Objectives

After completing this section, you will be able to use IDS to:

- Install IDS on a Mazda-approved your laptop
- Update IDS using the DVD
- Retrieve DTCs
- Read Freeze Frame Data
- Remove IDS from your laptop

Activities

#	Title	Location
12	Installing IDS on Laptop	Shop
13	Retrieving DTCs and Freeze Frame Data	Classroom
14	PATS Key programming	Shop
15	Updating IDS using Internet	Shop
16	Removing IDS from Laptop	Shop

Activity 12: Installing IDS on Laptop

Upon completing this activity you will be able to install IDS on your laptop.

What you need to complete this activity:

- Mazda-approved laptop with Windows XP SE Professional
- IDS software (on VCM DVD)
- Ask your Instructor to log in to the PC before you begin this activity

Procedure:

NOTE
To do this activity, you must have Administrator rights to install and remove software from the laptop or PC.

1. Put the IDS DVD in the laptop's DVD drive. If the program does not launch automatically, double-click **Launch.exe**.

Activity 15: Updating IDS

Upon completing this activity you will be able to download from the Internet:

- Manual Calibration Updates–
- Load all DIF **(*)**, Patches **(*)**
- Tech Tips
- Calibration file updates through Internet.

***DIF: Small software to update diagnostic database for IDS**
***Patch: Small software to modify or add functions to the IDS**

(Note: This is only for updates between the bi-monthly DVD updates.)

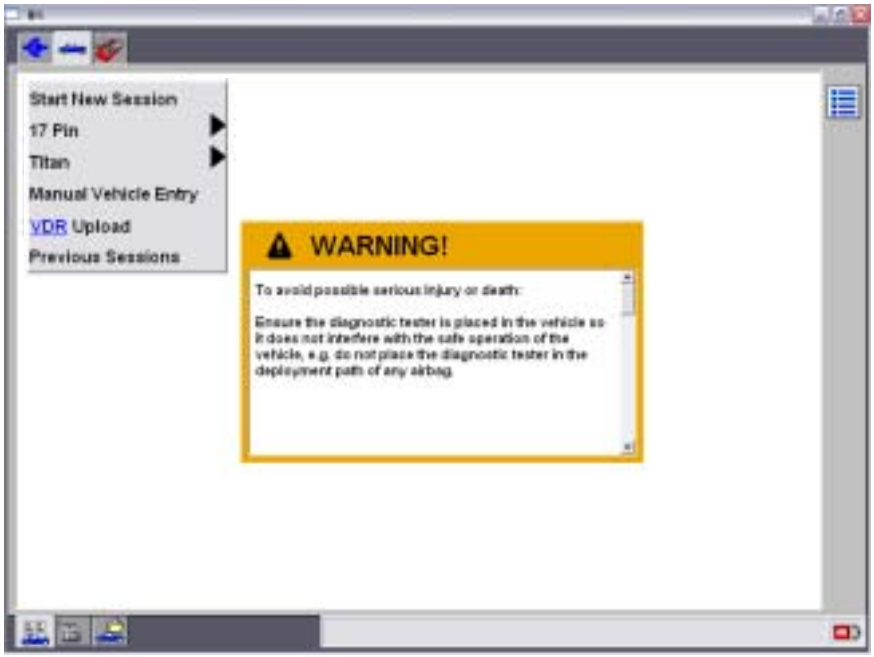
What you need to complete this activity:

- Mazda-approved laptop or PC with PDS / PFM installed
- High-speed internet access

Procedure:

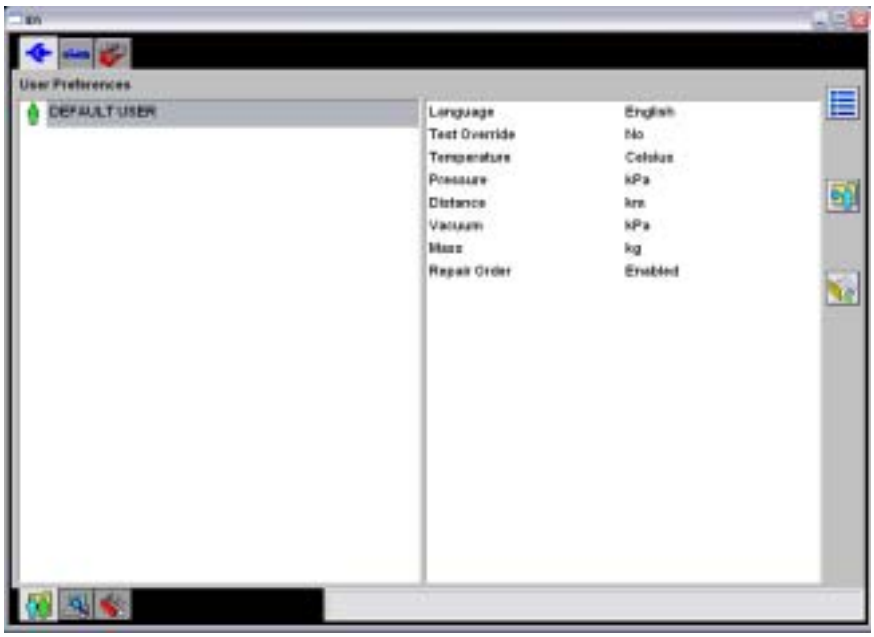
1. Click the IDS icon on the desktop.

2. Click the **System Page** tab in the upper left corner.



Activity 15
(Continued)

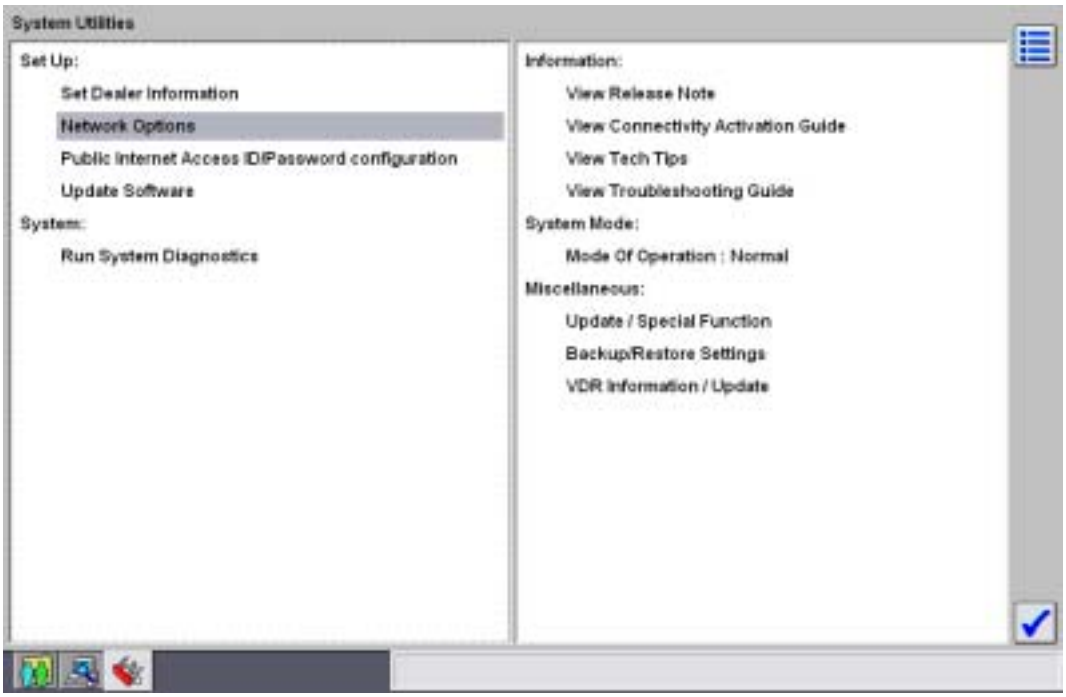
3. Click the information icon at the bottom.



4. Click the plus sign by Dealer Information to expand this item. The plus sign turns into a minus sign when you click on it again. Verify your dealer information is correct. If it is not correct, you can correct it from the tool box page.

Activity 15
(Continued)

5. Click the Swiss army knife icon at the bottom, then select **Network Options** and click tick.

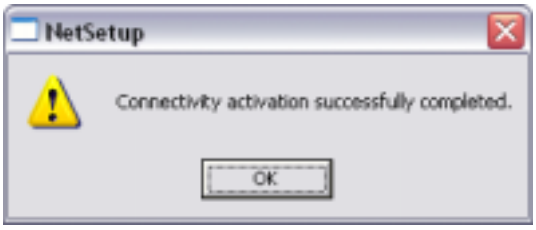


6. Click the **Reset LAN** button at the bottom.

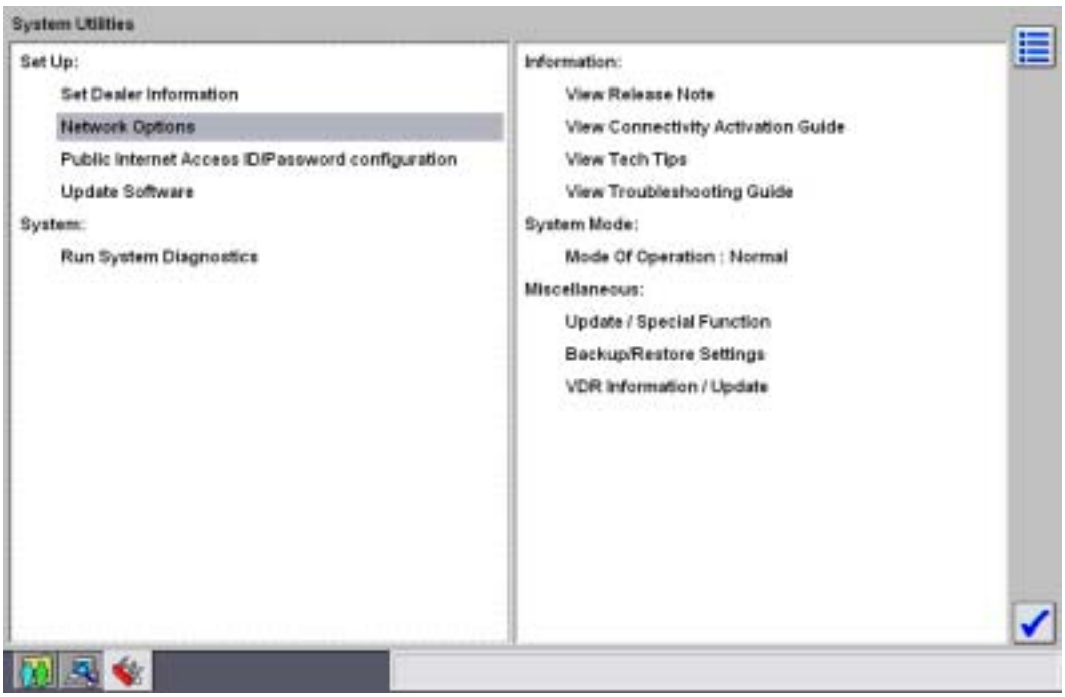
Activity 15
(Continued)

7. Verify **Internet Service Provider** is selected, then click **OK**.

8. Click **OK**.



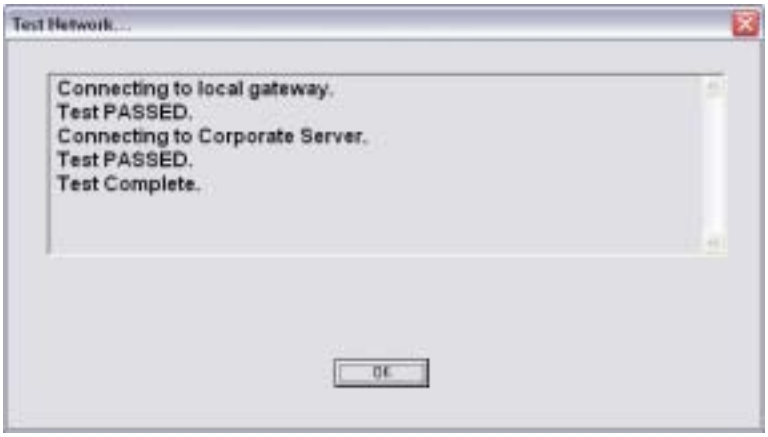
9. Select **Network Options** again, then click tick.



Activity 15
(Continued)

10. Click the **Test Network** button in the upper right corner.

11. The Test Network screen should look like this; if so, click **OK**.

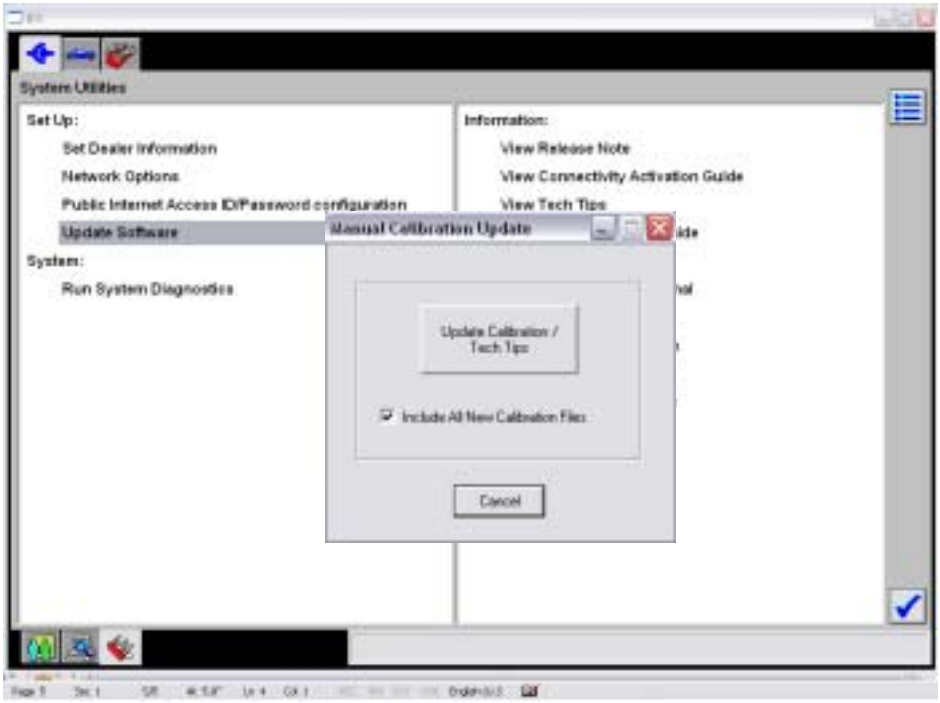


NOTE
If any part of this test fails at your dealership, you will need to contact your dealership's Information Technology department.

Activity 15
(Continued)

12. Select **Update Software**, and then click tick. Now, select highlight **Manual Calibration Update** in the pop-up window, then click tick.

13. Verify **Include All New Calibration Files** is checked, then click the **Update Calibration / Tech Tips** button.

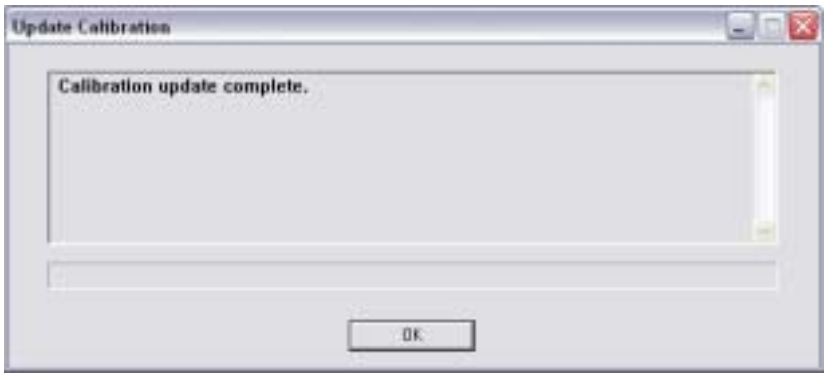


Activity 15
(Continued)

14. The Update Calibration screen indicates the progress of data being downloaded from the network. It may take several minutes to complete this process.

15. The Update Calibration screen looks like this after the network files are copied.

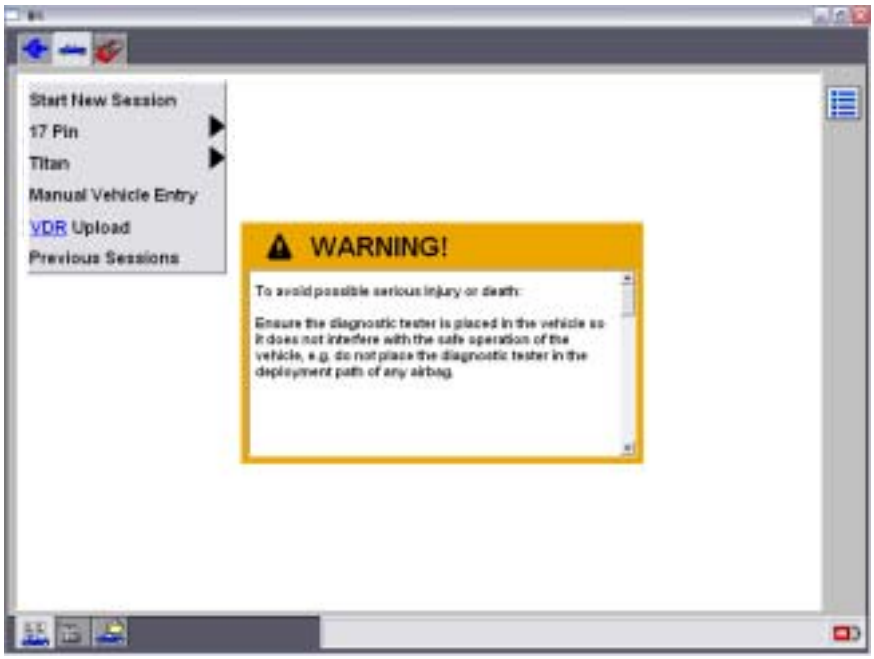
16. Click **OK** when you see this updated screen.



Activity 15
(Continued)

17. Click **Vehicle ID** tab at the top.

18. You can now click **Start New Session** to diagnose a car or the **X** in the upper right corner to exit IDS.



Conclusion:

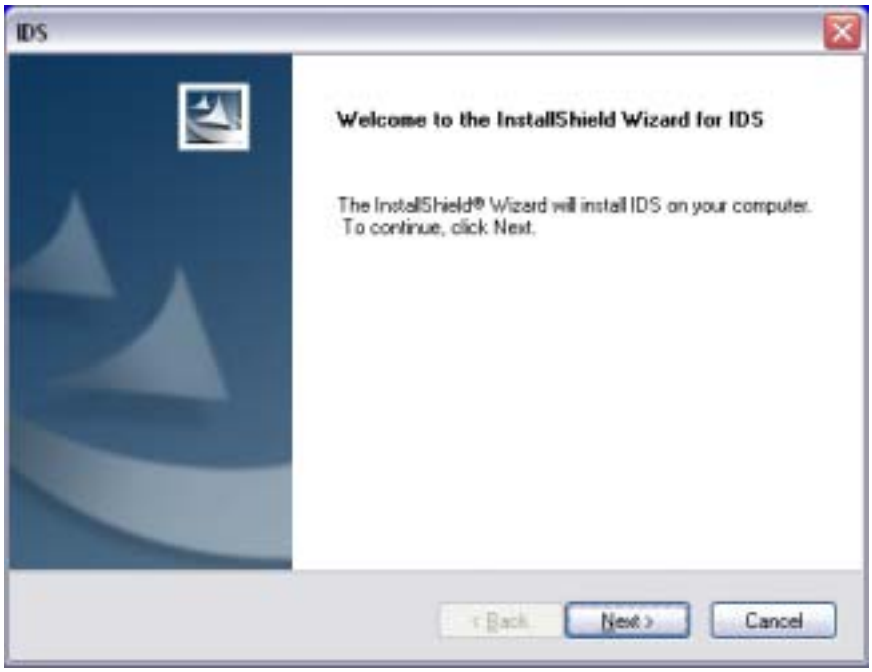
In this activity, you updated M-MDS from the internet.

Instructor Sign-off: _____

Activity 12
(Continued)

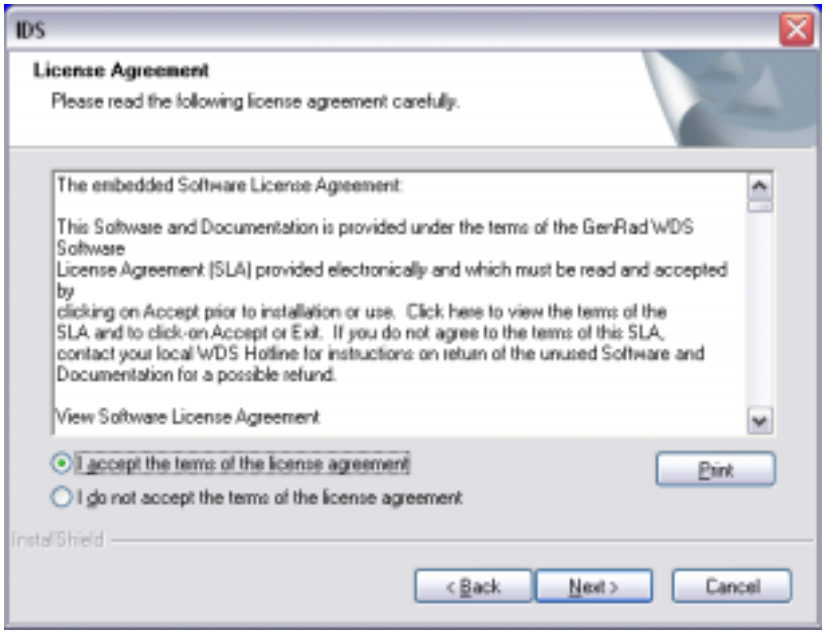
2. Click **IDS**.

3. Click **Next**.



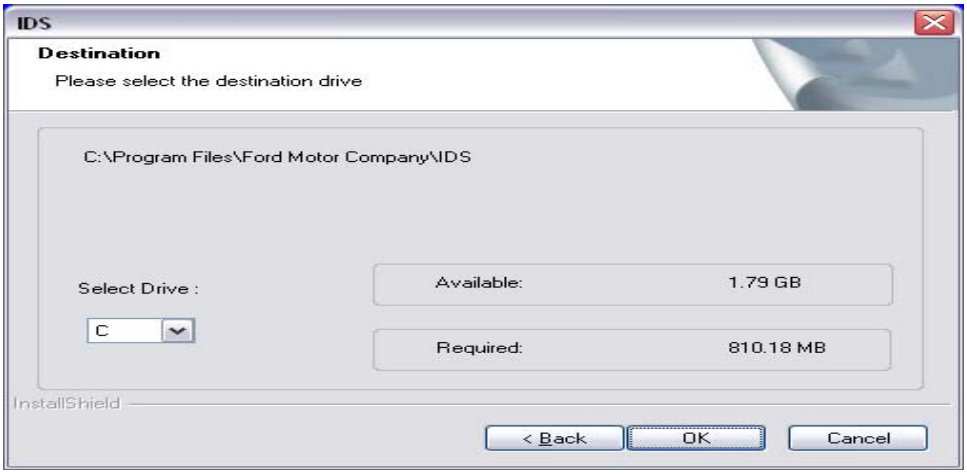
Activity 12
(Continued)

4. Select **I accept the terms of the license agreement**, then click **Next**.



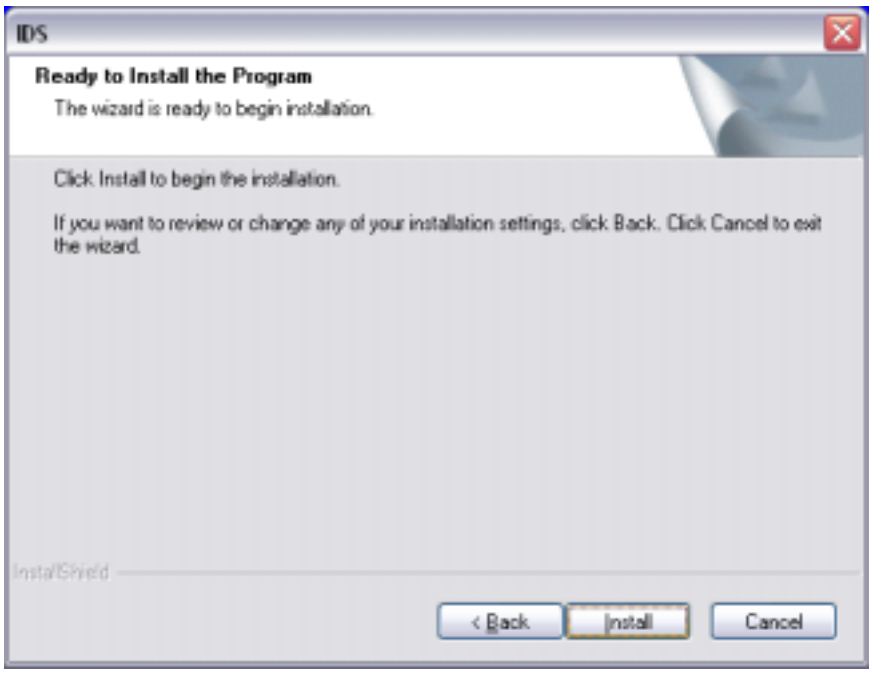
5. If you see this screen, click **OK**.

6. Make sure you have enough space on your laptop for IDS, then click **OK**.

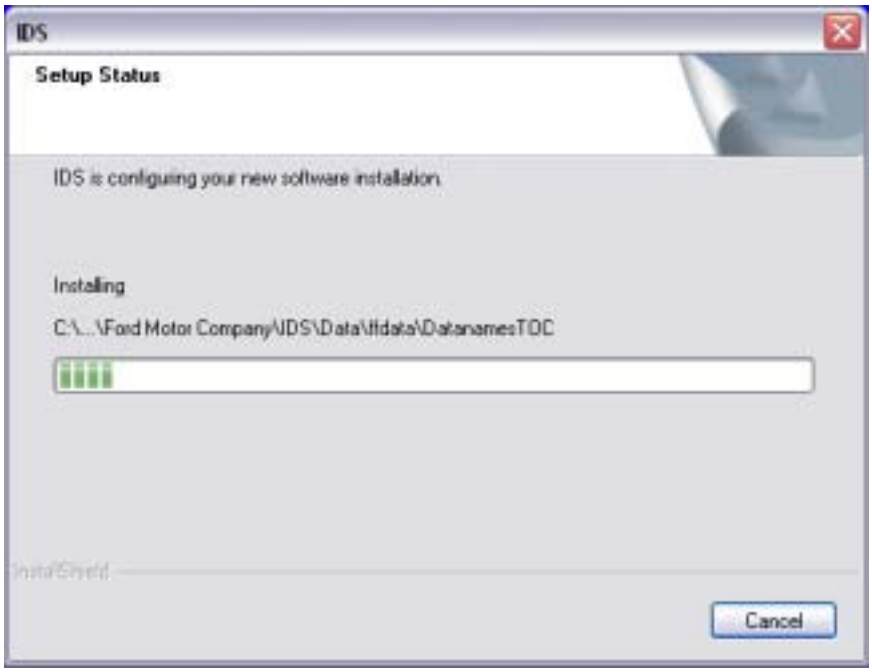


Activity 12
(Continued)

7. Click **Install**.

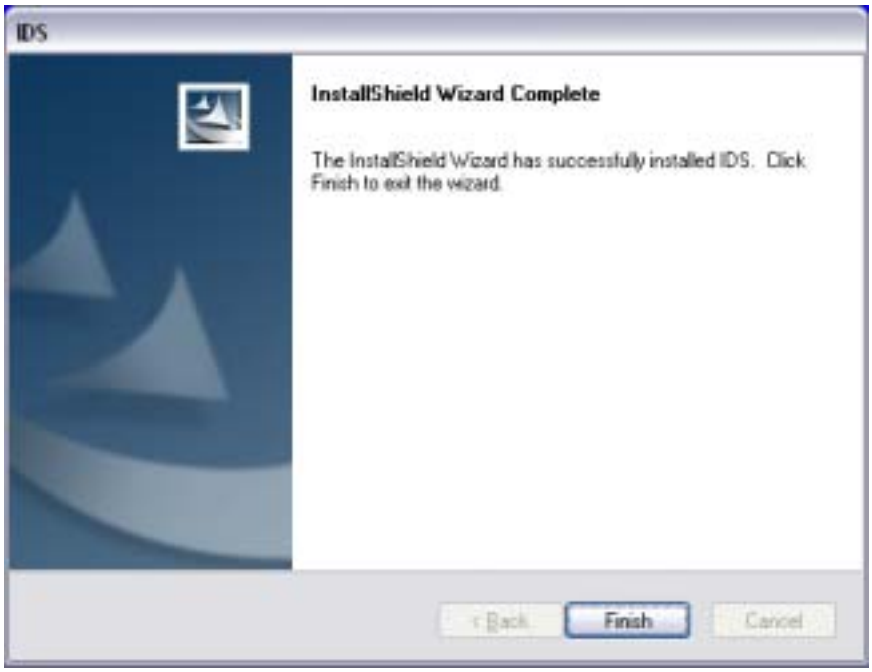


8. This will take a few minutes.



Activity 12
(Continued)

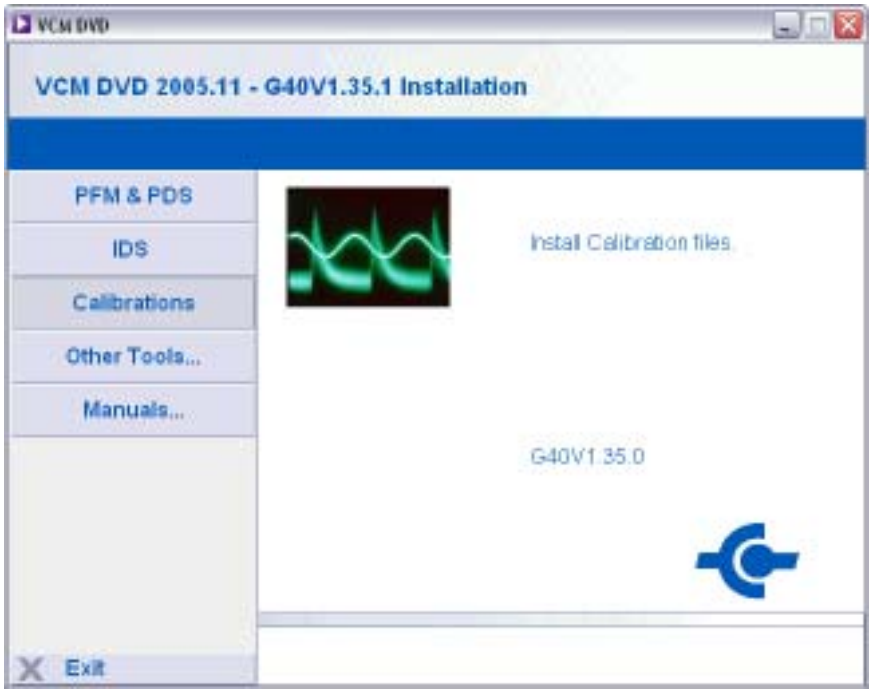
9. Click **Finish**.



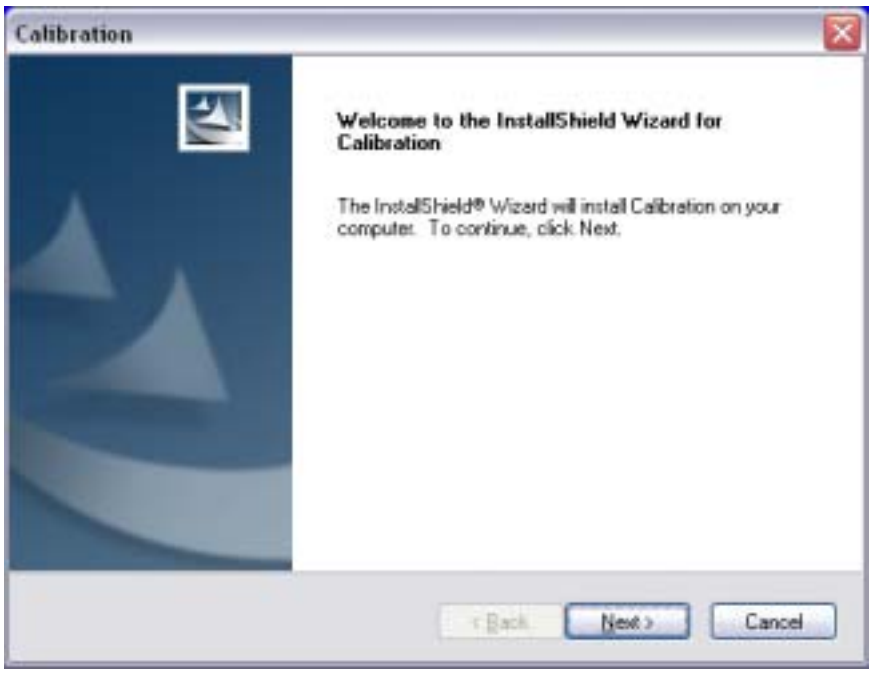
10. The IDS install screen will close and you will be back at the main VCM DVD screen.

Activity 12
(Continued)

11. Click **Calibrations**.



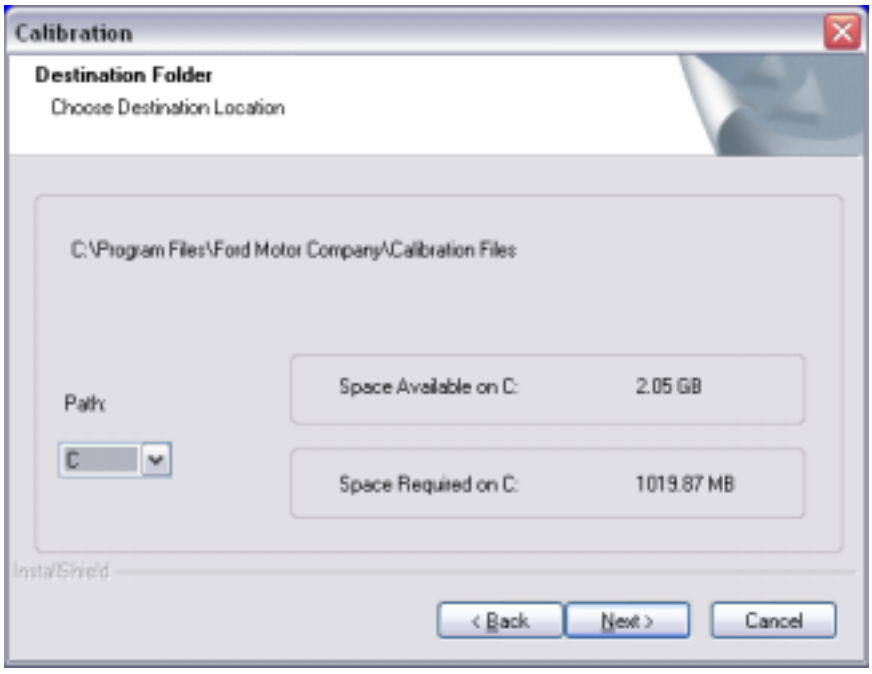
12. Click **Next**.



Activity 12
(Continued)

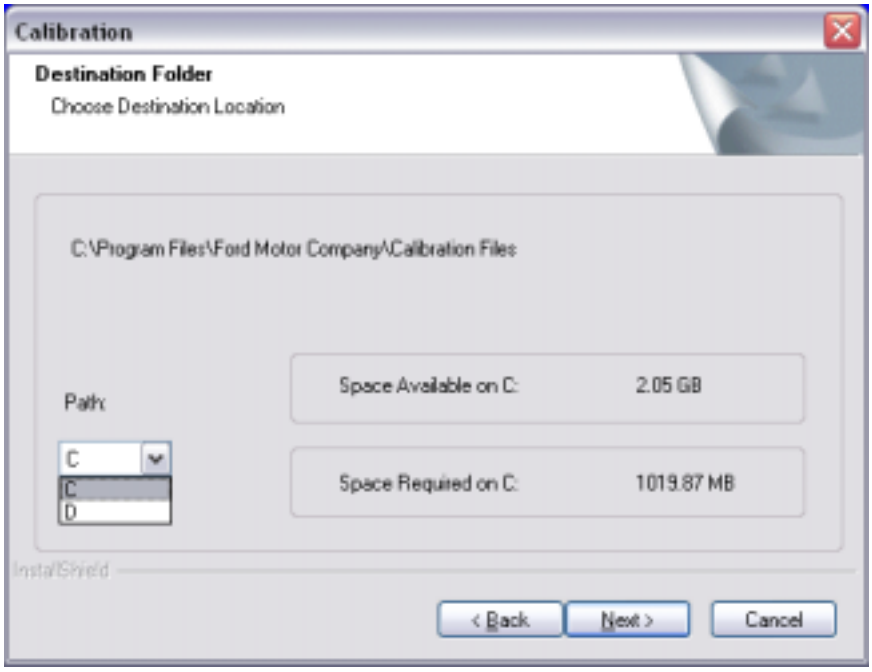
13. Select **I accept the terms of the license agreement**, then click **Next**.

14. If there is not enough space on the “C” drive, you may have space on another drive.

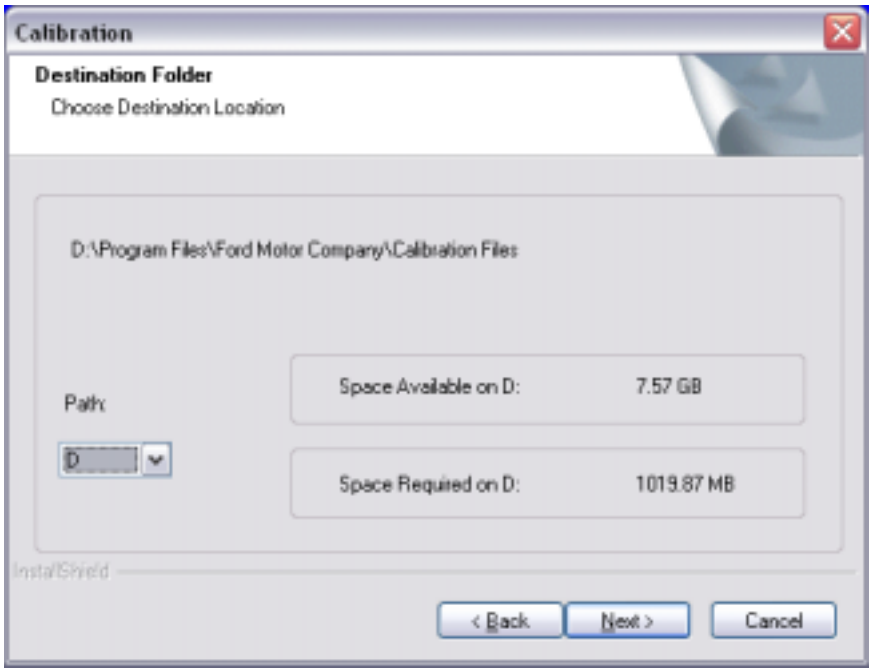


Activity 12
(Continued)

15. To change the drive, click the arrow to the right of the **Path** field, then select “D”.

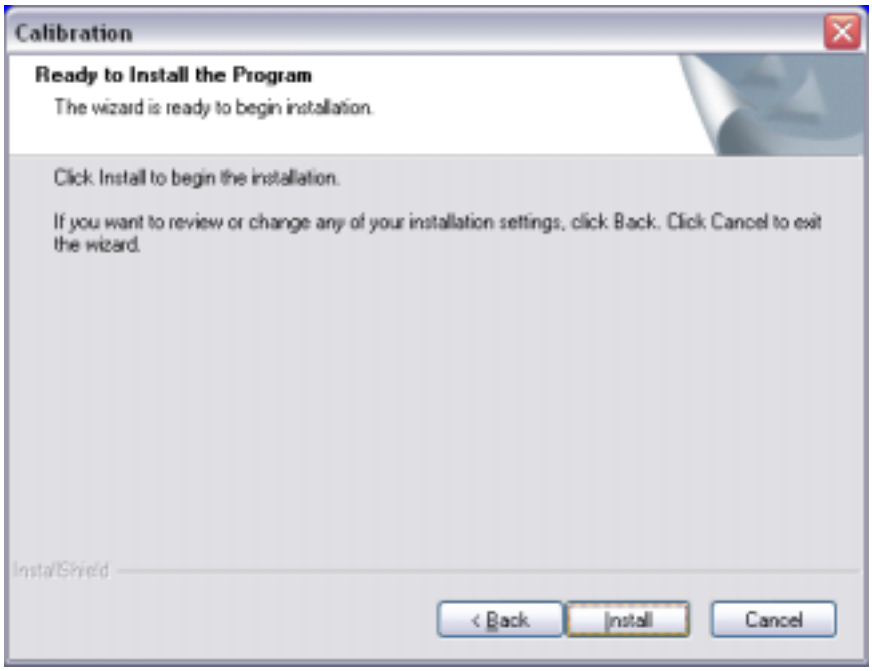


16. Since there is now enough space for the files to install, click **Next**.

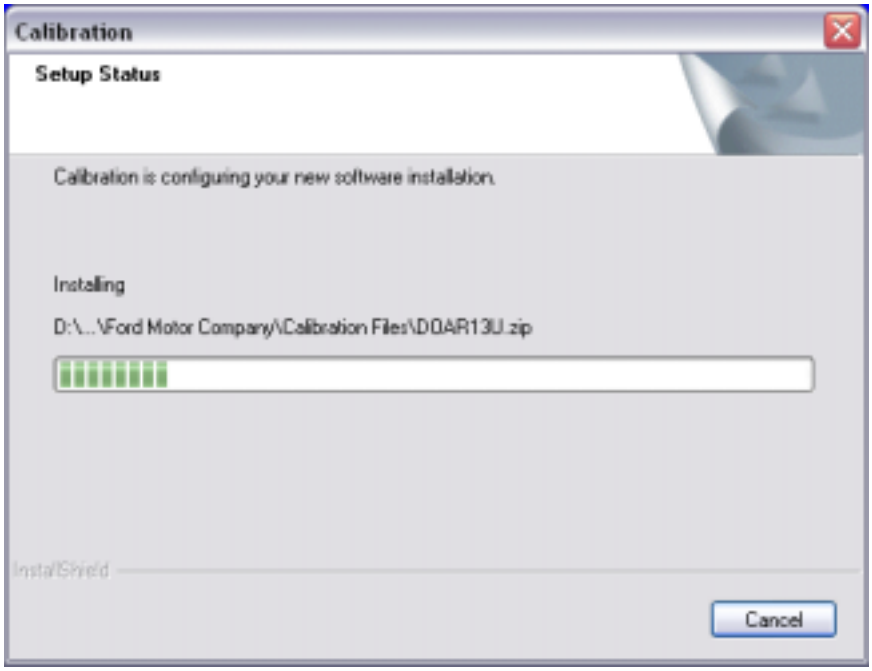


Activity 12
(Continued)

17. Click **Install**.

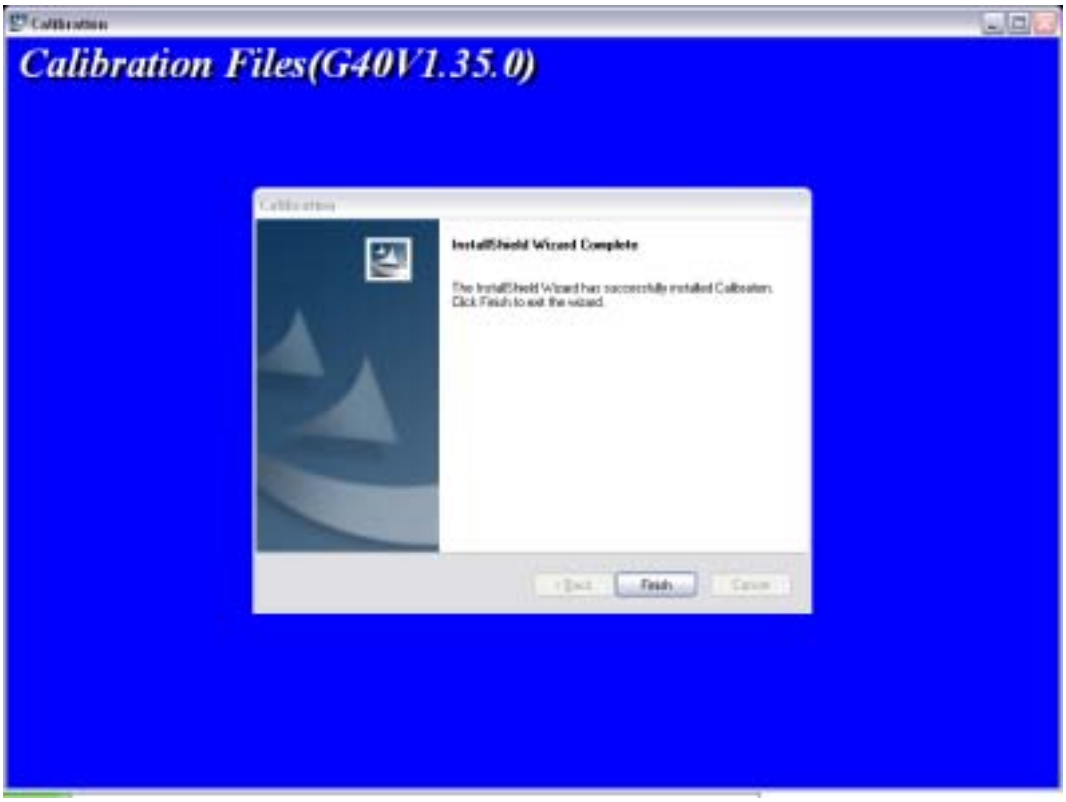


18. This will take a few minutes.



Activity 12
(Continued)

19. Click **Next**.



20. Click **Exit** in the lower left corner to close this window.

Activity 12
(Continued)

21. Remove the IDS DVD and store it in a safe place.

22. The icon IDS will now be on the desktop.
Ids.lnk

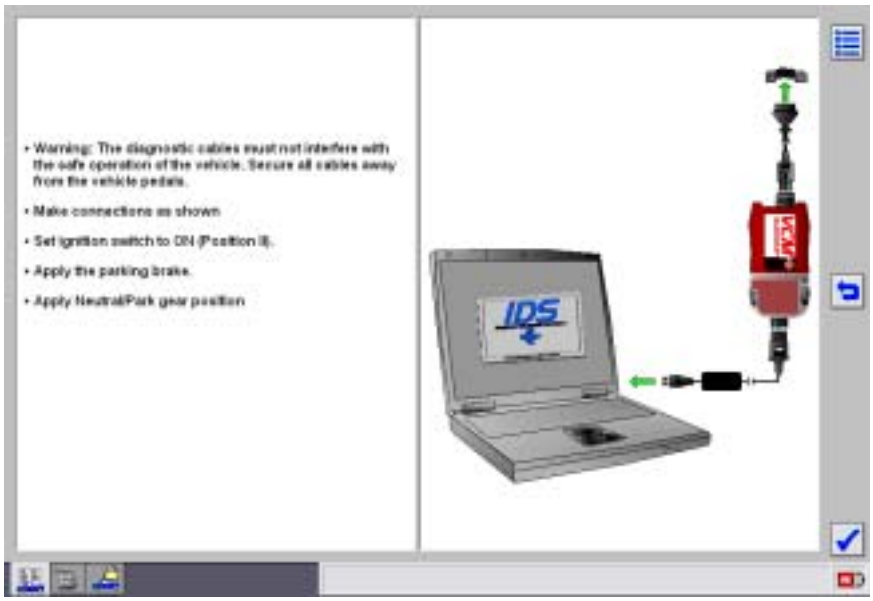
NOTE
If you are installing IDS for a new VCM (i.e., the VCM has not been used before), you must perform the following steps to update the VCM.

23. Double-click the IDS icon to start IDS.

24. Select **Start New Session**, then press enter or click tick.

Activity 12
(Continued)

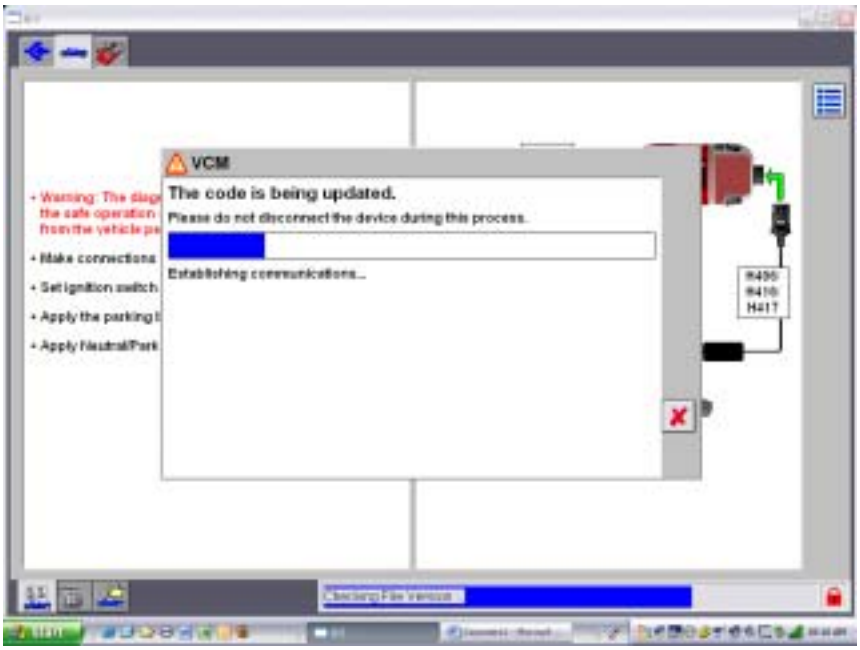
25. Make connections as shown, do not click tick. Make sure you plug the data cable into DLC2 on a current Mazda vehicle.



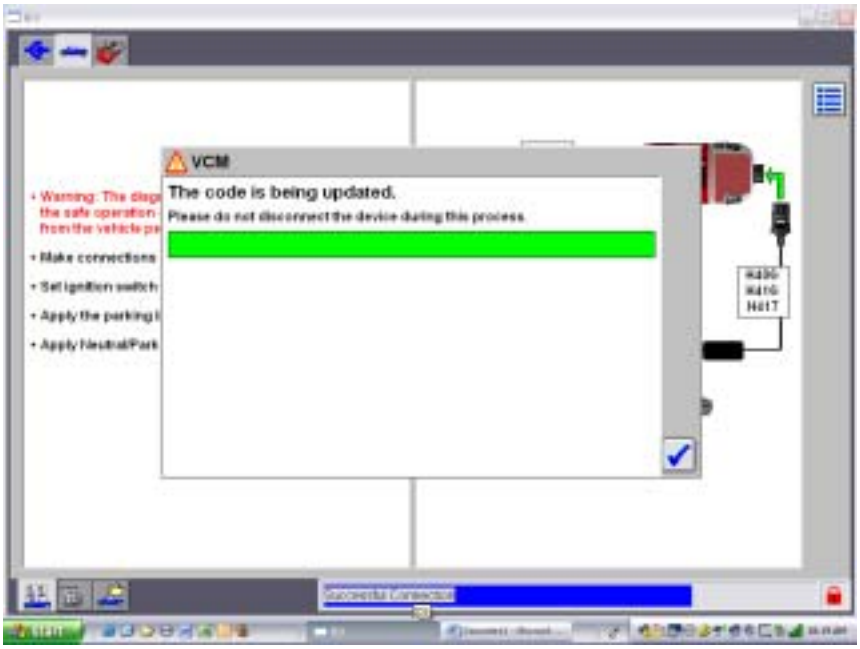
26. Click tick in the pop-up window to update the VCM code.

Activity 12
(Continued)

27. This screen displays the progress of the code being updated.



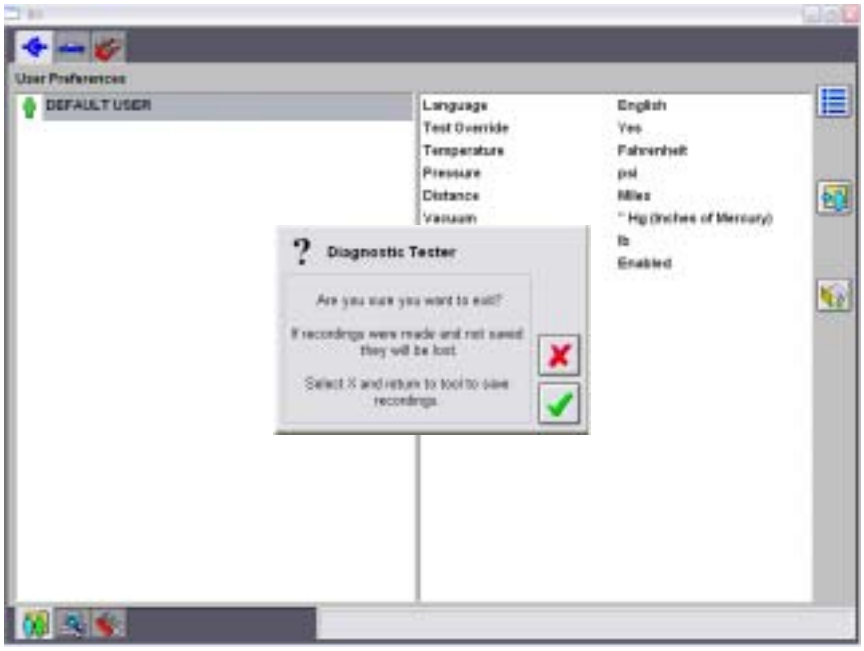
28. Click tick once the progress bar has turned green.



Activity 12
(Continued)

29. Click **Start New Session** to diagnose a vehicle or the **X** in the upper right corner to close this window.

30. Click tick in the pop-up window to exit IDS and return to the desktop.



IDS and the VCM are now ready to use.

Conclusion:
In this activity, you installed IDS and updated a new VCM.

Instructor Sign Off: _____

Activity 13: Retrieving DTCs and Freeze Frame Data

Upon completing this activity you will be able to retrieve DTCs and read Freeze Frame Data with IDS.

What you need to complete this activity:

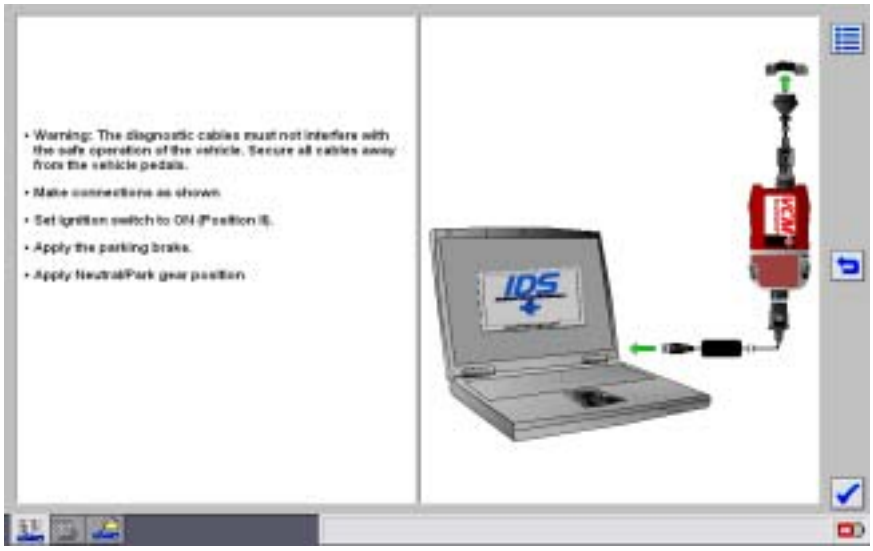
- Mazda-approved laptop with PDS installed

Procedure:

1. Double left click the IDS icon on your desktop.

2. Select **Start New Session**, then press enter or click tick.

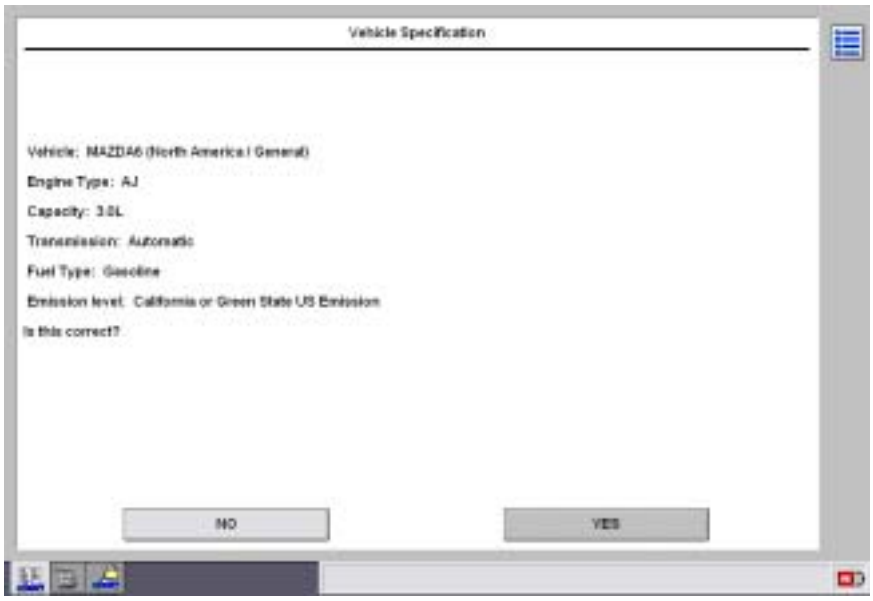
3. Follow the screen instructions, then press enter or click tick.



Activity 13
(Continued)

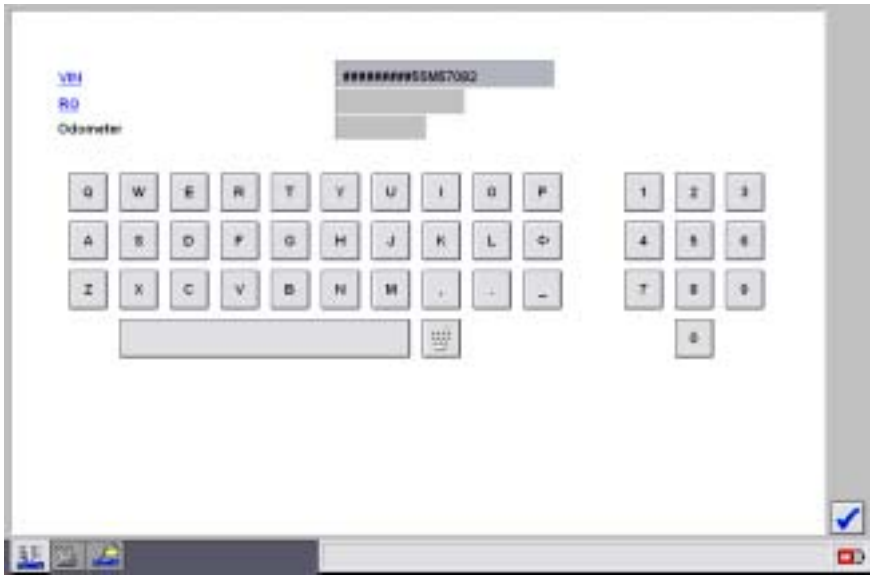
4. Watch the following Establishing Communication screen flash on then off.

5. Verify the vehicle information is correct, then press enter or click **YES**.



Activity 13
(Continued)

6. If desired, leave the fields empty or enter data into any of the fields, then

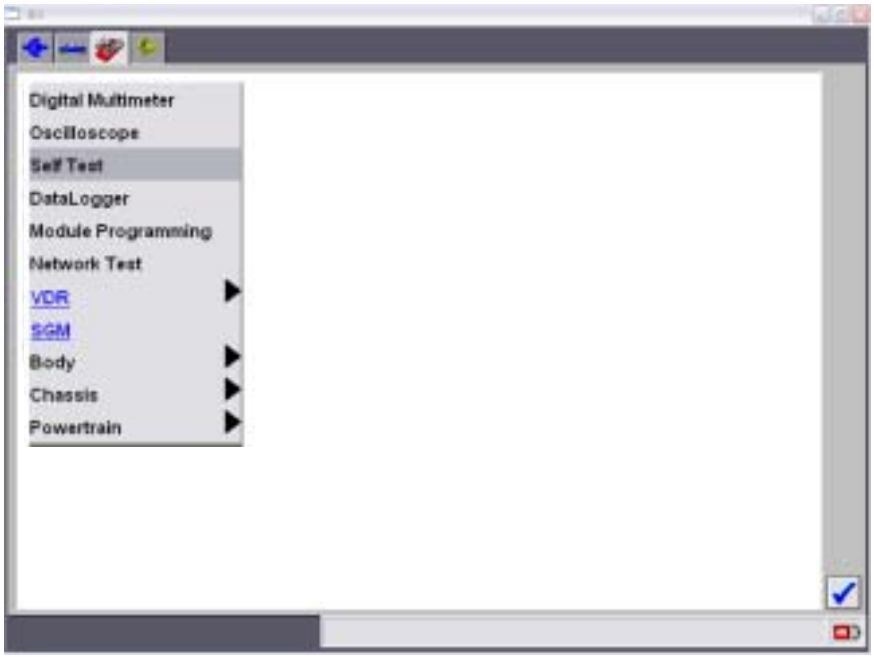


NOTE
This is an optional screen and you may not see it.

7. Click the toolbox icon at the top of the screen.

Activity 13
(Continued)

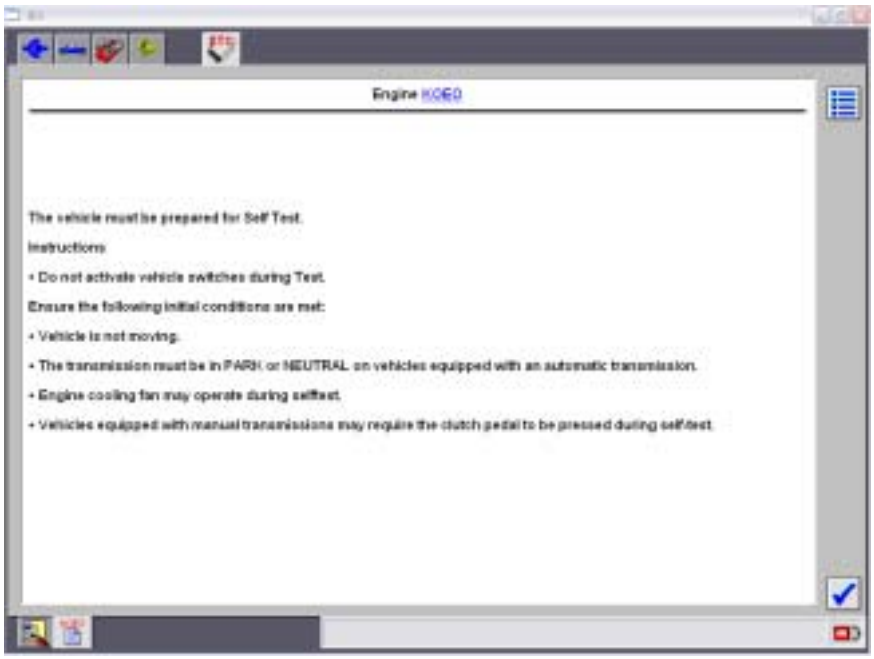
8. Select **Self Test**, then press enter or click tick.



9. Select **Powertrain,** then **Engine**, then **KOEO On Demand Self Test**. Now press enter or click tick.

Activity 13
(Continued)

10. Follow the screen instructions to prepare the vehicle, then tap tick.



11. This will take a few minutes

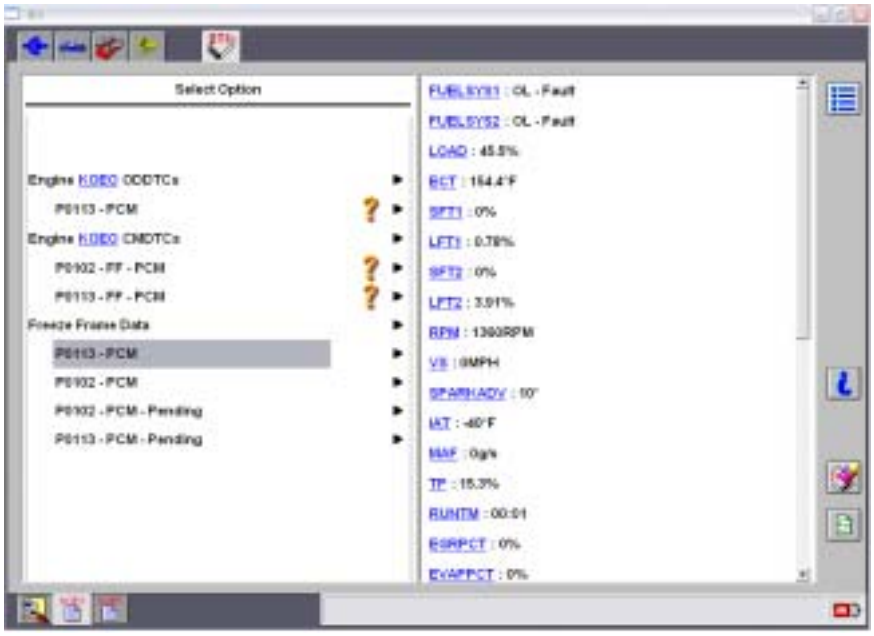
Activity 13
(Continued)

12. The following screen lists KOEO test results.

13. Select a DTC to view its description on the right side of the screen.

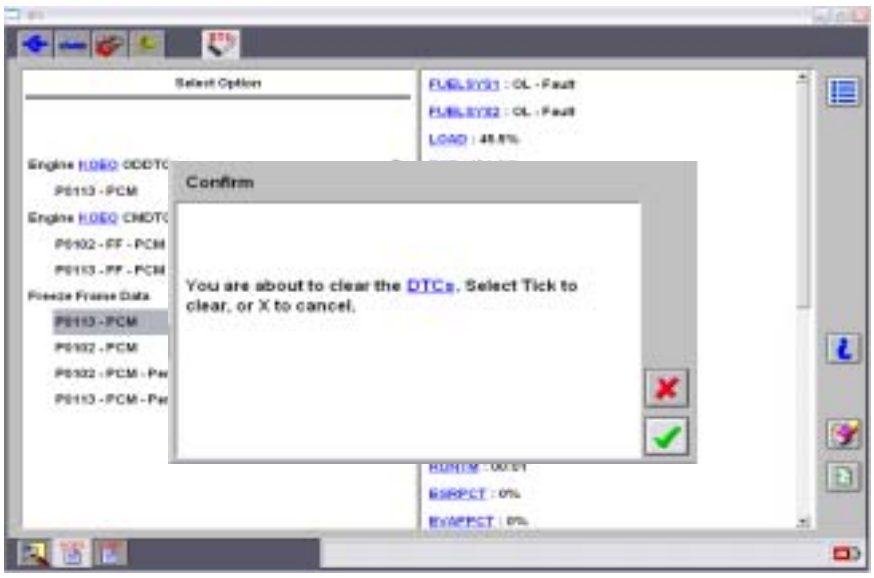
Activity 13
(Continued)

14. Select a DTC under **Freeze Frame Data** to retrieve Freeze Frame Data for the selected DTC. Use the scroll bar on the right as needed to view all the data.



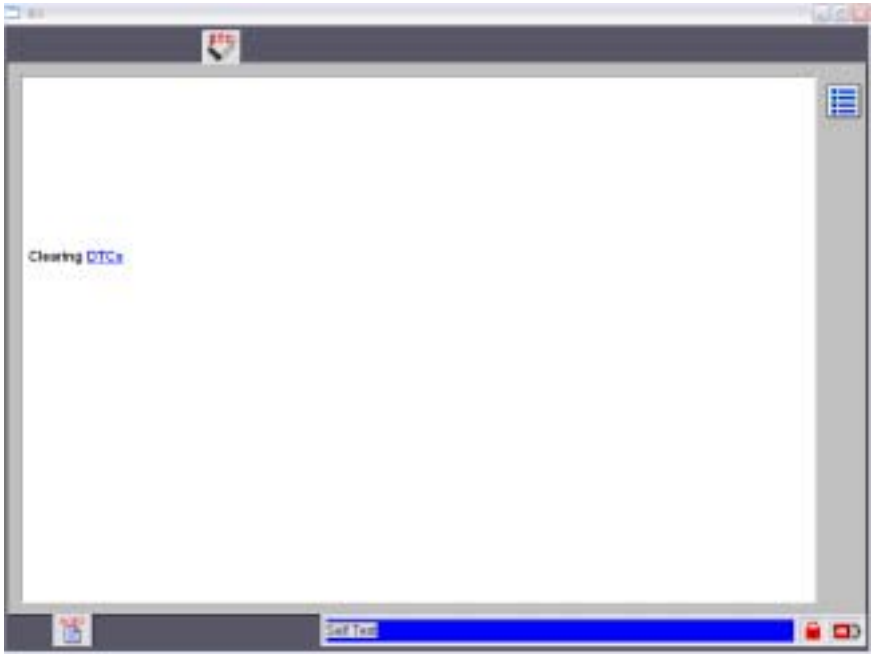
NOTE
Freeze Frame Data will be printed later in this activity.

15. Make repairs as needed, and then click the "eraser" icon on the lower right to clear DTCs. Click tick in the popup message to close.

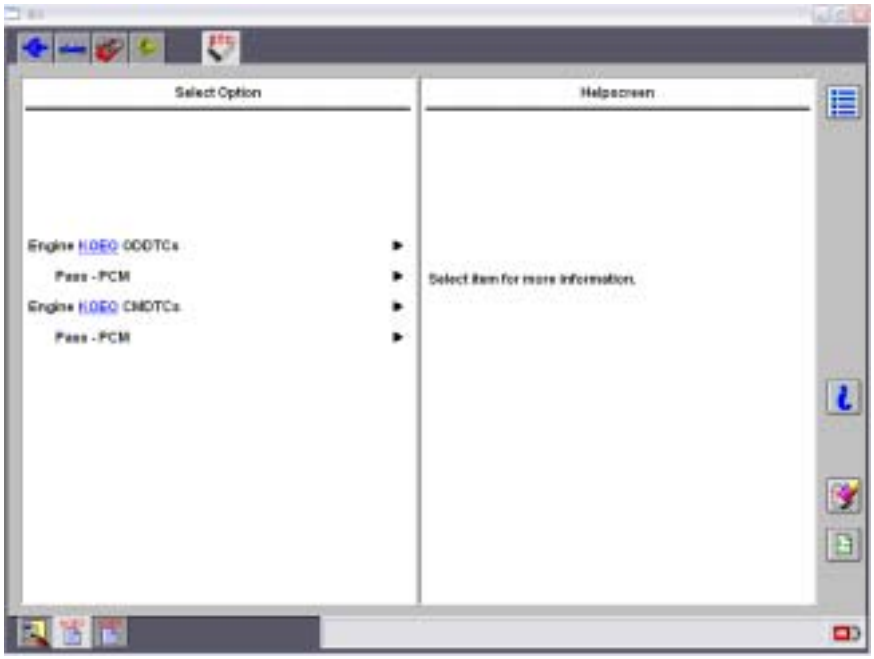


Activity 13
(Continued)

16. The next screen displays while IDS clears DTCs.

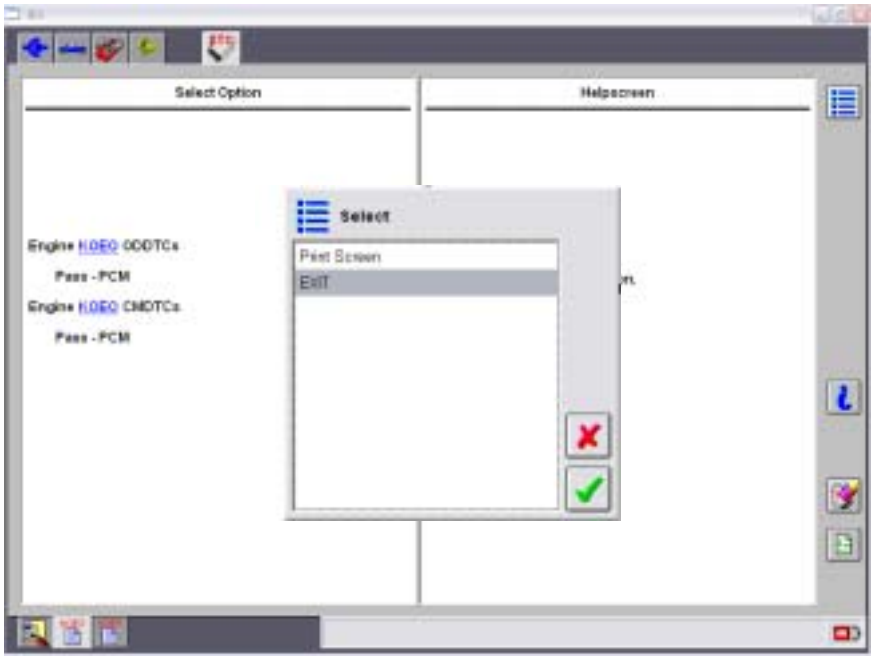


17. Confirm your repair by verifying there are no DTCs.



Activity 13
(Continued)

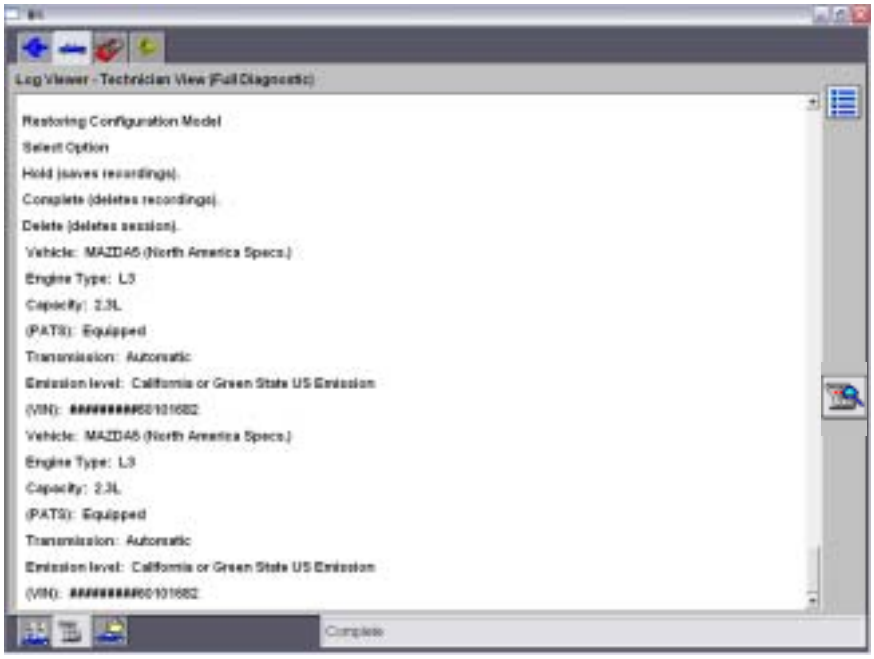
18. Click the "blue bars" icon on the upper right, then select **Exit** in the pop-up window. Now press enter or click tick in the pop-up window to exit.



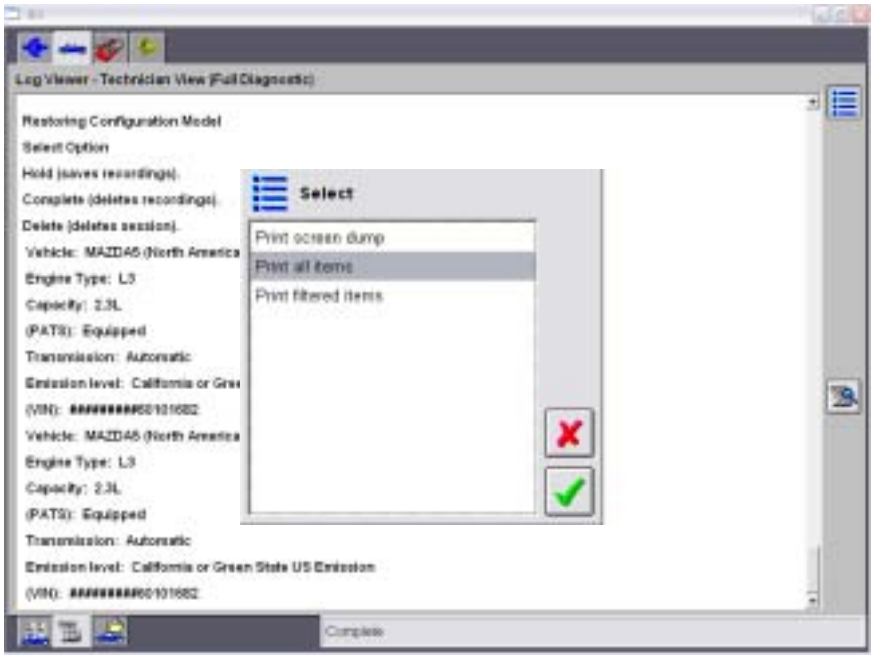
19. The following screen displays the vehicle specifications.

Activity 13
(Continued)

20. To view / print Freeze Frame Data and the vehicle session log, click the **Log Viewer** icon on the right of the screen. Use the scroll bar on the right to view additional data.



21. To print the vehicle session, click the "blue bars" icon. Then select **Print all items** in the pop-up window and click tick.

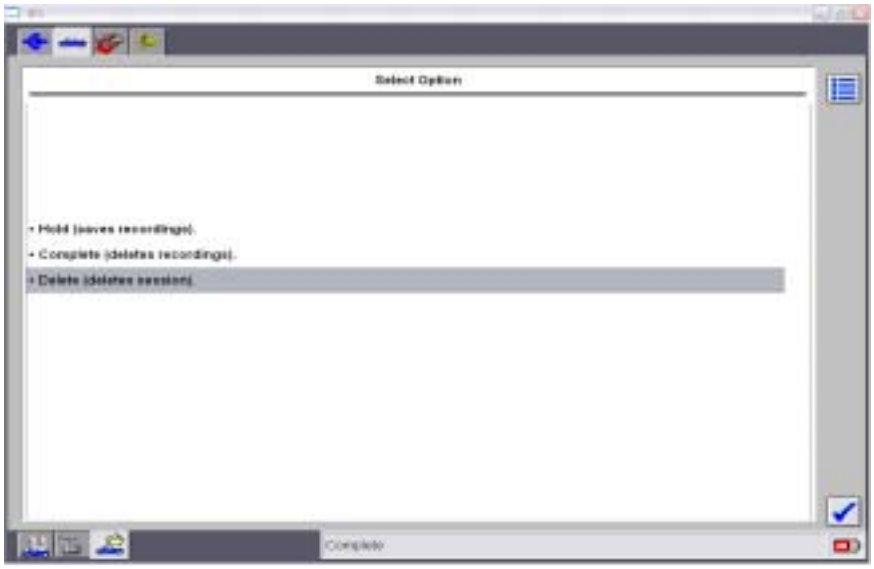


Activity 13
(Continued)

NOTE
Make sure you print the Freeze Frame Data for this activity. You will need to turn the printout in to your instructor.

22. Click the **Close Session** tab in the lower left corner, then select **Delete** and press enter or click tick.

NOTE
Depending on the repairs made to the vehicle you may need to select **Hold** or **Complete** to save recordings for future reference.



23. Click the **X** in the upper right corner to close the window.

Activity 13
(Continued)

24. Click tick in the pop-up window to exit IDS and return to the desktop.

Conclusion:

In this activity, you used M-MDS to retrieve DTCs and read Freeze Frame Data.

Printed Freeze Frame Data verified? Check __Yes or __No

Instructor Sign-off: _____

Activity 14: PATS Key programming

After you have completed this activity you will be able to:

- access Mazda6 PATS security
- erase all stored key codes
- reprogram keys

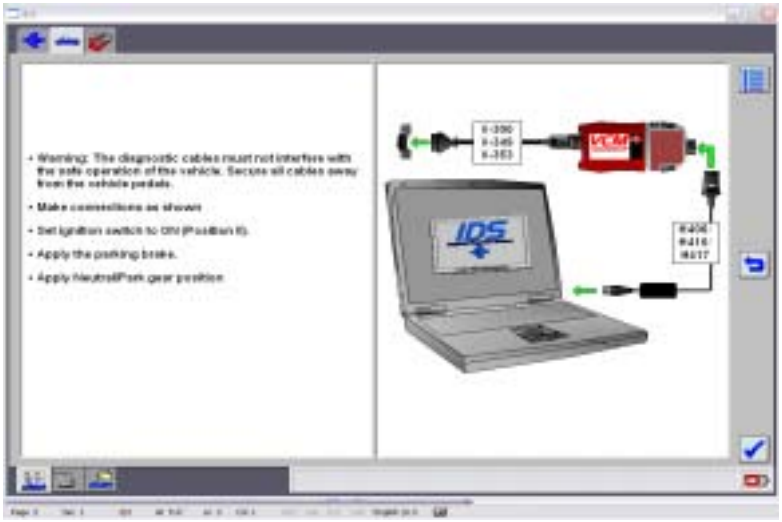
What you will need to complete this activity:

- Mazda approved laptop with IDS installed
- M-MDS
- Access to MS3 to retrieve an incode

Double click the IDS icon on your desk top

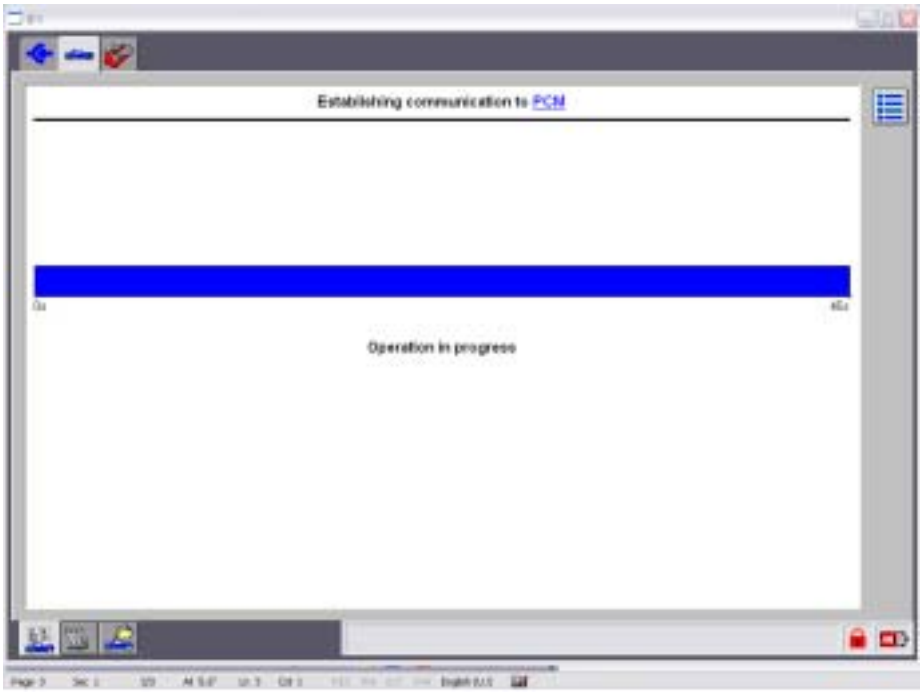
Ids.lnk

Highlight Start new session and click tick



Make connections as shown and click tick

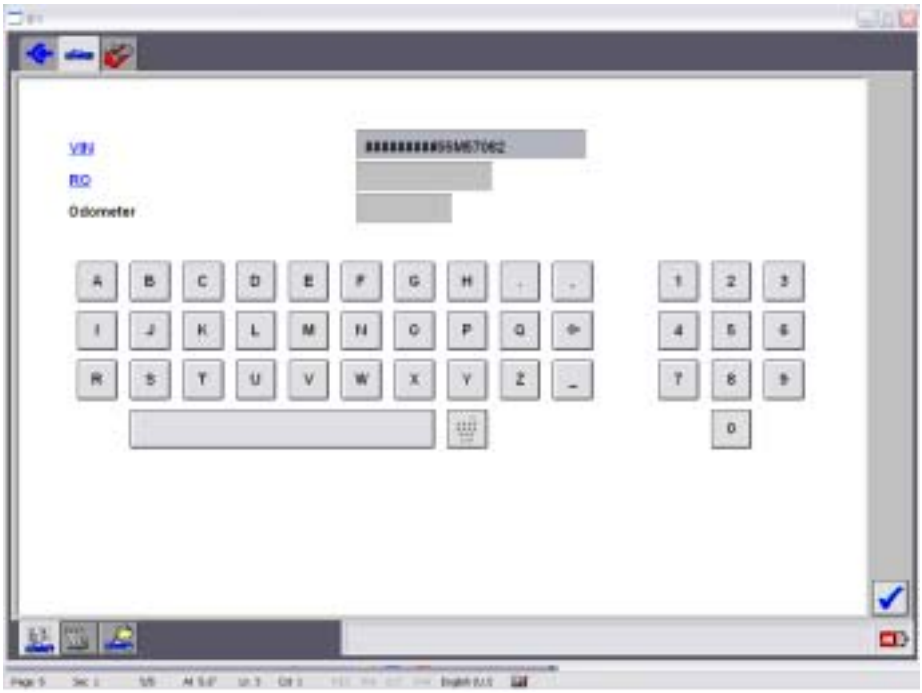
Activity 14
(Continued)



Operation in progress…..

Click yes

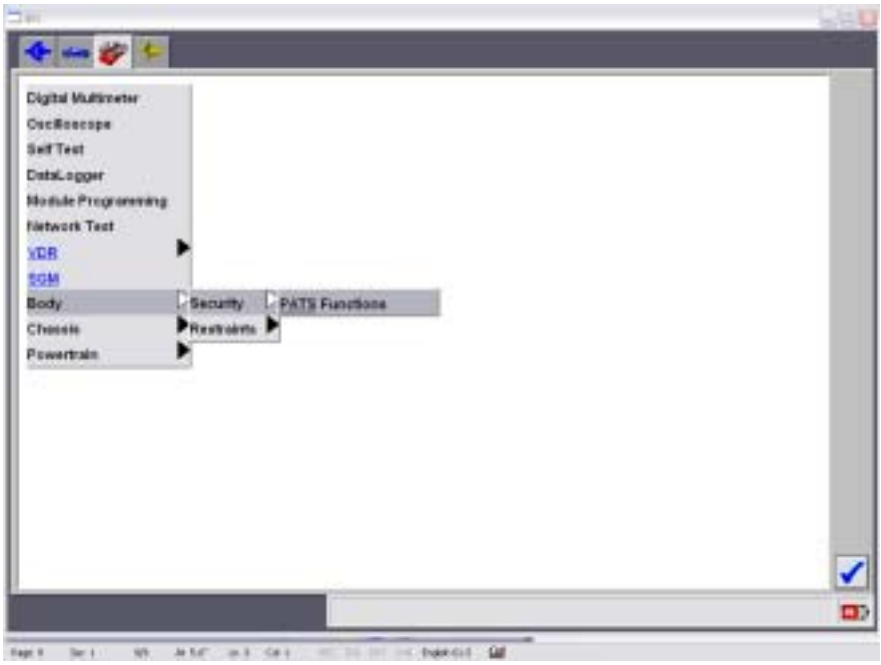
Activity 14
(Continued)



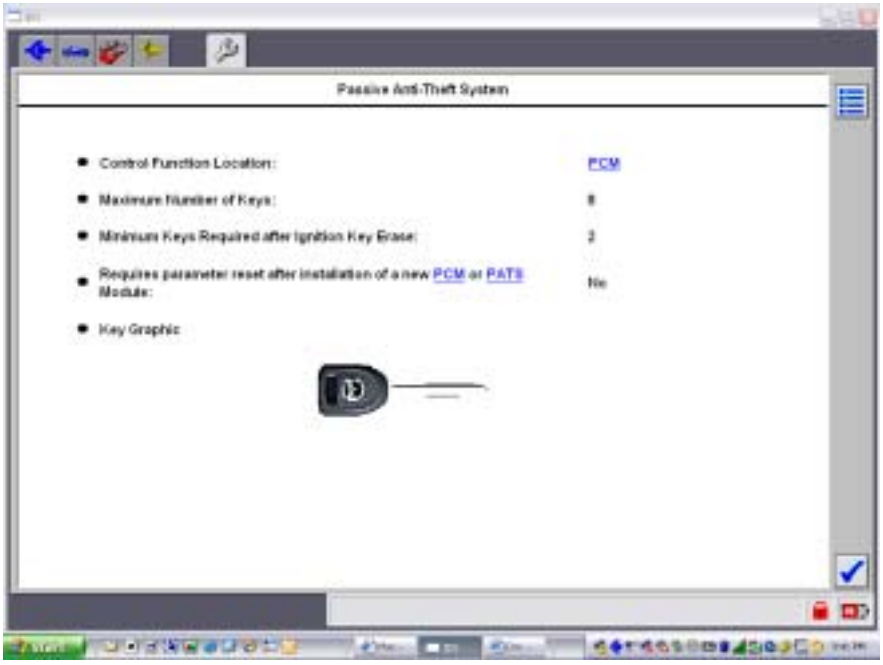
Fill in information as needed and click tick

Select Toolbox

Activity 14
(Continued)



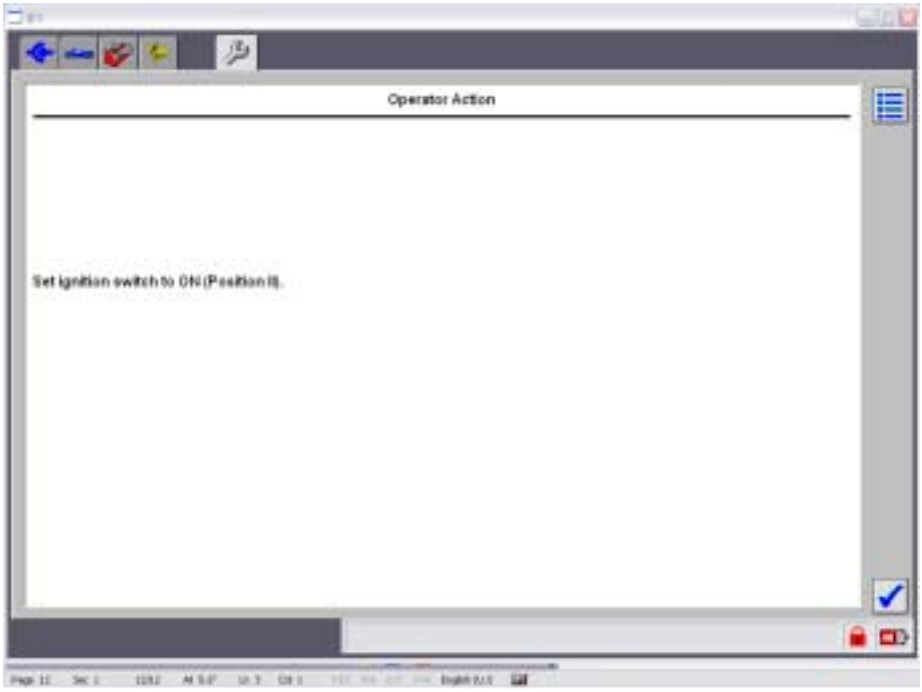
Select Body, Security then Pats functions and click tick



Click Tick

Activity 14
(Continued)

Turn ignition off and click tick



Turn ignition on and click tick

Activity 14
(Continued)

Click yes

Verify the vehicles VIN and click yes

Activity 14
(Continued)

Copy down the information from your vehicle displayed in IDS

VIN_____

Part Number _____-_____-_____

Serial Number _____

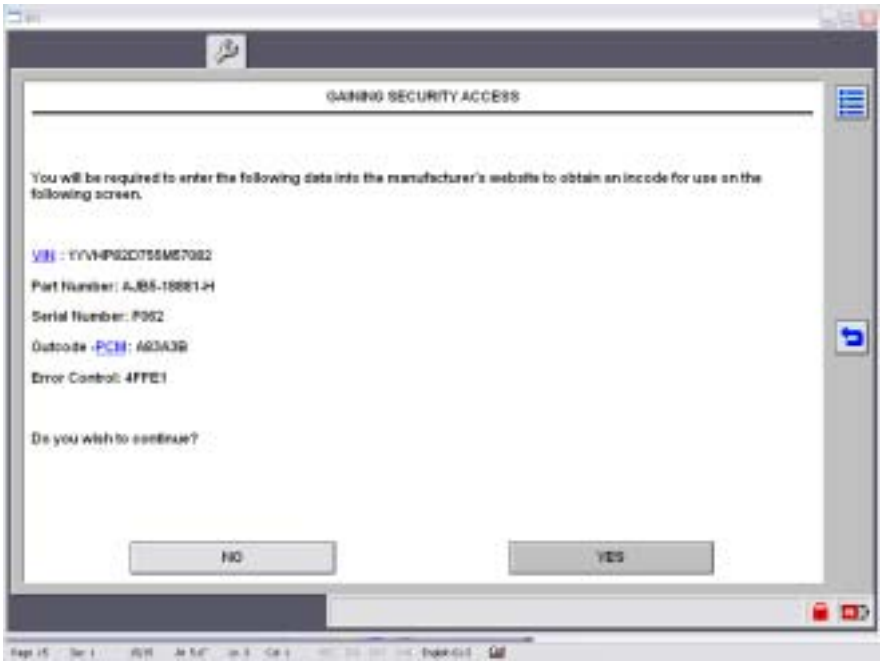
Out Code_____

Error Control_____

Access MS3: *Make sure to logon with your own logon*

Input the data you copied down above into MS3 to request an incode.

Incode from MS3_____



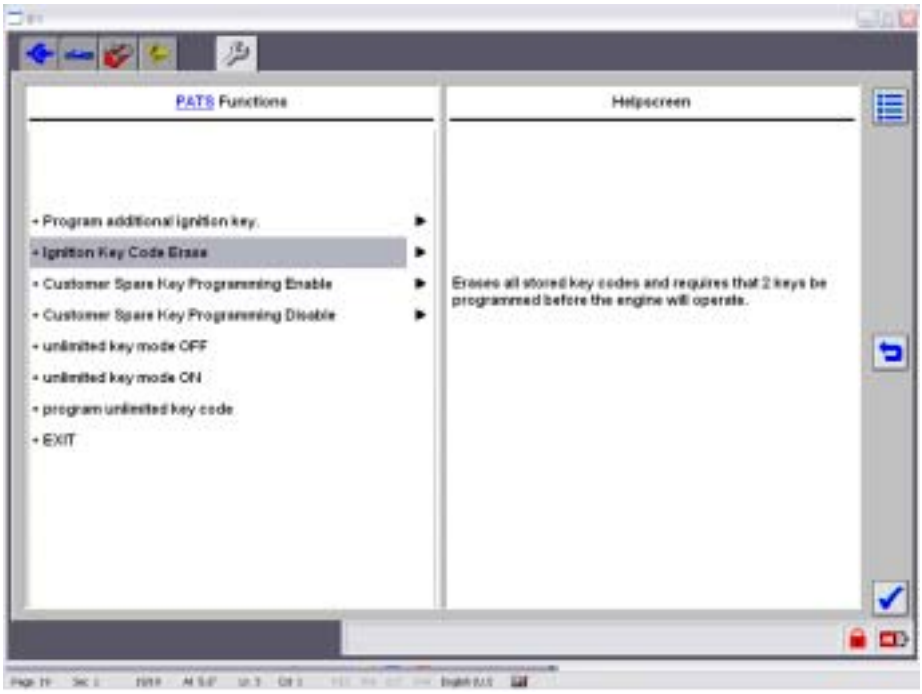
Click yes

Activity 14
(Continued)

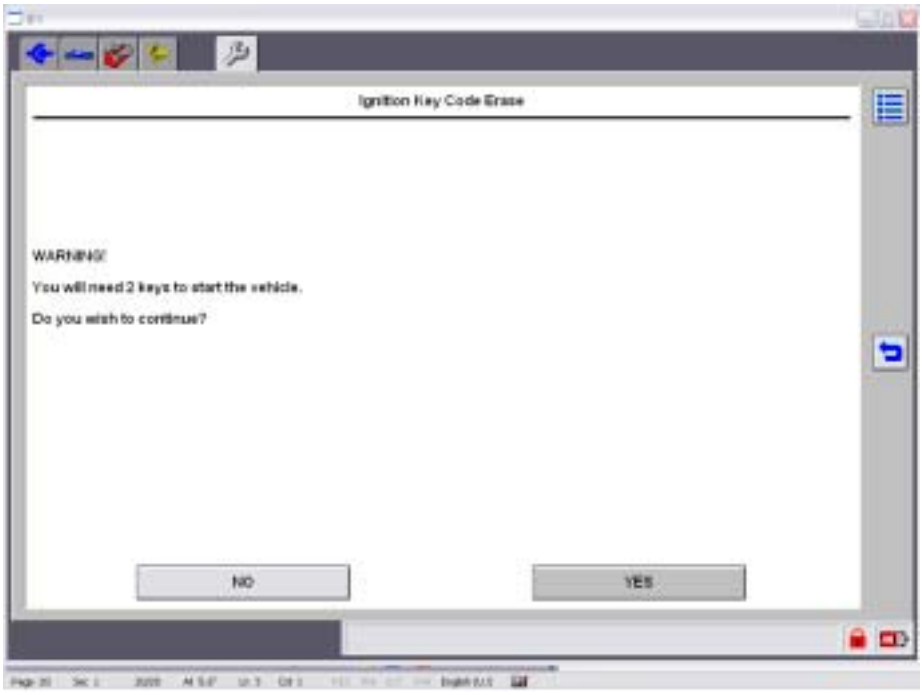
Input incode from above that you got from MS3 and click tick

Click tick

Activity 14
(Continued)

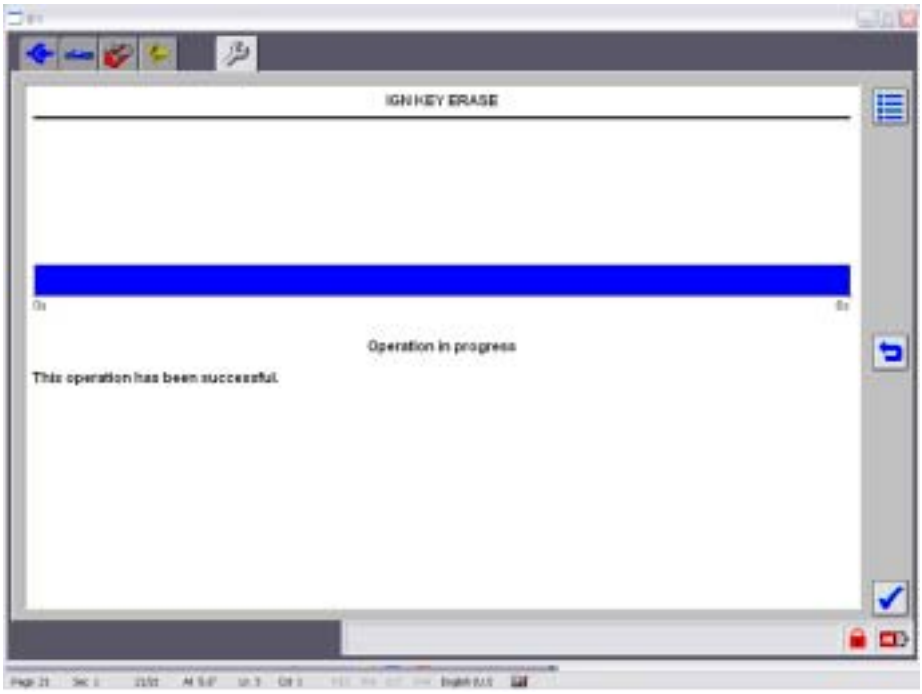


Highlight Ignition key code erase and click tick

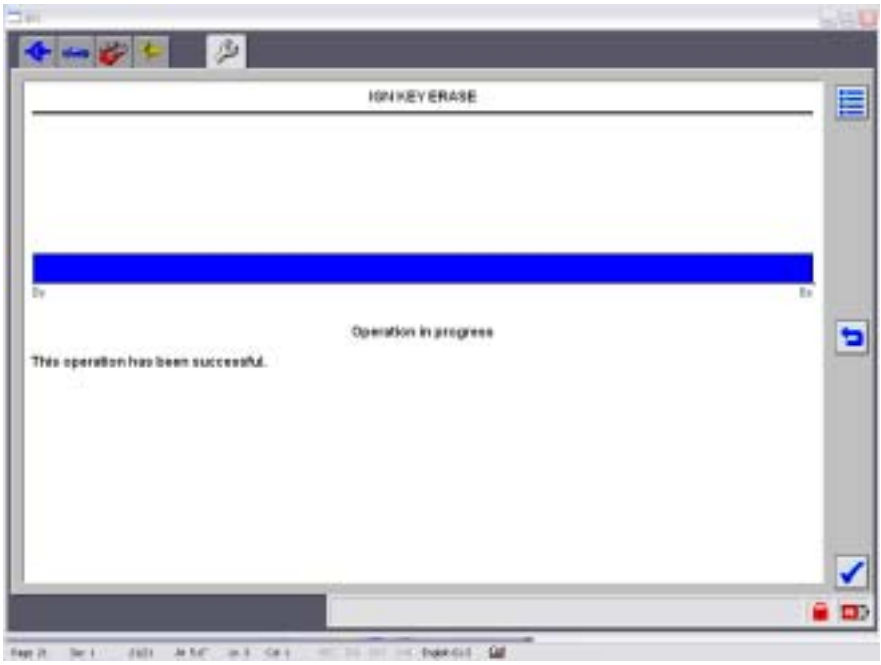


Verify you have at least 2 keys and click yes

Activity 14
(Continued)

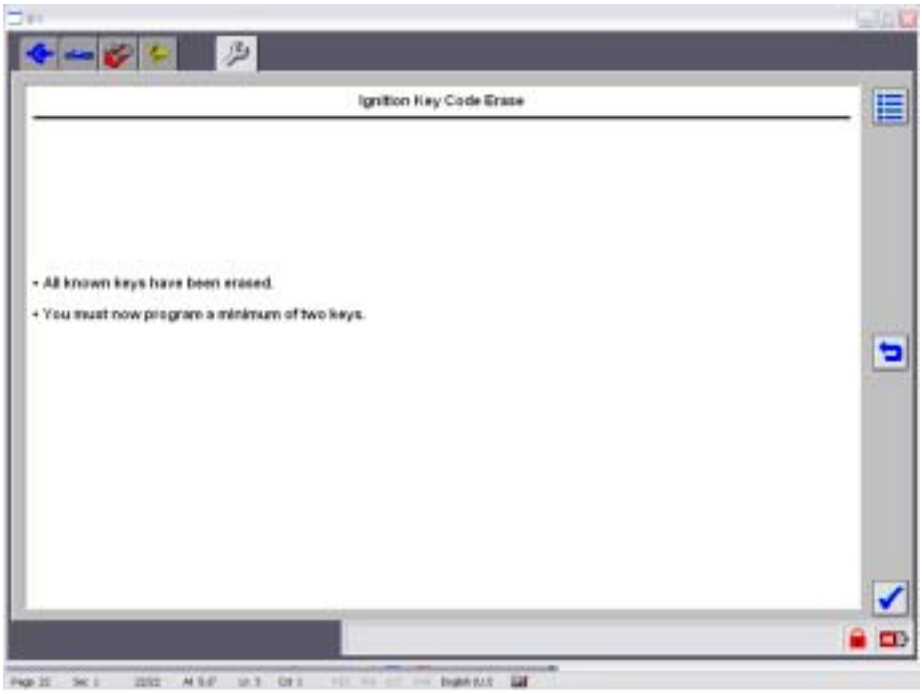


Click Tick

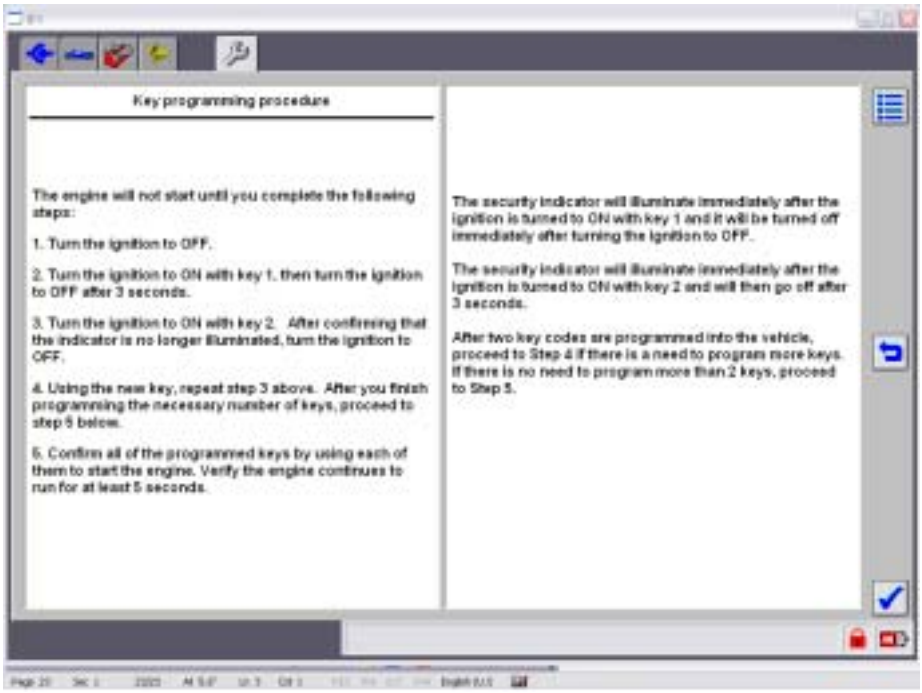


You won't have to click tick on this screen. Watch for screen prompt.

Activity 14
(Continued)



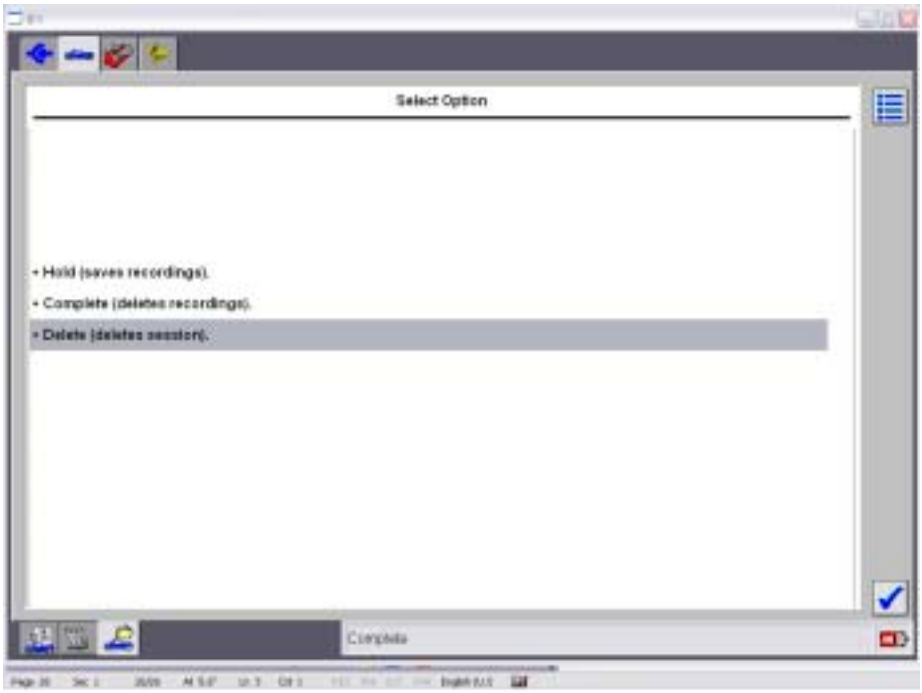
Click tick



Follow on screen instructions to validate ignition keys then click tick

Activity 14
(Continued)

Click the close session icon



Highlight delete and click tick

Activity 14
(Continued)

Click the X in the upper right to close IDS

Click the tick in the popup to close these screens

Instructor Sign Off: _____

Activity 15: Updating IDS

Upon completing this activity you will be able to download from the Internet:

- Manual Calibration Updates–
- Load all DIF **(*)**, Patches **(*)**
- Tech Tips
- Calibration file updates through Internet.

***DIF: Small software to update diagnostic database for IDS**
***Patch: Small software to modify or add functions to the IDS**

(Note: This is only for updates between the bi-monthly DVD updates.)

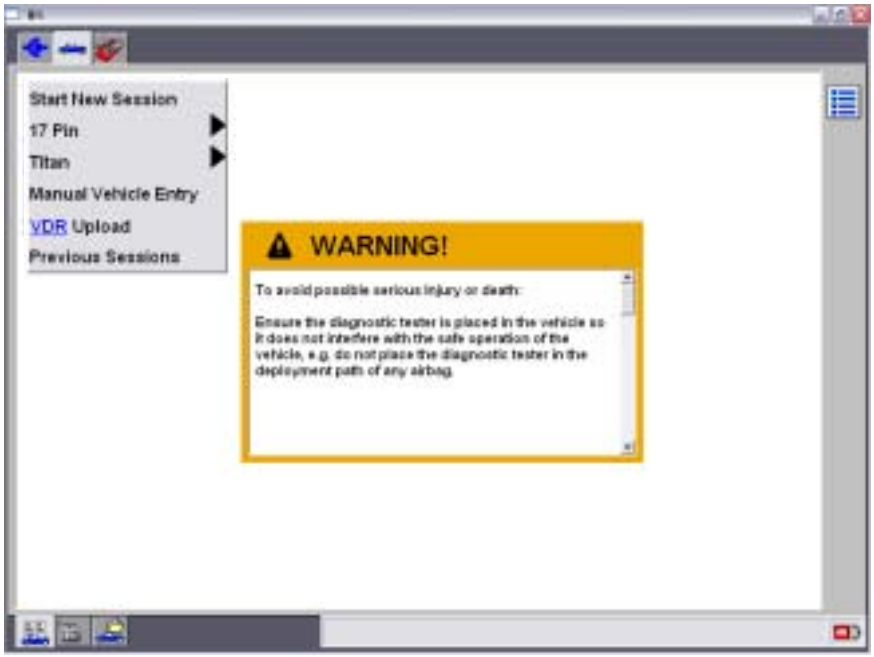
What you need to complete this activity:

- Mazda-approved laptop or PC with PDS / PFM installed
- High-speed internet access

Procedure:

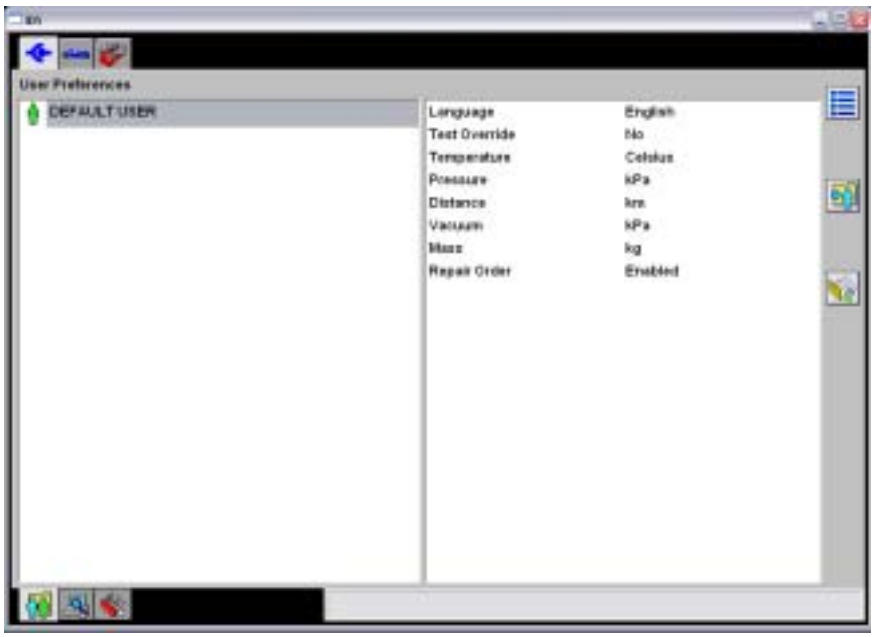
1. Click the IDS icon on the desktop.

2. Click the **System Page** tab in the upper left corner.



Activity 15
(Continued)

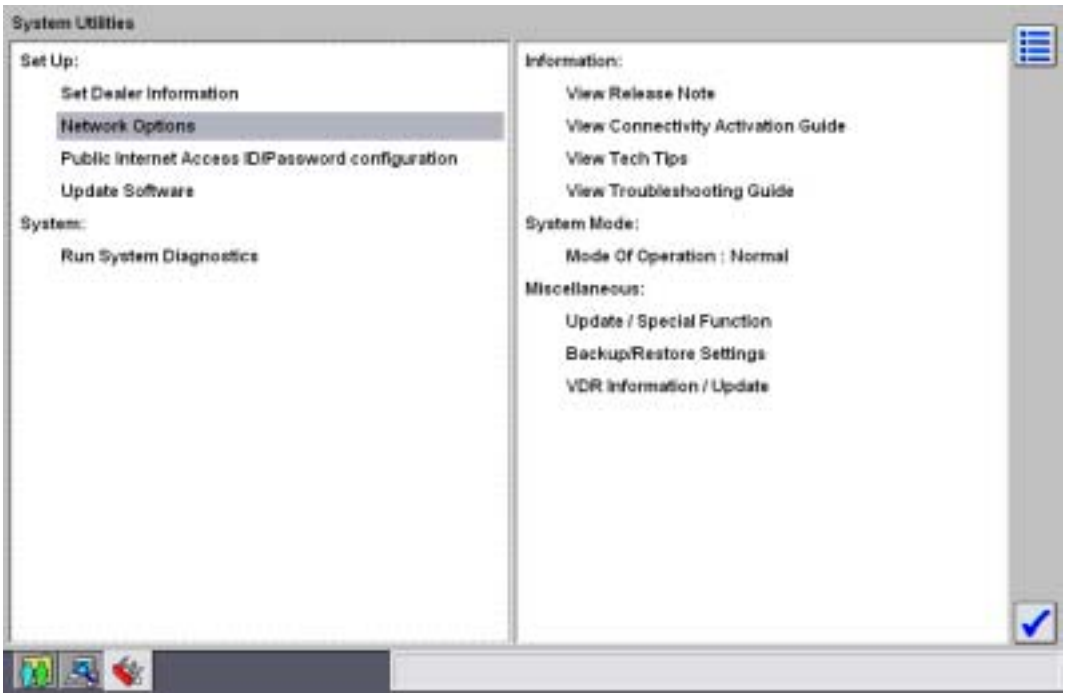
3. Click the information icon at the bottom.



4. Click the plus sign by Dealer Information to expand this item. The plus sign turns into a minus sign when you click on it again. Verify your dealer information is correct. If it is not correct, you can correct it from the tool box page.

Activity 15
(Continued)

5. Click the Swiss army knife icon at the bottom, then select **Network Options** and click tick.

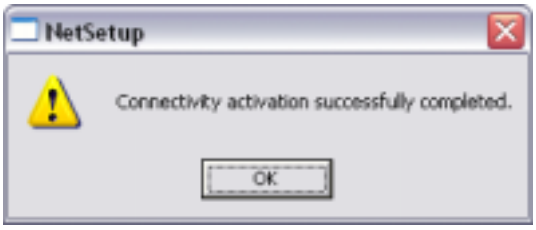


6. Click the **Reset LAN** button at the bottom.

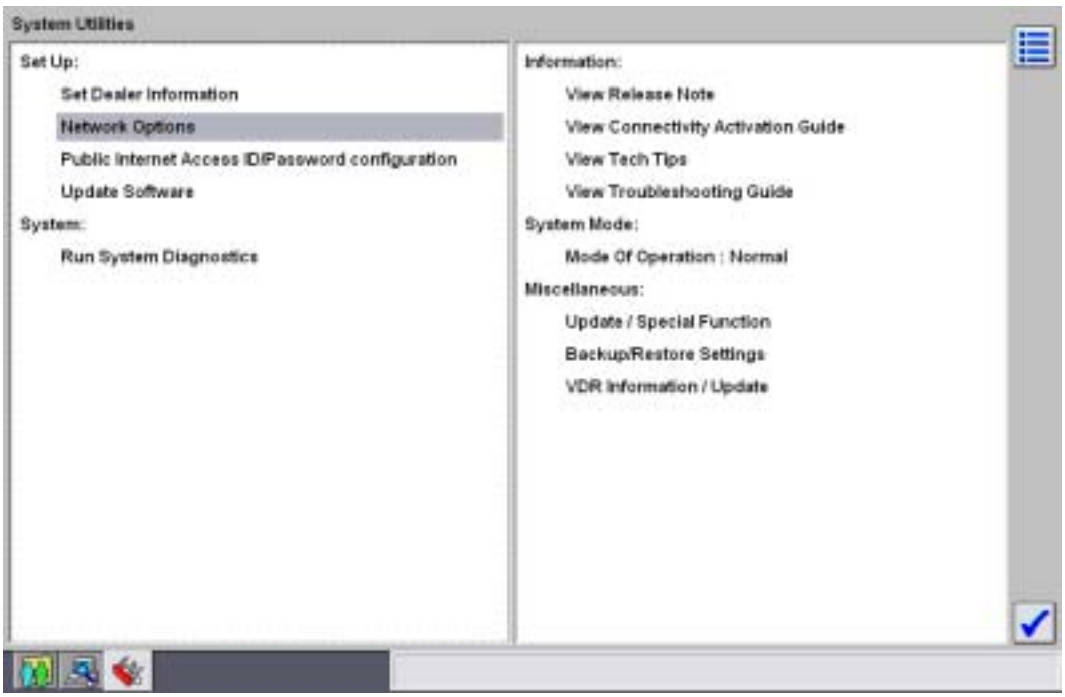
Activity 15
(Continued)

7. Verify **Internet Service Provider** is selected, then click **OK**.

8. Click **OK**.



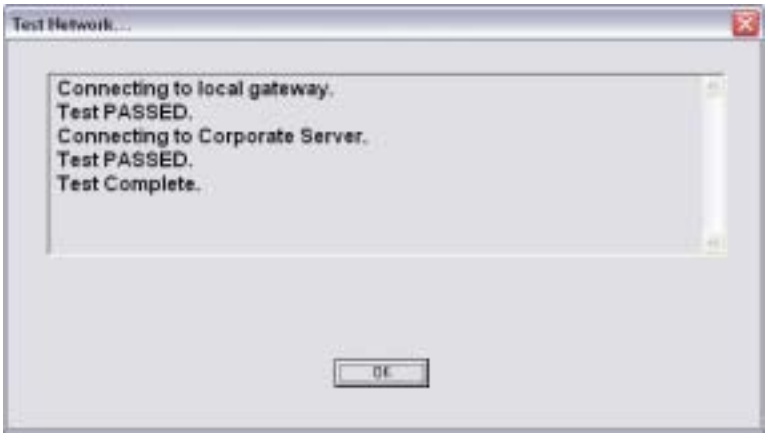
9. Select **Network Options** again, then click tick.



Activity 15
(Continued)

10. Click the **Test Network** button in the upper right corner.

11. The Test Network screen should look like this; if so, click **OK**.

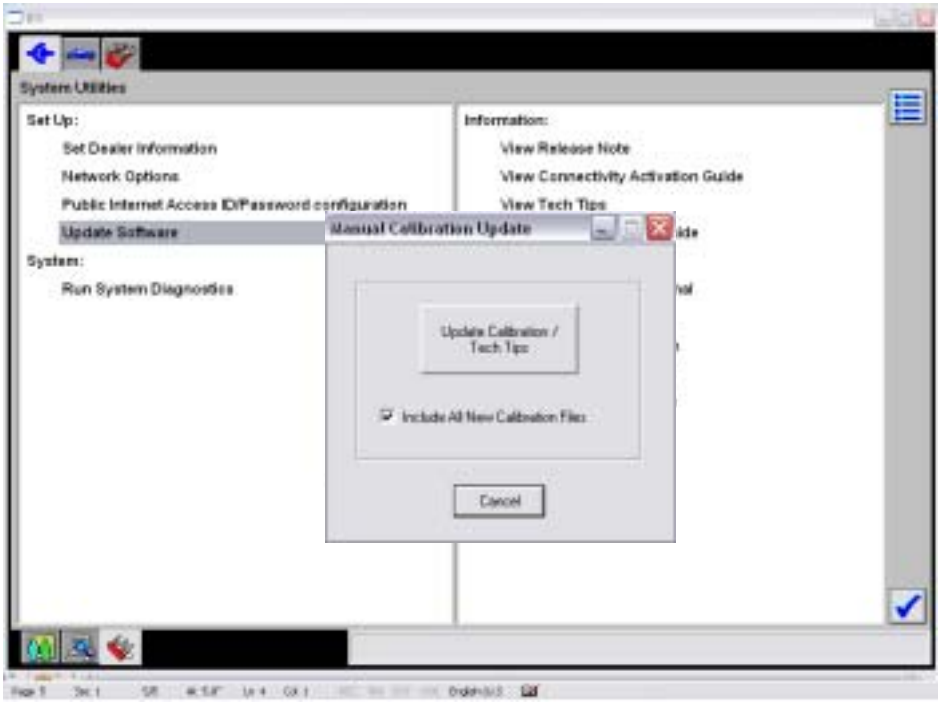


NOTE
If any part of this test fails at your dealership, you will need to contact your dealership's Information Technology department.

Activity 15
(Continued)

12. Select **Update Software**, and then click tick. Now, select highlight **Manual Calibration Update** in the pop-up window, then click tick.

13. Verify **Include All New Calibration Files** is checked, then click the **Update Calibration / Tech Tips** button.

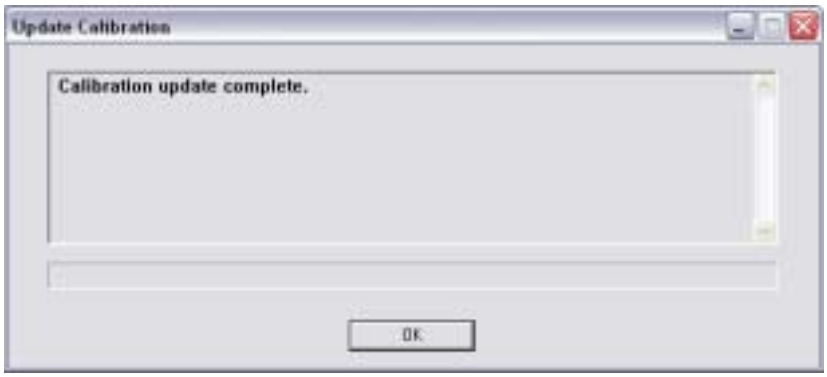


Activity 15
(Continued)

14. The Update Calibration screen indicates the progress of data being downloaded from the network. It may take several minutes to complete this process.

15. The Update Calibration screen looks like this after the network files are copied.

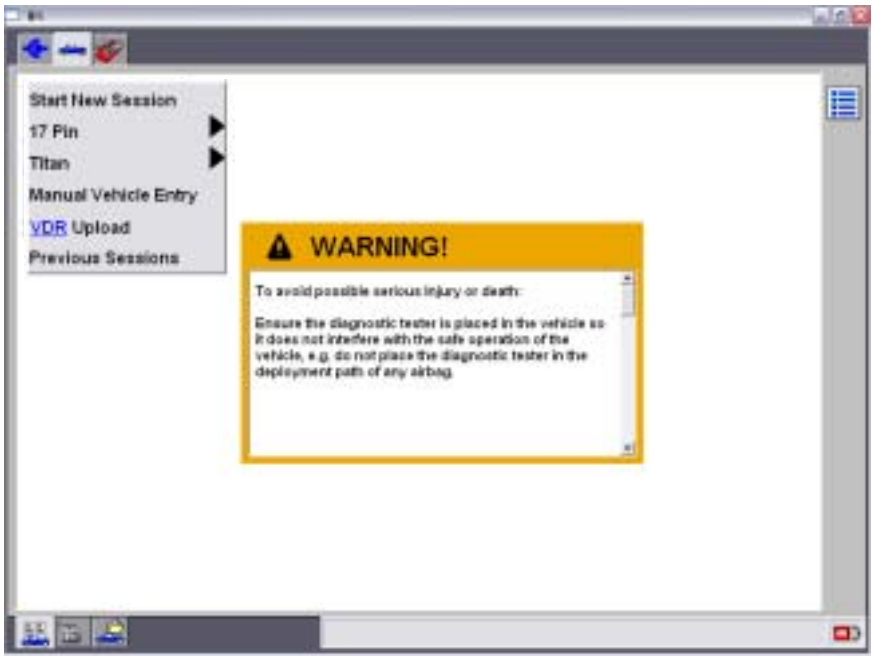
16. Click **OK** when you see this updated screen.



Activity 15
(Continued)

17. Click **Vehicle ID** tab at the top.

18. You can now click **Start New Session** to diagnose a car or the **X** in the upper right corner to exit IDS.



Conclusion:

In this activity, you updated M-MDS from the internet.

Instructor Sign-off: _____

Objectives

After completing this section, you will be able to use IDS to:

- Install IDS on a Mazda-approved your laptop
- Update IDS using the DVD
- Retrieve DTCs
- Read Freeze Frame Data
- Remove IDS from your laptop

Activities

#	Title	Location
12	Installing IDS on Laptop	Shop
13	Retrieving DTCs and Freeze Frame Data	Classroom
14	PATS Key programming	Shop
15	Updating IDS using Internet	Shop
16	Removing IDS from Laptop	Shop

Activity 16: Removing IDS from Laptop

Upon completing this activity you will be able to:

- Remove IDS from your laptop.

What you need to complete this activity:

- Mazda-approved laptop or PC with IDS installed
- Ask your Instructor to log in to the PC before you begin this activity

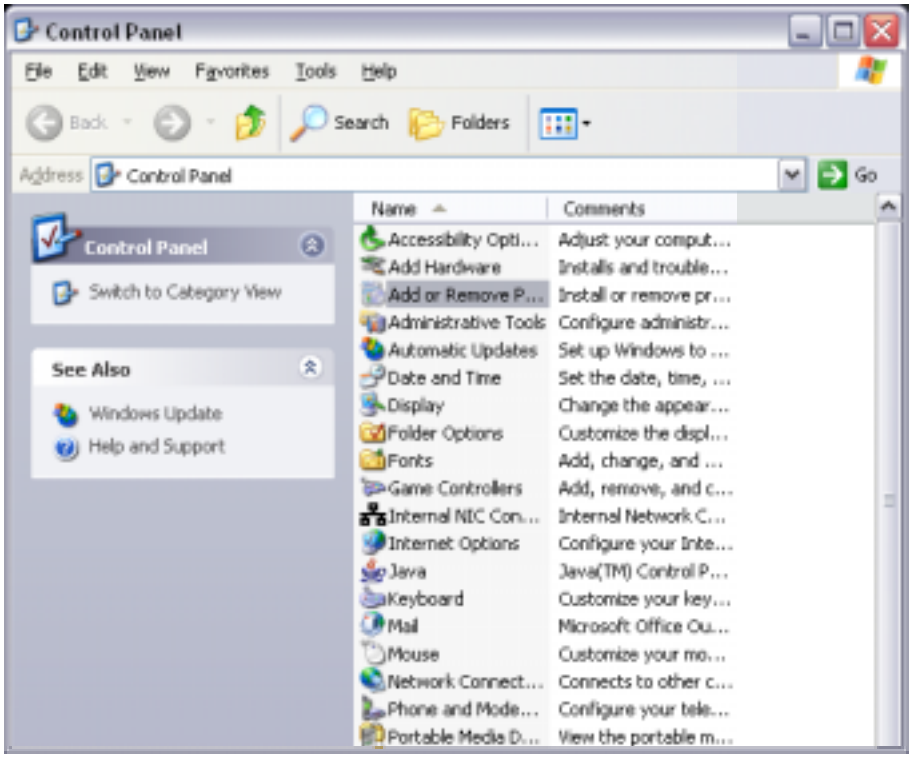
Procedure:

NOTE
To do this activity, you must have Administrator rights to install and remove software from the laptop or PC.

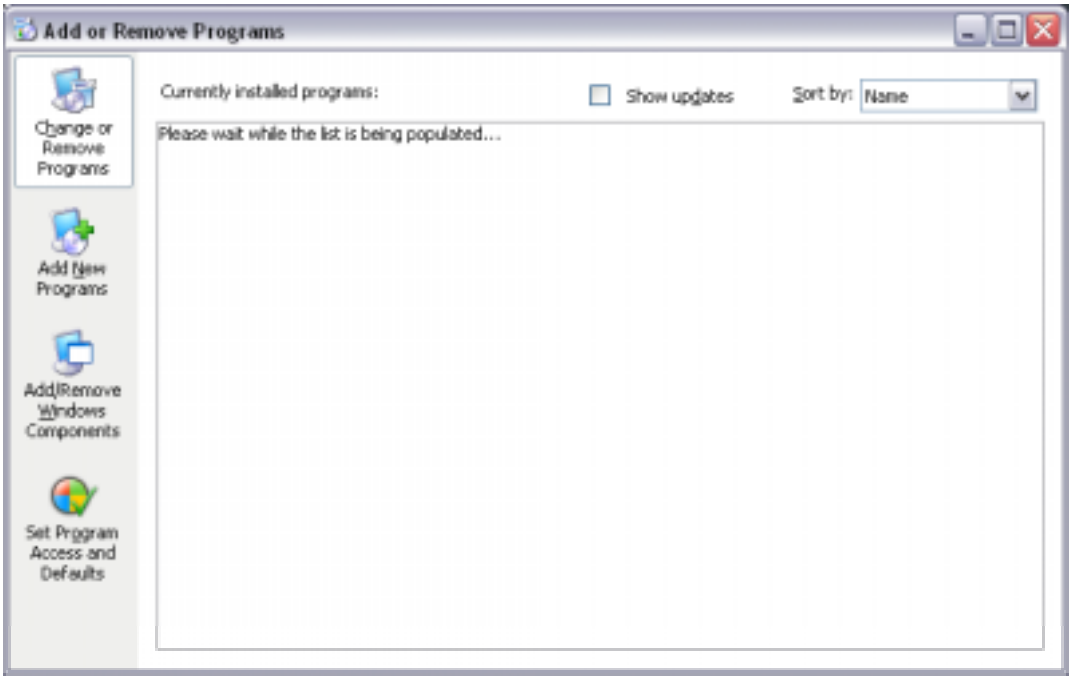
1. Click **Start**, and then click **Control Panel**.

Activity 16
(Continued)

2. Double-click **Add or Remove Programs**.

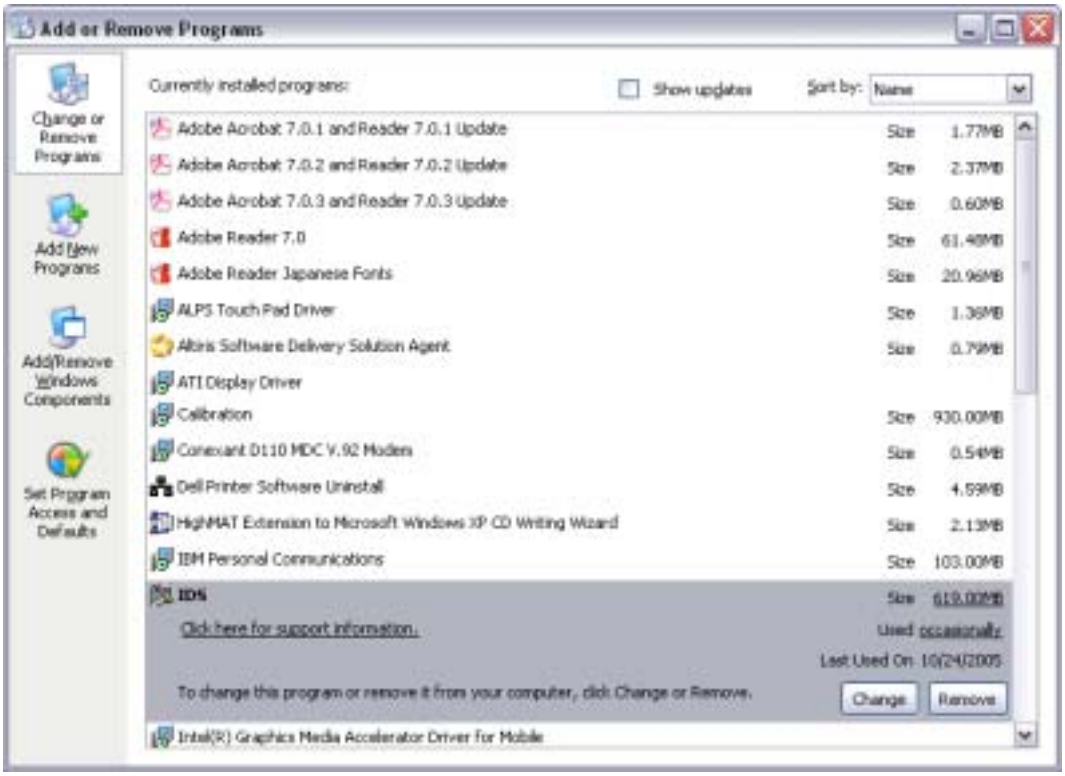


3. Please wait for the list of programs to display.

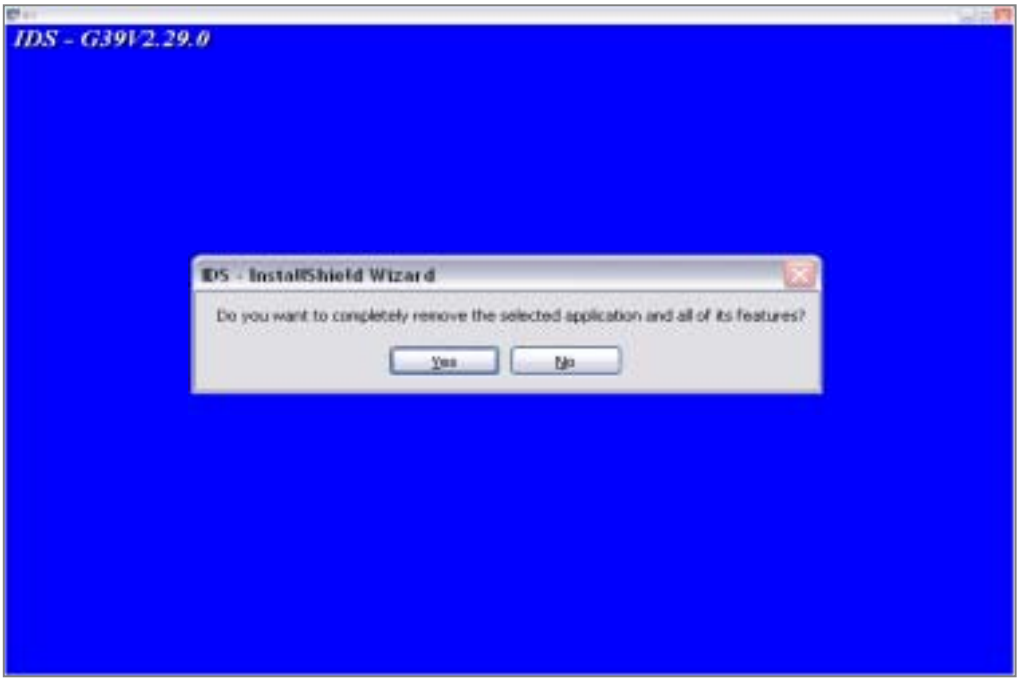


Activity 16
(Continued)

4. Click **IDS**, and then click **Remove**.

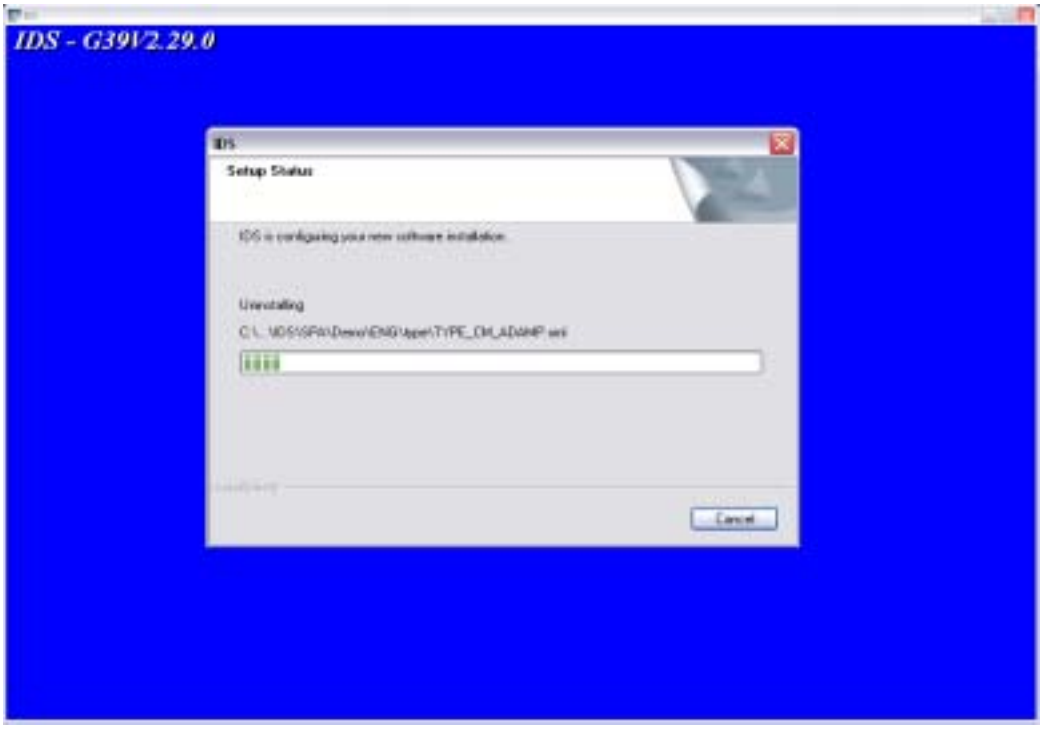


5. Click **Yes.**

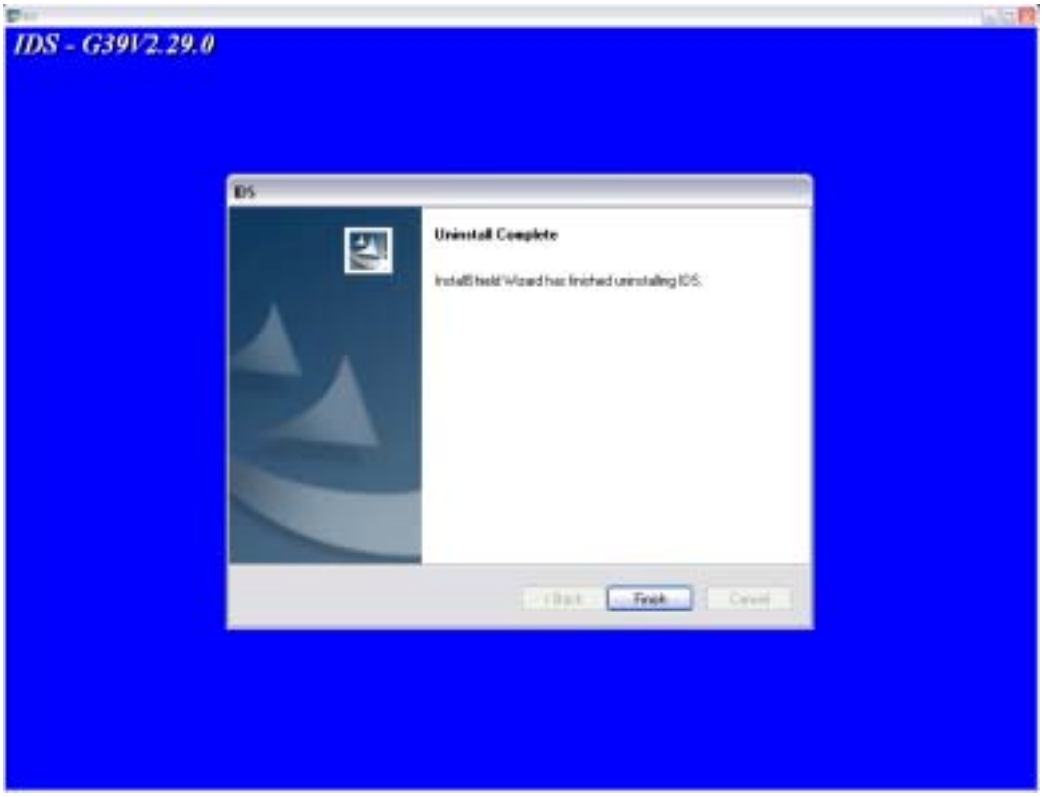


Activity 16
(Continued)

6. This window indicates the uninstalling progress.

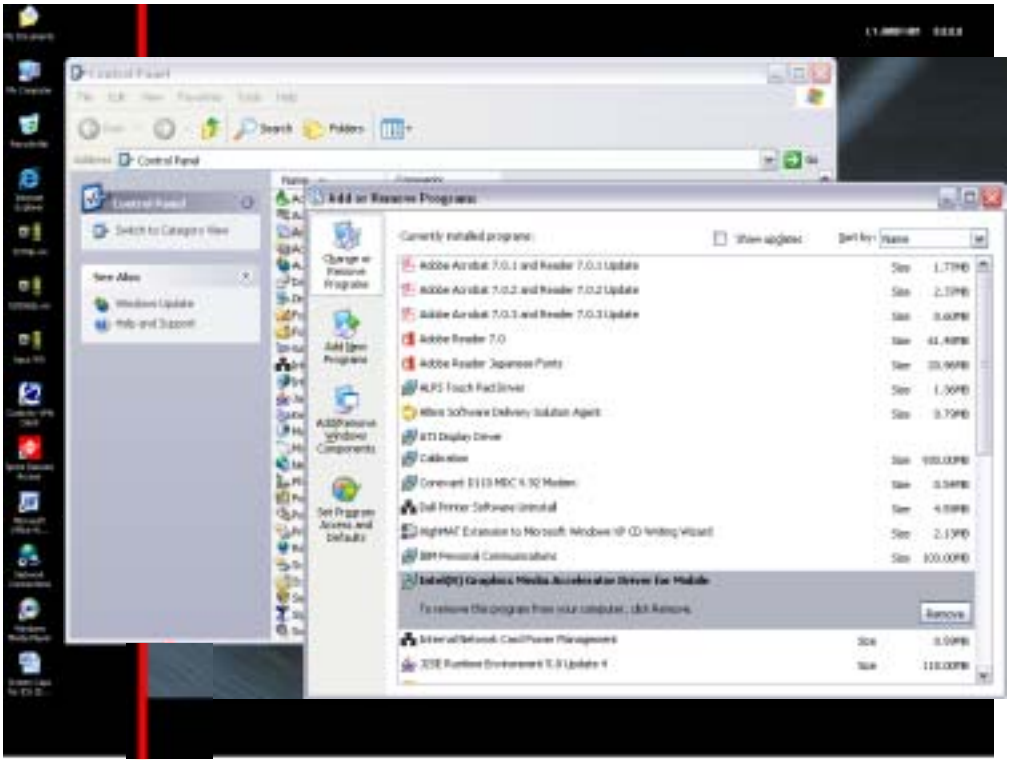


7. Click **Finish**.



Activity 16
(Continued)

8. Close the open windows on the desktop by clicking the **X** in the upper right corner of each window.



9. You should now be back at the desktop, and the IDS icon is no longer listed.

Conclusion:

In this activity, you removed IDS from your laptop.

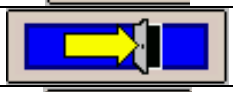
Instructor Sign-off: _____

AP01: Glossary

Term	Definition
ActiveSync	Software that allows communication between the computer or laptop and Personal Digital Assistant (PDA) or Pocket PC (P-PC).
Cradle	A device that allows a PDA or P-PC to synchronize with a computer or laptop, recharge its battery, and run on AC power.
DLC	**D**ata **L**ink **C**onnector. The connector under the instrument panel of the vehicle used to connect the SAE J2534 pass-through device to the vehicle.
Hard Reset	PDA function that resets the PDA / P-PC back to its factory settings. You will lose all the data stored in your PDA's memory and any programs you installed. This include vehicle sessions and M-MDS software. Each PDA / P-PC has a factory-specific process for doing this.
Hotspot	Blue underlined text items on a PDA that can be selected by the user to see a definition of the term. Press and hold the link for the hotspot definition.
IDS	**I**ntegrated **D**iagnostic **S**oftware. One of two M-MDS diagnostic systems for use on a Mazda-approved laptop with a VCM. The other system is PDS. IDS also refers to the scan tool diagnostic software, which is nearly identical to WDS software.
M-MDS	**M**azda **M**odular **D**iagnostic **S**ystem. Mazda's new diagnostic scan tool consisting of a PDA, Vehicle Communication Module (VCM), cables, M-MDS software (see IDS and PDS), and Mazda-approved laptop and PDA. M-MDS is a required Special Service Tool.
PDA	**P**ersonal **D**igital **A**ssistant. Hand-held device intended only for PDS. Also referred to as a pocket PC. Refer to the manufacturer instructions supplied with your PDA for information on how to use the PDA, specifications, and warranty.
PDS	**P**ortable **D**iagnostic **S**oftware. One of two M-MDS diagnostic systems for use on a Mazda-approved PDA / P-PC with a VCM. The other system is IDS. PDS also refers to the scan tool diagnostic software.
PFM	**P**DS **F**ile **M**anager. Computer software that manages the delivery of all files and updates to your PDA / P-PC.
P-PC	See pocket PC.

Pocket PC	Hand-held device intended only for PDS. Also referred to as a PDA.
SD Memory Card	**S**ecure **D**igital memory card. A type of removable memory commonly used in hand-held devices, such as a PDA / P-PC. SD memory cards are about the size of a postage stamp.
Soft Reset	PDA function that deletes data that has not been saved, e.g., the current vehicle session, but saves any data that has been stored in memory. Use the reset button, generally located on the back of the PDA, to perform a soft reset.
Stylus	A pointing device to select functions on a PDA / P-PC. The stylus functions like a mouse for a computer.
Synchronization	An automated process that replaces computer files in one location with the most updated files from another location. For example, you can synchronize files on your PDA with files on your computer or the internet.
Toolbox	The main screen of PDS that handles Vehicle Selection, VCM Connection state, and available tools for a vehicle.
USB	**U**niversal **S**erial **B**us. A hardware interface to transfer data for computers and laptops. USB devices include a mouse, PDA cradle, and printer.
VCM	**V**ehicle **C**ommunication **M**odule. Hardware used to communicate between the Pocket-PC and the vehicle.
WDS	**W**orldwide **D**iagnostic **S**ystem. Previous diagnostic scan tool used by Mazda.

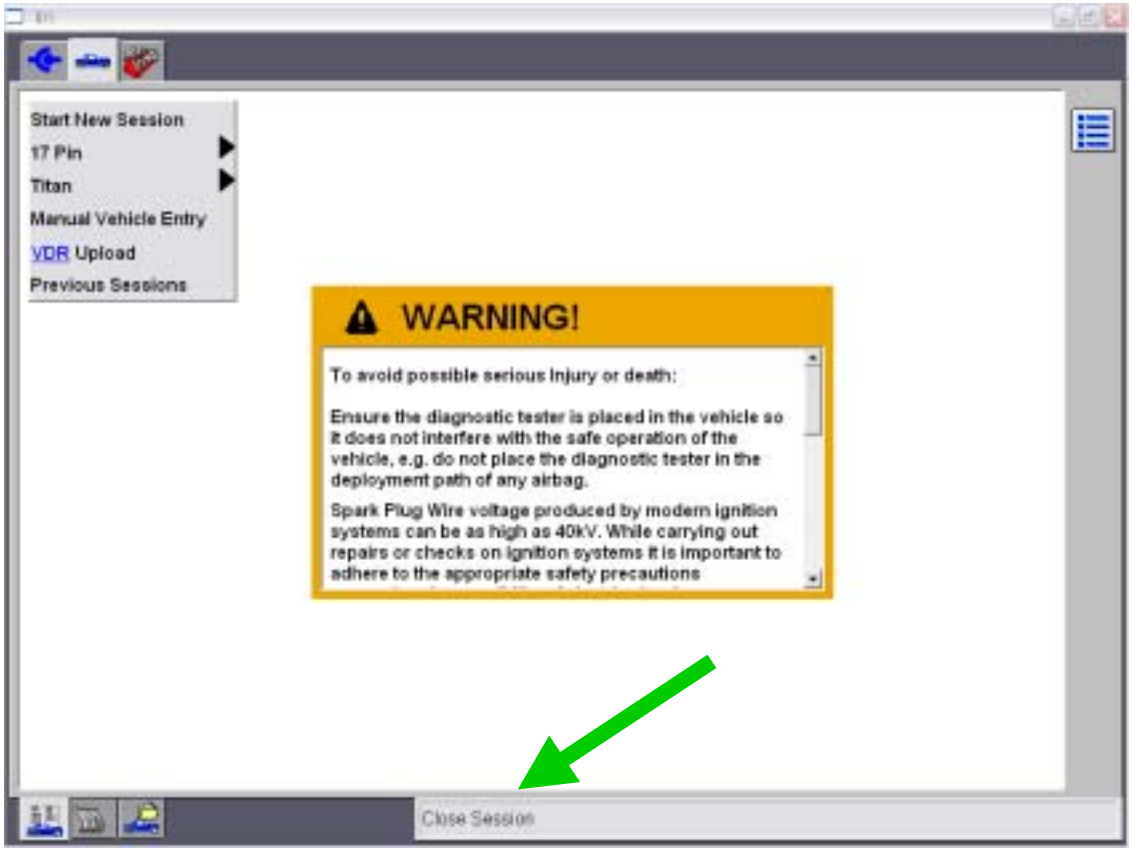
AP02: PDS ICONS

	Connect VCM
	Previous Sessions
	New Vehicle
	Vehicle Details
	Configure Tool
	Display Help Text
	Go To Previous Diagnostic Screen
	Clear
	Data Capture
	Keyboard on/off
	Disconnect VCM
	Training Mode Confirm Action
	Retest
	Select System Options
	Exit PDS
	Go to Previous Screen
	Manual Identification
	Confirm Action/Tick

AP03: IDS ICON Identification

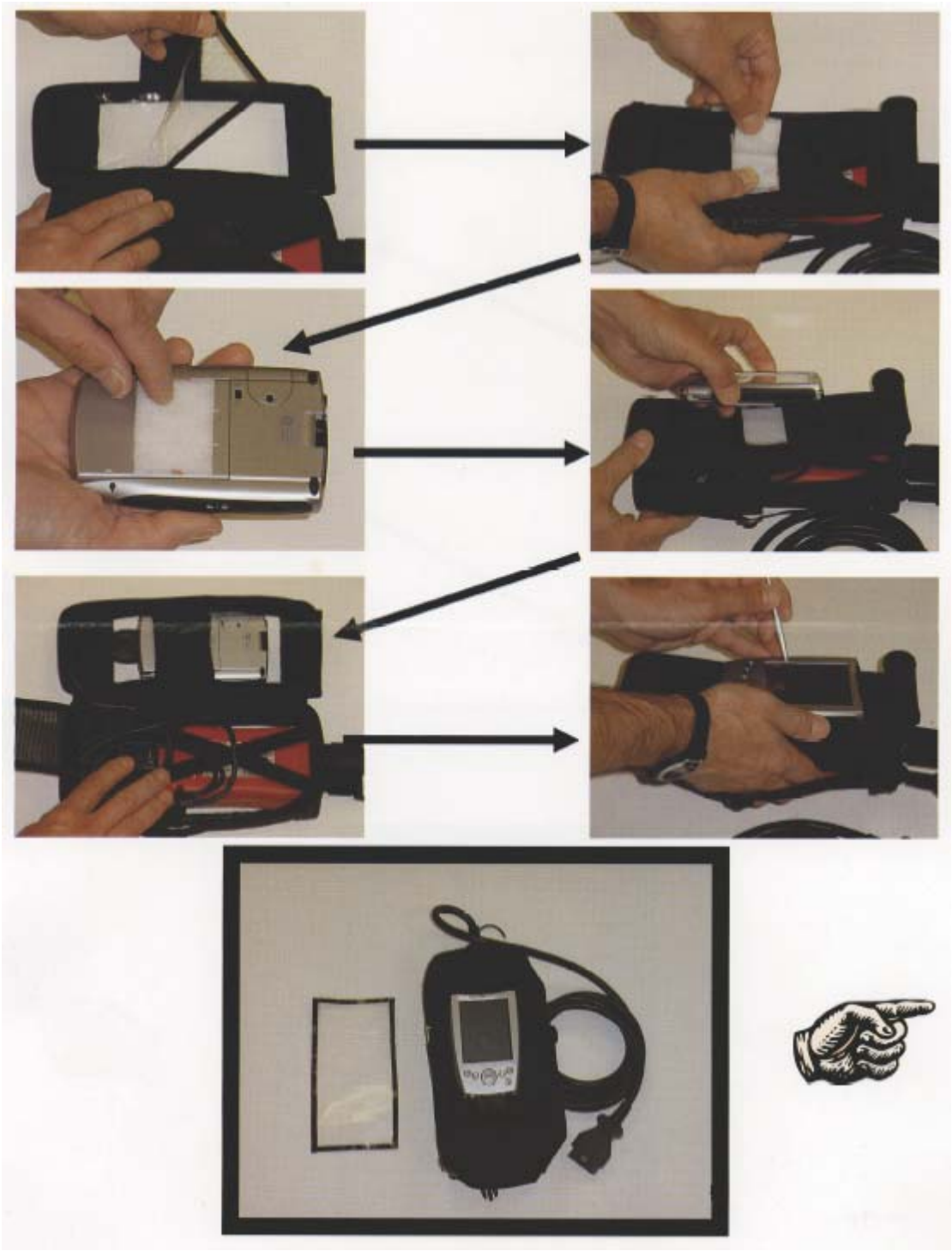
To identify an IDS icon, left click and hold the mouse on the icon. The icon's definition will display in the field at the bottom of the screen normally used for an "action bar."

For example, left click on and hold the mouse on the icon at the bottom of the screen. You will see "Close Session" displayed in the center bottom of the screen.

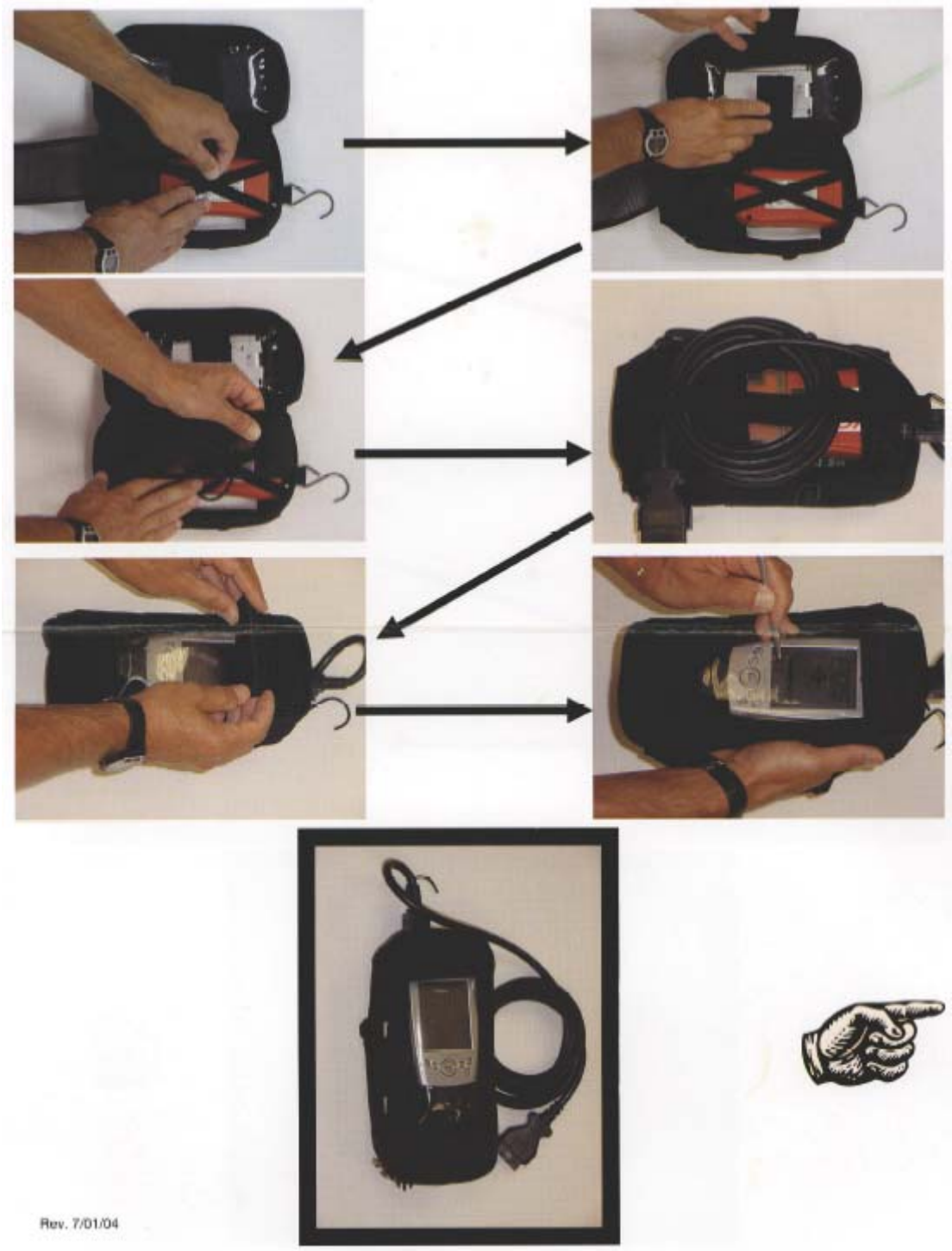


AP04: Assembling PDS Components

These visual instructions for assembling PDS components are provided in the Mazda Vehicle Communication kit from the manufacturer.

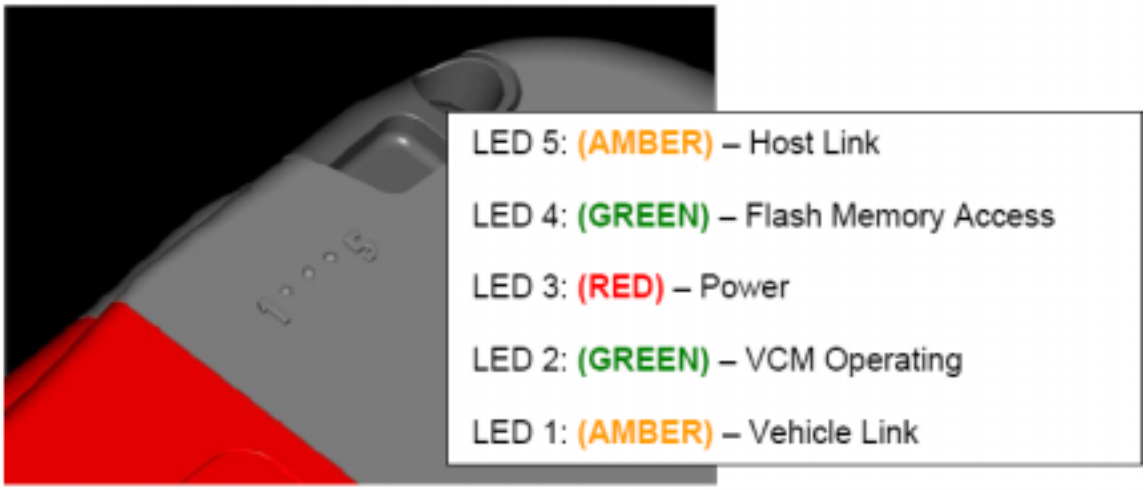


Assembling PDS Components
(Continued)



Assembling PDS Components
(Continued)

When you are finished assembling the PDS Components: The LED colors should be visible from the back of the assembled components



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