
  Direct DM24 message to source address #0 for PGN 64891 timed out
  Sending message with direct SA 85 for PGN 64920
  0055.097 112      07      18 EA 55 F9 98 FD 00 (Tx)
  0055.114 112      44      18 FD 98 55 05 00 00 00 FF FF FF FF FF FF FF FF FF FF
FF FF FF FF

FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 00 00 00 00 00 00
  Direct PGN 64920 received from SA 85
  Sending message with direct SA 0 for PGN 65253
  0055.127 612      07      18 EA 00 F9 E5 FE 00 (Tx)
  0055.137 612      12      18 FE E5 00 13 04 00 00 8E 0C 00 00
  Direct PGN 65253 received from SA 0
  Sending message with direct SA 0 for PGN 64962
  0055.153 612      07      18 EA 00 F9 C2 FD 00 (Tx)
  0055.166 112      12      18 FD C2 00 FF FF FF FF FF FF 04 FF
  Direct PGN 64962 received from SA 0
  Sending message with direct SA 0 for PGN 65154
  0055.177 612      07      18 EA 00 F9 82 FE 00 (Tx)
  0055.185 612      12      1C FE 82 00 FF 5E FF 5E FF 5E FF 5E
  Direct PGN 65154 received from SA 0
  Sending message with direct SA 0 for PGN 64981
  0055.191 612      07      18 EA 00 F9 D5 FD 00 (Tx)
  0055.196 112      12      18 FD D5 00 FF FF FF FF 00 00 F7 FF
  Direct PGN 64981 received from SA 0
  Sending message with direct SA 0 for PGN 64587
  0055.205 612      07      18 EA 00 F9 4B FC 00 (Tx)
  0055.788 112      12      18 FC 4B 00 FF FF FF FF FF FF E0 79 - Timing Error:
Response Time =

582 ms ( > 220 ms)
  Direct PGN 64587 received from SA 0

Part 2 Test 17 [If no response/no valid data for any upon request SPN indicated as
supported in DM24,

send global message to request that SPN(s)]

  Sending message with global SA for PGN 64891
  0055.820 112      07      18 EA FF F9 7B FD 00 (Tx)
  FAIL: Direct and Global DM24s for PGN 64891 and SPN 5466 did not have valid data
received
Part 2 Results: Fail

```