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2000 FORD Focus 3 Doors OEM Service and Repair Workshop Manual

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Front	116 mm (4.566 in) ± 12 mm (0.472 in)
Rear	167 mm (6.574 in) ± 12 mm (0.472 in)
157-in wheelbase, 5.0L	
Front	112 mm (4.409 in) ± 12 mm (0.472 in)
Rear	173 mm (6.811 in) ± 12 mm (0.472 in)
Ride Height — Four-Wheel Drive (4WD) Regular Cab — Heavy Duty — MaxTT	
141-in wheelbase, 5.0L	
Front	116 mm (4.566 in) ± 12 mm (0.472 in)
Rear	178 mm (7.007 in) ± 12 mm (0.472 in)
Ride Height — Four-Wheel Drive (4WD) Super Cab — Heavy Duty — MaxTT	
163-in wheelbase, 5.0L	
Front	124 mm (4.881 in) ± 12 mm (0.472 in)
Rear	165 mm (6.496 in) ± 12 mm (0.472 in)
Ride Height — Four-Wheel Drive (4WD) Crew Cab — Heavy Payload Package — (18" Wheels)	
157-in wheelbase, 3.5L GTDI	
Front	121 mm (4.763 in) ± 12 mm (0.472 in)
Rear	180 mm (7.086 in) ± 12 mm (0.472 in)
157-in wheelbase, 5.0L	
Front	121 mm (4.763 in) ± 12 mm (0.472 in)
Rear	181 mm (7.125 in) ± 12 mm (0.472 in)
Ride Height — Four-Wheel Drive (4WD) Regular Cab — Heavy Payload Package — (18" Wheels)	

Front	128 mm (5.039 in) ± 12 mm (0.472 in)
Rear	159 mm (6.259 in) ± 12 mm (0.472 in)
Ride Height — Rear Wheel Drive (RWD) Regular Cab	
122-in wheelbase, 2.7L GTDI	
Front	119 mm (4.685 in) ± 12 mm (0.472 in)
Rear	169 mm (6.653 in) ± 12 mm (0.472 in)
122-in wheelbase, 3.3L	
Front	130 mm (5.118 in) ± 12 mm (0.472 in)
Rear	167 mm (6.574 in) ± 12 mm (0.472 in)
141-in wheelbase, 2.7L GTDI	
Front	120 mm (4.724 in) ± 12 mm (0.472 in)
Rear	169 mm (6.653 in) ± 12 mm (0.472 in)
141-in wheelbase, 3.3L	
Front	121 mm (4.763 in) ± 12 mm (0.472 in)
Rear	172 mm (6.771 in) ± 12 mm (0.472 in)
Ride Height — Rear Wheel Drive (RWD) Super Cab	
145-in wheelbase, 2.7L GTDI	
Front	123 mm (4.842 in) ± 12 mm (0.472 in)
Rear	160 mm (6.299 in) ± 12 mm (0.472 in)
145-in wheelbase, 3.3L	
Front	132 mm (5.196 in) ± 12 mm (0.472 in)

Front	119 mm (4.685 in) ± 12 mm (0.472 in)
Rear	164 mm (6.456 in) ± 12 mm (0.472 in)
Ride Height — Rear Wheel Drive (RWD) Regular Cab — Heavy Duty	
122-in wheelbase, 5.0L	
Front	118 mm (4.645 in) ± 12 mm (0.472 in)
Rear	172 mm (6.771 in) ± 12 mm (0.472 in)
141-in wheelbase, 2.7L GTDI MPP	
Front	123 mm (4.842 in) ± 12 mm (0.472 in)
Rear	186 mm (7.322 in) ± 12 mm (0.472 in)
141-in wheelbase, 3.5L GTDI	
Front	121 mm (4.763 in) ± 12 mm (0.472 in)
Rear	181 mm (7.125 in) ± 12 mm (0.472 in)
141-in wheelbase, 5.0L	
Front	122 mm (4.803 in) ± 12 mm (0.472 in)
Rear	172 mm (6.771 in) ± 12 mm (0.472 in)
Ride Height — Rear Wheel Drive (RWD) Super Cab — Heavy Duty	
145-in wheelbase, 2.7L GTDI MPP	
Front	122 mm (4.803 in) ± 12 mm (0.472 in)
Rear	167 mm (6.574 in) ± 12 mm (0.472 in)
145-in wheelbase, 3.5L GTDI	
Front	118 mm (4.645 in) ± 12 mm (0.472 in)

Front	120 mm (4.724 in) ± 12 mm (0.472 in)
Rear	167 mm (6.574 in) ± 12 mm (0.472 in)
157-in wheelbase, 5.0L	
Front	119 mm (4.685 in) ± 12 mm (0.472 in)
Rear	171 mm (6.732 in) ± 12 mm (0.472 in)
Ride Height — Rear Wheel Drive (RWD) Regular Cab — Heavy Duty — MaxTT	
141-in wheelbase, 5.0L	
Front	115 mm (4.527 in) ± 12 mm (0.472 in)
Rear	178 mm (7.007 in) ± 12 mm (0.472 in)
Ride Height — Rear Wheel Drive (RWD) Super Cab — Heavy Duty — MaxTT	
163-in wheelbase, 5.0L	
Front	122 mm (4.803 in) ± 12 mm (0.472 in)
Rear	171 mm (6.732 in) ± 12 mm (0.472 in)
Ride Height — Rear Wheel Drive (RWD) Crew Cab — Heavy Payload Package — (18" Wheels)	
157-in wheelbase, 3.5L GTDI	
Front	111 mm (4.370 in) ± 12 mm (0.472 in)
Rear	179 mm (7.047 in) ± 12 mm (0.472 in)
157-in wheelbase, 5.0L	
Front	111 mm (4.370 in) ± 12 mm (0.472 in)
Rear	181 mm (7.125 in) ± 12 mm (0.472 in)
Ride Height — Rear Wheel Drive (RWD) Regular Cab — Heavy Payload Package — (18" Wheels)	

Rear	175 mm (6.889 in) ± 12 mm (0.472 in)
Vehicle Lean (side-to-side height differences), All Vehicles	
Front — maximum	7 mm (0.276 in)
Rear — maximum	8 mm (0.315 in)

BEV (battery electric vehicle)

NOTE

Measurements listed at curb load. Curb load is defined as "full service fluids, no passengers and no cargo".

Item	Specification
Ride Height — 4WD (four-wheel drive) BEV (battery electric vehicle) **Crew Cab — 4P**	
Front	120 mm (4.724 in) ± 12 mm (0.472 in)
Rear	234 mm (9.212 in) ± 12 mm (0.472 in)
Ride Height — 4WD (four-wheel drive) BEV (battery electric vehicle) **Crew Cab — 5P Pro_20inch A/T**	
Front	116 mm (4.566 in) ± 12 mm (0.472 in)
Rear	224 mm (8.818 in) ± 12 mm (0.472 in)
Ride Height — 4WD (four-wheel drive) BEV (battery electric vehicle) **Crew Cab — 5P Platinum**	
Front	118 mm (4.645 in) ± 12 mm (0.472 in)
Rear	222 mm (8.740 in) ± 12 mm (0.472 in)

DIESEL, HEV (hybrid electric vehicle) and Limiteds

Ride Height — Rear Wheel Drive (RWD) Super Cab

Front	121 mm (4.763 in) ± 12 mm (0.472 in)
Rear	167 mm (6.574 in) ± 12 mm (0.472 in)
Ride Height — Four-Wheel Drive (4WD) Crew Cab	
145-in wheelbase, 3.0L Diesel	
Front	121 mm (4.763 in) ± 12 mm (0.472 in)
Rear	164 mm (6.456 in) ± 12 mm (0.472 in)
157-in wheelbase, 3.0L Diesel	
Front	117 mm (4.606 in) ± 12 mm (0.472 in)
Rear	166 mm (6.535 in) ± 12 mm (0.472 in)
145-in wheelbase, LD HEV (hybrid electric vehicle)	
Front	118 mm (4.645 in) ± 12 mm (0.472 in)
Rear	161 mm (6.338 in) ± 12 mm (0.472 in)
157-in wheelbase, LD HEV (hybrid electric vehicle)	
Front	115 mm (4.527 in) ± 12 mm (0.472 in)
Rear	163 mm (6.417 in) ± 12 mm (0.472 in)
145-in wheelbase, LD Limited HEV (hybrid electric vehicle)	
Front	112 mm (4.409 in) ± 12 mm (0.472 in)
Rear	161 mm (6.338 in) ± 12 mm (0.472 in)

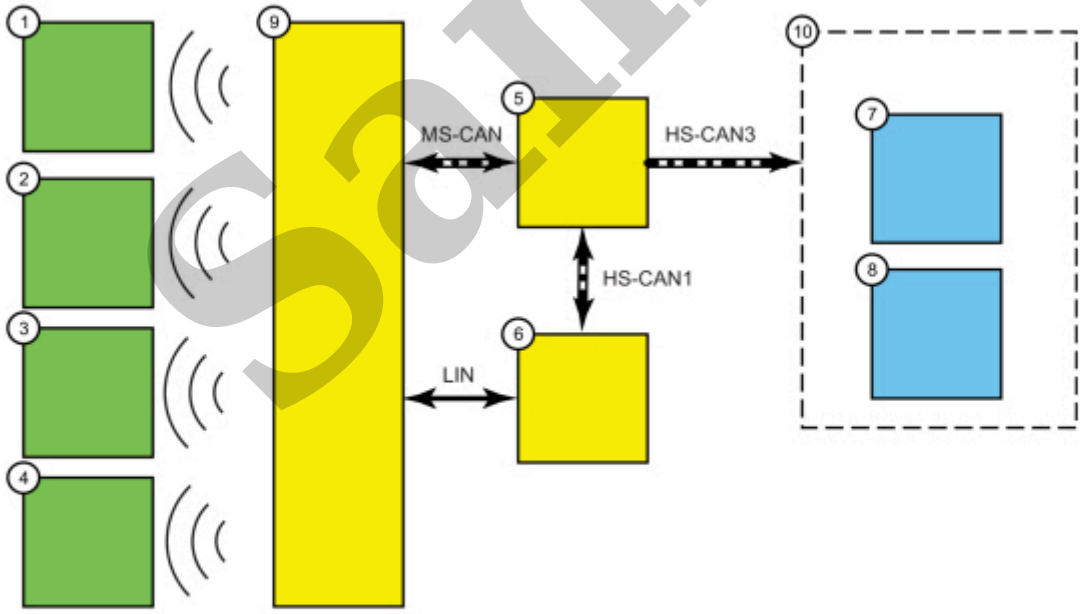
Tire Pressure Monitoring System (TPMS) - System Operation and Component Description

204-04B Tire Pressure Monitoring System (TPMS)	***2022 F-150***
Description and Operation	***Procedure revision date: 11/3/2020***

Tire Pressure Monitoring System (TPMS) - System Operation and Component Description

System Operation

System Diagram



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transceiver module) is a radio signal receiver which collects the tire pressure data and sends the information to the BCM (body control module) along a LIN (local interconnect network) . All TPMS (tire pressure monitoring system) functions are controlled by the BCM (body control module) . The BCM (body control module) compares the tire pressure data sent by the RTM (radio transceiver module) with a programmed tire pressure. This programmed pressure is specified on the VC (vehicle certification) label and cannot be changed. If the actual tire pressure is less than the programmed tire pressure, the BCM (body control module) sends a low tire pressure message to the IPC (instrument panel cluster) along the HS-CAN3 (high-speed controller area network 3) . The IPC (instrument panel cluster) responds by illuminating the TPMS (tire pressure monitoring system) warning indicator and displaying a low tire pressure message in the message center. The TPMS (tire pressure monitoring system) sensors are trained (calibrated) to the BCM (body control module) which records the unique identifier for each TPMS (tire pressure monitoring system) sensor and records the location of each sensor based on the training (calibration) order. The BCM (body control module) sends messages to the IPC (instrument panel cluster) by first sending the information along the HS-CAN1 (high-speed controller area network 1) to the GWM (gateway module A) which then sends the information to the IPC (instrument panel cluster) along the HS-CAN3 (high-speed controller area network 3) .

The diagnostic scan tool is useful in diagnosing TPMS (tire pressure monitoring system) concerns and may be used to verify the accuracy of the tire pressure data transmitted by the TPMS (tire pressure monitoring system) sensors. This is accomplished by comparing the BCM (body control module) tire pressure PID (parameter identification) data to the actual tire pressure using a digital tire pressure gauge.

It is necessary to train (calibrate) the TPMS (tire pressure monitoring system) sensors after a tire rotation on vehicles with different front and rear tire pressures. The BCM (body control module) does not automatically recognize the sensor identifiers have been moved to different positions and retains the original position information for each sensor.

Refer to: Tire Pressure Monitoring System (TPMS) Sensor Location Calibration

(204-04B Tire Pressure Monitoring System (TPMS), General Procedures).

Wheel Rotation and Sensor Training Techniques

Training known good sensors from another vehicle can help determine whether the concern is with a sensor or the RTM (radio transceiver module) . This technique cannot help determine whether the concern is due to RFI (radio frequency interference) as some RFI (radio frequency interference) source could be preventing the RTM (radio transceiver module) from receiving the tire pressure status from the known good sensors as well as the original sensors.

If the RTM (radio transceiver module) in the suspect vehicle cannot train any of the original sensors and, likewise, cannot train known good sensors from another vehicle, then the concern is with the module or RFI (radio frequency interference) and not with the original sensors. The original sensors should not be replaced. If a sensor in a certain location has caused several events, yet the sensor trains and seems to operate normally, moving that particular wheel to a different location on the vehicle is a good way to isolate the concern to a certain sensor/wheel location. Rotate the wheels and road test the vehicle. This can be done in

the BCM (body control module) for more than 5 seconds. The message center displays TIRE PRESSURE MONITOR FAULT.

- Tire Pressure Monitor Fault — The message center displays TIRE PRESSURE MONITOR FAULT when the TPMS (tire pressure monitoring system) is malfunctioning.

TPMS (tire pressure monitoring system) PID (parameter identification) Definitions

The BCM (body control module) monitors the TPMS (tire pressure monitoring system) status. Use the diagnostic scan tool to view the current status of the TPMS (tire pressure monitoring system) status (TPMS_STATUS) PID (parameter identification) . This helps identify the current system status and may aid in diagnosing the system. The PID (parameter identification) has 4 valid states:

- TPMS_STATUS PID (parameter identification) displays SENSOR FAULT if the BCM (body control module) has not received the tire pressure data from 1 to 3 TPMS (tire pressure monitoring system) sensors for 20 minutes when vehicle speed is above 32.2 km/h (20 mph).
- TPMS_STATUS PID (parameter identification) displays SYSTEM FAULT if the BCM (body control module) has not received the tire pressure data from all 4 TPMS (tire pressure monitoring system) sensors for 20 minutes when vehicle speed is above 32.2 km/h (20 mph).
- TPMS_STATUS PID (parameter identification) displays LOW if the BCM (body control module) has detected that at least 1 TPMS (tire pressure monitoring system) sensor is reporting low tire pressure.
- TPMS_STATUS PID (parameter identification) displays SYSTEM ACTIVE if the TPMS (tire pressure monitoring system) is functioning normally.

Last Warning Event PID (parameter identification) Definitions

The TPMS (tire pressure monitoring system) uses the TPMS (tire pressure monitoring system) last warning event Parameter Identifications (PIDs) to store detailed information about the last 5 times the TPMS (tire pressure monitoring system) warning indicator was activated. These Parameter Identifications (PIDs) can be used to acquire more information about a particular TPMS (tire pressure monitoring system) event, but must be used carefully.

PID (parameter identification)	Definition
EVT1_AGE_IGN through EVT5_AGE_IGN	The number of key cycles since the TPMS (tire pressure monitoring system) was activated. This PID (parameter identification) cycles from zero to 255 and then starts over from zero again. This can be used to determine how long ago a TPMS (tire pressure monitoring system) event occurred and the time (in key cycles) between events.