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2021 Ford Transit Connect Service and Repair Manual

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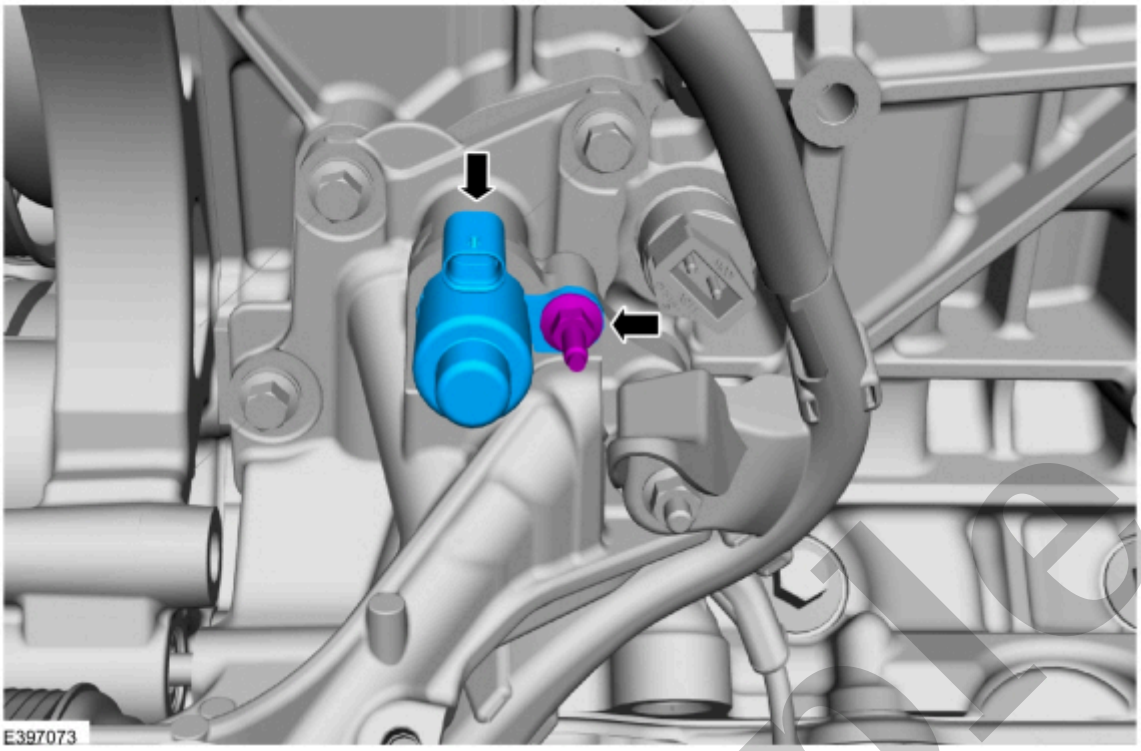
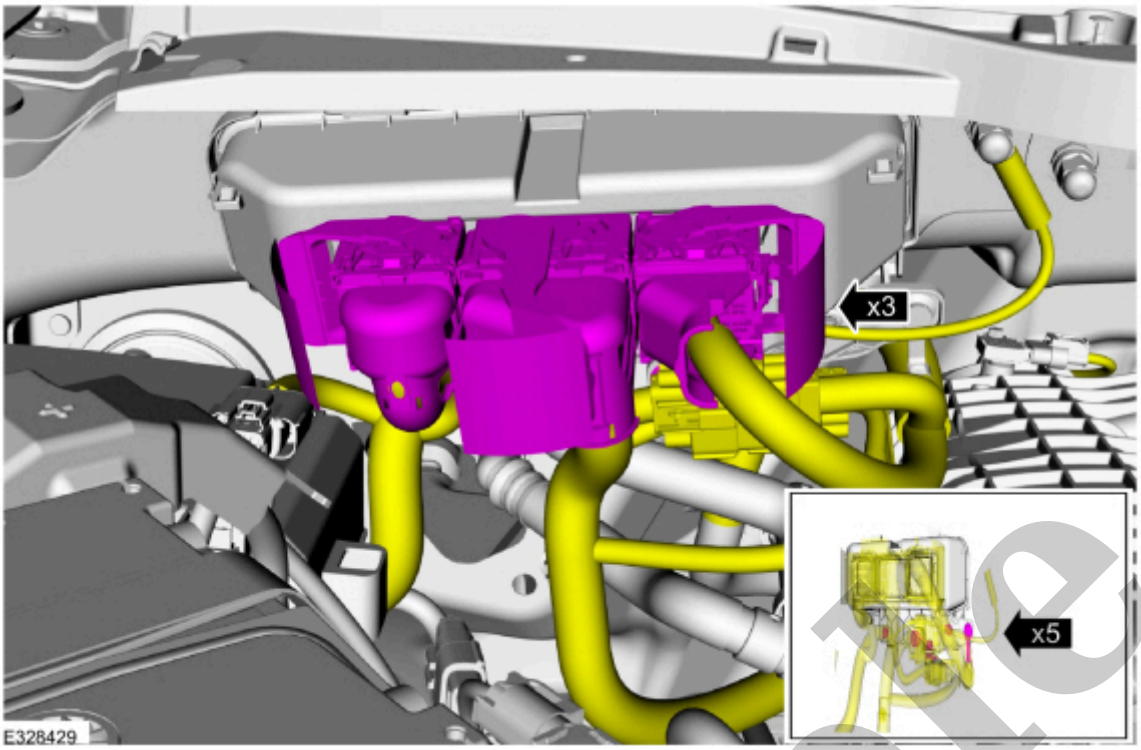
Torque : 97 lb.in (11 Nm)



Click here to learn about symbols, color coding, and icons used in this manual.

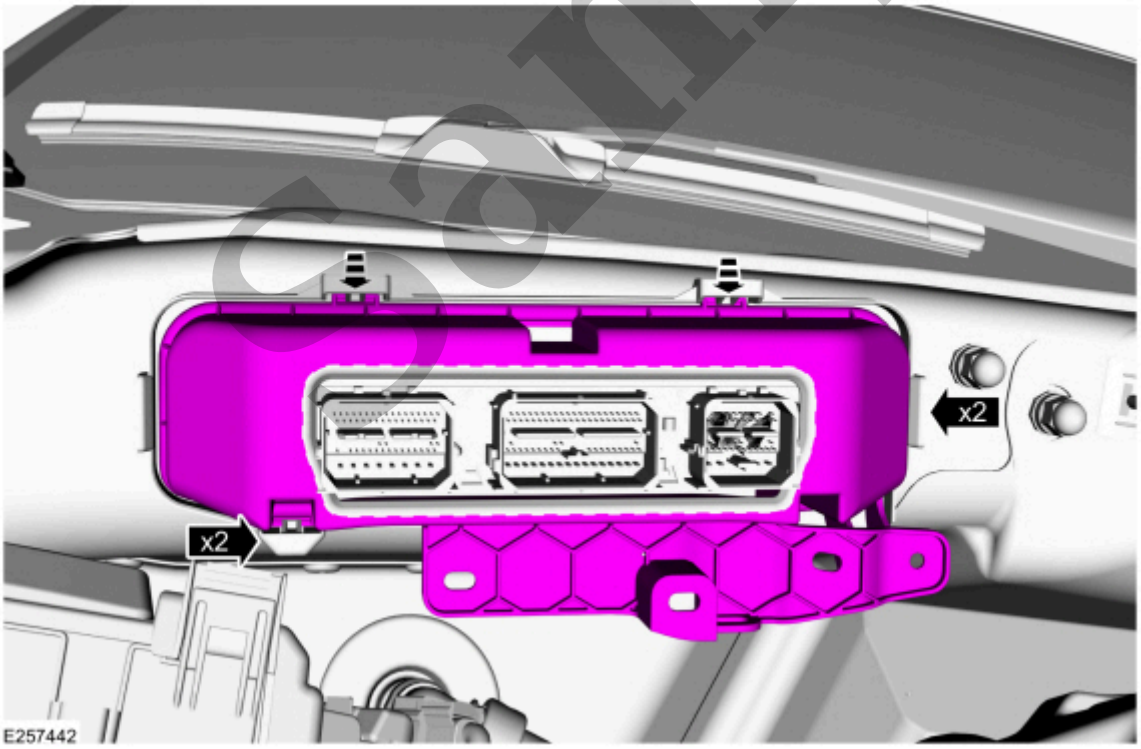
Installation

1. To install, reverse the removal procedure.



Click here to learn about symbols, color coding, and icons used in this manual.

3. Release the retaining clips and remove the PCM (powertrain control module) cover.



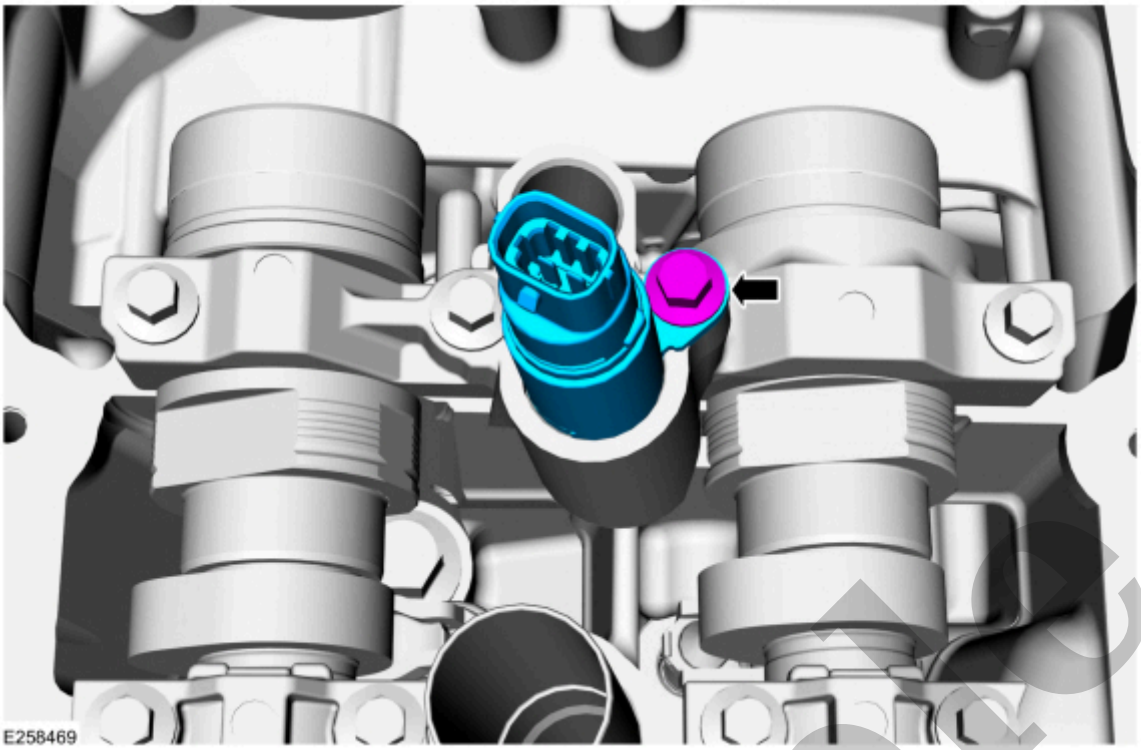
Click here to learn about symbols, color coding, and icons used in this manual.

4. Release the retainer clips and remove the PCM (powertrain control module) .

4. **NOTE**

   This step is only necessary when installing a new component.

   Using the scan tool, perform the Misfire Monitor Neutral Profile Correction procedure, following the on-screen instructions.



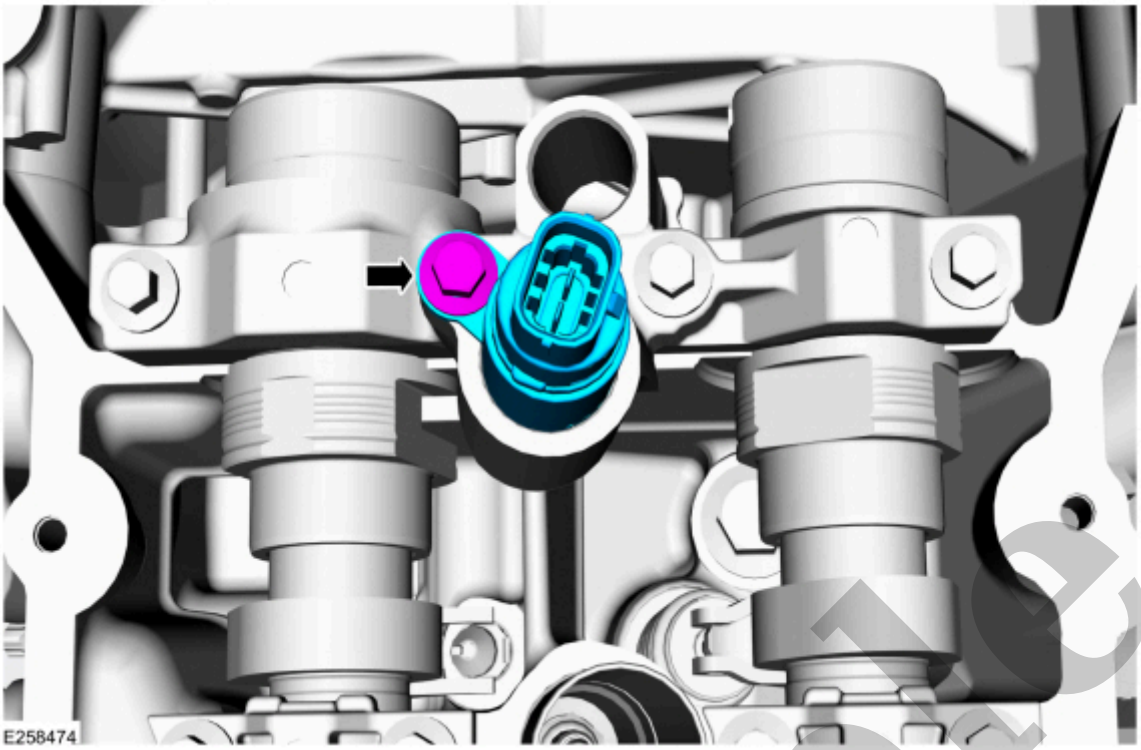
Click here to learn about symbols, color coding, and icons used in this manual.

3. Remove the bolts and the intake VCT (variable camshaft timing) oil control solenoid.

   Torque :

   Stage 1: 71 lb.in (8 Nm)

   Stage 2: 30°



Click here to learn about symbols, color coding, and icons used in this manual.

6. Remove the bolts and the intake VCT (variable camshaft timing) oil control solenoid.

   Torque :

   Stage 1: 71 lb.in (8 Nm)

   Stage 2: 30°

Specifications

303-14D Electronic Engine Controls - 5.0L 32V Ti-VCT	*2022 F-150*
Specifications	***Procedure revision date: 12/2/2021***

Specifications

Reference Value Symptom Chart

NOTE

The Reference Value Symptom Chart provides guidance in selecting the appropriate parameter identification (PID) or measured signal related to the fault area. Select a symptom from the symptom chart along with the category number and go to the PID/Measured Signal Chart. For multiple symptoms, select the symptom that is the most evident.

Symptom Occurs During	Symptom	Category Number
Startup:	No start/Normal crank	1
	Hard start/Long crank	2
	Stall after start	3
	Diesels/Runs on	4
Idle:	MIL	5
	Stalls/Quits	6
	Slow	7

	Lack/Loss of power	16
	Surge	17
	Spark knock	18
	Cooling system temperature	19
	Poor fuel economy	20
	Emissions compliance	21
Deceleration:	Stalls/Quits	6
	Backfires	13

Reference Value Parameter Identification (PID)/Measured Signal Chart

NOTE

The following listing reflects PIDS and/or measured values which may reveal a possible concern within each system shown. Match the category number with the related PID/measured signal and go to the Typical Diagnostic Reference Value Charts.

Category Number	Related PIDS/Measured Signals
5, 10, 17	ACP
1, 23	APP1
1, 23	APP2
23	BOO1/BOO2
18, 19	CHT
1, 2, 3, 5, 6, 7, 11, 12, 13, 14, 15, 16, 17, 20, 21	CKP
1, 2, 3, 5, 6, 7, 11, 12, 13, 14, 15, 16, 17, 20, 21	CMP

5, 14, 15, 16, 17, 20	IMTV
4, 5, 16, 18, 19, 20, 21	KS
19	LFC
1 through 21	LONGFT1/2
1 through 23	MAF
1 through 23	MAP
1 through 22	MISF
1 through 21	O2S11/12/21/22
22	OSS
10	PSP
5	PTO
1 through 23	RPM
5, 14, 16, 17	SCICP
1 through 21	SHRTFT1/2/11/12/21/22
15, 16, 18, 19, 20, 21	SPARKADV [a]
1, 23	TP
2, 4, 5, 9, 10, 11, 16, 17, 18, 19, 20, 21	VCT
2, 4, 5, 9, 10, 11, 16, 17, 18, 19, 20, 21	VCTDC/VCTDC2
1, 2, 3, 5, 6, 11, 12, 13, 14	VPWR
22, 23	VSS

Typical Diagnostic Reference Values

Temperature Sensor Voltage) (V)						
PCM (powertrain control module) AEIS_ACTION (Number of Drive Cycles where Automatic Engine Idle Shutdown Occurred) (Undefined / Not Used)	NUMERIC VALUE	PID	0	0	0	0
PCM (powertrain control module) AEIS_POSS (Number of Drive Cycles in which Automatic Engine Idle Shutdown Possible) (Undefined / Not Used)	NUMERIC VALUE	PID	0	0	0	0
PCM (powertrain control module) APP (Accelerator Pedal Position) (%)	%	APP Sensor	0	0	13	18
PCM (powertrain control module) APP1 (Accelerator pedal position sensor 1) (V)	VOLTS	APP Sensor	0.77	0.77	1.18	1.33
PCM (powertrain control module) APP1_[APP_D] (Accelerator Pedal Position D) (%)	%	APP Sensor	15	15	24	26
PCM (powertrain control module) APP2 (Accelerator pedal position sensor 2) (V)	VOLTS	APP Sensor	0.40	0.40	0.62	0.69