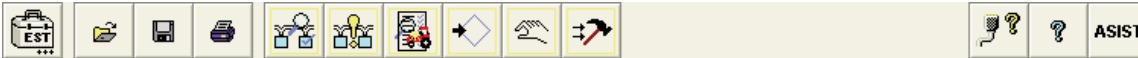
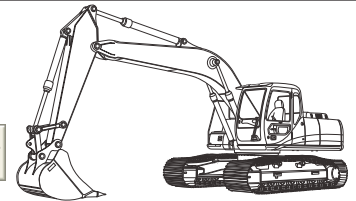


ELECTRONIC DIAGNOSTICS

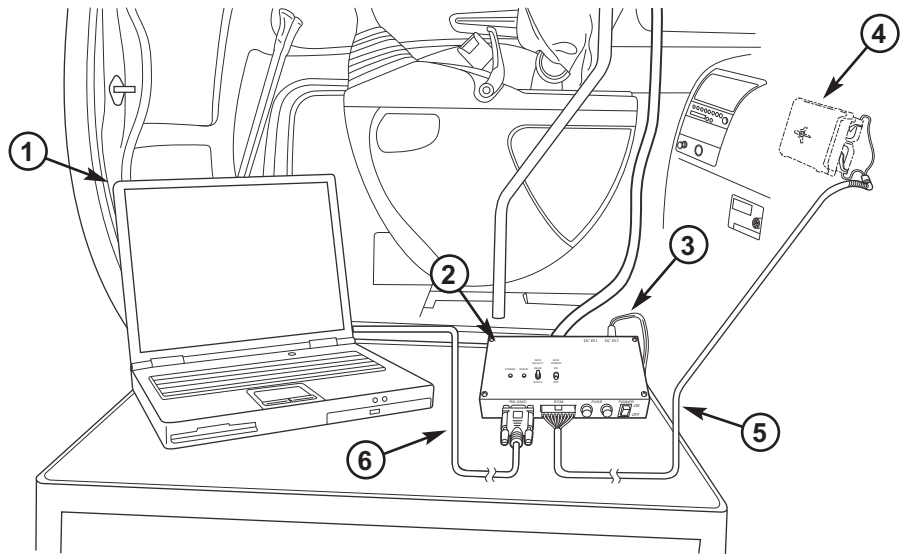
Engine Module Programming System (EMPS) - Summary



Connecting the Computer

Select the programming/diagnostic cables to connect:

1. Diagnostic Computer
2. EMPS Protocol Adapter Box
3. Power Supply
 - AC Adapter Cable use port DC IN2
 - Battery Adapter Cable use port DC IN1
4. ECM located under HVAC cover behind seat.
5. EMPS ECM Cable
6. EMPS RS232 Null Modem Cable

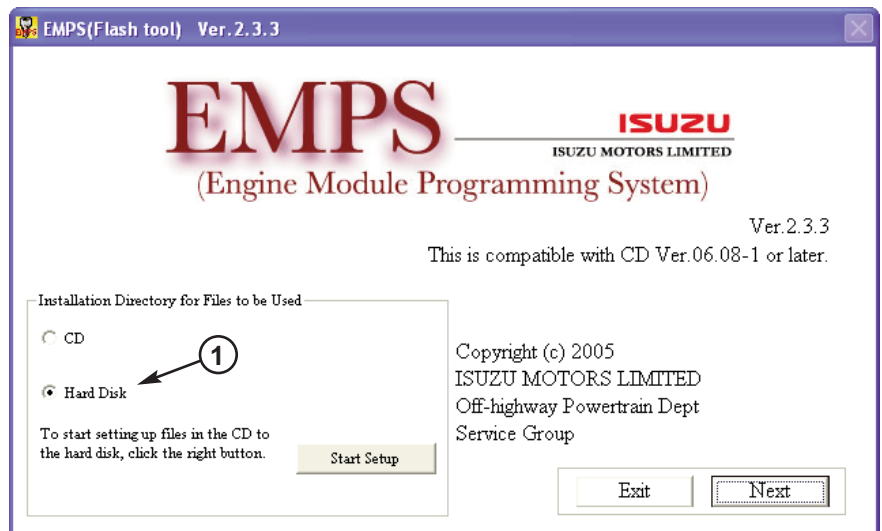


EMPS

The EMPS program is used to perform the following ECM service procedures:

- ECM Reflash
- Injector Replacement
- Replace ECM (same model)
- Factory Setting

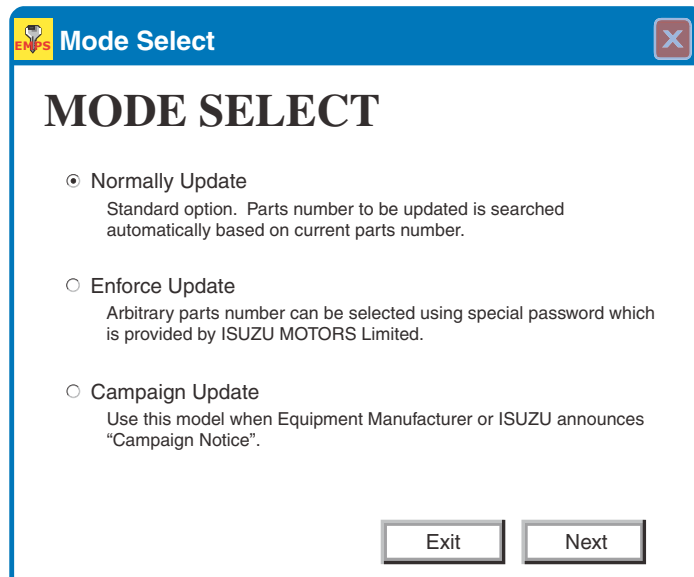
1. The EMPS application is operated from its location on the diagnostic computer hard disk drive.



Mode Select

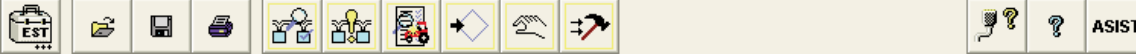
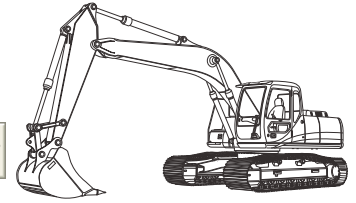
Select an EMPS Mode.

- **Normal Update** - This update is automatically based on the engine serial number. Use this selection for all ECM updates unless specifically directed by the manufacturer.
- **Enforce Update** - An arbitrary parts number is designated and updated. This mode of update is not used by the dealer. A password is required.
- **Campaign Update** - This is performed when a campaign is required by the manufacturer.



ELECTRONIC DIAGNOSTICS

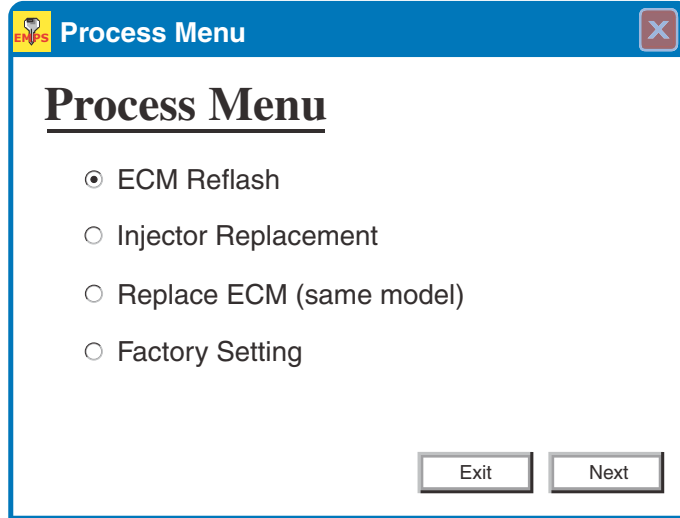
Engine Module Programming System (EMPS) - Summary



Selecting an EMPS Process

Select an EMPS operation from the Process Menu.

- **ECM Reflash** - This option should be selected when the ECM control program is suspected to have damaged/corrupted files. Reflashing the ECM will install the same information in the ECM as determined by the engine serial number.
- **Injector Replacement** - This option should be selected when an injector is replaced. This is used to provide information to the ECM to optimize engine fuel system performance.
- **Replace ECM (same model)** - This option should be selected when the ECM is replaced. This will install the same fuel calibration information in the ECM as was installed during the manufacturing process.
- **Factory Setting** - This option should be selected when the ECM control program is suspected to have damaged/corrupted files.



EngNo XXXXXX/XXXX/XXX

#1	55	00	00	B8	A3	D7	C9	B9	BB	E7	A1	D4
#2	55	00	00	B8	A3	D7	C9	B9	BB	E7	A1	D4
#3	55	00	00	B8	A3	D7	C9	B9	BB	E7	A1	D4
#4	55	00	00	B8	A3	D7	C9	B9	BB	E7	A1	D4
#5	55	00	00	B8	A3	D7	C9	B9	BB	E7	A1	D4
#6	55	00	00	B8	A3	D7	C9	B9	BB	E7	A1	D4

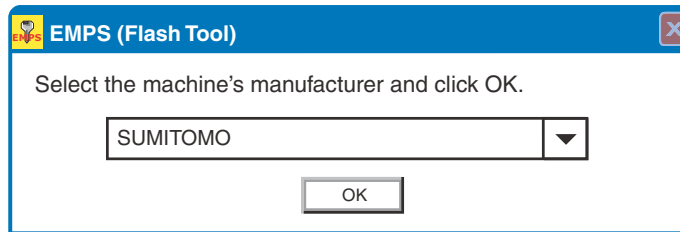
1 : Engine Serial Number
2 : Engine Model
3 : QR Code

Factory installed injector QR codes are shown on the head cover label.

Individual injector QR codes are shown on the top of each injector.

Selecting the Manufacturer

Select SUMITOMO as the manufacturer for all model excavator applications.



Clearing the ECM Memory

The engine will not operate properly unless the ECM memory is cleared.

- Install the vehicle ECM harnesses and then clear the ECM memory.

