



Kubota

SUBJECT :
KX080-4a2 ENGINE RPM DROP
PHENOMENON

Bulletin No : CM-21-069-02-KEEN
 Date : May 20, 2024
 Ref.PB No :

Marco Carugati

Kubota Europe S.A.S

MODEL : KX080-4a2

AFFECTED SERIAL NUMBER : UP TO 75441

AFFECTED COUNTRY : KUK, KE AND KBD

REASON FOR ISSUE :

Cases of the engine rpm drop down until 1400 rpm has been reported when the boom lift and the arm or the bucket were operated in the unwarmed up condition.

Basically the machine must be warmed up before the operation for the best performance. Nevertheless, it was possible to improve the fuel injection control to reduce the amount of the engine rpm drop slightly. However be sure that the engine rpm drop in the unwarmed up condition will not completely disappear even with the new software and the warming up process is still necessary.

We herewith inform you the measure to be taken in the presence of strong customer complaints.

REASON FOR REVISION :

The update procedure with KOBD ACE is added.

MODEL CODE and MODEL NAME :

Model Code	Model Name	Model Code	Model Name
RD849-20080	KX080-4A2 EUGLAHWNBK	RD849-20070	KX080-4A2 EUGLANBK+1
RD849-20P80	KX080-4A2EUGLAHWNBRE	RD849-20P70	KX080-4A2EUGLANBRE+1
RD849-21080	KX080-4A2 EU LAHWNBK	RD849-21070	KX080-4A2 EU LANBK+1
RD849-21P80	KX080-4A2EULAHWNBKRE	RD849-21P70	KX080-4A2EULANBKRE+1
RD849-30080	KX080-4A2 EU GHW NBK	RD849-30070	KX080-4A2 EU G NBK+1
RD849-30P80	KX080-4A2EUGHWNBKRE	RD849-30P70	KX080-4A2EUGNBKRE+1
RD849-31080	KX080-4A2 EU HW NBK	RD849-31070	KX080-4A2 EU NBK+1
RD849-31P80	KX080-4A2EUHWNBKRE	RD849-31P70	KX080-4A2EUNBKRE+1
RD849-40080	KX080-4A2EU2BGLATWNB	RD849-40070	KX080-4A2EU2BGLANB+1
RD849-41080	KX080-4A2EU2BLATWNBK	RD849-41070	KX080-4A2EU2BLANBK+1
RD849-50080	KX080-4A2EU2BG TWNBK	RD849-50070	KX080-4A2EU2BG NBK+1
RD849-51080	KX080-4A2EU2B TWNBK	RD849-51070	KX080-4A2EU2B NBK+1
RD849-20T80	KX080-4A2EUGLAHWNBMO	RD849-20T70	KX080-4A2EUGLANBMO+1

☒ **WARRANTY INFORMATION**

- ☐ Mandatory Campaign : Allowable Man-hours ;
☒ Technical Bulletin : Allowable Man-hours ; 0.5 hrs.

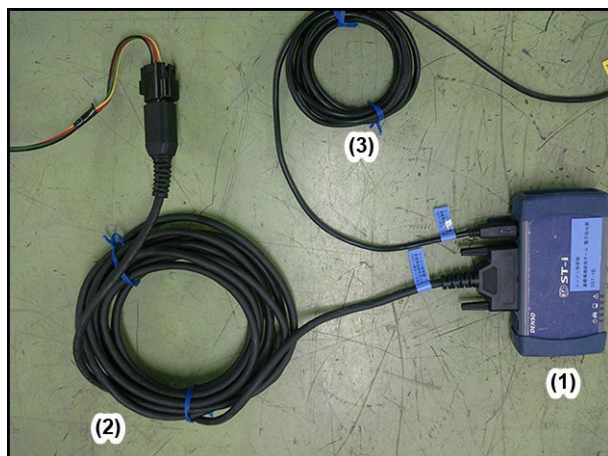
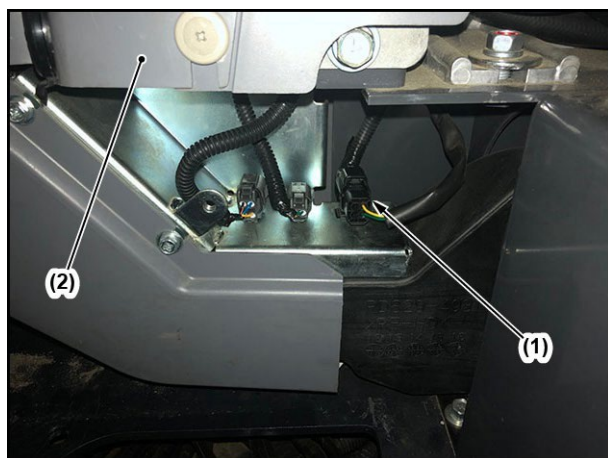
Expiration date : 5 years from machine retail date

- ☐ Quality Related Information

INSTRUCTIONS TO REPROGRAM THE ENGINE ECU BY DIAGMASTER**Required tools**

No.	Tool Name	Remarks
1	DST-i	
2	Vehicle cable	
3	USB cable	

Not shown in the picture; PC / Laptop with diagmaster

Photo of tools**DST-i connector location**

- (1) DST-i connector
- (2) RH console

! WARNING

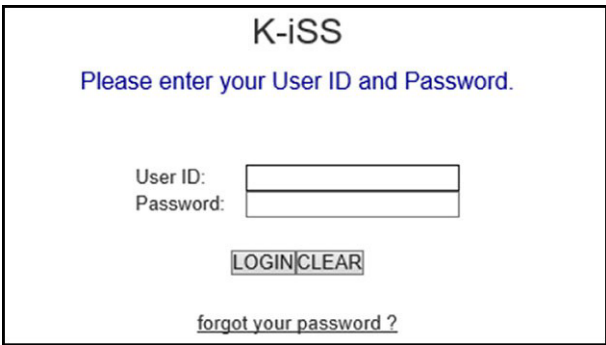
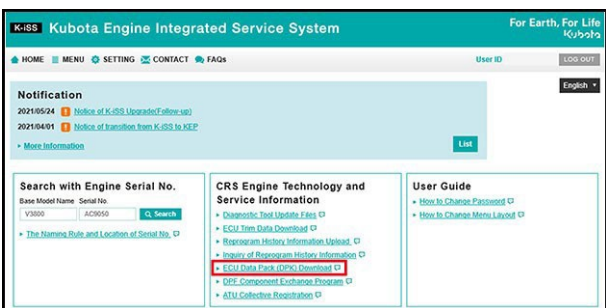
To avoid personal injury or death:

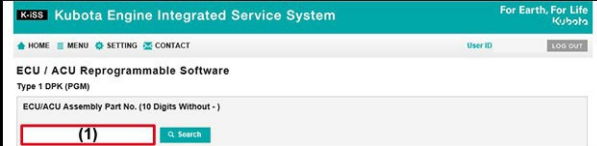
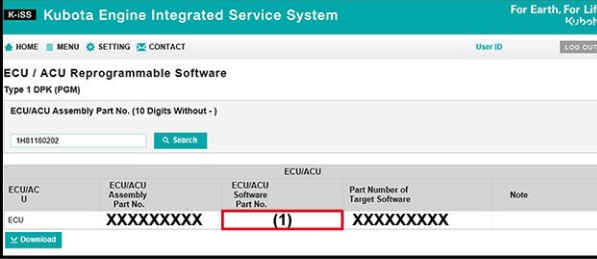
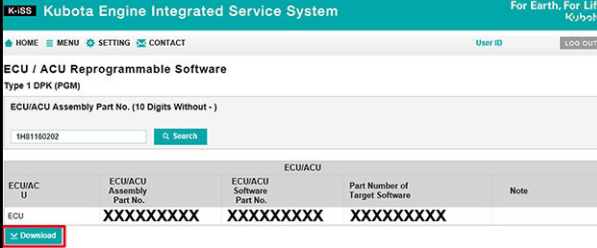
- Park the machine on a firm and level ground.
- Lower the bucket to the ground.
- Set all controls in their neutral positions.
- Release all residual pressure of the hydraulic system.
- Stop the engine.
- The engine, hydraulic components and coolants can be hot.
Wait until all the components are cooled down sufficiently to avoid burns.
- Clean the work area and the machine.
- Hang a "DO NOT OPERATE" tag on the operator station.
- Put on working clothes and personal protective equipment.
- Read all instructions and safety instructions in this bulletin and safety labels on your machine.
- Follow the local safety regulations and/or laws in your country.
- If you are working with other people, make sure that your signals and communications are fully understandable for additional safety.

■ IMPORTANT

- Do not shut off the machine or disconnect the tools during the reprogramming.
 - The reprogramming will not be completed.
 - The ECU can be damaged.
- Make sure that the battery of the machine is in good condition to avoid unexpected shut off.

1. DPK file preparation

 <p>The image shows the K-ISS login interface. At the top, it says 'K-ISS' and 'Please enter your User ID and Password.' Below this are two input fields: 'User ID:' and 'Password:'. There are 'LOGIN' and 'CLEAR' buttons. At the bottom, there is a link that says 'forgot your password ?'.</p>	<p>1. Login K-ISS (Kubota Engine Integrated Service System).</p>
 <p>The image shows the K-ISS home page. The header includes 'K-ISS Kubota Engine Integrated Service System' and 'For Earth, For Life'. There are navigation links: HOME, MENU, SETTING, CONTACT, and FAQS. A 'Notification' section shows two messages from 2021/05/24 and 2021/04/01. Below this is a 'Search with Engine Serial No.' section with a search bar. To the right, there are two columns: 'CRS Engine Technology and Service Information' and 'User Guide'. The 'CRS Engine Technology and Service Information' column has a red box around the 'ECU Data Pack (DPK) Download' link.</p>	<p>2. Click the "ECU Data Pack (DPK) Download" on the "CRS Engine Technology and Service Information".</p>

	<p>3. Enter the ECU Assy Part No. (1) and click the "Search" button.</p> <p>(1) ECU Assy Part No.: 1H34660305</p>
	<p>4. Confirm if the ECU/ACU Software Part No. (1) is correct.</p> <p>(1) ECU/ACU Software Part No.: 1H34669975</p>
	<p>5. Click the "Download" button to download the DPK file.</p>

2. Reprogramming

1. Connect your PC / laptop to the power source.

■ IMPORTANT

- Your PC / laptop must keep running during the reprogramming. If your PC / laptop shuts down during the reprogramming, the ECU will be damaged not to allow the reprogramming any more.

2. Set up your PC / laptop to disable the sleep screen saver.

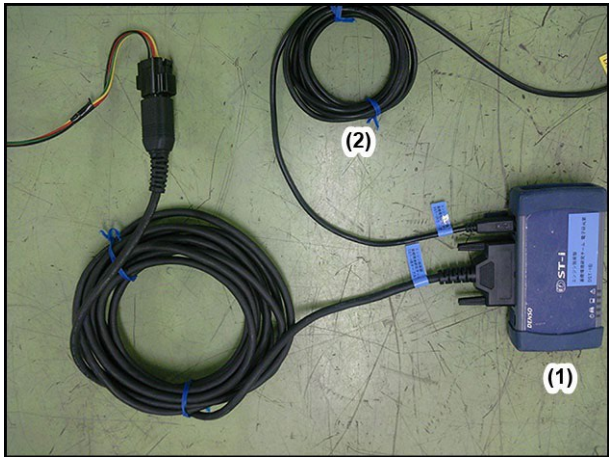
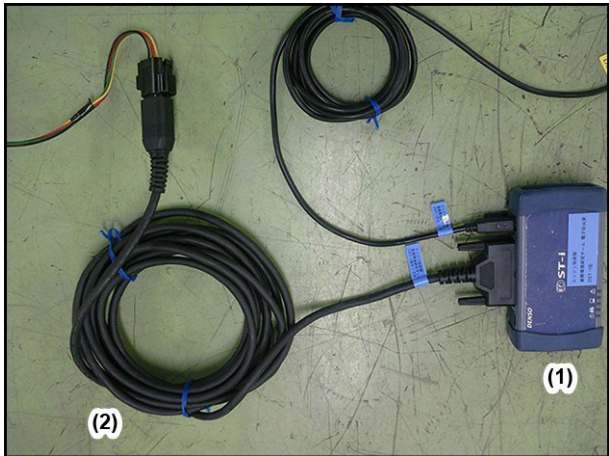
■ IMPORTANT

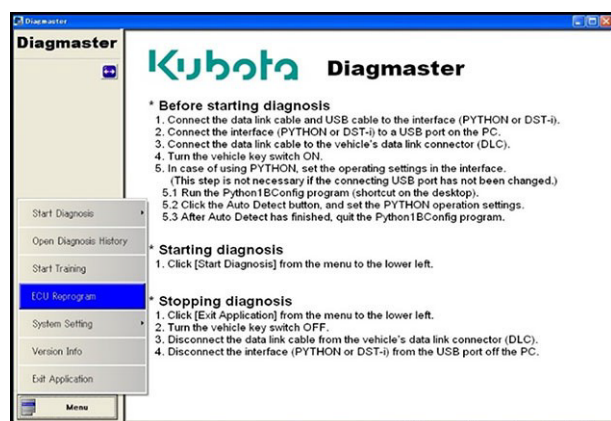
- Your PC / laptop must keep running during the reprogramming. If your PC / laptop sleeps during the reprogramming, the ECU will be damaged not to allow the reprogramming any more.

3. Put your PC / laptop on a stable place and remove any risk of disconnecting cables during the reprogramming.

■ IMPORTANT

- The connection between your PC / laptop and the machine must be kept during the reprogramming. If the connection is lost during the reprogramming, the ECU will be damaged not to allow the reprogramming any more.

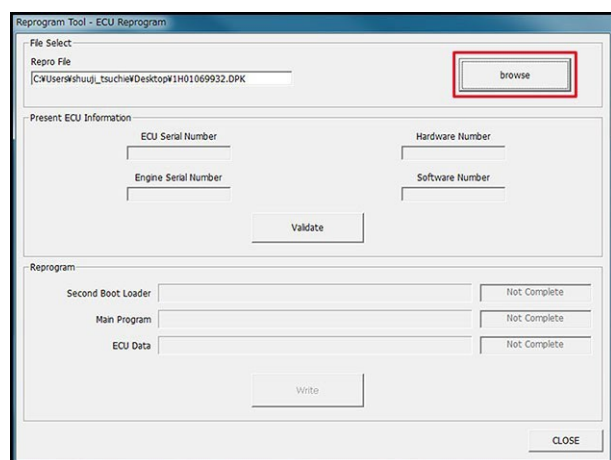
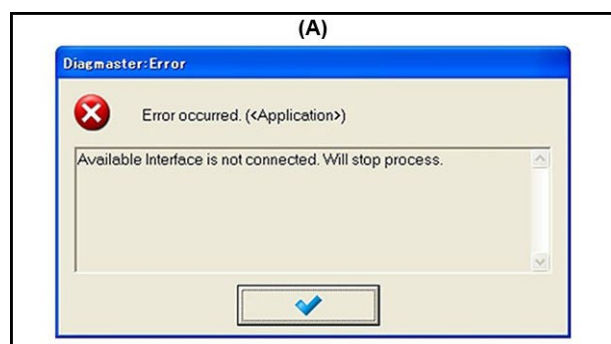
	<p>4. Connect the DST-i (1) and your PC / laptop with the USB cable (2).</p> <p>(1) DST-i (2) USB cable</p>
	<p>5. Connect the DST-i (1) and your machine with the vehicle cable (2).</p> <p>(1) DST-i (2) Vehicle cable</p>
	<p>6. Turn the starter key to the "RUN" position to supply power to ECU.</p> <p>■ NOTE</p> <ul style="list-style-type: none"> • Do not start the engine.
	<p>7. Start the diagmaster software and login.</p>



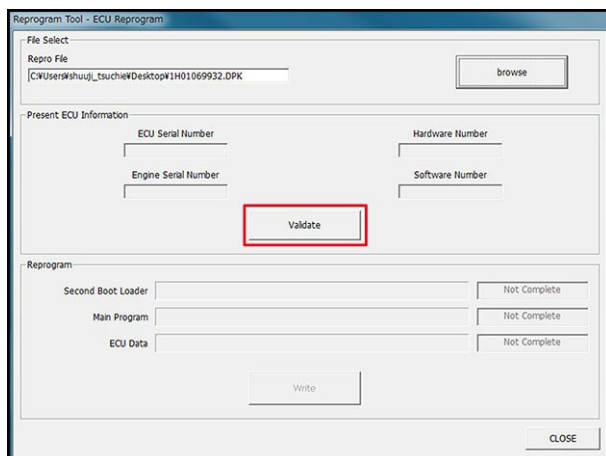
8. Click the "ECU Reprogram" button in the "Menu".

■ NOTE

- When you see the error screen (A), check if:
 - the DST-i driver has been installed.
 - DST-i is connected to PC by USB. (If USB port has been changed, it is necessary to perform a part of the driver installation again.)



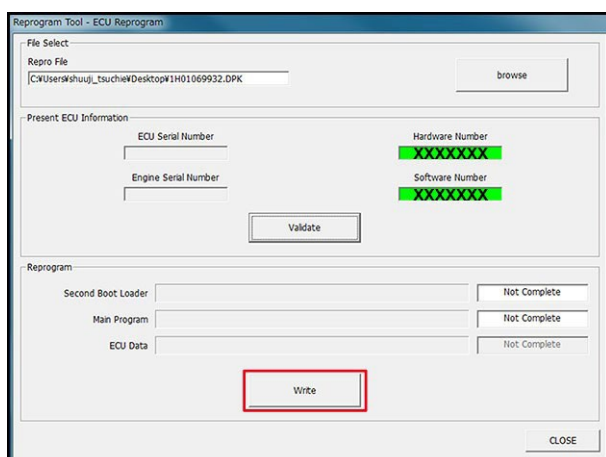
9. Click the "browse" button and select the downloaded DPK file from the directory on your hard disk where the DPK file was saved to.



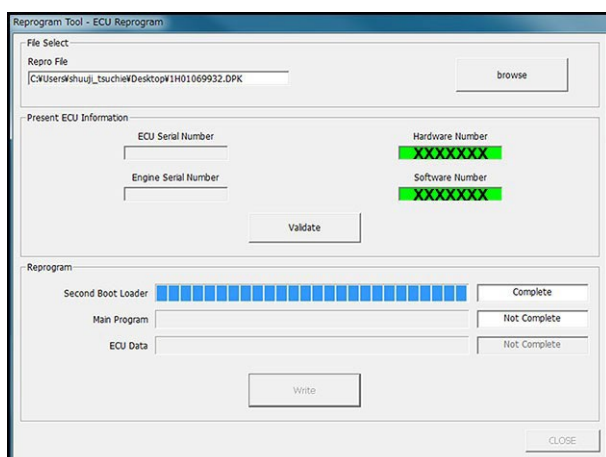
10. Click the "Validate" button.

■ **NOTE**

- When you see the error screen (A), check if:
 - the vehicle cable is connected to the machine and DST-i.
 - the starter key is turned to "RUN" position to supply power to the ECU.



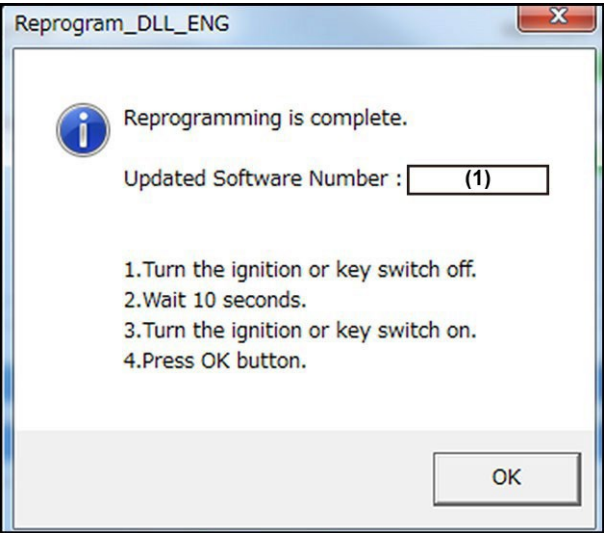
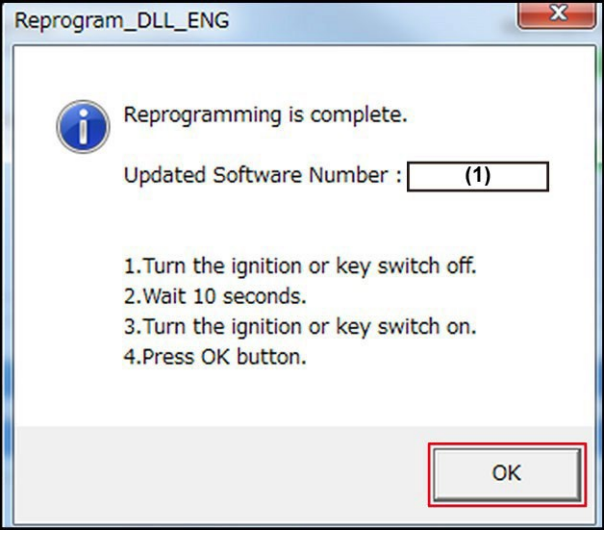
11. Click the "Write" button.



12. Wait until the reprogramming finishes.

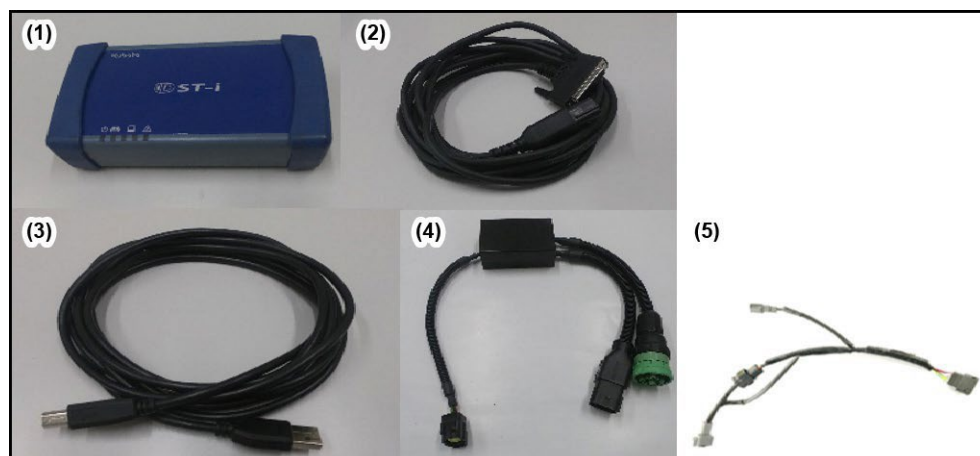
■ **NOTE**

- It takes several minutes to complete.

	<p>13. Confirm the message if the Updated Software Number (1) is correct.</p> <p>■ IMPORTANT</p> <ul style="list-style-type: none"> • Do not click the "OK" button without completing the step 14 to step 16. Otherwise the reprogramming will not be effective. <p>(1) Updated Software Number: 1H34669975</p>
	<p>14. Turn the starter key off.</p>
	<p>15. Wait 10 seconds.</p>
	<p>16. Turn the starter key to the "RUN" position.</p> <p>■ NOTE</p> <ul style="list-style-type: none"> • Do not start the engine.
	<p>17. Press the "OK" button.</p> <p>(1) Updated Software Number: 1H34669975</p>
	<p>18. Turn the starter key off.</p>
	<p>19. Disconnect the cables from your machine and PC / laptop.</p>

INSTRUCTIONS TO REPROGRAM THE EVCU BY KOBD ACE**Required tools**

No.	Tool Name	Remarks
1	DST-i	
2	D-sub cable for DST-i	
3	USB cable for DST-i	
4	GWU cable	
5	Retrofit cable	

Photo of tools**! WARNING**

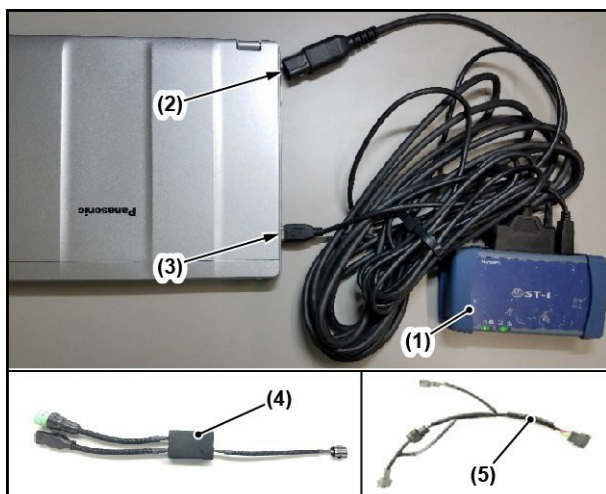
To avoid personal injury or death:

- Park the machine on a firm and level ground.
- Lower the bucket to the ground.
- Set all controls in their neutral positions.
- Release all residual pressure of the hydraulic system.
- Stop the engine.
- The engine, hydraulic components and coolants can be hot.
Wait until all the components are cooled down sufficiently to avoid burns.
- Clean the work area and the machine.
- Hang a "DO NOT OPERATE" tag on the operator station.
- Put on working clothes and personal protective equipment.
- Read all instructions and safety instructions in this bulletin and safety labels on your machine.
- Follow the local safety regulations and/or laws in your country.
- If you are working with other people, make sure that your signals and communications are fully understandable for additional safety.

■ IMPORTANT

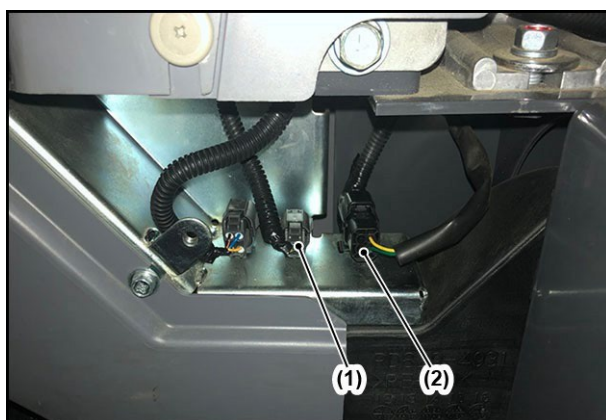
- Do not shut off the machine or disconnect the tools during the reprogramming.
 - The reprogramming will not be completed.
 - The ECU can be damaged.
- Make sure that the battery of the machine is in good condition to avoid unexpected shut off.

1. Instruction to reprogram the ENGINE ECU by KOBD ACE



1. Connect DST-i (1) and the two cables (2), (3) as shown in the photo. Connect the USB connector of the DST-i cable into the USB port of the laptop.

- (1) DST-i
- (2) D-sub cable for DST-i
- (3) USB cable for DST-i
- (4) GWU
- (5) Retrofit cable



2. Open the cover under the seat. Remove the cap from CAN connector 2 pin (1) and 4 pin (2). Connect the retro fit cable with CAN connector (2 pin and 4 pin) (1) (2) of the machine.

- (1) CAN connector (2 pin)
- (2) CAN connector (4 pin)

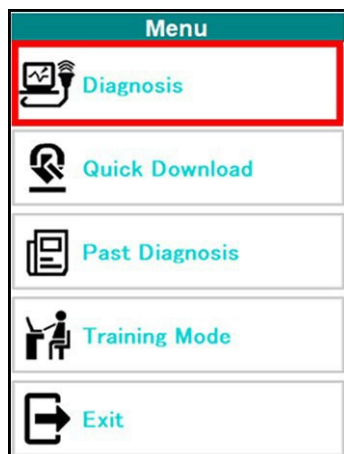
3. Put the starter key into the starter switch and turn the starter key to the "RUN" position.

■ NOTE

- Do not start the engine.



4. Start KOBD ACE on your laptop and login.



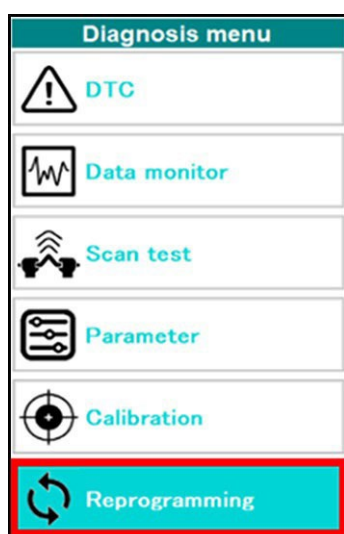
5. Click "Diagnosis".



6. The image and the model name: [KX080-4a2] will be displayed. Then click "Select".

ENGINE SW version	1H05869984
ENGINE Serial number	V3307-T-8NJ2688
ENGINE ECU serial number	11H0588NJ2688

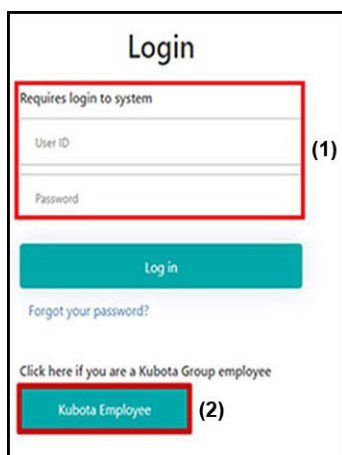
7. Check the current software version which is displayed on the ENGINE ECU SW version.



8. Click "Reprogramming". After clicking "Reprogramming", the latest SW version will be displayed.

xCU	SW version (Server)	File size	Download (Server -> PC)
ENGINE	1H34669975		

9. Target the ENGINE ECU SW version: 1H34669975, then click the "Download" button. Click "Download" icon.



Login

Requires login to system

User ID

Password

Log in

[Forgot your password?](#)

Click here if you are a Kubota Group employee

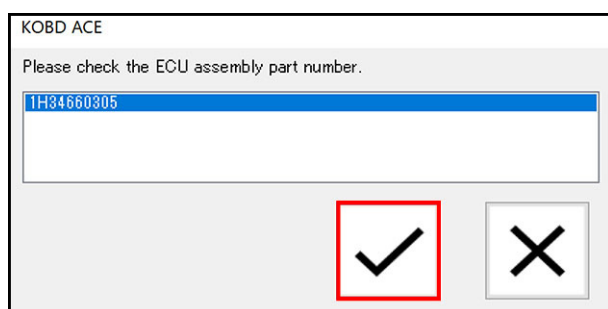
Kubota Employee

(1)

(2)

10. After clicking "Download" icon, it is necessary to login with your login data.



- (1) General users login with ID and password of KOBD ACE.
- (2) Kubota Group users login with integrated authentication.



KOBD ACE

Please check the ECU assembly part number.

1H34660305

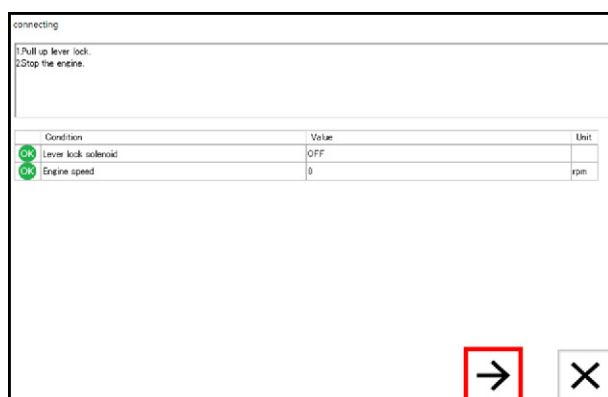
 

11. After the successful login, the list of ECU assy number will be displayed. Then select the ECU assy number and click "✓".

After clicking "✓", the software will be downloaded automatically. The progress rate will be shown.

SW version (PC)	SW info	Flash (PC -> xCU)	SW version (xCU)
1H34669975			1H34669972



12. Click on the "Flash" icon to start the update of the ENGINE ECU.



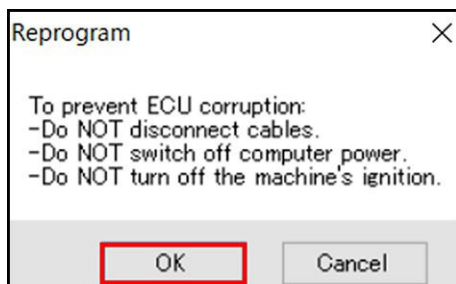
connecting

1 Pull up lever lock.
2 Stop the engine.

Condition	Value	Unit
OK Lever lock solenoid	OFF	
OK Engine speed	0	rpm

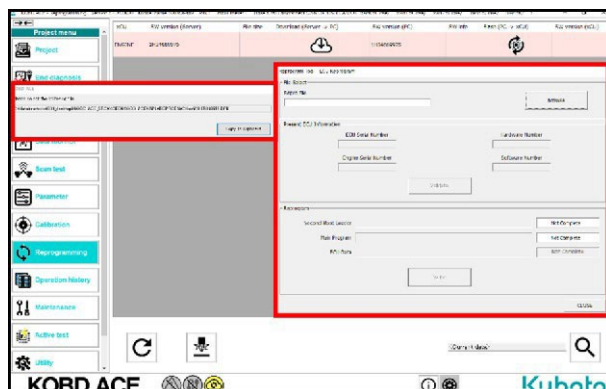
13. Check the conditions and click "Next".



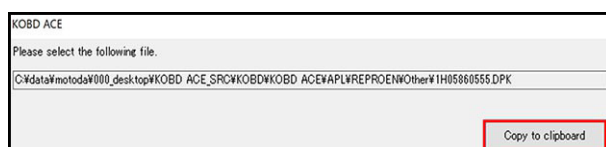
14. Review the notes, then click "OK".

■ **IMPORTANT**

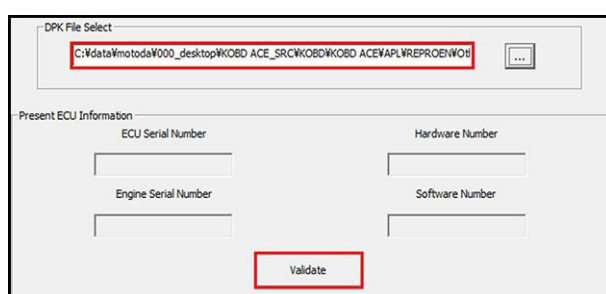
- During the update, don't turn off the laptop power or disconnect the cables. If the laptop is turned off or the cables are disconnected, the update can not be completed successfully. In this case, the recovery of the ENGINE ECU software might be difficult. But restart from the first step of this of this service bulletin to start a recovery. In case that a recovery of the ENGINE ECU is impossible to do, If the ECU could not recover, it have to be replaced to a new one. Make sure that the battery of the laptop is in good condition to avoid unexpected turn off.



15. The file path and the reprogramming window will be displayed as shown in the illustration.



16. Click "Copy to clipboard" to copy the file path.



17. Paste the file path to the "DPK File Select" area and click "Validate".

DPK File Select
 _desktop\KOBDA ACE_SRC\KOBDA\KOBDA ACE\APL\WREPRO\EN\Other\1H05860555.DPK ...

Present ECU Information

ECU Serial Number	Hardware Number
	1J7795905
Engine Serial Number	Software Number
	1H05860555

Validate

Reprogram

Second Boot Loader	Not Complete
Main Program	Not Complete
ECU Data	

Write

18. Click "Write".

Reprogram_DLL

Reprogramming is complete.
 Updated Software Number : 1H34669975

1. Turn the ignition or key switch off.
 2. Wait 10 seconds.
 3. Turn the ignition or key switch on.
 4. Press OK button.

OK

19. After the reprogramming has been completed, the confirmation message is shown.
 Please make sure that the updated software number is 1H34669975 and then follow the indication stated below.

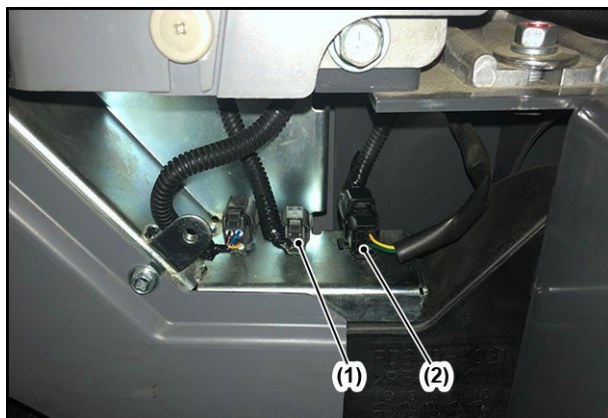
1. Turn the ignition or key switch to "OFF".
2. Wait 10 seconds.
3. Turn the ignition or key switch to "RUN".
4. Press OK button.

ECU information	
MAIN SW version	60257
MAIN ECU serial number	70100006
METER SW version	170301
ENGINE SW version	1H34669975
ENGINE Serial number	V3307-T-8KQ2176
ENGINE ECU serial number	11H3468KQ2176

20. Check the current software version which is displayed on the ENGINE SW version (see step 5-7).
 ENGINE SW version: 1H34669975

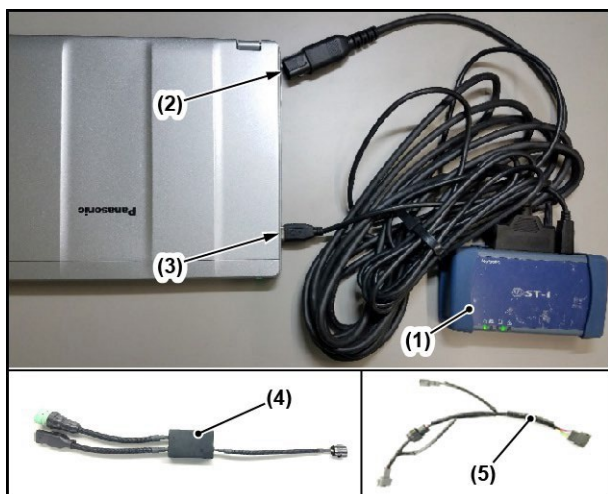
21. Close the KOBDA ACE program and then disconnect the cables from the machine.

22. Turn key switch to "OFF".



23. Disconnect the retro fit cable with CAN connector (2 pin and 4 pin) (1) (2) of the machine. Put the cap into CAN connector 2 pin (1) and 4 pin (2).

- (1) CAN connector (2 pin)
- (2) CAN connector (4 pin)



24. Disconnect DST-i (1) and the two cables (2), (3). Disconnect the USB connector of the DST-i cable from the USB port of the laptop.

- (1) DST-i
- (2) D-sub cable for DST-i
- (3) USB cable for DST-i
- (4) GWU
- (5) Retrofit cable