

Title	Speedometer & TPMS Changes via FORScan
Document No.	TRB0012 Rev #
Issue Date	05/17/18 (TAM)
Release	General
Units Affected	2017+ Ford Superduty Pickup Models with DMF Wheel Modification Kits
Purpose	Provide guidance on modifying speedometer and TPMS setting via FORScan

This TRB outlines the basic steps necessary to change TPMS cold inflation pressures and tire size to correlate with aftermarket wheel and tire combinations specified by DMF for use on hyrail pickup trucks. It is <u>not</u> intended to be an exhaustive guide to using FORScan software or to provide troubleshooting advice.

While DMF has confidence in the changes outlined below, <u>installers making changes via</u> <u>FORScan accept the risks and liabilities associated with modifying factory settings</u>. Users should take time to familiarize themselves with the FORScan software before attempting to make any changes to the vehicle, and are encouraged to create backup files of all modules before beginning. Independent On-road testing is recommended to verify the effectiveness of changes.

Required Hardware/Software:

- FORScan Software (free download): FORScan Homepage
 - These changes require the full version of FORScan, which is only supported for Windows. "Lite" and "Viewer" options do not have the required functionality.
 - These changes require an "extended license" of FORScan, which expires periodically. Getting an extended license requires installing the software and creating an account on the FORscan forum, then following the steps <u>outlined</u> <u>here</u>.
- Supported OBD Interface Adapter (see list on FORScan website)

1. Connect laptop to vehicle

- a. Install OBD adapter in OBD port, turn ignition ON but do not start vehicle.
- b. Start FORScan software on laptop.
- c. Click the "connect" button at bottom to establish connection to the vehicle.
- d. Wait until FORScan stops reading modules/





2. Read and Save Data from the Body Control Module

a. Click the "Configuration and Programming" Button at left.

	FORScan	-	×
	Log Configuration Modules Profiles		
2	(09:12:48.054] Checking J2534 NEXIQ USB-Link over USB		-
	A [09:12:50.306] Checking Bluetooth (00:04:3E:9B:F8:C0)		
	[09:12:52.352] Adapter: STN1150 v4.3.2 (ELM327 v1.3a)		
DTC	[09:13:12.270] Connection to vehicle has been established		
_	[09:13:12.279] Vehicle: Ford F-Series Super Duty 2V 6.2L 2017 MY		
200	[09:13:13.964] Found module: PCM - Powertrain Control Module		
101	[09:13:17.978] PCM: Unable to read DTC		
	✓ [09:13:18.095] Found module: OBDII - On Board Diagnostic II		_
	[09:13:24.195] Found module: BdyCM - Body Control Module		
× 🏹	▲ [09:13:24.333] DTCs in BdyCM: B115E:08-48		
	[09:13:24.335] Found module: BECMB - Battery Energy Control Module B		
G	[09:13:24.399] Found module: BCMB - Body Control Module B		
6	[09:13:24.528] Found module: FCIM - Front Controls Interface Module		
	✓ [09:13:24.591] Found module: FCDIM - Front Control/Display Interface Module		
24/2014	[09:13:24.659] Found module: TCCM - Transfer Case Control Module		
1 Are	[09:13:24.711] Found module: ABS - Antilock braking system		
L	[09:13:24.825] Found module: TrirBM - Trailer Brake Control Module		-
	[09:13:24.879] Found module: RTM - Radio Transceiver Module		
	[09:13:24.928] Found module: PDM - Passengers Door Control Unit		
	[09:13:24.978] Found module: DDM - Drivers Door Module		
	V [09:13:25.029] Found module: RCM - Restraint Control Module		-
Interface:	Vehicle: Ready		

b. Select "BdyCM Module Configuration" (AS BUILT format)" from the list of available modules, then click "Run Service Procedure" button at bottom to load data from the Body Control Module.

8		FORScan	×
	Configu	uration and Programming Log	
	Module	Name	<u></u>
• •	PCM	Module initialization/relearn vehicle data	
	BdyCM	Module configuration (AS BUILT format)	
DTC	BdyCM	Module configuration	
_	BECMB	Module configuration (AS BUILT format)	
0.0	BCMB	Module configuration (AS BUILT format)	
101	BCMB	Module configuration	
	FCIM	Module configuration (AS BUILT format)	
	FCDIM	Module configuration (AS BUILT format)	
4	FCDIM	Module configuration	
	ABS	Module configuration (AS BUILT format)	
1	RTM	Module configuration (AS BUILT format)	
	PDM	Module configuration (AS BUILT format)	
	PDM	Module configuration	
6	DDM	Module configuration (AS BUILT format)	
2	DDM	Module configuration	
	RCM	Module configuration (AS BUILT format)	
	ACM	Module configuration (AS BUILT format)	
1	SCCM	Module configuration (AS BUILT format)	
	TPC	Module configuration (AS BUILT format)	<u> </u>
		0%	
?	0	O 🙆 🔂 🔒 🗚 🔻	
erface:	Vehic	le: 🔳 Ready	



c. USE THE "SAVE ALL" OPTION TO SAVE A COPY (*.ABT) OF THE FACTORY CONFIGURATION BEFORE MODIFING ANY DATA BLOCKS!

					FORSca	an		-	. 🗆 🗙
-i	Configuratio	n and Pr	ogrammin	g Log	BdyCM M	odule configur	ation (AS BUILT	format)	
	726-08-01	0101	0000	0038					
	726-08-02	0000	0000	0037	Restore	Write			1
DTC	726-09-01	3146	5437	5790					
	726-09-02	326A	Restore	Write	1				
M	726-10-01	4236	3748	457A					
	726-10-02	4685	Restore	Write					
	726-11-01	3038	3736	3549	Restore	Write			
	726-12-01	0175	099E	71CE					
S	726-12-02	0142	Restore	Write	1				
0	726-13-01	0088	2045	002E					
AND THE	726-13-02	0042	Restore	Write	1				
1 Alexandre	726-14-01	001E	0000	0262					
-	726-14-02	1414	1414	14A7	Restore	Write			
	Restore All	Load A	II Save	All W	rite All				<u> </u>
	1				-12	0%			
	0 0	٢	0		All 🝸]			
Interface:	Vehicle:	Execut	ing service	e proced	ure				

3. Modify Tire Size for Odometer/Speedometer Accuracy

- a. Locate 726-12-01 in the list of data blocks from the Body Control Module.
- b. Set the <u>MIDDLE</u> 4 digits in data block 726-12-01 according to Table 1 below.
- c. Do not modify remaining digits in data block 726-12-01.
- d. For tires not listed in Table 1, it may be necessary to try new values starting with the calculator spreadsheet located <u>HERE</u>.

Set BCM line 726-12-01 To Values Below (x's unchanged)								
Tire	BCM value used	Result						
Michelin XDS2 225/70R19.5	xxxx 099E xxxx	GPS speedo and dash display within 1 mph @ 60 MPH						
Goodyear G647 225/70R19.5	xxxx 099E xxxx	GPS speedo and dash display within 1 mph @ 60 MPH						

Table 1. Known "Good" Tire Calibration Values



4. Modify TPMS Cold Inflation Value

- a. Locate 726-40-01 in the list of data blocks from the Body Control Module.
- b. Set the <u>MIDDLE</u> 4 digits in data block 726-40-01 according to Table 2 below.
 - i. first two digits = FRONT cold inflation pressure (Hexadecimal value)
 - ii. Second two digits = REAR cold inflation pressure (Hexadecimal value)
 - iii. Examples: "4B50" = 75F/80R (typ. Stock); "5555" = 85F/85R
- c. Do not modify remaining digits in data block 726-40-01.

Cold Inflation Pressure to Hexadecimal								
Cold Inflation Pressure (psi)	Hexadecimal Value	Minimum TPMS Fault Pressure (psi)						
50	32	37.5						
55	37	41.25						
60	3C	45						
65	41	48.75						
70	46	52.5						
75	4B	56.25						
80	50	60						
85	55	63.75						
90	5A	67.5						
95	5F	71.25						
100	64	75						

 Table 2. Cold Inflation Pressures to Hexadecimal Values

					FORScan		-	×
_i	Configuration	n and Pro	ogrammi	ng Log	BdyCM Module cor	nfiguration (AS BUILT forn	nat)	•
	726-37-01	0000	0002	0067				
	726-37-02	0001	0002	026B	Restore Write			
DIC	726-38-01	0100	0101	EA53				
	726-38-02	6001	0000	00C8	Restore Write	1		
VVI	726-39-01	1194	0100	000D				_
	726-39-02	0000	0100	0069	Restore Write			
ž7	726-40-01	0104	5555	011E		-		- 1
	726-40-02	0100	0201	0174	Restore Write			
S	726-41-01	0102	0001	0174				
0	726-41-02	0101	0000	0173	Restore Write			
	726-42-01	0000	0000	0070				
2 Arren	726-42-02	0000	0000	0071	Restore Write			
	726-43-01	0001	0000	0072				-
	Restore All	Load A	II Sav	e All W	ite All	1		-
					0%			
	00	Q	0		All 💌			
Interface:	Vehicle:	Execut	ing servi	ce proced	ire			



5. Save Changes

- a. After making and confirming the necessary changes, use the "Write All" button at bottom to save changes in the Body Control Module.
- b. Accept and ignore and warnings related to check sums.
- c. When prompted by FORScan, cycle the ignition power on the vehicle.d. Exit FORScan and remove OBD Interface Adapter

					FORScan -	
_i	Configuratio	n and Pr	ogrammi	ng Log	BdyCM Module configuration (AS BUILT format)	•
	726-37-01	0000	0002	0067		
\wedge	726-37-02	0001	0002	026B	Restore Write	
DIC	726-38-01	0100	0101	EA53		
	726-38-02	6001	0000	00C8	Restore Write	
VUL	726-39-01	1194	0100	000D		
	726-39-02	0000	0100	0069	Restore Write	
ž	726-40-01	0104	5555	011E		
	726-40-02	0100	0201	0174	Restore Write	_
19	726-41-01	0102	0001	0174		
0	726-41-02	0101	0000	0173	Restore Write	
	726-42-01	0000	0000	0070		
3 Arre	726-42-02	0000	0000	0071	Restore Write	
A	726-43-01	0001	0000	0072		
	Restore All	Load A	II Save	e All W	Nrite All	-
					0%	
	00	Ø	0		All	
Interface:	Vehicle:	Execut	ing servi	ce proced	dure	

6. Test Changes

- a. Test TPMS per FMVSS 138 Requirements.
- b. Test speedometer accuracy at highway speeds.