MerCruiser Scan Tool

2005 Software Installation Guide



Version 4.9 Software Support Includes:

- 2001-06 MerCruiser PCM-555 / ECM-555 EFI
- 2004-06 MerCruiser DTS support
- 2006 Volvo Penta EGC EFI
- 1992-06 GM Delphi MEFI 1 thru MEFI 4b
- 1998-02 GM Delphi CEFI 3
- 1996-06 MerCruiser Thunderbolt V Ignition
- 1997-06 MerCruiser 2.8 / 4.2L D-Tronic Diesel
- 1997-05 MerCruiser 7.3L D-Tronic Diesel
- 2005-06 KEM Industrial support

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Updating the Scan Tool Software

Step 1 Opening the Case



Figure 1

To update your scan tool you will need to replace removeable software "chips" located inside the tool. Make sure the tool is unplugged (no power applied) and begin the update process by opening the scan tool's back cover. Lay the scan tool on a flat surface and remove the 4 (four) philips screws, located near the corners of the tool's back cover, with a small screwdriver. See Figure 1.

Step 2 Chip Identification

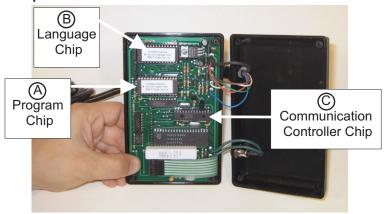


Figure 2

After opening the back cover, identify the respective chips for replacement. See Figure 2. Software version 4.9 (or greater) requires that all three chips be installed. Your tool may not have the language chip presently installed.

- A Program Chip
- B Language Chip
- C Communication Controller Chip

The Program and Language Chips

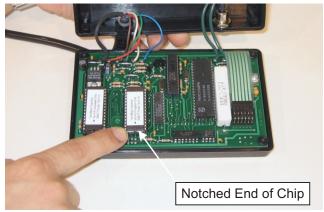


Figure 3

The Program Chip and Language Chip included in this update kit must both be installed. Notice the "notched" end of each chip. This notch is important for chip orientation. See Figure 3. Also, all chips are static sensitive, therefore it is recommended that you <u>discharge any static electricity in your body</u> by breifly touching a grounded object before handling the chips.

Step 3 Removing the Original Chips

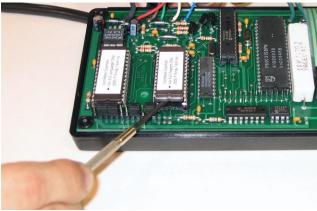


Figure 4

Looking closely at the notched end of the chip, you will also notice a small notch under the chip on its socket. Using a small flat blade screwdriver, insert the blade **between** the chip and the socket (**above socket but below chip**). See Figures 4 and 5. **Do not insert the blade below the chip socket!**

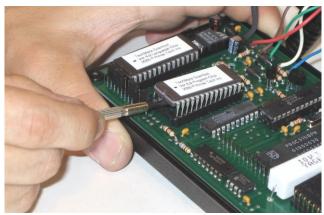


Figure 5

Then rotate the screwdriver shaft to begin lifting the chip from the socket. Lift the chip slightly. See Figure 5.

Fold back the scan tool's rear cover being careful not to pull on any wires. This will provide clear access to both ends of the chip. Then insert the screwdriver blade at the opposite end of the chip, between the chip and the socket, again lifting up gently on the opposite end of the chip. Now, remove the chip. Repeat this chip removal procedure for the Language Chip (if it is present).

Step 4 Inserting the New Chips

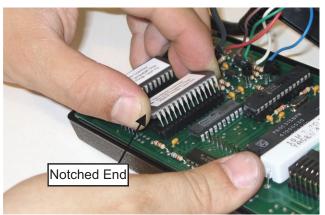


Figure 6

Insert the new Program and Language chips into their respective sockets (refer to Figure 2 for chip locations). Pay careful attention to the notched end of the chips. Line up one row of the chips pins (left or right side of chip) into the holes on the socket then line up the pins on the opposite side of the chip.

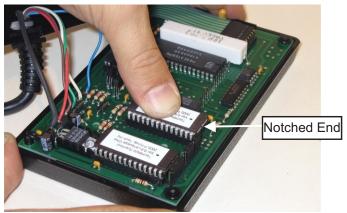


Figure 7

Check both sides of the chip to make sure the pins are aligned into the holes of the socket. When the pins are all aligned on both sides, press down firmly in the center of the chip. (See Figure 7) Complete this procedure for both the Program Chip and the Language Chip.

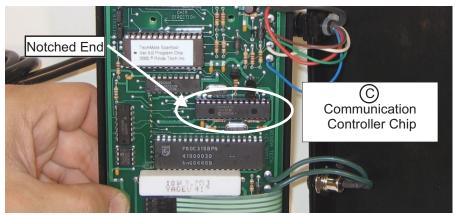


Figure 8

Step 5 Replacing the Communication Controller Chip

This is the final chip installation required to complete the software upgrade. Follow the same procedure as you did in replacing the Program and Language chips. Please note the notch faces the same direction as the Program and Language Chips. (See Figure 8)

Step 6 Jumper installation

If your scan tool did not have a Language Chip installed prior to this update you will need to install 4 (four) jumpers that have been included with your update kit. The jumpers will be installed onto the row of gold pins located near the Language chip. Referring to Figure 9 below, simply slide the jumpers onto the following sets of pins in your scan tool.

Jumper 1: Install on pins 2 & 3 Jumper 2: Install on pins 4 & 5 Jumper 4: Install on pins 11 & 12

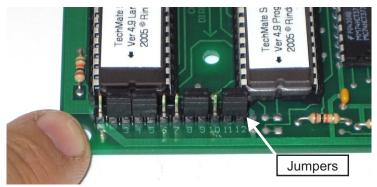


Figure 9

Step 7 Replacing the Cover

When all chips have been replaced, place the scan tool's rear cover back on and gently tighten the screws. **Do not over-tighten.** This completes the scan tool software update procedure.



Figure 10

Troubleshooting Tips

Symptom:

No display when power is applied to scan tool

With the tool's power disconnected, check the Program Chip's installation. Make sure the chip's orientation is correct. Also, carefully look at each pin on the Program Chip and ensure that they are properly inserted into the socket holes.

Symptom:

Scan tool displays a message indicating the Language Chip is not installed

With the tool's power disconnected, check the Language Chip's installation. Make sure the chip's orientation is correct. Also, carefully look at each pin on the Language Chip and ensure that they are properly inserted into the socket holes.

Check the **jumper installation**. Make sure all 4 jumpers are installed correctly. Refer to Step 6 and Figure 9 to verify jumper installation.

Symptom:

Scan tool displays menu prompts but will not communicate with engine

With the tool's power disconnected, check the Communication Controller Chip's installation. Make sure the chip's orientation is correct. Also, carefully look at each pin on the Communication Controller Chip and ensure that they are properly inserted into the socket holes.

If you are in need of technical assistance please contact:

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