	GROUP Product Improvement	MODEL 2015MY Sorento (XMa) Optima (QF) 2014-2015MY Optima (TF) Sportage (SL)
	NUMBER PI1802W/X (Rev 1, 11/08/2018)	DATE October 2018
PRODUCT IMPROVEMENT CAMPAIGN		
SUBJECT: ENGINE REPLACEMENT INSTRUCTIONS FOR DTC P1326 (PI1802W/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 margin area.

This bulletin provides information related to the Technical Service Bulletin previously published in July 2018 ([PI1802](#), Rev 2, 09/24/2018) titled “Knock Sensor Detection System - ECU Logic Improvement”. Specifically, this bulletin provides instructions on which procedures to follow if, after installation of the KSDS, any one of the subject vehicles below returns to the dealer with Diagnostic Trouble Code (“DTC”), P1326.

- Some 2014MY Optima (TF) vehicles equipped with 2.4L GDI engines, manufactured at KMC from August 29, 2013 through April 25, 2014;
- All 2015MY Optima (TF/QF) vehicles equipped with 2.4L GDI and 2.0L Turbocharged GDI (T-GDI) engines;
- All 2014-2015MY Sportage (SL) vehicles equipped with 2.4L GDI and 2.0L Turbocharged GDI (T-GDI) engines;
- All 2015MY Sorento (XMa) vehicles equipped with 2.4L GDI engines, manufactured from January 3, 2014 through December 11, 2014.

If DTC P1326 is present, first check for any wiring signal interference following the procedure set forth below before determining whether an engine replacement is necessary. Based on the results of the Wiring Signal Interference Check, dealers are to perform either the Knock Sensor Wiring Repair or 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.

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

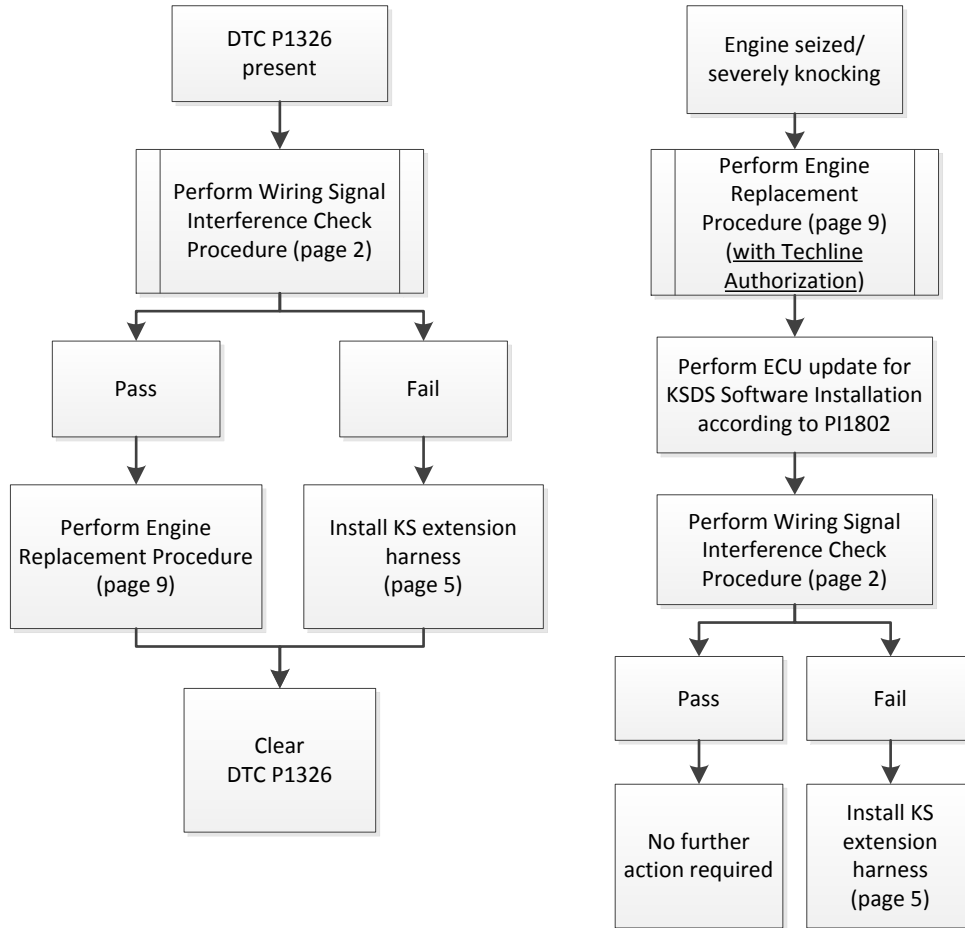
*** NOTICE**

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>

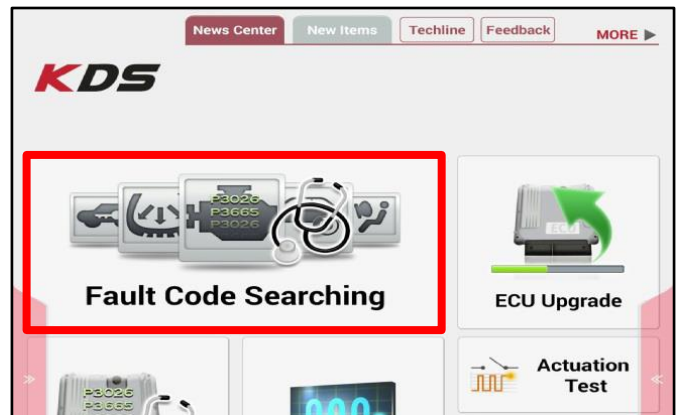
Circulate To: **General Manager** **Service Manager** **Parts Manager**
 Service Advisors **Technicians** **Body Shop Manager** **Fleet Repair**

Flow Chart:



Wiring Signal Interference Check Procedure:

- Using the KDS, perform a Fault Code Search and confirm DTC P1326 is present.
 - If P1326 is present, proceed to the next step to perform the wiring signal interference check.
 - If the engine is seized or severely knocking, proceed to the engine replacement procedure on page 9.

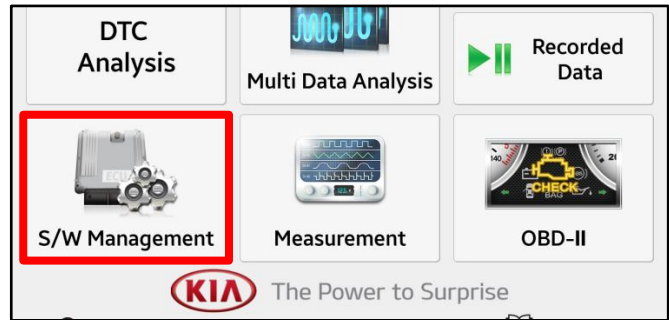


- Start/warm up the engine and ensure **ENGINE OIL** is at operating temperature (176°F).

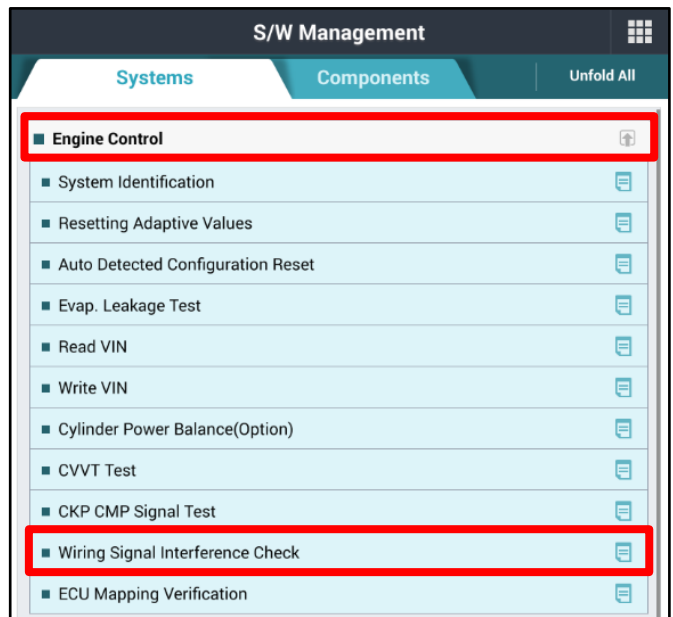
Sensor Name(167)	Value	Unit	Link Up
Battery Voltage	13.3	V	
Battery Voltage after IG Key	13.3	V	
Actual Engine Speed	653	RPM	
Engine Oil Temperature	176.0	°F	

SUBJECT: ENGINE REPLACEMENT INSTRUCTIONS FOR DTC P1326 (P11802W/X)

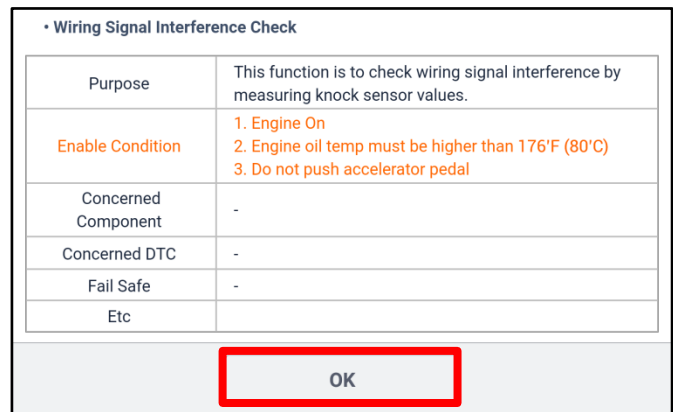
3. From the KDS Home Screen, select S/W Management.



4. Select Engine Control → Wiring Signal Interference Check.

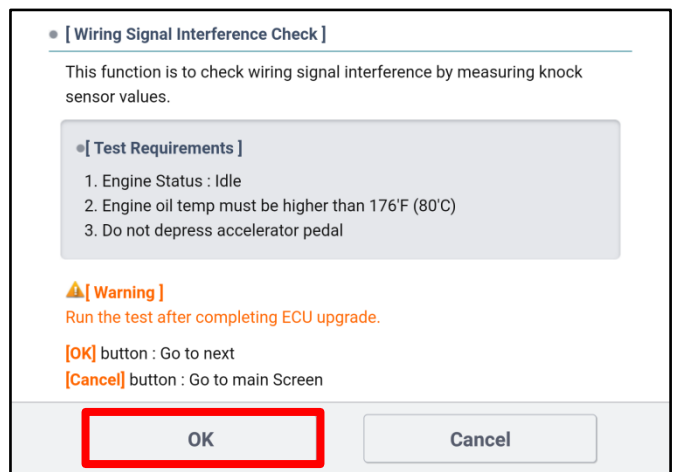


5. Ensure the engine is on and at idle and **ENGINE OIL** temperature is at 176°F degrees or higher. Select OK to proceed.



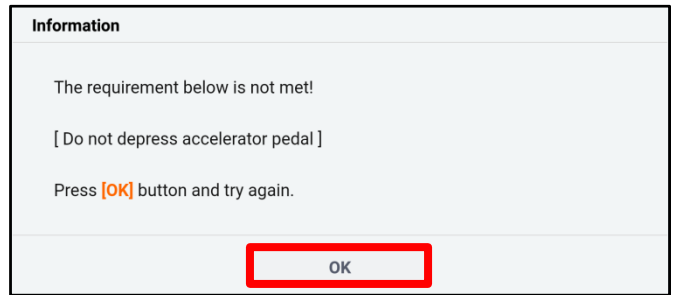
5b. Select OK to proceed.

NOTE: This test should only be performed if Knock Sensor Detection System - ECU Logic Improvement (P11802) has previously been completed.

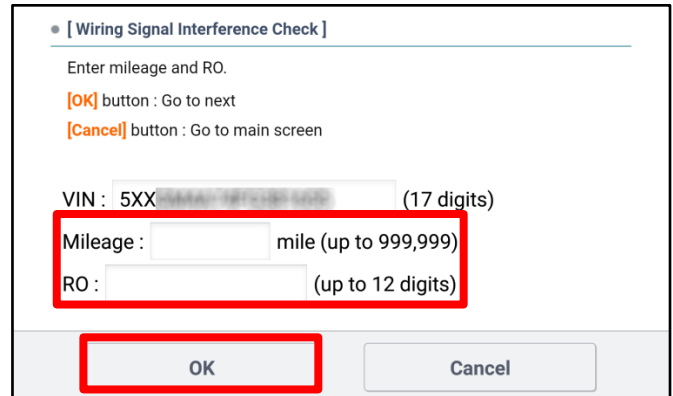


SUBJECT: ENGINE REPLACEMENT INSTRUCTIONS FOR DTC P1326 (PI1802W/X)

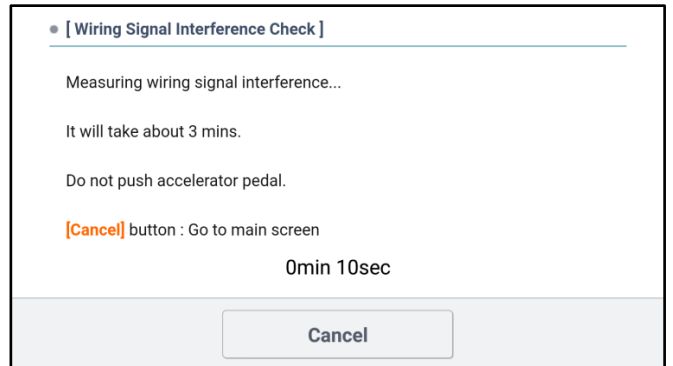
5c. If the conditions are not met, a pop-up as shown will be displayed.



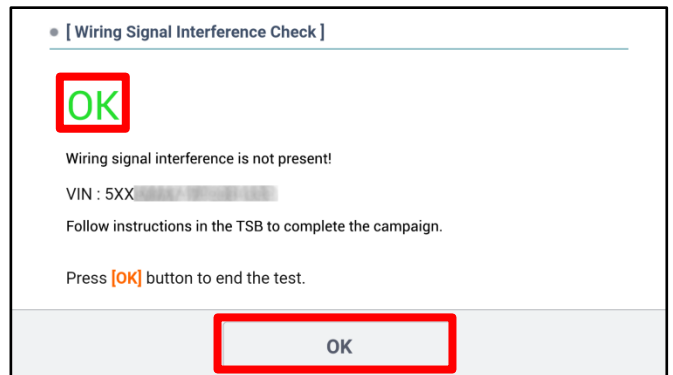
6. Enter vehicle mileage and RO number (VIN is automatically populated).



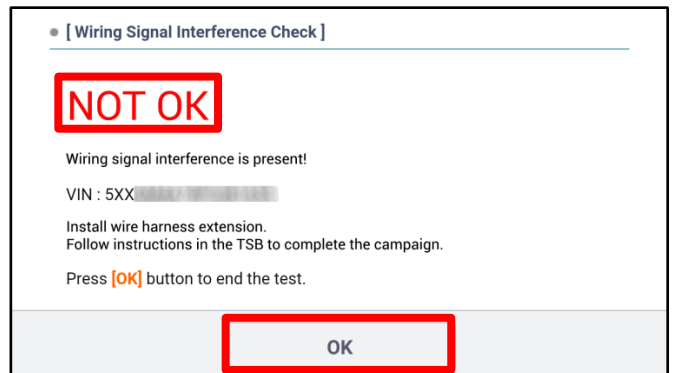
7. Wiring Signal Interference Check test will begin and take about three (3) minutes to complete. **NOTE:** Do not push on the accelerator pedal.



- If the result is “OK”, turn the engine off and proceed to the Engine Replacement procedure on page 9.



- If the result is “NOT OK”, turn the engine off and proceed to **step 2** of the Knock Sensor (KS) Extension Harness Installation procedure on page 5.



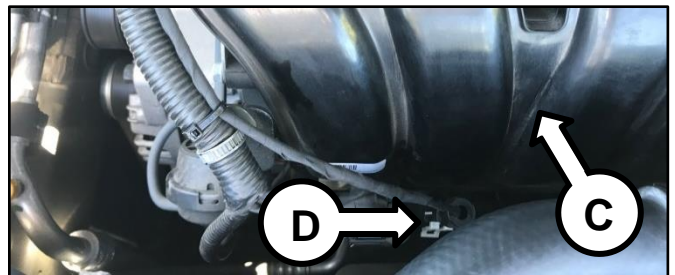
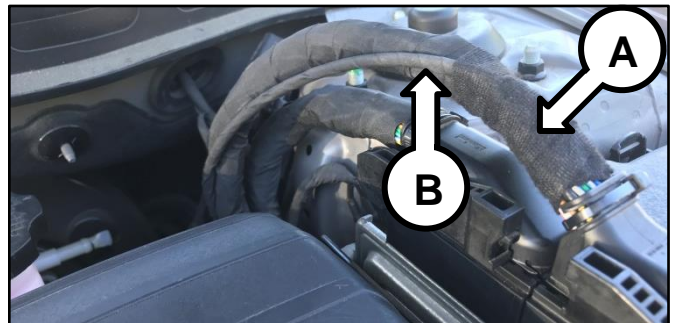
SUBJECT: ENGINE REPLACEMENT INSTRUCTIONS FOR DTC P1326 (PI1802W/X)
KS Extension Harness Installation Procedure:

NOTE: Photos below are from a 15MY Optima (QF). Components and their location may vary in different models.

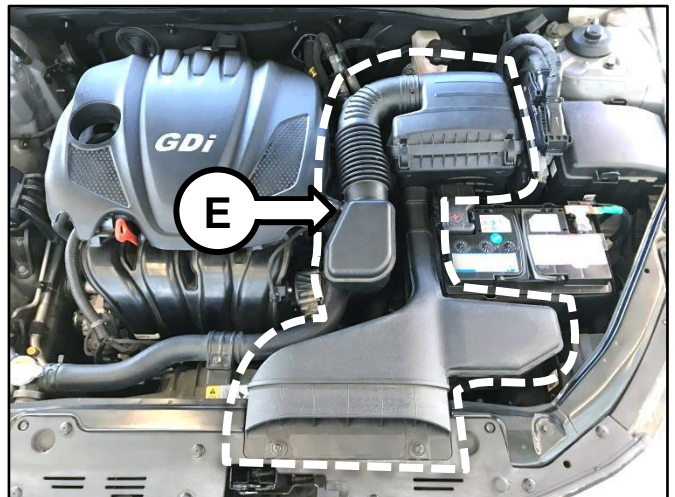
1. Inspect the ECU harness (A) and verify if the Knock Sensor wiring extension harness (B) has previously been installed.

NOTE: To identify the extension harness (B), look for an external harness (B) which should be cable-tied to the existing wiring harness (A) leading by the intake manifold (C) to the knock sensor (D), as shown.

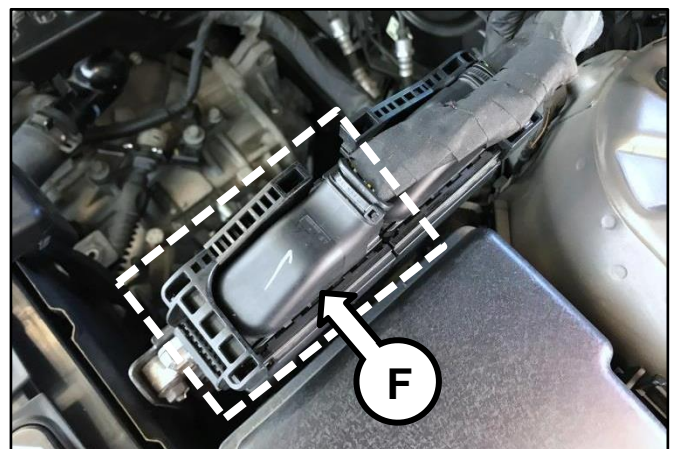
- If the extension harness (B) has been installed, no further action is required.
- If the extension harness (B) has not been installed, proceed to the next step.



2. Remove the air cleaner and duct assembly (E).

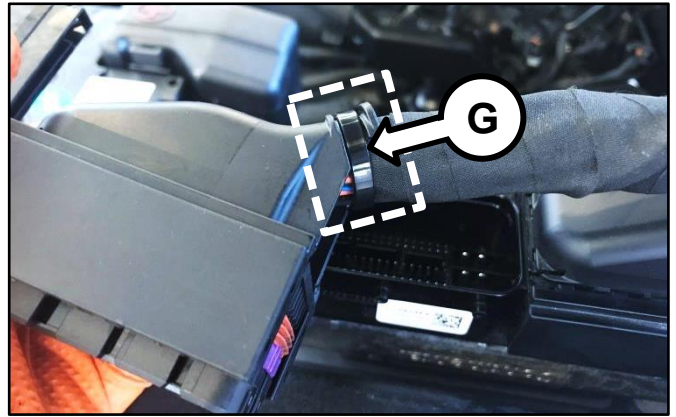


3. Disconnect the ECU connector (F).

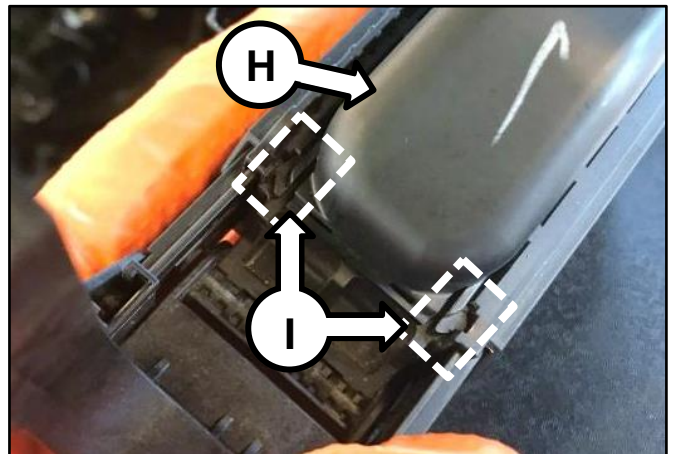


SUBJECT: ENGINE REPLACEMENT INSTRUCTIONS FOR DTC P1326 (PI1802W/X)

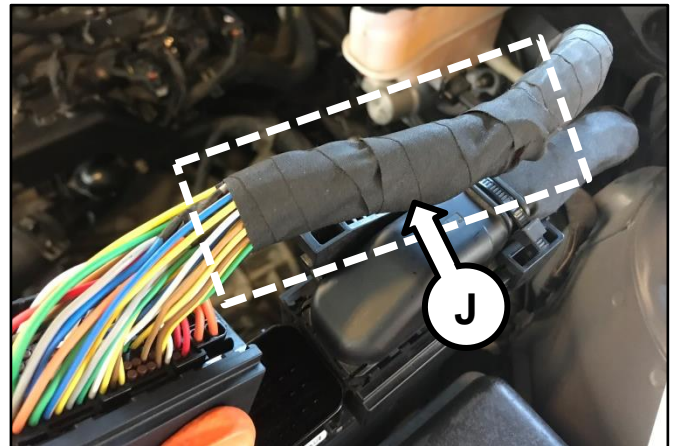
4. Cut the existing cable-tie (G) from the connector.



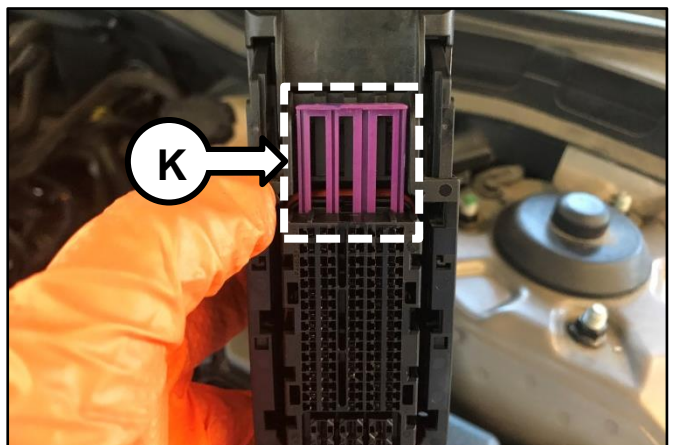
5. Remove the ECU connector cover (H) by carefully unclipping the two (2) tabs (I) and sliding the cover (H) towards the tabs (I).



6. Carefully remove the electrical tape (J) to expose the harness wires.



7. Remove the pin retainer (K).



SUBJECT: ENGINE REPLACEMENT INSTRUCTIONS FOR DTC P1326 (P11802W/X)

8. Locate the three (3) knock sensor circuit terminals from the ECU connector (F). Refer to the “Schematic Diagrams → Engine Electrical System → Engine Control System → Schematic Diagrams” chapter of the applicable ETM on KGIS.

F	91	90	89	88	87	86	85	84	83	82	81	80	79	78	77	76	75	6	5
	74	73	72	71	70	69	68	67	66	65	64	63	62	61	60	59	58		
QF / TF	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41	4	3
	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24		
	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7		

- 44. Knock Sensor Shielded Ground
- 45. Knock Sensor Ground
- 62. Knock Sensor Interface (Signal)

[Click here to see a video of terminal removal.](#)

F	91	90	89	88	87	86	85	84	83	82	81	80	79	78	77	76	75	6	5
	74	73	72	71	70	69	68	67	66	65	64	63	62	61	60	59	58		
XMa / SL	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41	4	3
	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24		
	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7		

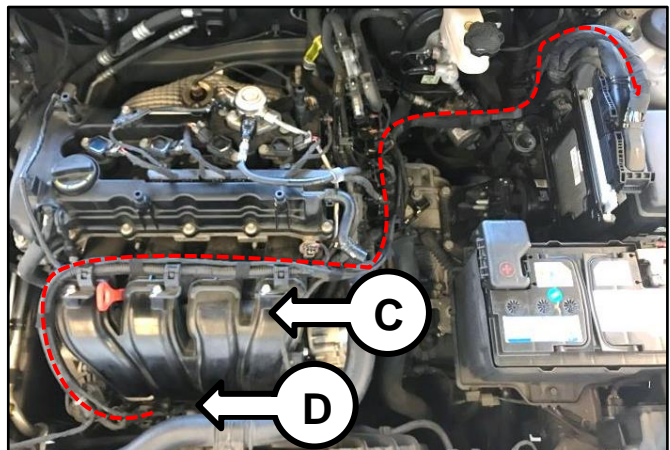
9. Remove the three (3) terminals **one at a time** and insert the new terminals of the extension harness into the ECU connector (F). Reinstall pin retainer (K) and reassemble the connector (F).

Pin	Extension Wire Color
44	Blue
45	Black
62	Red

NOTE: Be sure to note the rotational position of the terminals during removal. They are directional and need to be reinstalled in the same “clock” position.

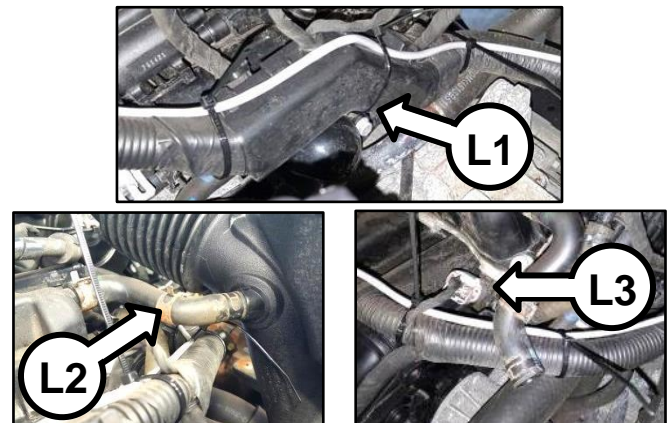


10. Route the extension harness (B) along the existing harness (A) leading by the intake manifold (C) to the knock sensor (D), as shown.



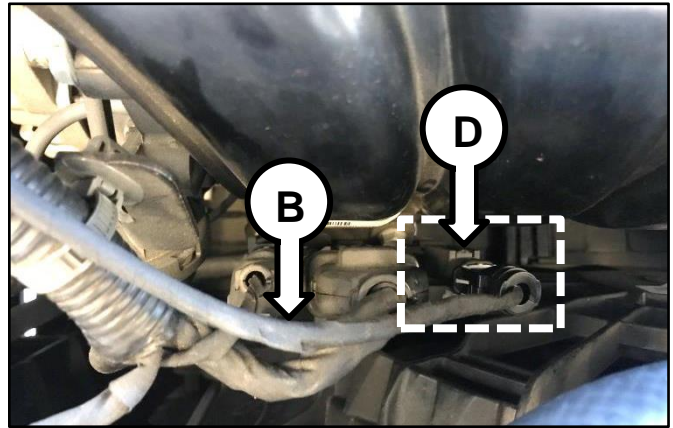
*** IMPORTANT**

The harness (B) must be routed above and secured to the harness protector (L1) and UNDER the Breather Hose (L2) and Camshaft Position Sensor (L3).



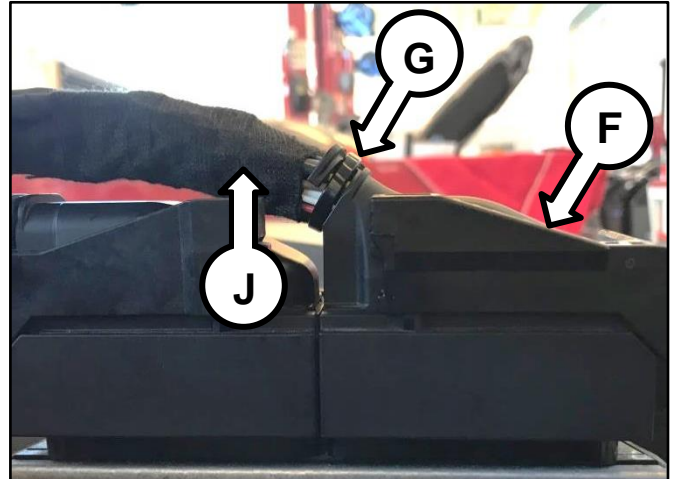
SUBJECT: ENGINE REPLACEMENT INSTRUCTIONS FOR DTC P1326 (PI1802W/X)

11. Connect the extension harness (B) to the knock sensor (D).

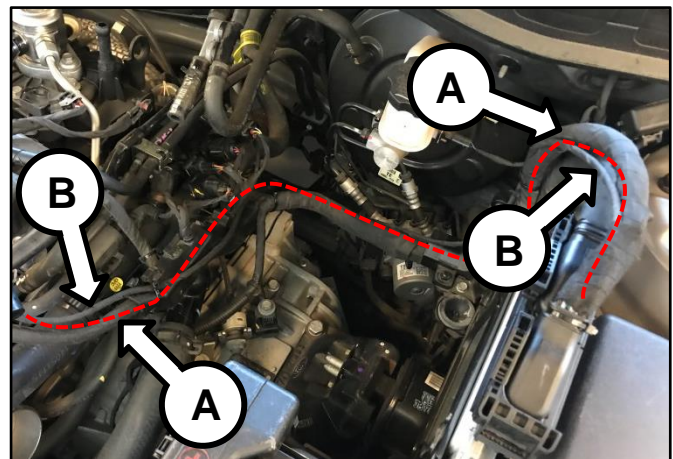


12. Cut off and discard the three (3) old knock sensor circuit terminals and the old knock sensor connector and secure the remaining wires to the new extension harness using the supplied electrical tape. **NOTE:** Complete removal of the old knock sensor wires is not necessary. Only remove the old terminals and connector.

13. Secure the extension harness at the connector (F) by replacing the cable-tie (G) removed in step 4 with a new supplied cable-tie and the electrical tape (J) removed in step 6 with new supplied electrical tape.



14. Secure the extension harness (B) to the existing harness (A) using the supplied cable-ties. Tuck and secure any excess wiring of the extension harness near the ECU with cable-tie.



15. Reinstall all removed components in the reverse order of removal.
16. Erase the P1326 DTC with the KDS and start the engine to confirm proper operation.

SUBJECT: ENGINE REPLACEMENT INSTRUCTIONS FOR DTC P1326 (P11802W/X)
Engine Replacement Procedure:

1. Remove the engine assembly by referring to the “Engine And Transmission (Transaxle) Assembly → Engine And Transmission (Transaxle) Assembly → Repair procedures” chapter in the applicable Shop Manual on KGIS.

Refer to [TSB ENG190](#) for information regarding engine replacement practices.



2. After removal of the engine from the vehicle, remove all components that will need to be transferred by referring to the applicable Shop Manual on KGIS.
3. Place the new engine block on an engine stand.
4. Install all removed components from the old engine block onto the new engine block utilizing all parts from Service Kit I and II. Be advised of notes below.

Notes:

High Pressure Pump & Roller Tappet:

- Refer to [TSB ENG083](#) for special attention and handling procedures of GDI-specific components.
- When installing the high pressure pump and roller tappet onto the new engine, apply engine oil to the roller tappet, and O-rings of the high pressure pump.

Tightening torques of pump bolts:
 9.4 – 10.9 lb.ft (12.8 – 14.7 N.m,
 1.3 – 1.5 kgf.m)

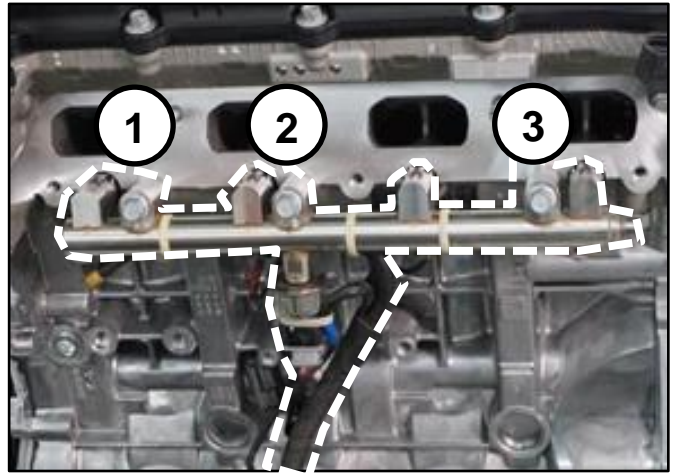
Tightening torques of pipe flare nut:
 19.5 – 23.9 lb.ft (26.5 – 32.4 N.m,
 2.7 – 3.3 kgf.m)


*** NOTICE**

Refer to [TSB ENG083](#) for gasoline direct injection (GDI) specific information, including related warnings and cautions for handling high fuel pressure system components.

Delivery Pipe:

- Refer to [TSB ENG083](#) for special attention and handling procedures of GDI-specific components.
- Prior to installing the delivery pipe, be sure to replace all of the injector O-rings and injector retainers.
- Prior to installing the delivery pipe, apply engine oil to the injector O-rings.
- When installing the delivery pipe, use caution not to damage the tip of the injector.
- Be sure to replace the delivery pipe retaining bolts and torque them in the sequence shown.

**Tightening torque of bolts:**

**13.7 – 17.4 lb.ft (18.6 – 23.5 N.m,
1.9 – 2.4 kgf.m)**

*** NOTICE**

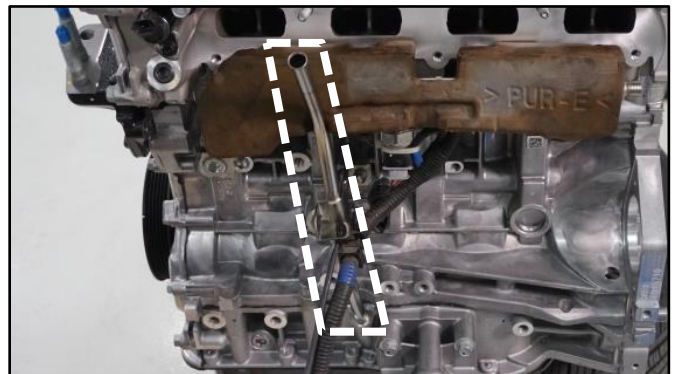
Combustion seals must be compressed after installation and before attempting to install into the cylinder head. Use SST 09353 2B000 (refer to [TSB ENG083](#)).

Dipstick Tube & Dipstick:

- Prior to installing the new tube, lubricate the o-ring located at the bottom of the tube with engine oil.
- Install the red dipstick included in Service Kit I.

Tightening torque of bolt:

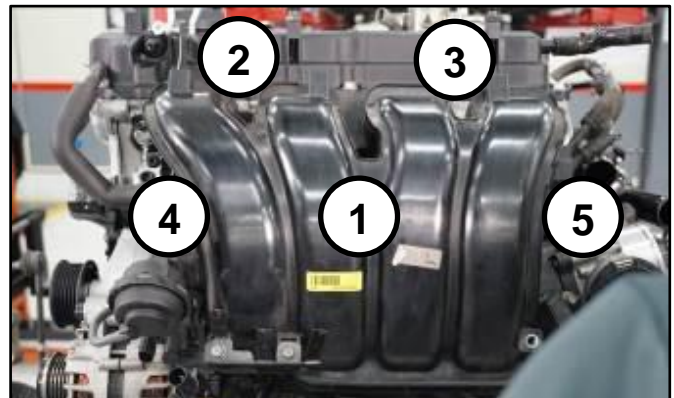
**5.8 – 8.7 lb.ft (7.8 – 11.8 N.m,
0.8 - 1.2 kgf.m)**

**Intake Manifold:**

- Prior to installation, replace the intake manifold gaskets.
- Torque bolts in the sequence shown.

Tightening torque of bolts:

**13.7 – 17.4 lb.ft (18.6 – 23.5 N.m,
1.9 – 2.4 kgf.m)**

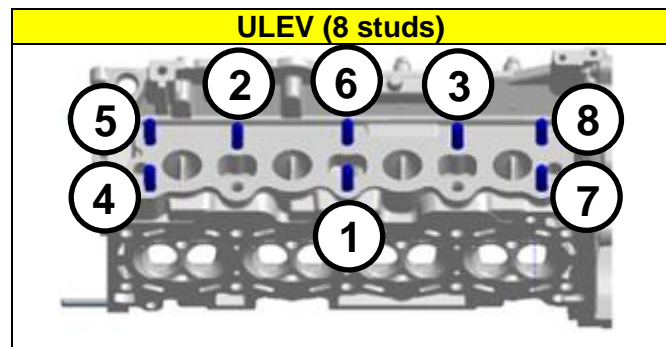
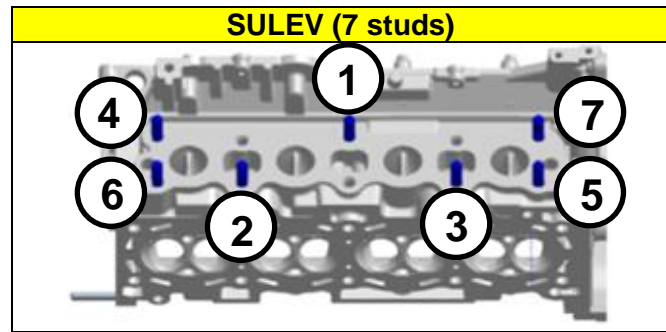


SUBJECT: ENGINE REPLACEMENT INSTRUCTIONS FOR DTC P1326 (PI1802W/X)
Exhaust Manifold:

- All engines supplied under this Product Improvement Campaign have the exhaust manifold studs configured for SULEV engines.
- Using the pictures to the right, check the exhaust manifold stud location and quantity. Relocate as required for ULEV engines and obtain one (1) extra from the removed engine.
- Prior to installation, replace the exhaust manifold gasket and front muffler gasket.
- Torque nuts in the sequence shown.

Tightening torque of nuts:

**36.2 – 39.7 lb.ft (49.0 – 53.9 N.m,
5.0 – 5.5 kgf.m)**



***For 15MY Sorento (XMa) vehicles only: check the underhood emissions label and record whether the label references ULEV or SULEV. This information is needed to select/order the correct replacement engine.**

KIA		KIA MOTORS CORPORATION	
VEHICLE EMISSION CONTROL INFORMATION			
Conforms to regulations :		2015 MY	
U.S.EPA : T2B5 LDV	OBD : CA II	Fuel : Gasoline	
California : ULEV PC	OBD : CA II	Fuel : Gasoline	
Group : EK36V2C4APE	DFI/HO2S(2)/WU-TWC/TWC		
Evap. : EK36V2C130CPE	No adjustments needed.		A402
[WARNING]			
Loaded I/M testing of permanent four-wheel drive or traction control-equipped vehicles must be conducted on a four-wheel drive speed synchronized dynamometer. Otherwise, a non-loaded test procedure must be performed.			

- On Turbo engines, replace the turbocharger oil feed line and gaskets.

Tightening torque of oil feed line bolt:

**8.7 – 13.0 lb.ft (11.8 – 17.7 N.m,
1.2 – 1.8 kgf.m)**

Tightening torque of oil feed line nuts:

**5.8 – 8.7 lb.ft (7.8 – 11.8 N.m,
0.8 – 1.2 kgf.m)**

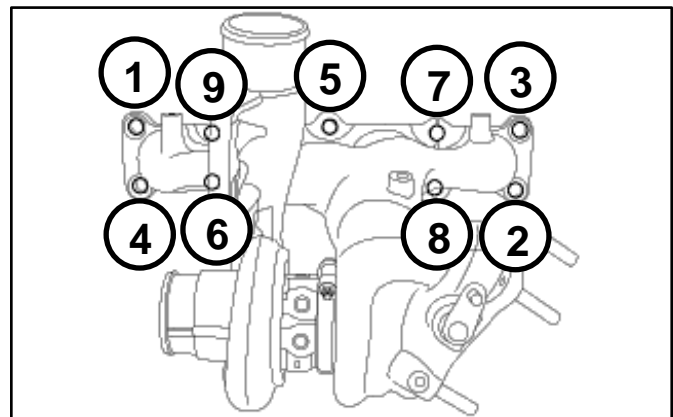
Tightening torque of oil drain line nuts and bolts:

**5.8 – 8.7 lb.ft (7.8 – 11.8 N.m,
0.8 – 1.2 kgf.m)**

- Torque exhaust manifold nuts in the sequence shown.

Tightening torque of nuts:

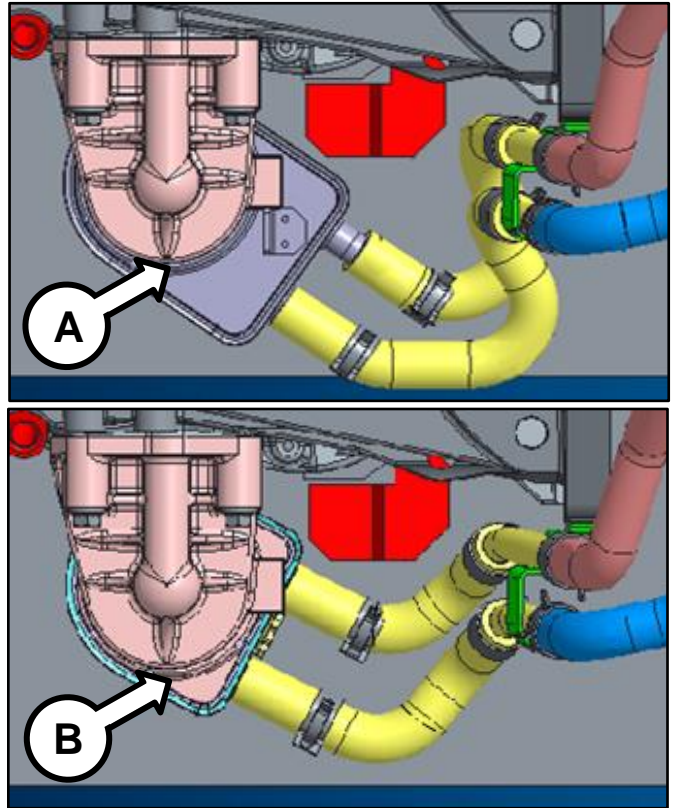
**36.2 – 39.7 lb.ft (49.0 – 53.9 N.m,
5.0 – 5.5 kgf.m)**



Oil Cooler Tube Assembly:

New engines may be supplied with a different oil cooler. Use steps below to determine the need for a replacement oil cooler tube assembly.

- If the new engine's (bigger) oil cooler (A) does not match the old engine's (smaller) oil cooler (B), replace the oil cooler tube assembly with the improved part. See parts table on page 15.
- If the new engine's (bigger) oil cooler (A) matches the old engine's (bigger) oil cooler (A), reuse the old engine's oil cooler tube assembly.
- If the new engine's (smaller) oil cooler (B) matches the old engine's (smaller) oil cooler (B), reuse the old engine's oil cooler tube assembly.

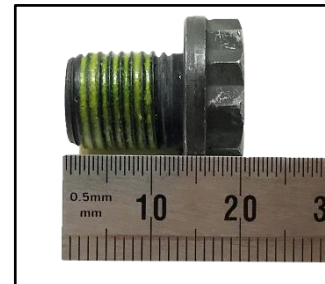


Drive Plate Bolts:

- Replace all seven (7) drive plate (AT) bolts.

Tightening torque of nuts:

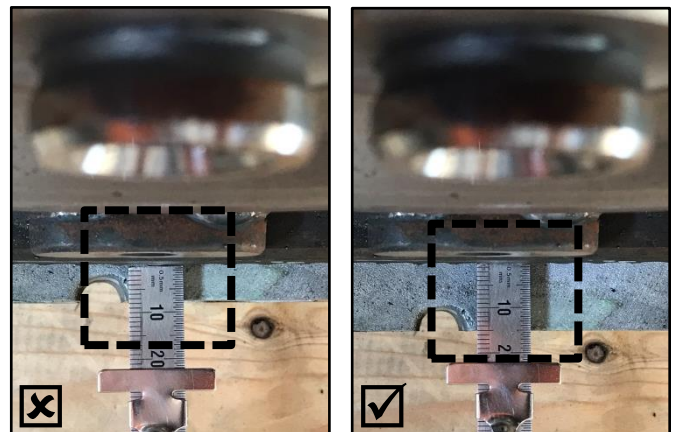
**86.8 – 93.9 lb.ft (117.7 – 125.5 N.m,
12.0 – 13.0 kgf.m)**



Drive Plate Bolt (A/T)

Torque Converter

- If the torque converter has moved from the fully inserted position, carefully push inward while rotating the torque converter until it is recessed approximately 9/16 – 5/8" (14 – 16mm) (☑) into the transaxle case when reinstalling the automatic transaxle.



Not Fully Inserted

Fully Inserted

SUBJECT: ENGINE REPLACEMENT INSTRUCTIONS FOR DTC P1326 (P11802W/X)

5. Reinstall the assembled engine and transmission/transaxle into the vehicle.

Be sure to:

- Fill crankcase with 5W-30 oil (~5.8 quarts).
- Fill and bleed the cooling system with 50/50 coolant or mixture appropriate for area.
- Pressurize the fuel system before starting the vehicle.
- Reset engine adaptive values and perform steering angle sensor calibration.

Refer to [TSB ENG190](#) for information regarding engine replacement practices.




6. Verify proper operation of the vehicle with road test, and **erase any stored DTCs** (e.g., EPS, ESC, and TPMS) that may have been set by this procedure. Verify no leaks exist and ensure engine oil and coolant are at their proper level.

If any DTCs are still active, follow any related diagnosis and repair as needed.


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AFFECTED VEHICLE RANGE:




Model	Production Date Range
15MY Sorento (XMa) (2.4)	January 3, 2014 through December 11, 2014
14MY Optima (TF) (2.4)	August 29, 2013 through April 25, 2014
14-15MY Sportage (SL) (2.4 & 2.0T)	September 30, 2013 through April 8, 2015
15MY Optima (QF/TF) (2.4 & 2.0T)	April 16, 2014 through October 2, 2015

REQUIRED TOOL:




Tool Name	Tool Part No.	Figure	Comments
Torque Wrench Socket	09314 3Q100		Refer to TSB ENG083 for detailed usage instructions
Injector Combustion Seal Ring Installer	09353 2B000		
Pin Tool	91400 00000QQK		Auto-shipped to Dealers

REQUIRED PARTS:

Part Name	MY	Model	Part Number		Figure
			2.4GDI	2.0T-GDI	
Engine Long Block	2014-2015	TF	21101 2GK06QQKR	-	
		SL	21101 2GK36QQKR	21101 2GK37QQKR	
	2015	QF	21101 2GK06QQKR	21101 2GK08QQKR	
		XMa ULEV & SULEV	21101 2GK11QQKR	-	

Part Name	Engine	Part Number	Figure
Service Kit I	2.4GDI	21111 2GK50QQK	
	2.0T-GDI	21111 2GK60QQK	
Service Kit II	2.4GDI and 2.0T-GDI	21111 2GK70QQK	

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Part Name	Engine	Part Number	Figure
Drive Plate Bolts	2.4GDI and 2.0T-GDI	23311 25050	
Oil Cooler Tube Assembly (replacement is conditional, refer to page 12)	2.4GDI	25470 2G050QQK	
	2.0T-GDI	25470 2G650QQK	
KS Extension Harness	2.4GDI and 2.0T-GDI	91400 2T000QQK	

WARRANTY INFORMATION (PI1802W1, MIL ON WITH P1326):

N Code: N99 C Code: C99

Model	Claim Type	Causal P/N	Qty.	Repair Description	Labor Op Code	Op Time	Replacement P/N	Qty.			
Sor. (XMa)	R	21020 2G010	0	(PI1802W1) 2.4L GDI 2WD MIL ON with P1326, KSDS Wire Harness Inspection Pass, & Engine Replacement	180A12R0	8.4 M/H	21111 2GK50QQK	1			
							21111 2GK70QQK	1			
							23311 25050	7			
							(ULEV or SULEV) 21101 2GK11QQKR	1			
				(PI1802W1) 2.4L GDI 2WD MIL ON with P1326, KSDS Wire Harness Inspection Fail, KSDS Extension Harness Install	180A12R2	0.8 M/H	91400 2T000QQK	1			
							(PI1802W1) 2.4L GDI AWD MIL ON with P1326, KSDS Wire Harness Inspection Pass, & Engine Replacement	180A12R1	8.6 M/H	21111 2GK50QQK	1
										21111 2GK70QQK	1
										23311 25050	7
				(ULEV or SULEV) 21101 2GK11QQKR	1						
				(PI1802W1) 2.4L GDI AWD MIL ON with P1326, KSDS Wire Harness Inspection Fail, KSDS Extension Harness Install	180A12R3	0.8 M/H	91400 2T000QQK	1			

SUBJECT: ENGINE REPLACEMENT INSTRUCTIONS FOR DTC P1326 (PI1802W/X)

Model	Claim Type	Causal P/N	Qty.	Repair Description	Labor Op Code	Op Time	Replacement P/N	Qty.			
Opt. (QF)	R	23060 2G400	0	(PI1802W1) 2.4L GDI MIL ON with P1326, KSDS Wire Harness Inspection Pass, & Engine Replacement	180A16R1	8.4 M/H	21111 2GK50QQK	1			
							21111 2GK70QQK	1			
							23311 25050	7			
							21101 2GK06QQKR	1			
				(PI1802W1) 2.4L GDI MIL ON with P1326, KSDS Wire Harness Inspection Fail, KSDS Extension Harness Install	180A16R3	0.8 M/H	91400 2T000QQK	1			
							(PI1802W1) 2.0L T-GDI MIL ON with P1326, KSDS Wire Harness Inspection Pass, & Engine Replacement	180A16R0	8.6 M/H	21111 2GK60QQK	1
										21111 2GK70QQK	1
										23311 25050	7
21101 2GK08QQKR	1										
(PI1802W1) 2.0L T-GDI MIL ON with P1326, KSDS Wire Harness Inspection Fail, KSDS Extension Harness Install	180A16R2	0.8 M/H	91400 2T000QQK	1							
			Opt. (TF)	R	23060 2G400	0	(PI1802W1) 2.4L GDI MIL ON with P1326, KSDS Wire Harness Inspection Pass, & Engine Replacement	180111R0	8.4 M/H	21111 2GK50QQK	1
										21111 2GK70QQK	1
										23311 25050	7
21101 2GK06QQKR	1										
(PI1802W1) 2.4L GDI MIL ON with P1326, KSDS Wire Harness Inspection Fail, KSDS Extension Harness Install	180111R5	0.8 M/H	91400 2T000QQK	1							

SUBJECT: ENGINE REPLACEMENT INSTRUCTIONS FOR DTC P1326 (PI1802W/X)

Model	Claim Type	Causal P/N	Qty.	Repair Description	Labor Op Code	Op Time	Replacement P/N	Qty.
Spo. (SL)	R	23060 2G400	0	(PI1802W1) 2.4L GDI 2WD MIL ON with P1326, KSDS Wire Harness Inspection Pass, & Engine Replacement	180112R0	7.7 M/H	21111 2GK50QQK	1
				21111 2GK70QQK			1	
				23311 25050			7	
				21101 2GK36QQKR			1	
				(PI1802W1) 2.4L GDI 2WD MIL ON with P1326, KSDS Wire Harness Inspection Fail, KSDS Extension Harness Install	180112R5	0.9 M/H	91400 2T000QQK	1
				(PI1802W1) 2.4L GDI AWD MIL ON with P1326, KSDS Wire Harness Inspection Pass, & Engine Replacement	180112R2	8.1 M/H	21111 2GK50QQK	1
				21111 2GK70QQK			1	
				23311 25050			7	
				21101 2GK36QQKR			1	
				(PI1802W1) 2.4L GDI AWD MIL ON with P1326, KSDS Wire Harness Inspection Fail, KSDS Extension Harness Install	180112R7	0.9 M/H	91400 2T000QQK	1
				(PI1802W1) 2.0L T-GDI 2WD MIL ON with P1326, KSDS Wire Harness Inspection Pass, & Engine Replacement	180112R3	7.7 M/H	21111 2GK60QQK	1
				21111 2GK70QQK			1	
				23311 25050			7	
				21101 2GK37QQKR			1	
				(PI1802W1) 2.0L T-GDI 2WD MIL ON with P1326, KSDS Wire Harness Inspection Fail, KSDS Extension Harness Install	180112R8	0.9 M/H	91400 2T000QQK	1
				(PI1802W1) 2.0L T-GDI AWD MIL ON with P1326, KSDS Wire Harness Inspection Pass, & Engine Replacement	180112R4	8.1 M/H	21111 2GK60QQK	1
21111 2GK70QQK	1							
23311 25050	7							
21101 2GK37QQKR	1							
(PI1802W1) 2.0L T-GDI AWD MIL ON with P1326, KSDS Wire Harness Inspection Fail, KSDS Extension Harness Install	180112R9	0.9 M/H	91400 2T000QQK	1				

SUBJECT: ENGINE REPLACEMENT INSTRUCTIONS FOR DTC P1326 (PI1802W/X)

WARRANTY INFORMATION (PI1802X1, 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.
Sor. (XMa)	R	21020 2G010	0	(PI1802X1) 2.4L GDI 2WD Engine Seized / Severe Knocking, Techline Authorized Engine Replacement, KSDS Wire Harness Inspection Pass	180A12R8	8.4 M/H	21111 2GK50QQK	1
							21111 2GK70QQK	1
							23311 25050	7
							(ULEV or SULEV) 21101 2GK11QQKR	1
				(PI1802X1) 2.4L GDI AWD Engine Seized / Severe Knocking, Techline Authorized Engine Replacement, KSDS Wire Harness Inspection Pass	180A12R9	8.6 M/H	21111 2GK50QQK	1
							21111 2GK70QQK	1
							23311 25050	7
							(ULEV or SULEV) 21101 2GK11QQKR	1
				(PI1802X1) 2.4L GDI 2WD Engine Seized / Severe Knocking, Techline Authorized Engine Replacement, KSDS Wire Harness Inspection Fail, KSDS Wire Harness Install	180A12RA	8.9 M/H	21111 2GK50QQK	1
							21111 2GK70QQK	1
							23311 25050	7
							(ULEV or SULEV) 21101 2GK11QQKR	1
				(PI1802X1) 2.4L GDI AWD Engine Seized / Severe Knocking, Techline Authorized Engine Replacement, KSDS Wire Harness Inspection Fail, KSDS Wire Harness Install	180A12RB	9.1 M/H	91400 2T000QQK	1
							21111 2GK50QQK	1
							21111 2GK70QQK	1
							23311 25050	7
				(ULEV or SULEV) 21101 2GK11QQKR	1			
				91400 2T000QQK	1			

SUBJECT: ENGINE REPLACEMENT INSTRUCTIONS FOR DTC P1326 (PI1802W/X)

Model	Claim Type	Causal P/N	Qty.	Repair Description	Labor Op Code	Op Time	Replacement P/N	Qty.				
Opt. (QF)	R	23060 2G400	0	(PI1802X1) 2.4L GDI Engine Seized / Severe Knocking, Techline Authorized Engine Replacement, KSDS Wire Harness Inspection Pass	180A16R9	8.4 M/H	21111 2GK50QQK	1				
							21111 2GK70QQK	1				
							23311 25050	7				
							21101 2GK06QQKR	1				
				(PI1802X1) 2.0L T-GDI Engine Seized / Severe Knocking, Techline Authorized Engine Replacement, KSDS Wire Harness Inspection Pass	180A16R8	8.7 M/H	21111 2GK60QQK	1				
							21111 2GK70QQK	1				
							23311 25050	7				
							21101 2GK08QQKR	1				
				(PI1802X1) 2.4L GDI Engine Seized / Severe Knocking, Techline Authorized Engine Replacement, KSDS Wire Harness Inspection Fail, KSDS Wire Harness Install	180A16RB	8.9 M/H	21111 2GK50QQK	1				
							21111 2GK70QQK	1				
							23311 25050	7				
							21101 2GK06QQKR	1				
				(PI1802X1) 2.0L T-GDI Engine Seized / Severe Knocking, Techline Authorized Engine Replacement, KSDS Wire Harness Inspection Fail, KSDS Wire Harness Install	180A16RA	9.2 M/H	91400 2T000QQK	1				
							21111 2GK60QQK	1				
							21111 2GK70QQK	1				
							23311 25050	7				
Opt. (TF)	R	23060 2G400	0	(PI1802X1) 2.4L GDI Engine Seized / Severe Knocking, Techline Authorized Engine Replacement, KSDS Wire Harness Inspection Pass	180111RA	8.4 M/H	21111 2GK50QQK	1				
							21111 2GK70QQK	1				
							23311 25050	7				
							21101 2GK06QQKR	1				
				(PI1802X1) 2.4L GDI Engine Seized / Severe Knocking, Techline Authorized Engine Replacement, KSDS Wire Harness Inspection Fail, KSDS Wire Harness Install	180111RF	8.9 M/H	21111 2GK50QQK	1				
							21111 2GK70QQK	1				
							23311 25050	7				
							21101 2GK06QQKR	1				
											91400 2T000QQK	1

SUBJECT: ENGINE REPLACEMENT INSTRUCTIONS FOR DTC P1326 (PI1802W/X)

Model	Claim Type	Causal P/N	Qty.	Repair Description	Labor Op Code	Op Time	Replacement P/N	Qty.				
Spo. (SL)	R	23060 2G400	0	(PI1802X1) 2.4L GDI 2WD Engine Seized / Severe Knocking, Techline Authorized Engine Replacement, KSDS Wire Harness Inspection Pass	180112RA	7.7 M/H	21111 2GK50QQK	1				
				21111 2GK70QQK			1					
				23311 25050			7					
				21101 2GK36QQKR			1					
				(PI1802X1) 2.4L GDI AWD Engine Seized / Severe Knocking, Techline Authorized Engine Replacement, KSDS Wire Harness Inspection Pass	180112RC	8.1 M/H	21111 2GK50QQK	1				
				21111 2GK70QQK			1					
				23311 25050			7					
				21101 2GK36QQKR			1					
				(PI1802X1) 2.0L T-GDI 2WD Engine Seized / Severe Knocking, Techline Authorized Engine Replacement, KSDS Wire Harness Inspection Pass	180112RD	7.7 M/H	21111 2GK60QQK	1				
				21111 2GK70QQK			1					
				23311 25050			7					
				21101 2GK37QQKR			1					
				(PI1802X1) 2.0L T-GDI AWD Engine Seized / Severe Knocking, Techline Authorized Engine Replacement, KSDS Wire Harness Inspection Pass	180112RE	8.1 M/H	21111 2GK60QQK	1				
				21111 2GK70QQK			1					
				23311 25050			7					
				21101 2GK37QQKR			1					
				(PI1802X1) 2.4L GDI 2WD Engine Seized / Severe Knocking, Techline Authorized Engine Replacement, KSDS Wire Harness Inspection Fail, KSDS Wire Harness Install	180112RF	8.3 M/H	21111 2GK50QQK	1				
				21111 2GK70QQK			1					
				23311 25050			7					
				21101 2GK36QQKR			1					
											91400 2T000QQK	1
				(PI1802X1) 2.4L GDI AWD Engine Seized / Severe Knocking, Techline Authorized Engine Replacement, KSDS Wire Harness Inspection Fail, KSDS Wire Harness Install	180112RH	8.7 M/H	21111 2GK50QQK	1				
				21111 2GK70QQK			1					
				23311 25050			7					
				21101 2GK36QQKR			1					
											91400 2T000QQK	1
				(PI1802X1) 2.0L T-GDI 2WD Engine Seized / Severe Knocking, Techline Authorized Engine Replacement, KSDS Wire Harness Inspection Fail, KSDS Wire Harness Install	180112RI	8.3 M/H	21111 2GK60QQK	1				
				21111 2GK70QQK			1					
23311 25050	7											
21101 2GK37QQKR	1											
							91400 2T000QQK	1				
(PI1802X1) 2.0L T-GDI AWD Engine Seized / Severe Knocking, Techline Authorized Engine Replacement, KSDS Wire Harness Inspection Fail, KSDS Wire Harness Install	180112RJ	8.7 M/H	21111 2GK60QQK	1								
21111 2GK70QQK			1									
23311 25050			7									
21101 2GK37QQKR			1									
							91400 2T000QQK	1				

SUBJECT: ENGINE REPLACEMENT INSTRUCTIONS FOR DTC P1326 (PI1802W/X)

NOTE: Refer to Warranty Bulletin 2018-10 for details regarding coolant and substitute transportation reimbursement requirements.

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.

* NOTICE


<p>VIN inquiry data for this repair is provided for tracking purposes only. Kia retailers should reference <u>PI1802W/X*</u> when accessing the WebDCS system.</p>
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Appendix 1 (Warranty Claim Authorization)

	Scenario	Description	Action Required
1	Campaign - TSB # PI1802W/X Case for Warranty Authorization NO INSPECTION	Wiring Signal Interference Check cannot be completed due to engine seizure or other engine failure (won't run long enough to complete the test)	<p>TL PWA required for all dealers – Video of condition and WRTY143 form required*</p> <p>Video requirement examples below are for illustration purposes, individual requirements will vary based upon the condition reported:</p> <ul style="list-style-type: none"> Video should be continuous and show the VIN (most convenient VIN plate) and pan to show the engine condition For engine seizures, attempt to turn over engine with breaker bar in video For hole in engine block, show hole in video

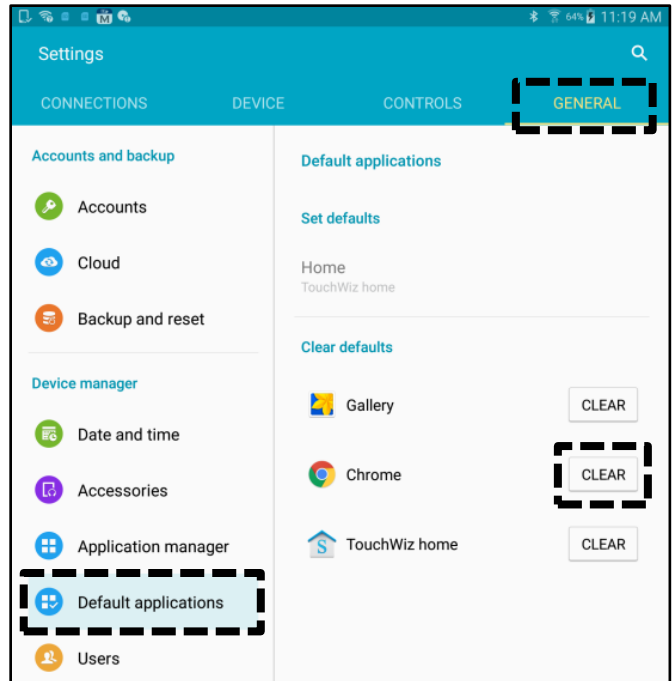
Appendix 2 (Video Capture & Upload)

Capturing a video is often helpful in assisting the Kia Techline Agent in determining a proper diagnosis strategy. Once a TechLine case is open, the following procedure will guide you through the video capture and upload.

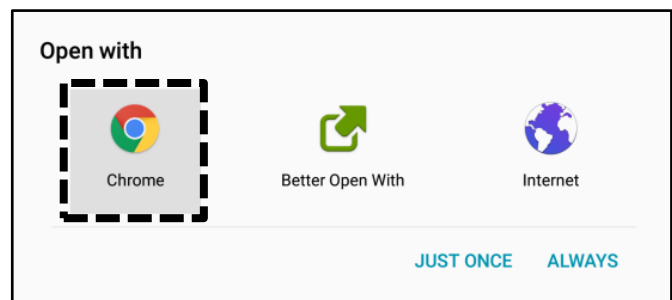
The Chrome™  browser should be used to access the Techline portal. Follow the steps below to clear the default browser if it is other than Chrome™.

For KDS Tab 10.1 Tablets:

1. Select “Settings” from the App Screen.
2. Select the “General” tab at the top.
3. Select “Default Applications”.
4. If “Internet” is the default browser, select the CLEAR button.
If “Chrome” is the default browser, further action is not required.

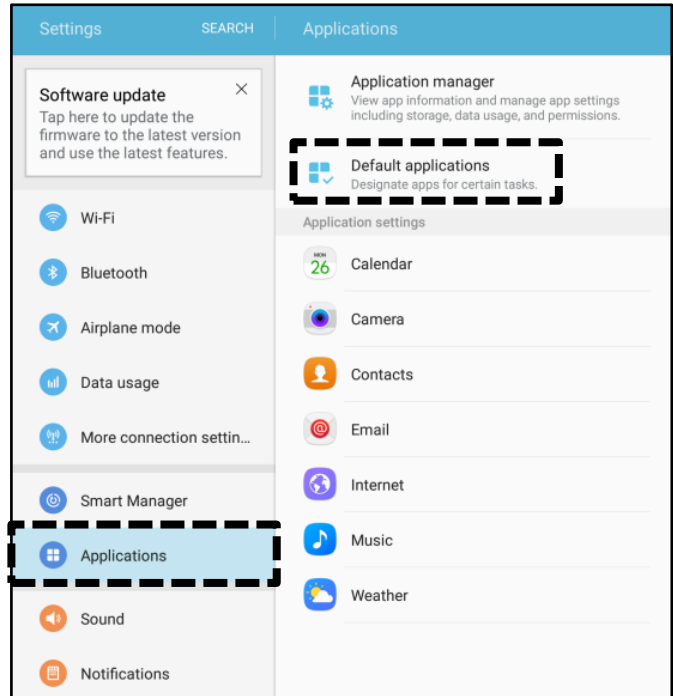


5. When opening the Techline portal, select “Chrome” and select Always”.

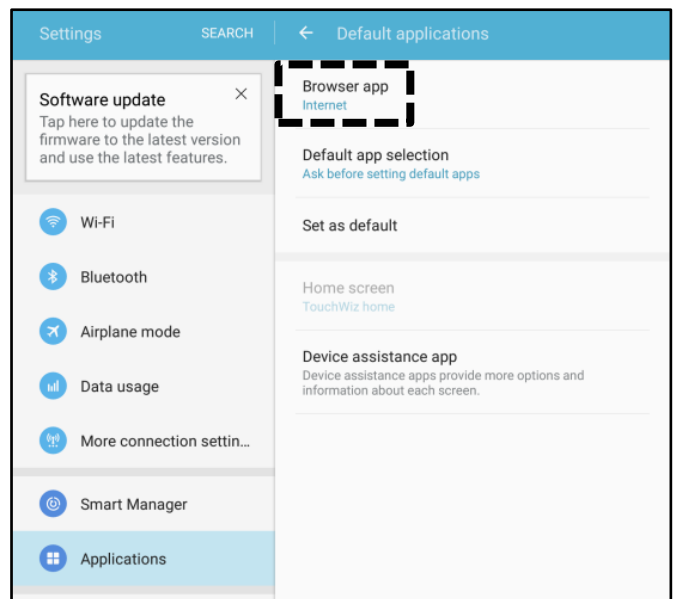


SUBJECT: ENGINE REPLACEMENT INSTRUCTIONS FOR DTC P1326 (P11802W/X)
For KDS Tab S2 Tablets:

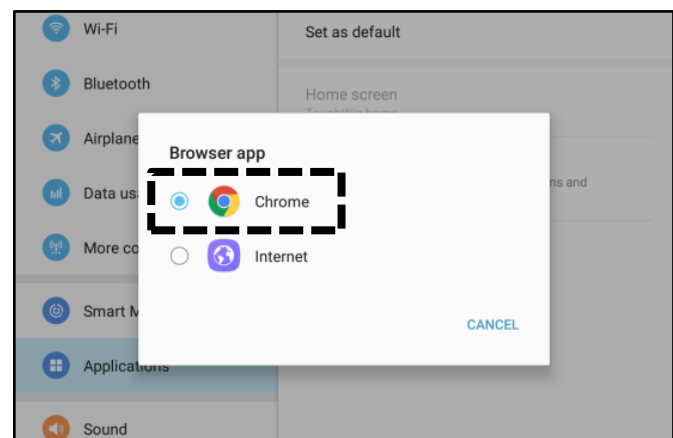
1. Select “Settings” from the App Screen.
2. Select “Applications”.
3. Select “Default Applications”.



4. Select “Browser app”.

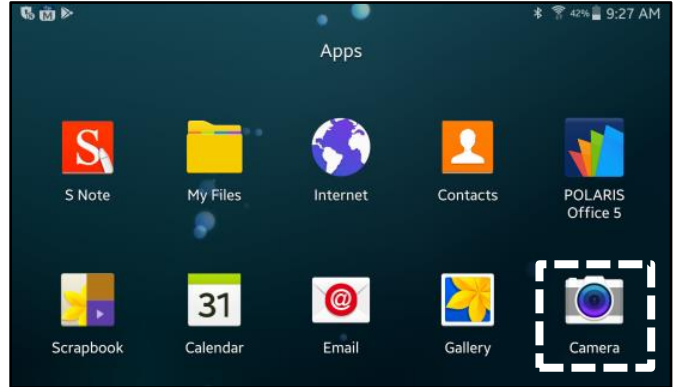


5. Ensure “Chrome” is selected.

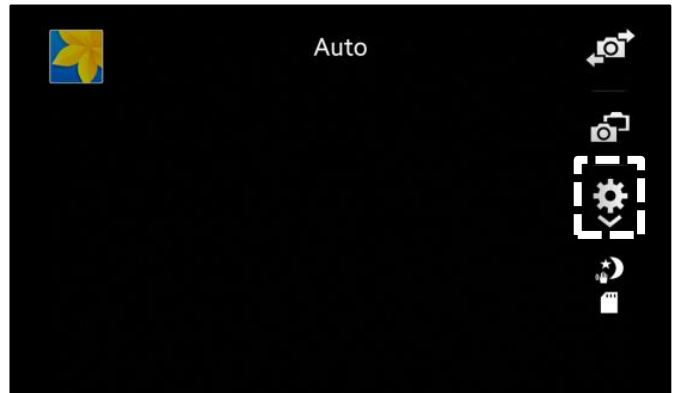


Setting Your Video Size to “Limit to Email”

1. Select “Camera” from the App Screen.



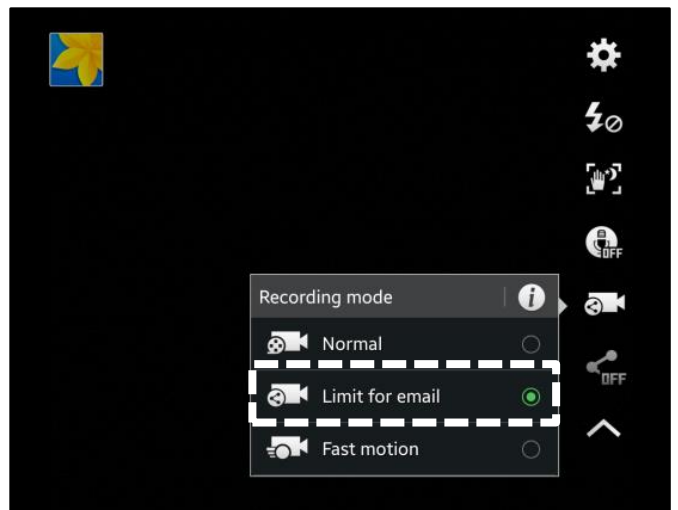
2. Select the Settings icon.



3. Select the Video Camera icon.



4. Ensure “Limit to email” is selected.



SUBJECT: ENGINE REPLACEMENT INSTRUCTIONS FOR DTC P1326 (P11802W/X)

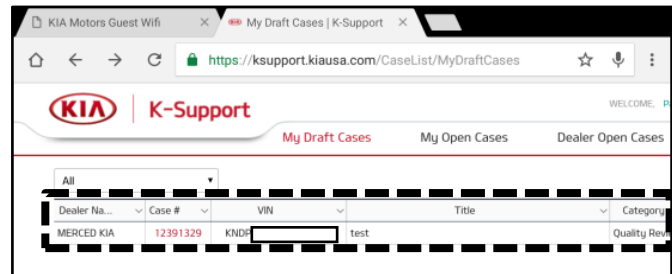
Attaching Video to a Techline Case

1. Open K-Support in the device Chrome™ browser or select the “Techline” button on KDS home page.

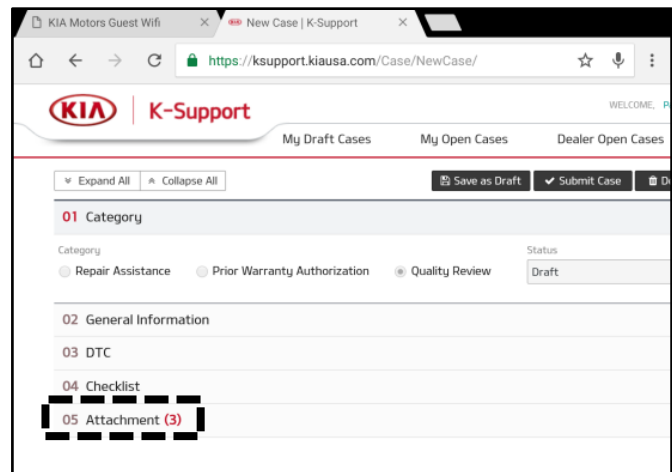
<https://ksupport.kiausa.com>



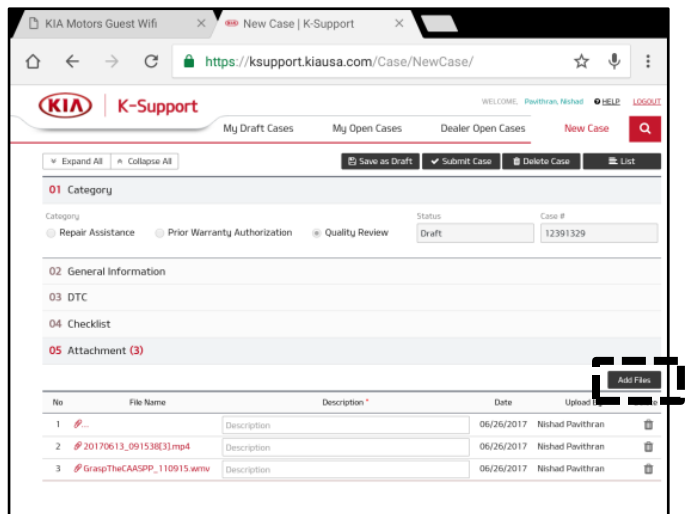
2. Open your existing Techline case for the vehicle requiring a video capture by selecting the case number.



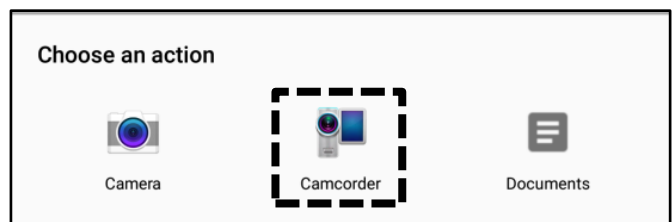
3. Select “Attachment”.



4. Select “Add Files”.



5. Select “Camcorder” and the video camera will open.

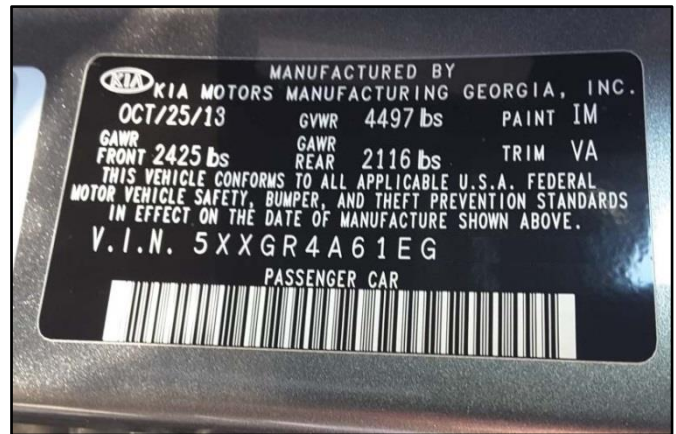


SUBJECT: ENGINE REPLACEMENT INSTRUCTIONS FOR DTC P1326 (PI1802W/X)

- Start by recording the VIN. Ensure sun glare is not reflecting off windows or other objects.

Without stopping the recording, capture the area of the vehicle displaying the issue. i.e.;

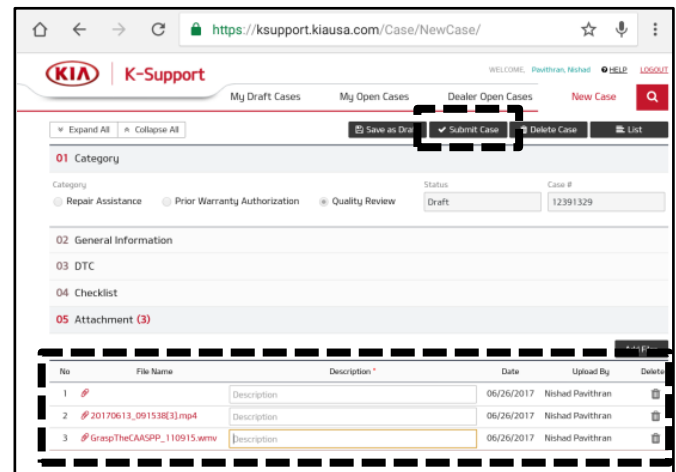
- Engine Noise – record the engine.
- Hole In Block – record the side of the engine with the damage.
- Seized Engine – record a technician trying to turn the engine over with a breaker bar.



*** NOTICE**

NOTE: Ensure the video size is set to “Limit to email” (see page 24). Only record the VIN and the engine exhibiting the concern. Any additional information will increase the size of the video and make it difficult to upload or download.

- Stop the video when you captured what is needed. Select “OK” to use this capture or “RETRY” to capture the video again.
- Ensure a description of the recording. For example, engine knock or smoke from exhaust.
- Select “Submit Case”.



- Select “Yes” when the confirmation message below appears.

Note: Selecting anything other than “Yes” will not save the video capture.

