



GROUP
Product Improvement

MODEL
**See Model List
on Page 1**

NUMBER
PI1803W/X (Rev 5, 11/07/2019)

DATE
November 2018

PRODUCT IMPROVEMENT CAMPAIGN

SUBJECT:

**ENGINE REPLACEMENT INSTRUCTIONS
FOR DTC P1326 (PI1803W/X)**

★ NOTICE

This bulletin has been revised to include additional information. New/revised sections of this bulletin are indicated by a black bar in the original version.

This bulletin provides information related to the Service Bulletin published in November 2018 ([PI1803](#), "PI1803W/X: Knock Sensor Detection System - ECU Logic Improvement"). Specifically, this bulletin provides instructions on what procedures to follow if, after installing the new ECU, one of the symptoms listed below returns to the dealer with Diagnostic Trouble Code ("DTC"), P1326.

Year	Model	Production Date
2011-2013	Optima (G4N) 2.4L T-GDI	8/1/10 – 9/27/13
2014	Optima (G4N) 2.0L T-GDI	6/1/13 – 5/15/14
2011-2013	Optima (G4N) 2.0L T-GDI	12/1/10 – 8/30/13
2012-2014	Optima (G4N) 2.4L T-GDI	4/1/13 – 2/10/14

If DTC P1326 is present, first check for any wiring or signal interference following the procedure set forth below. After determining whether a wiring or signal interference is necessary. Based on the results of the wiring or signal interference check, if necessary, perform either the Knock Sensor Wiring Repair or, if the engine is seized or severely knocking, the Engine Long-Block Replacement, according to the procedures in this TSB.

If the vehicle's engine is already seized or severely knocking, dealers are to perform the Engine Long-Block Replacement and the Wiring Signal Interference Check according to the procedures in this TSB.

A [Vehicle Diagnosis Number \(VDN\)](#) must be created with DTC P1326, prior to performing PI1803W/X. If a VDN is not created, Warranty claim submission issues may occur.

Before conducting the procedure, verify the vehicle is included in the list of affected VINs.

★ NOTICE

To ensure complete customer satisfaction, always remember to refer to WebDCS Warranty Coverage (validation) Inquiry Screen (Service → Warranty Coverage → Warranty Coverage Inquiry) for a list of any additional campaigns that may need to be performed on the vehicle before returning it to the customer.

File Under: <Product Improvement>

Circulate To: ☒ General Manager ☒ Service Manager ☒ Parts Manager
☒ Service Advisors ☒ Technicians ☒ Body Shop Manager ☐ Fleet Repair

SUBJECT: ENGINE REPLACEMENT INSTRUCTIONS FOR DTC P1326 (PI1803W/X)

Model	Claim Type	Causal P/N	Qty.	Repair Description	Labor Op Code	Op Time	Replacement P/N	Qty.
Opt. (QF) 2.0L T	R	23060 2G400	0	(PI1803W1) 2.0L T-GDI MIL ON with P1326, KSDS Wire Harness Inspection Pass, Engine Noise Inspection Pass, & KSDS Extension Harness Install	180A23R9	1.1 M/H	*91400 2T100QQK	1
				(PI1803W1) 2.0L T-GDI MIL ON with P1326, KSDS Wire Harness Inspection Pass, Engine Noise Inspection Fail, & Engine Replacement	180A23R2	8.9 M/H	21111 2GK60QQK	1
							21111 2GK70QQK	1
							(AT) 23311 25050	7
							(MT) 23231 25200	
							(11-13MY) 21101 2GK07QQKR	1
							(14MY) 21101 2GK08QQKR	
				(PI1803W1) 2.0L T-GDI MIL ON with P1326, KSDS Wire Harness Inspection Fail, KSDS Extension Harness Install	180A23R3	0.8 M/H	*91400 2T100QQK	1
Opt. (TF) 2.4L	R	23060 2G400	0	(PI1803W1) 2.4L GDI MIL ON with P1326, KSDS Wire Harness Inspection Pass, Engine Noise Inspection Pass, & KSDS Extension Harness Install	180142RK	1.1 M/H	*91400 2T100QQK	1
				(PI1803W1) 2.4L GDI MIL ON with P1326, KSDS Wire Harness Inspection Pass, Engine Noise Inspection Fail, & Engine Replacement	180142R0	8.7 M/H	21111 2GK50QQK	1
							21111 2GK70QQK	1
							(AT) 23311 25050	7
							(MT) 23231 25200	
							21101 2GK05QQKR	1
				(PI1803W1) 2.4L GDI MIL ON with P1326, KSDS Wire Harness Inspection Fail, KSDS Extension Harness Install	180142R5	0.8 M/H	*91400 2T100QQK	1
Opt. (TF) 2.0L T	R	23060 2G400	0	(PI1803W1) 2.0L T-GDI MIL ON with P1326, KSDS Wire Harness Inspection Pass, Engine Noise Inspection Pass, & KSDS Extension Harness Install	180142RN	1.1 M/H	*91400 2T100QQK	1
				(PI1803W1) 2.0L T-GDI MIL ON with P1326, KSDS Wire Harness Inspection Pass, Engine Noise Inspection Fail, & Engine Replacement	180142R3	8.7 M/H	21111 2GK60QQK	1
							21111 2GK70QQK	1
							(AT) 23311 25050	7
							(MT) 23231 25200	
							21101 2GK07QQKR	1
				(PI1803W1) 2.0L T-GDI MIL ON with P1326, KSDS Wire Harness Inspection Fail, KSDS Extension Harness Install	180142R8	0.8 M/H	*91400 2T100QQK	1

***NOTE: Old part number 91400 2T000QQK has been superseded by new part number 91400 2T100QQK.**

SUBJECT: ENGINE REPLACEMENT INSTRUCTIONS FOR DTC P1326 (PI1803W/X)

Model	Claim Type	Causal P/N	Qty.	Repair Description	Labor Op Code	Op Time	Replacement P/N	Qty.
Sor. (XMa) 2.4L	R	21020 2G010	0	(PI1803W1) 2.4L GDI 2WD MIL ON with P1326, KSDS Wire Harness Inspection Pass, Engine Noise Inspection Pass, & KSDS Extension Harness Install	180A24R8	1.1 M/H	*91400 2T100QQK	1
				(PI1803W1) 2.4L GDI 2WD MIL ON with P1326, KSDS Wire Harness Inspection Pass, Engine Noise Inspection Fail, & Engine Replacement	180A24R0	8.7 M/H	21111 2GK50QQK	1
							21111 2GK70QQK	1
							(AT) 23311 25050	7
							(MT) 23231 25200	
							(12-13MY) 21101 2GK09QQKR	1
							(14MY ULEV) 21101 2GK11QQKR	
							(14MY ULEV or SULEV) 21101 2GK11QQKR	
				(PI1803W1) 2.4L GDI 2WD MIL ON with P1326, KSDS Wire Harness Inspection Fail, KSDS Extension Harness Install	180A24R1	0.8 M/H	*91400 2T100QQK	1
				(PI1803W1) 2.4L GDI 4WD MIL ON with P1326, KSDS Wire Harness Inspection Pass, Engine Noise Inspection Pass, & KSDS Extension Harness Install	180A24R9	1.1 M/H	*91400 2T100QQK	1
				(PI1803W1) 2.4L GDI 4WD MIL ON with P1326, KSDS Wire Harness Inspection Pass, Engine Noise Inspection Fail, & Engine Replacement	180A24R2	8.9 M/H	21111 2GK50QQK	1
							21111 2GK70QQK	1
							(AT) 23311 25050	7
							(MT) 23231 25200	
							(12-13MY) 21101 2GK09QQKR	1
							(14MY ULEV) 21101 2GK11QQKR	
							(14MY ULEV or SULEV) 21101 2GK11QQKR	
				(PI1803W1) 2.4L GDI AWD MIL ON with P1326, KSDS Wire Harness Inspection Fail, KSDS Extension Harness Install	180A24R3	0.8 M/H	*91400 2T100QQK	1

* **NOTE: Old part number 91400 2T000QQK has been superseded by new part number 91400 2T100QQK.**

SUBJECT: ENGINE REPLACEMENT INSTRUCTIONS FOR DTC P1326 (PI1803W/X)

Model	Claim Type	Causal P/N	Qty.	Repair Description	Labor Op Code	Op Time	Replacement P/N	Qty.
Spo. (SL) 2.0L T	R	23060 2G400	0	(PI1803W1) 2.0L T-GDI 2WD MIL ON with P1326, KSDS Wire Harness Inspection Pass, Engine Noise Inspection Pass, & KSDS Extension Harness Install	180143RN	1.2 M/H	*91400 2T100QQK	1
				(PI1803W1) 2.0L T-GDI 2WD MIL ON with P1326, KSDS Wire Harness Inspection Pass, Engine Noise Inspection Fail, & Engine Replacement	180143R3	8.0 M/H	21111 2GK60QQK	1
							21111 2GK70QQK	1
							(AT) 23311 25050	7
							(MT) 23231 25200	1
							21101 2GK07QQKR	1
				(PI1803W1) 2.0L T-GDI 2WD MIL ON with P1326, KSDS Wire Harness Inspection Fail, KSDS Extension Harness Install	180143R8	0.9 M/H	*91400 2T100QQK	1
				(PI1803W1) 2.0L T-GDI 4WD MIL ON with P1326, KSDS Wire Harness Inspection Pass, Engine Noise Inspection Pass, & KSDS Extension Harness Install	180143RO	1.2 M/H	*91400 2T100QQK	1
				(PI1803W1) 2.0L T-GDI 4WD MIL ON with P1326, KSDS Wire Harness Inspection Pass, Engine Noise Inspection Fail, & Engine Replacement	180143R4	8.4 M/H	21111 2GK60QQK	1
							21111 2GK70QQK	1
							(AT) 23311 25050	7
							(MT) 23231 25200	1
							21101 2GK07QQKR	1
				(PI1803W1) 2.0L T-GDI 4WD MIL ON with P1326, KSDS Wire Harness Inspection Fail, KSDS Extension Harness Install	180143R9	0.9 M/H	*91400 2T100QQK	1

***NOTE: Old part number 91400 2T000QQK has been superseded by new part number 91400 2T100QQK.**

SUBJECT: ENGINE REPLACEMENT INSTRUCTIONS FOR DTC P1326 (PI1803W/X)WARRANTY INFORMATION (PI1803**X1**, ENGINE SEIZED/SEVERE KNOCKING):**N Code: N99 C Code: C99**

Model	Claim Type	Causal P/N	Qty.	Repair Description	Labor Op Code	Op Time	Replacement P/N	Qty.
Opt. (QF) 2.4L	R	23060 2G400	0	(PI1803 X1) 2.4L GDI Engine Seized / Severe Knocking, Techline Authorized Engine Replacement, KSDS Wire Harness Inspection Pass	180A23R4	8.4 M/H	21111 2GK50QQK	1
							21111 2GK70QQK	1
							(AT) 23311 25050	7
							(MT) 23231 25200	
							(11-13MY) 21101 2GK05QQKR	1
							(14MY) 21101 2GK06QQKR	
				(PI1803 X1) 2.4L GDI Engine Seized / Severe Knocking, Techline Authorized Engine Replacement, KSDS Wire Harness Inspection Fail, KSDS Wire Harness Install	180A23R6	8.9 M/H	21111 2GK50QQK	1
							21111 2GK70QQK	1
							(AT) 23311 25050	7
							(MT) 23231 25200	
							(11-13MY) 21101 2GK05QQKR	1
							(14MY) 21101 2GK06QQKR	
							*91400 2T100QQK	1
Opt. (QF) 2.0L T	R	23060 2G400	0	(PI1803 X1) 2.0L T-GDI Engine Seized / Severe Knocking, Techline Authorized Engine Replacement, KSDS Wire Harness Inspection Pass	180A23R5	8.7 M/H	21111 2GK60QQK	1
							21111 2GK70QQK	1
							(AT) 23311 25050	7
							(MT) 23231 25200	
							(11-13MY) 21101 2GK07QQKR	1
							(14MY) 21101 2GK08QQKR	
				(PI1803 X1) 2.0L T-GDI Engine Seized / Severe Knocking, Techline Authorized Engine Replacement, KSDS Wire Harness Inspection Fail, KSDS Wire Harness Install	180A23R7	9.2 M/H	21111 2GK60QQK	1
							21111 2GK70QQK	1
							(AT) 23311 25050	7
							(MT) 23231 25200	
							(11-13MY) 21101 2GK07QQKR	1
							(14MY) 21101 2GK08QQKR	
							*91400 2T100QQK	1
Opt. (TF) 2.4L	R	23060 2G400	0	(PI1803 X1) 2.4L GDI Engine Seized / Severe Knocking, Techline Authorized Engine Replacement, KSDS Wire Harness Inspection Pass	180142RA	8.4 M/H	21111 2GK50QQK	1
							21111 2GK70QQK	1
							(AT) 23311 25050	7
							(MT) 23231 25200	
							21101 2GK05QQKR	1
				(PI1803 X1) 2.4L GDI Engine Seized / Severe Knocking, Techline Authorized Engine Replacement, KSDS Wire Harness Inspection Fail, KSDS Wire Harness Install	180142RF	8.9 M/H	21111 2GK50QQK	1
							21111 2GK70QQK	1
							(AT) 23311 25050	7
							(MT) 23231 25200	
							21101 2GK05QQKR	1
							*91400 2T100QQK	1

*NOTE: Old part number 91400 2T000QQK has been superseded by new part number 91400 2T100QQK.

SUBJECT: ENGINE REPLACEMENT INSTRUCTIONS FOR DTC P1326 (PI1803W/X)

Model	Claim Type	Causal P/N	Qty.	Repair Description	Labor Op Code	Op Time	Replacement P/N	Qty.
Opt. (TF) 2.0L T	R	23060 2G400	0	(PI1803X1) 2.0T-GDI Engine Seized / Severe Knocking, Techline Authorized Engine Replacement, KSDS Wire Harness Inspection Pass	180142RD	8.7 M/H	21111 2GK60QQK	1
							21111 2GK70QQK	1
							(AT) 23311 25050	7
							(MT) 23231 25200	
							21101 2GK07QQKR	1
				(PI1803X1) 2.0T-GDI Engine Seized / Severe Knocking, Techline Authorized Engine Replacement, KSDS Wire Harness Inspection Fail, KSDS Wire Harness Install	180142RI	9.2 M/H	21111 2GK60QQK	1
							21111 2GK70QQK	1
							(AT) 23311 25050	7
							(MT) 23231 25200	
							21101 2GK07QQKR	1
Sor. (XMa) 2.4L	R	21020 2G010	0	(PI1803X1) 2.4L GDI 2WD Engine Seized / Severe Knocking, Techline Authorized Engine Replacement, KSDS Wire Harness Inspection Pass	180A24R4	8.4 M/H	21111 2GK50QQK	1
							21111 2GK70QQK	1
							(AT) 23311 25050	7
							(MT) 23231 25200	
							(12-13MY) 21101 2GK09QQKR	1
							(14MY ULEV) 21101 2GK11QQKR	
							(14MY ULEV or SULEV) 21101 2GK11QQKR	
							21101 2GK11QQKR	
				(PI1803X1) 2.4L GDI 2WD Engine Seized / Severe Knocking, Techline Authorized Engine Replacement, KSDS Wire Harness Inspection Fail, KSDS Wire Harness Install	180A24R6	8.9 M/H	21111 2GK50QQK	1
							21111 2GK70QQK	1
							(AT) 23311 25050	7
							(MT) 23231 25200	
							(12-13MY) 21101 2GK09QQKR	1
							(14MY ULEV) 21101 2GK11QQKR	
							(14MY ULEV or SULEV) 21101 2GK11QQKR	
							21101 2GK11QQKR	
							*91400 2T100QQK	1
				(PI1803X1) 2.4L GDI AWD Engine Seized / Severe Knocking, Techline Authorized Engine Replacement, KSDS Wire Harness Inspection Pass	180A24R5	8.6 M/H	21111 2GK50QQK	1
							21111 2GK70QQK	1
							(AT) 23311 25050	7
							(MT) 23231 25200	
							(12-13MY) 21101 2GK09QQKR	1
							(14MY ULEV) 21101 2GK11QQKR	
							(14MY ULEV or SULEV) 21101 2GK11QQKR	
							21101 2GK11QQKR	
				(PI1803X1) 2.4L GDI AWD Engine Seized / Severe Knocking, Techline Authorized Engine Replacement, KSDS Wire Harness Inspection Fail, KSDS Wire Harness Install	180A24R7	9.1 M/H	21111 2GK50QQK	1
							21111 2GK70QQK	1
							(AT) 23311 25050	7
							(MT) 23231 25200	
							(12-13MY) 21101 2GK09QQKR	1
							(14MY ULEV) 21101 2GK11QQKR	
							(14MY ULEV or SULEV) 21101 2GK11QQKR	
							21101 2GK11QQKR	
							*91400 2T100QQK	1

*NOTE: Old part number 91400 2T000QQK has been superseded by new part number 91400 2T100QQK.

SUBJECT: ENGINE REPLACEMENT INSTRUCTIONS FOR DTC P1326 (PI1803W/X)

Model	Claim Type	Causal P/N	Qty.	Repair Description	Labor Op Code	Op Time	Replacement P/N	Qty.
Spo. (SL) 2.0L T	R	23060 2G400	0	(PI1803X1) 2.0L T-GDI 2WD Engine Seized / Severe Knocking, Techline Authorized Engine Replacement, KSDS Wire Harness Inspection Pass	180143RD	7.7 M/H	21111 2GK60QQK	1
							21111 2GK70QQK	1
							(AT) 23311 25050	7
							(MT) 23231 25200	
							21101 2GK07QQKR	1
				(PI1803X1) 2.0L T-GDI 2WD Engine Seized / Severe Knocking, Techline Authorized Engine Replacement, KSDS Wire Harness Inspection Fail, KSDS Wire Harness Install	180143RI	8.3 M/H	21111 2GK60QQK	1
							21111 2GK70QQK	1
							(AT) 23311 25050	7
							(MT) 23231 25200	
							21101 2GK07QQKR	1
							*91400 2T100QQK	1
				(PI1803X1) 2.0L T-GDI AWD Engine Seized / Severe Knocking, Techline Authorized Engine Replacement, KSDS Wire Harness Inspection Pass	180143RE	8.1 M/H	21111 2GK60QQK	1
							21111 2GK70QQK	1
							(AT) 23311 25050	7
							(MT) 23231 25200	
							21101 2GK07QQKR	1
				(PI1803X1) 2.0L T-GDI AWD Engine Seized / Severe Knocking, Techline Authorized Engine Replacement, KSDS Wire Harness Inspection Fail, KSDS Wire Harness Install	180143RJ	8.7 M/H	21111 2GK60QQK	1
							21111 2GK70QQK	1
							(AT) 23311 25050	7
							(MT) 23231 25200	
							21101 2GK07QQKR	1
							*91400 2T100QQK	1

NOTE: Refer to Warranty Bulletin 2018-14 for details regarding coolant and substitute transportation reimbursement requirements.

***Old part number 91400 2T000QQK has been superseded by new part number 91400 2T100QQK.**

Use sublet code 'X3' with a maximum allowed amount of \$19.80 for "ENGINE R&R" engine oil reimbursement.

If the replacement of the Oil Cooler Tube Assembly was required, please manually enter the applicable Oil Cooler Tube Assembly part number to the claim's related parts section.

Dispose of old parts in accordance with local, state, and Federal regulations.

ALL claims for engine or harness replacement without the required diagnostic inspection/results or authorization are subject to claim chargeback/denial without exception.

* NOTICE

VIN inquiry data for this repair is provided for tracking purposes only. Kia retailers should reference PI1803W/X* when accessing the WebDCS system.