



BOSCH MTS 6513 ECM/TCM REPROGRAMMING

INTRODUCTION

This procedure uses the BOSCH MTS 6513 to perform **select** ECM/TCM reprogramming.

The BOSCH MTS 6513 can only be used if there is a note within a Campaign Bulletin indicating it is an alternative to using the CONSULT-III plus.

NOTE: The primary reprograming method is using CONSULT-III plus. This procedure is an alternative method.



Figure A

- BOSCH MTS 6513 can be obtained from Tech-Mate at 1-800-662-2001.

SERVICE PROCEDURE

Before starting, make sure:

- **ASIST on the CONSULT PC has been freshly synchronized (updated to the current date).**
- **All software updates (if any) have been installed.**

NOTE: The ASIST/CONSULT PC automatically gets applicable ECM and TCM reprogramming data during ASIST synchronization.

UPDATE SOFTWARE IN THE MTS 6513

NOTE: Updating the MTS 6513 software is not required before each use. Update is only required when updated software or additional reprograms are available. It is recommended that you update regularly to insure your MTS 6513 has the newest software and reprograms.

1. Connect the MTS 6513 to the PC with a USB cable.
 - Make sure the ASIST/CONSULT PC is powered ON.

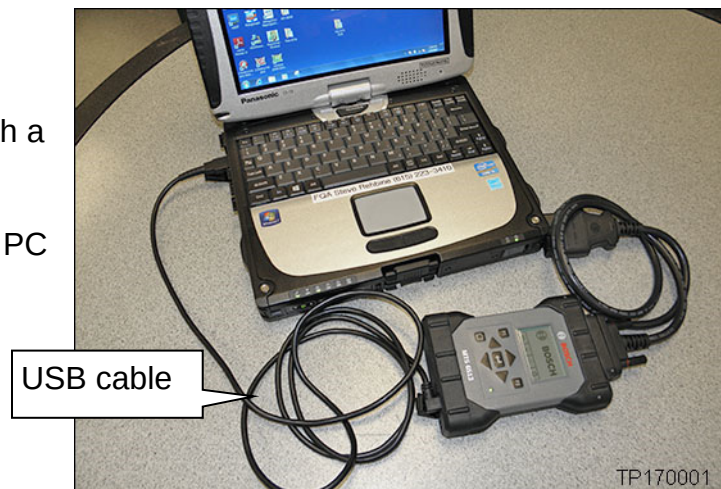


Figure 1

2. Wait for the MTS 6513 to boot.
 - A beep will be heard.
 - A green light on the MTS 6513 will indicate it is powered ON.

3. Open VCI Manager to install / update the application onto the MTS 6513.

a. On the PC screen, locate and click on this icon.

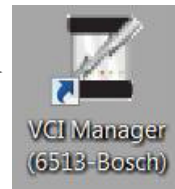
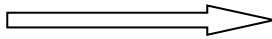


Figure 2

b. Wait for the VCI Manager screen to display (see Figure 3).

4. Select **Connect**.

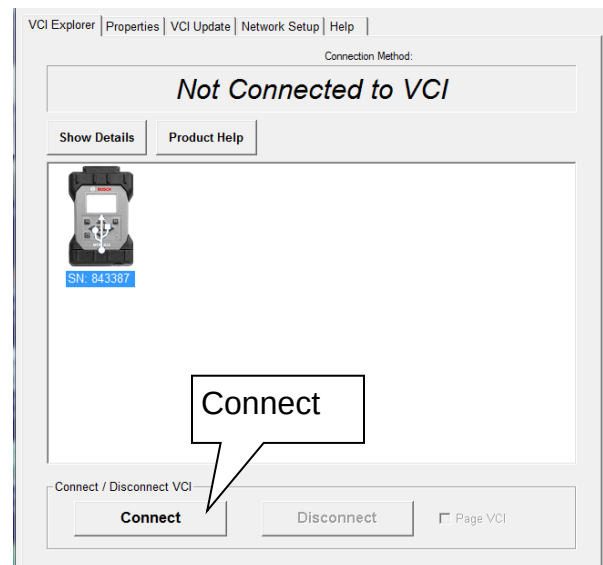


Figure 3

- When the VCI Manager is connected to the MTS 6513, a green check mark will display.

5. Select **VCI Update**.

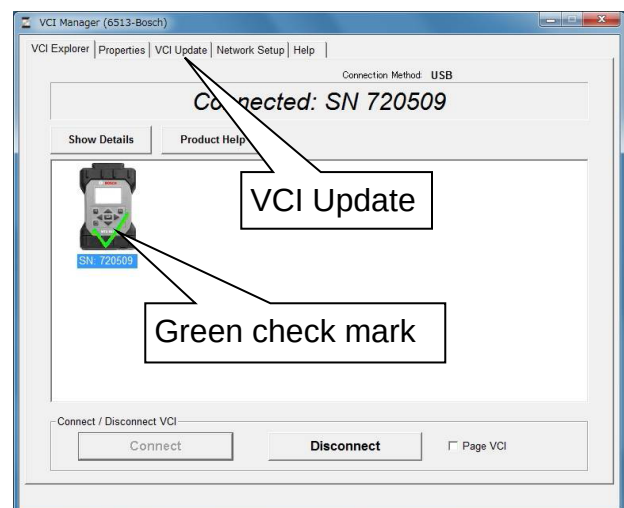


Figure 4

6. Select (highlight) the software to be installed.

7. Select **Start Update**.

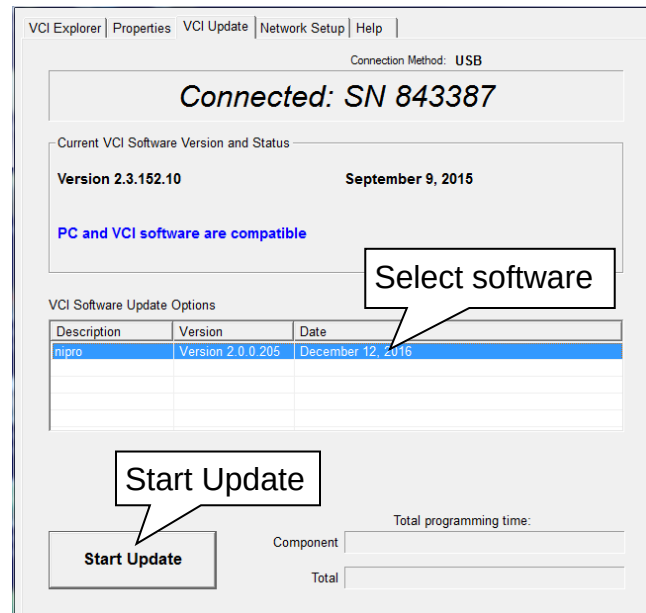


Figure 5

8. Select **OK**.

- Do not unplug the MTS 6513 from the PC during the update process.

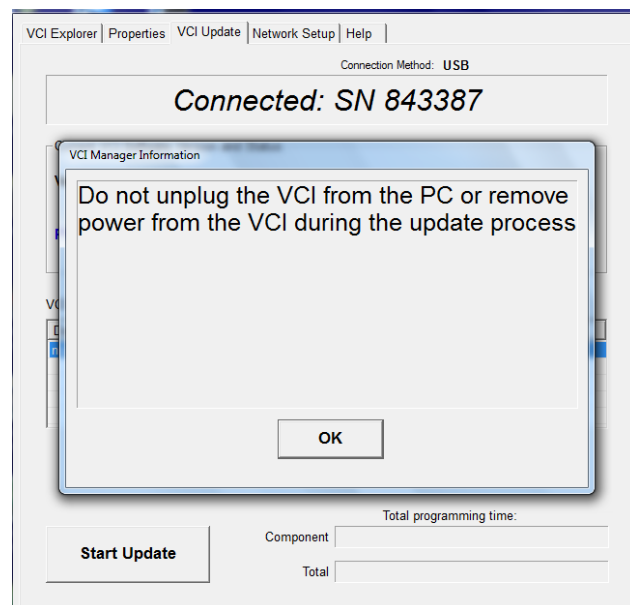


Figure 6

- During the update process, progress bars will display.

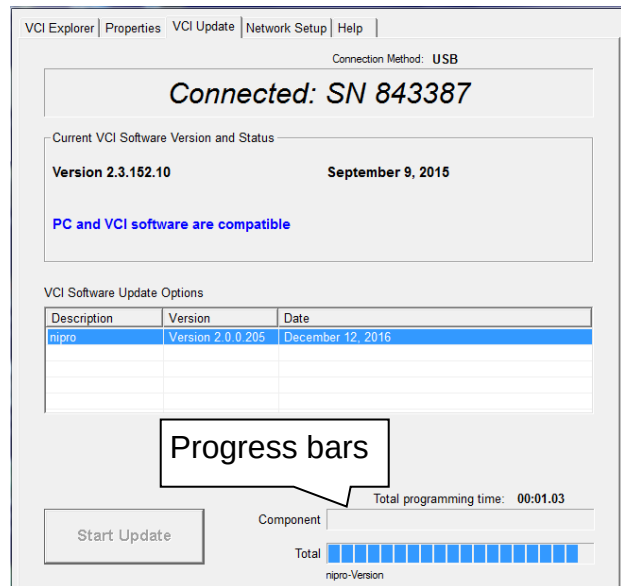


Figure 7

- When this screen appears the MTS 6513 will reboot/restart.
- After you hear the beep, the MTS 6513 is ready for use.

9. Select OK.

- After selecting OK, the screen will display as shown in Figure 3 page 3; software update is complete.

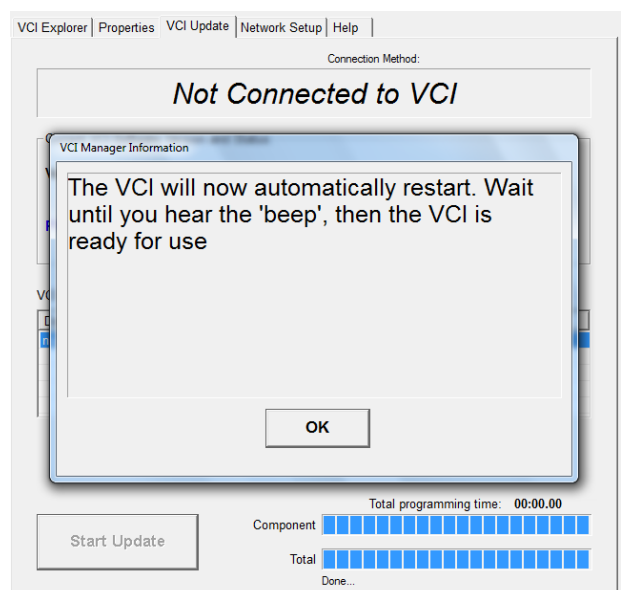


Figure 8

REPROGRAMMING

IMPORTANT: Make sure the MTS 6513 powers down (wait about 30 seconds after disconnection from the previous vehicle before connecting to the next vehicle). The MTS 6513 saves information related to the previous vehicle. Letting it power down before starting ensures that the memory has cleared.

NOTE: Appendix (pages 13 to 15) shows error screens that may occur during reprogramming with descriptions and suggested solutions.

1. Open the engine hood and connect the GR8 to the 12V battery and set it to ECM power supply mode.

CAUTION:

- Connect the GR8 to the 12V battery and select ECM Power Supply Mode. If the vehicle battery voltage goes below 12.0V or above 15.5V during reprogramming, the control unit may be damaged.
- Be sure to turn OFF all vehicle electrical loads. If a vehicle electrical load remains ON, the control unit may be damaged.

2. Turn ON the hazard lights (4 way flashers).
3. Connect the MTS 6513 to the vehicle Data Link Connector (DLC).
4. Wait for the MTS 6513 to boot.
 - A beep will be heard.
 - A green light on the MTS 6513 will indicate it is powered ON.
 - When boot-up is complete and the Start Screen (see Figure A1) is displayed, the MTS 6513 is ready for reprogramming.

NOTE:

- The actual start screen may look slightly different depending on the software version and available programs.
- If the screen in Figure A1 does not display, the correct software has not been loaded into the MTS 6513.

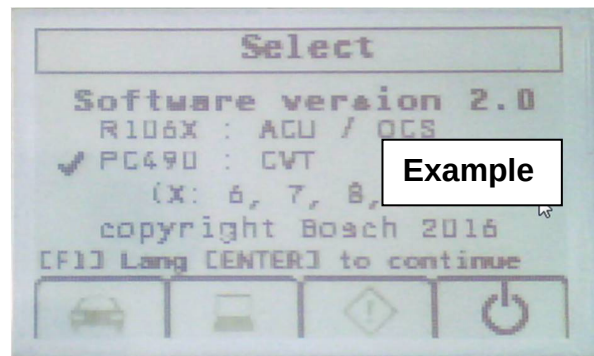
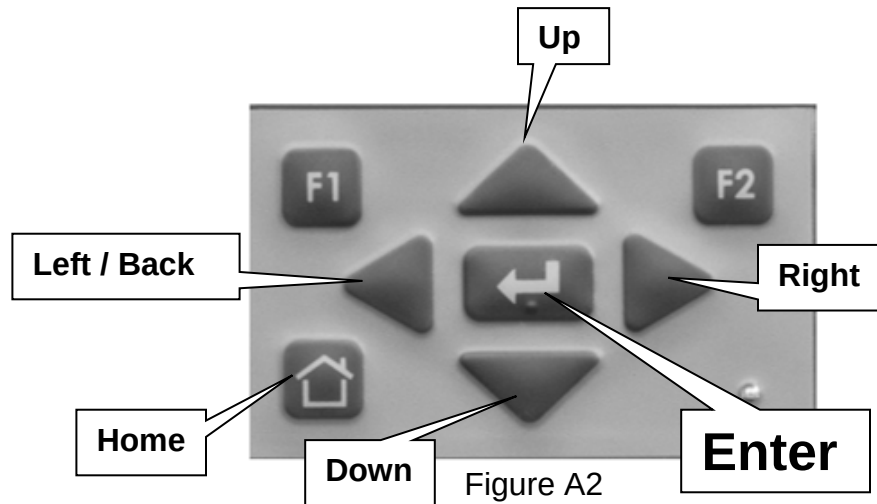


Figure A1

NOTE:

- On screen instructions will help guide you through the reprogramming process.
- During this procedure you will be asked to select buttons on the key pad. Use Figure A2 for key pad reference.



Up: Highlight item one row up.

Down: Highlight item one row down

Left/Back: Highlight item one column to the left, or backup one menu level.

Right: Highlight item one column to the right.

F1: Use varies.

F2: Use varies.

Home: Return to Home Screen.

 **(Enter):** Select the highlighted item or continue.

5. Select F1 on the key pad, confirm **English** is selected.

6. Select Enter on the key pad.

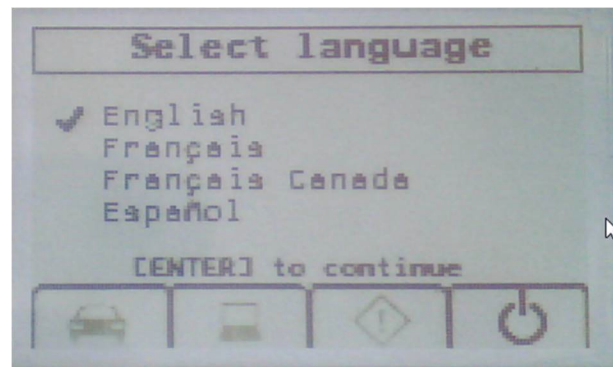


Figure A3

7. Select the correct program/campaign to be completed.

- Use the up/down arrows to select the correct program.
- Programs other than those shown here may be available with newer updates.

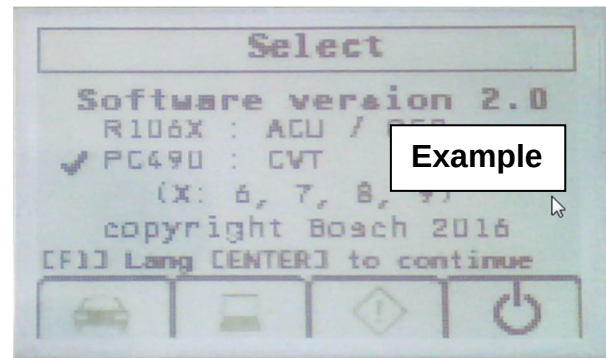


Figure A4

8. Select Enter on the key pad.

9. Turn the ignition ON (engine OFF / not Ready).

10. Select Enter on the key pad.

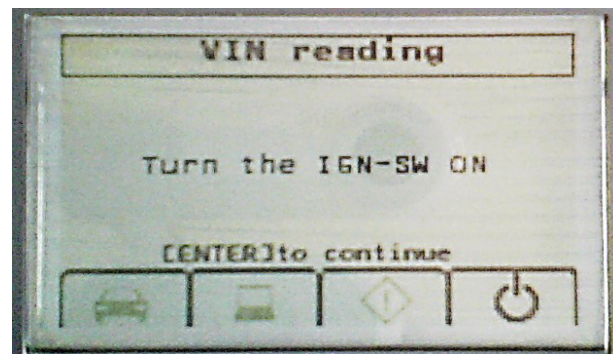


Figure A5

11. Select the correct vehicle.

- Use the up/down arrows to select the correct vehicle.
- Vehicles other than those shown here may be available with newer updates.

12. Select Enter on the key pad.

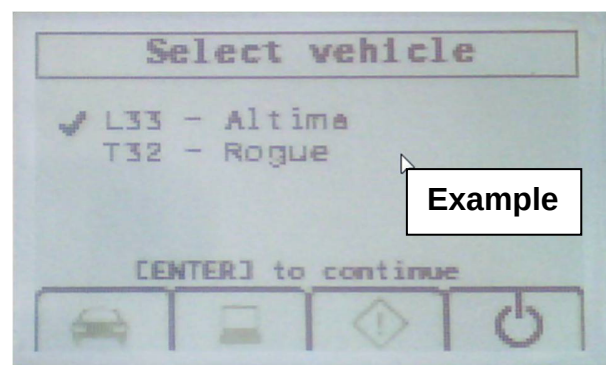


Figure A6

NOTE: The VIN is read automatically.

13. Select Enter on the key pad.

- If this screen does not display, go to step 14.

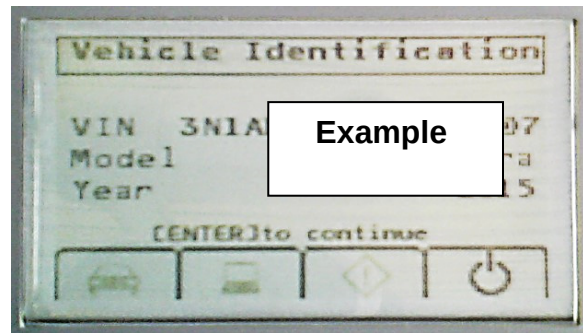


Figure A7

14. Confirm battery voltage is OK.

- Battery voltage must be between 12.0 volts and 15.5 volts.

15. Select Enter on the key pad.

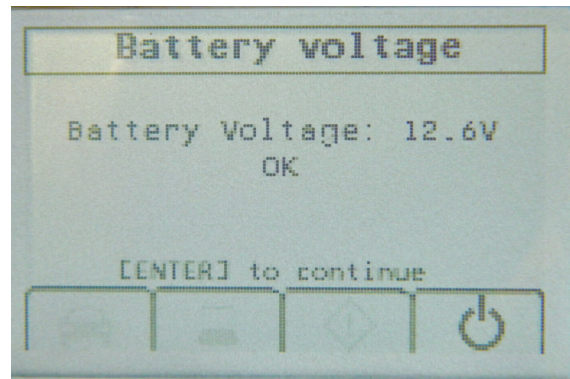


Figure A8

16. Select Enter on the key pad.

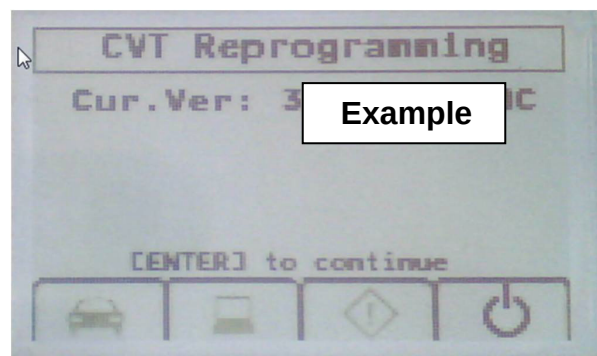


Figure A9

17. Select enter on the key pad.

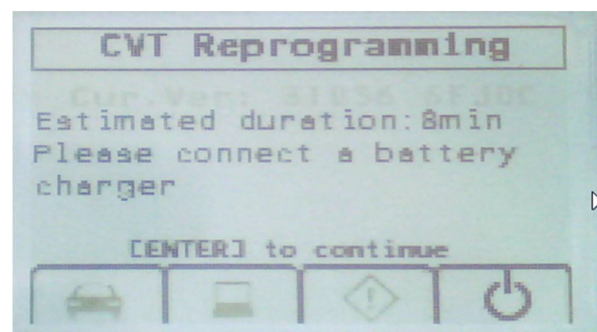


Figure A10

18. Again, confirm battery voltage is OK.

- Battery voltage must be between 12.0 volts and 15.5 volts.

19. Select Enter on the key pad, reprograming will start.

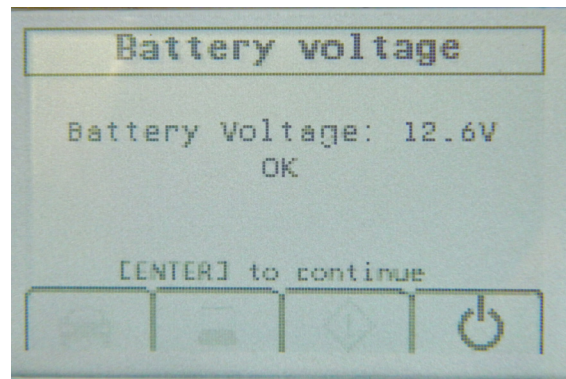


Figure A11

NOTE:

- The current version of the control unit software is read automatically to determine if it needs to be reprogrammed per the campaign.
- If the control unit **does not** require reprogramming per the campaign, a screen message will indicate that reprograming has already been completed.
- **If reprogramming is required**, reprogramming will begin automatically. A progress bar will be displayed showing the percent complete, and the car icon will flash during the reprogramming process (see Figure A12).

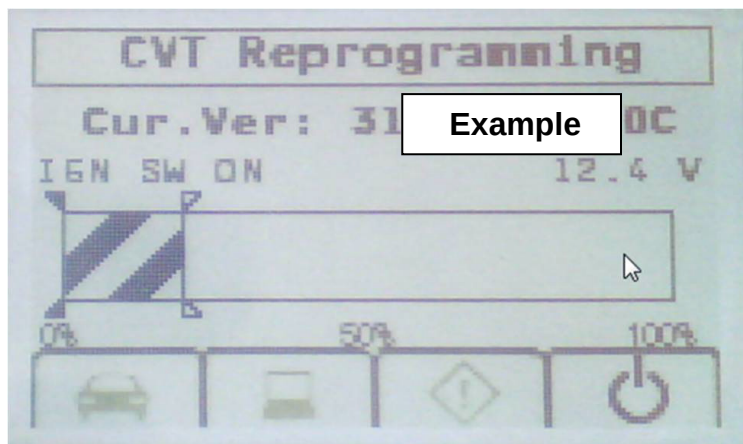


Figure A12

20. When reprogramming is complete, the screen in Figure A13 (next page) will display.

21. Turn the ignition OFF.

22. Select Enter on the key pad.

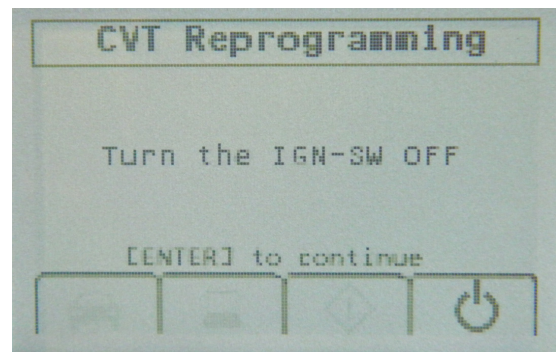


Figure A13

23. Turn the ignition ON (engine OFF / not Ready).

24. Select Enter on the key pad.

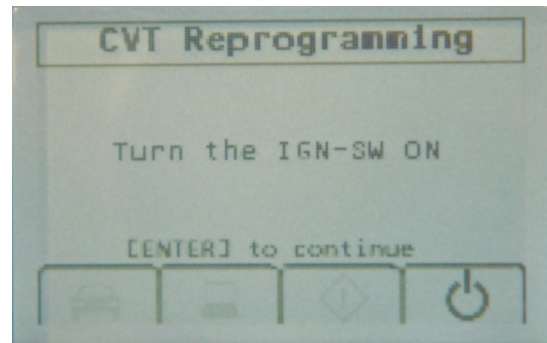


Figure A14

25. Select enter on the key pad.

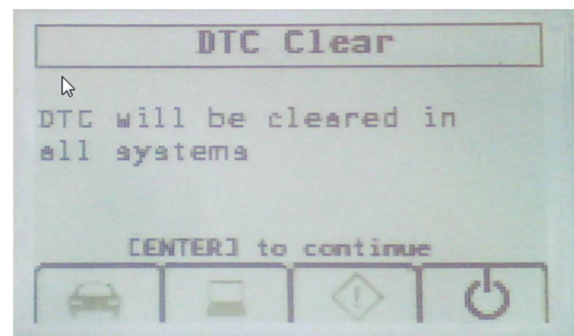


Figure A15

26. Wait 2 to 3 minutes while DTCs are cleared from all systems.

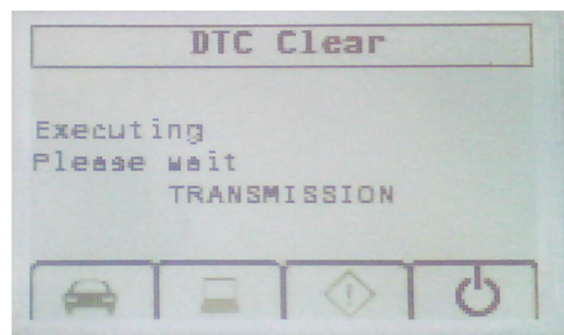


Figure A16

27. Select enter on the key pad.

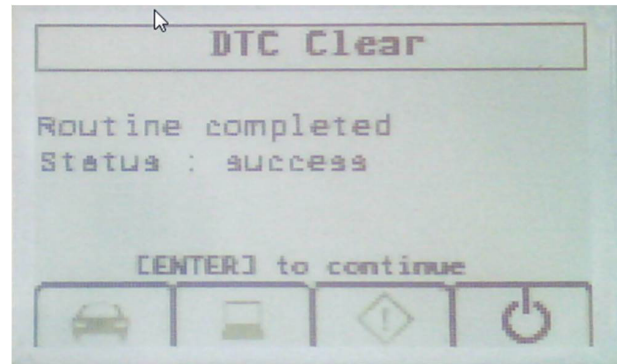


Figure A17

28. Before (Crt SW) and After (New SW) reprogramming numbers are displayed.

- Write these numbers on the repair order.
- Reprograming is complete.

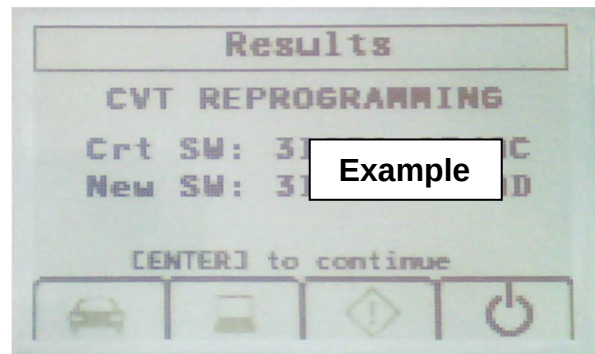


Figure A18

29. Turn OFF the hazard lights (4 way flashers).

30. Turn the ignition OFF.

31. Disconnect the MTS 6513 from the vehicle.

NOTE: Appendix (pages 13 to 15) shows error screens that may occur during reprograming with discriptions and suggested solutions.

APPENDIX

- Pages 13 to 15 show error screens that may occur and solution descriptions.

Update not required

- Control unit is up to date – reprogramming is not required.

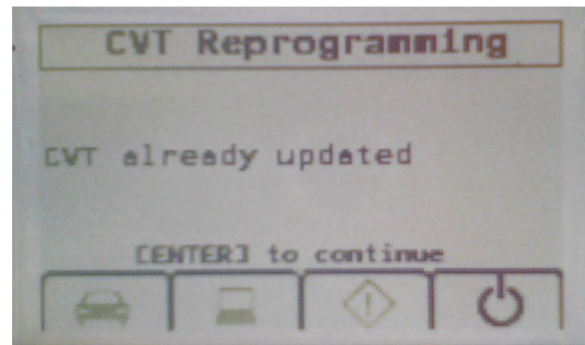


Figure A19

Unknown Version

- Vehicle is not part of the selected campaign or reprogramming was already completed.

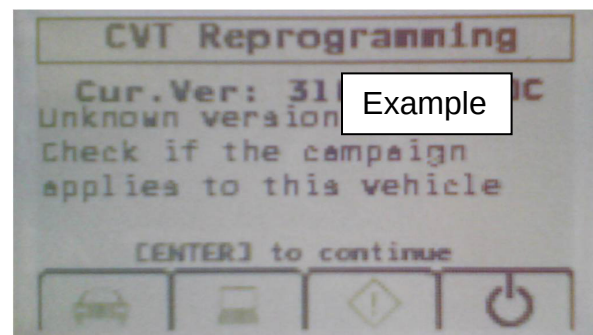


Figure A20

Communication Error

- If communication with an ECU stops, a Communication Error will be displayed.
- Make sure the ignition is ON and the DLC connector is properly seated/connected.

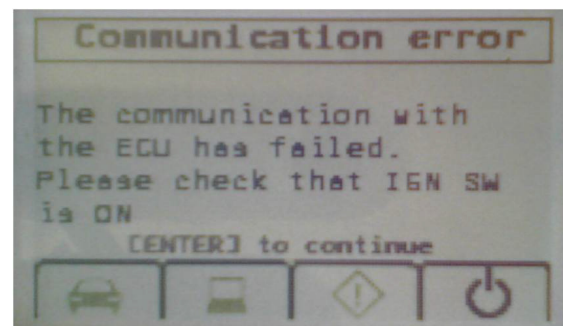


Figure A21

ECU Error

- If the ECU does not respond to reprogramming requests from the MTS 6513, such as if the wrong vehicle was selected, this error screen appears.
- Make sure the correct vehicle was selected.
- Make sure the campaign applies to the vehicle you are working on.

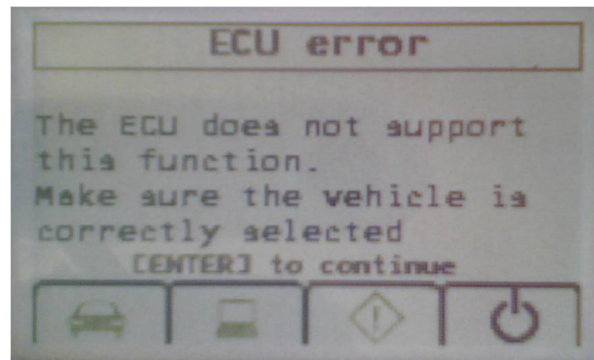


Figure A22

Battery Voltage Error

- If the vehicle's battery voltage is below 12 volts, the following error screen is displayed.
- The battery voltage is too low to perform reprogramming and must be corrected before reprogramming can be performed.
- Check battery cables.
- Connect GR8 and make sure it is set to ECM power supply mode.

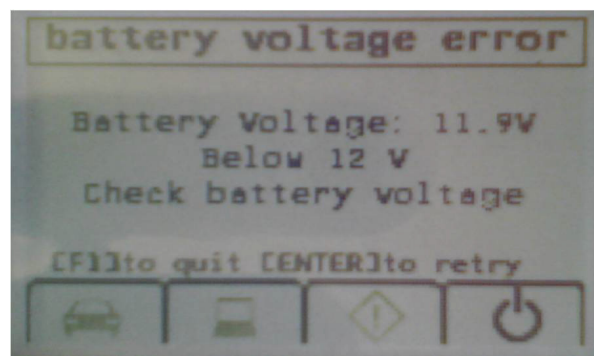


Figure A23

Battery Voltage

- If the vehicle's battery voltage is above 15.5 volts, the following error screen is displayed.
- The battery voltage is too high (it is being overcharged by the battery charger) and must be corrected before reprogramming can be performed.
- Connect GR8 and make sure it is set to ECM power supply mode.

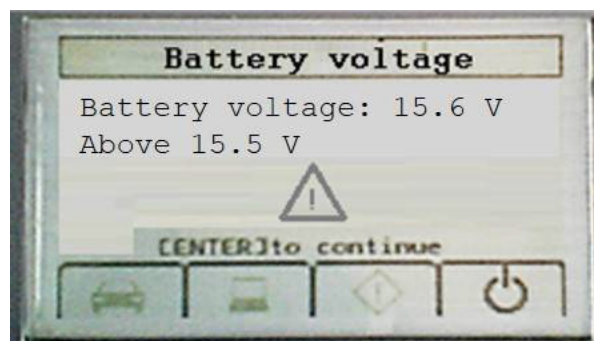


Figure A24

Vehicle Identification

- The VIN read Failed; the VIN cannot be read electronically.
- Make sure the ignition is ON.
- Select Enter on the key pad and try reprogram again.

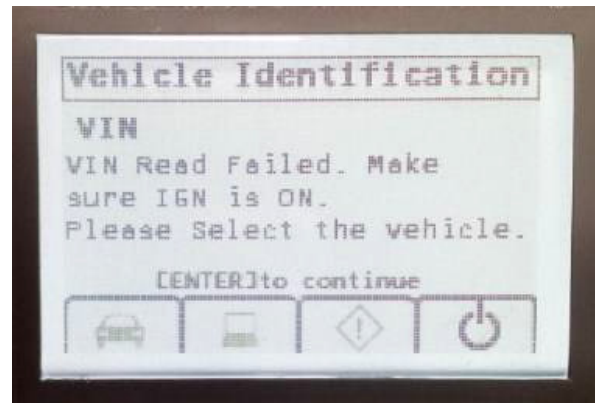


Figure A25

Application Error

- Ignition may be OFF.
- An Application Error is displayed if the reprogramming application encounters an unrecoverable error. If this occurs, the MTS 6513 should be powered down and rebooted.
- If the error is still present, the reprogramming application should be re-installed (go to step 1 on page 2).

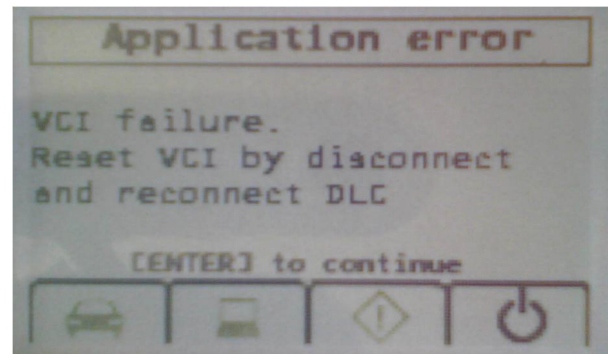


Figure A26

