CDS G3 INTERFACE KIT

IMPORTANT: This document guides our dealers, boatbuilders, and company service personnel in the proper installation or service of our products. If you have not been trained in the recommended servicing or installation procedures for these or similar Mercury Marine products, have the work performed by an authorized Mercury Marine dealer technician. Improper installation or servicing of the Mercury product could result in damage to the product or personal injury to those installing or operating the product.

NOTE: After completing installation, place these instructions with the product for the owner's future use.

Components Contained in Kit
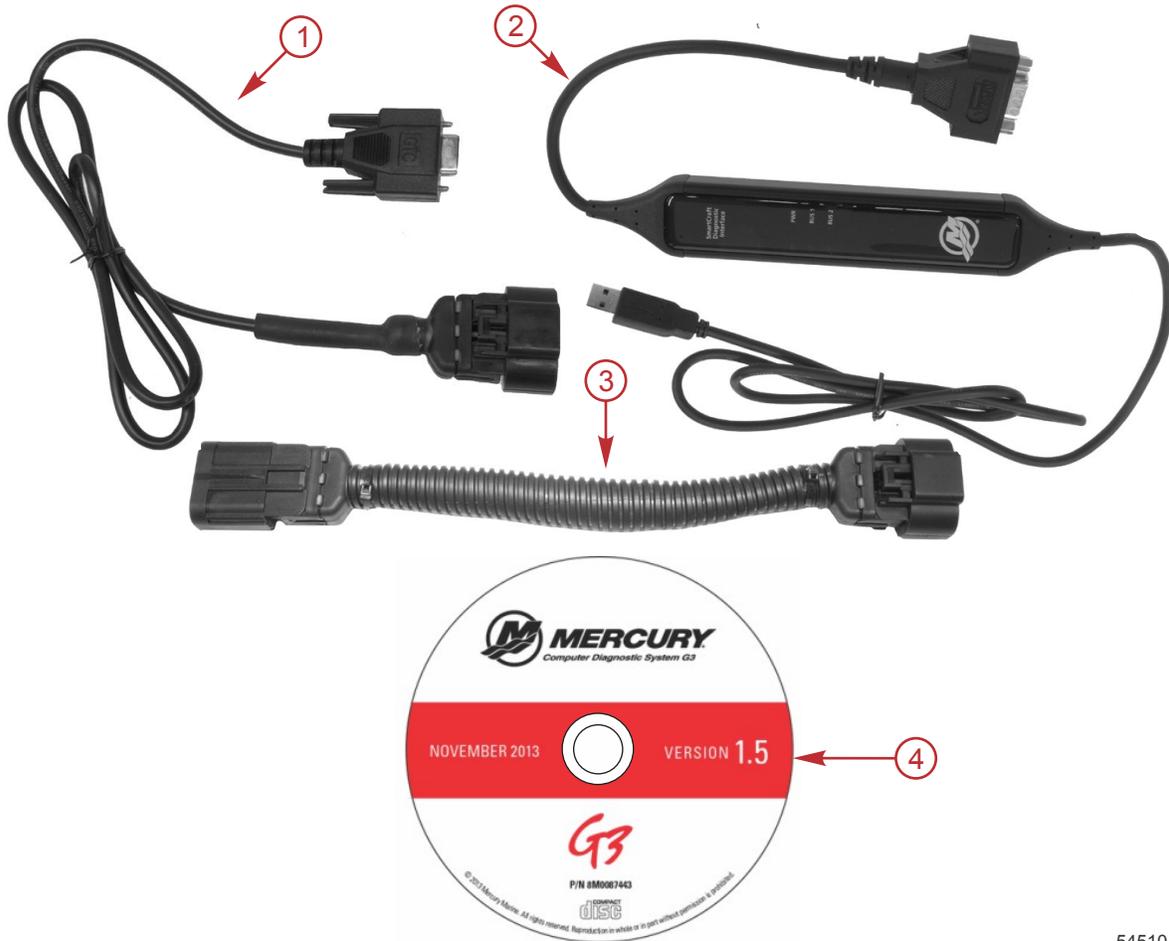
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Ref.	Qty.	Description	Part Number
1	1	CAN P/CAN H adapter harness	898289T83
2	1	CDS G3 SmartCraft diagnostic interface	898289T81
3	1	G3 engine harness adapter (with resistor)	8M0046081
4	1	Mercury Computer Diagnostic System G3 program disc	8M0087443

CDS G3 Overview

CDS G3 is a stand-alone program that complements the original Mercury Computer Diagnostic System (CDS) by providing diagnostic support for select engines and Mercury Joystick Piloting systems. Additionally, all configuration functions necessary for preparing these systems for delivery are supported. CDS G3 allows for CAN-based multiple-processor communication through a clean, easy-to-navigate interface.

Minimum Computer Requirements for CDS G3

Minimum specifications are established to support both CDS and CDS G3.

PC Minimum Hardware Specifications

1. 1.2 GHz Pentium Processor
2. 2 GB RAM
3. 120 GB Hard Drive
4. 802.11 b/g/n Wireless or 10/100 Ethernet
5. DVD ROM Optical Drive
6. USB 2.0 port (quantity 3) to accommodate CDS USB components**
7. Optional 9-pin serial port***

** A single USB port plus a USB port hub may be used.

*** The serial port is no longer required, but is still preferred. The use for a serial port is for CDS only.

Operating System (OS) Requirements

Windows 7 Professional or Windows 8 Professional.

Software Installation, Registration, and Updates

Administrative rights—The user performing the CDS G3 program installation must have administrative rights on the computer that the program is being installed onto. If the computer has a MCDS user account, that user account was given administrative rights when it was created by an earlier CDS installation.

NOTE: Some information technology (IT) departments may restrict user rights for these accounts. If this has occurred, either the IT department must perform the installation, or they must grant administrative rights to the user accounts performing the installation.

Antivirus/internet security products—Antivirus and internet security products are recommended for use on computers running the CDS and/or CDS G3 programs. They help protect the computer from threats that may be encountered during internet sessions. Some of these products may display security warnings during the CDS G3 installation. If this occurs, the user must determine whether the warning is caused by the CDS G3 installation program, or if there is some other cause, such as a computer virus. If it can be determined that the CDS G3 installation program caused the warning, the user should allow the installation program to proceed.

Software Installation

After the CDS G3 disc is inserted, the **InstallShield Wizard** will open. Follow the installation prompts. If the software installation does not start automatically, navigate to your optical drive (CD-ROM or DVD-ROM drive) and run "setup.exe." This will most commonly be "D:\setup.exe."

Any installation disc for CDS G3 may be installed without a previous version of the software. Before proceeding with installation, complete all "High Priority Updates" as provided by Microsoft through Windows Update. If updating CDS G3 from version 1.0, uninstall the software prior to installation of a current version. If updating from CDS G3 version 1.1 or later, un-installation is not required. To install CDS G3, insert the installation disc into the disc drive of the computer. If the software installation does not start automatically, navigate to your optical drive and run "setup.exe." This will most commonly be "D:\setup.exe." During installation, the following programs will be installed:

• Microsoft ReportViewer 2010
• Microsoft Visual C++ 2010 SP1 Redistributable Package (x86)
• Microsoft .NET Framework 4.0 Client
• Windows Installer 4.5
• Kvaser 4.9 CAN Adapter Driver

These additional programs are required for CDS G3 to deliver a rich, interactive user experience.

CDS G3 Registration

1. When you start CDS G3 for the first time, the registration screen will appear.
2. Enter your dealer information as required. For US and Canadian dealers, use your 7-digit dealer number and 10-digit phone number. Do not enter any other characters between the numbers such as a dot (.), a dash (-), or a space.
   IMPORTANT: If you select "Start Trial," you will receive a 15-day trial period. The trial can only be used one time and is not available after registration. A complete registration will be required after 15 days for continued use of the CDS G3 software.
3. Enter the dealer information.
   NOTE: Dealer information is entered by completing "Add or Edit Dealer Information" as part of Registration. To enter or edit your dealer information, select Tools/Registration. If entered, your dealer information will be displayed here. Your dealer information will remain in the program, unless it is manually removed through the "Add or Edit Dealer Information."

4. Click on **Register**.
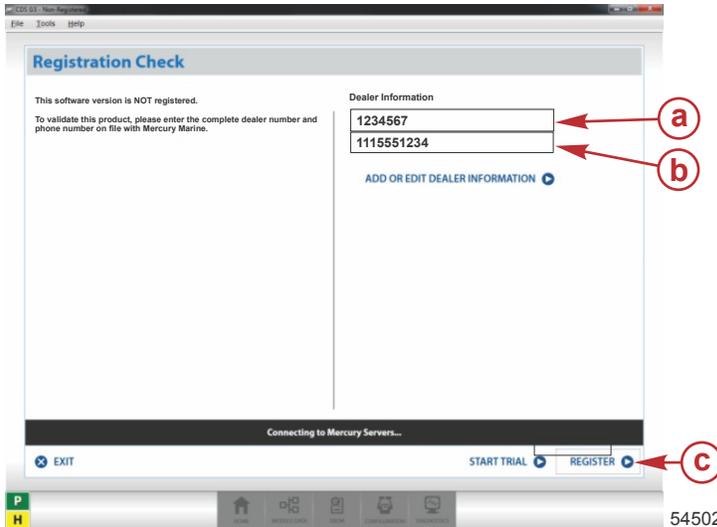
a - Dealer number
b - Phone number
c - Register button

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5. After the registration is complete, a pop-up window will inform you that the software is registered, and that 45 days of validation remain.

G3 Client

Your software is registered and validated.
You have 45 days left before validation is required.

OK

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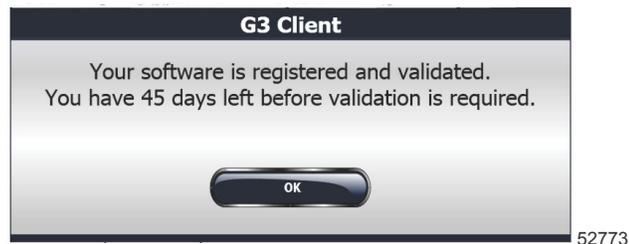
6. Click on **OK**.

NOTE: *The upper left-hand corner of the screen will indicate the number of days remaining on the registration. You can update the registration at any time within 45 days. If the registration expires, the software will force a registration prior to use. Internet access is required for registration.*

CDS G3 - Registered has 45 days left.

File   Tools   Help

🏠 **Home**

ORDER | PRIORITY ACTION ITEMS

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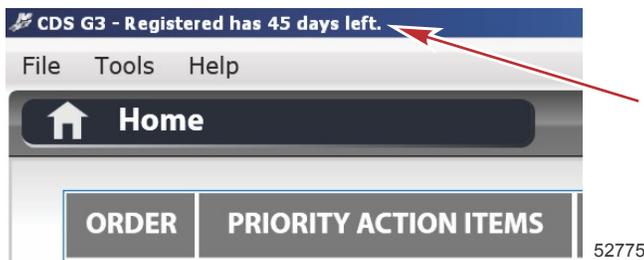
Software Updates

1. After the registration is complete, check for software updates. Open CDS G3.

NOTE: *Internet access is required to update CDS G3.*

2. Available software updates are listed under **Priority Action Items** on the CDS G3 home screen. Click on **Update** to download the update.
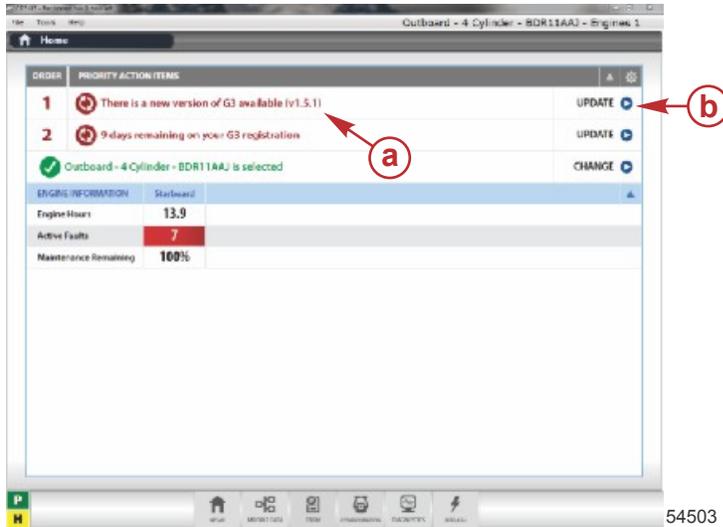
a - Update software version
b - Update button

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3. Once the download is complete, click on **Restart**. CDS G3 will close and you will return to the Windows desktop.
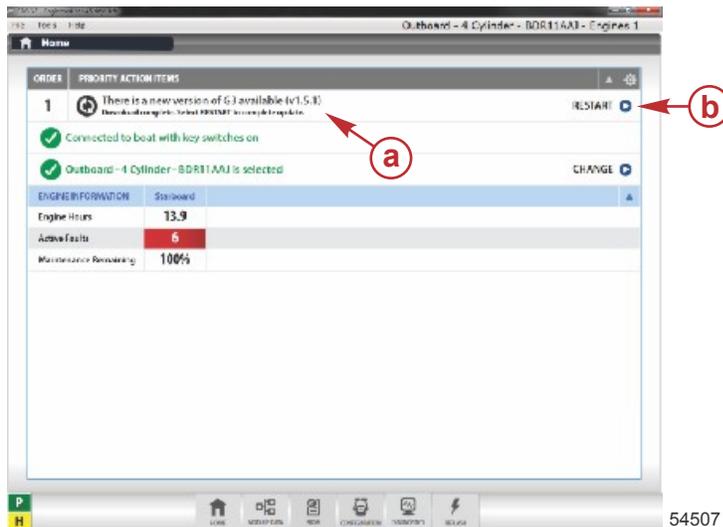
a - Download complete message
b - Restart button

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4. After you are returned to the desktop, a pop-up window will open to notify you that there are software updates ready for installation. Click on **Install now**.

5. Another pop-up window will open, asking if you want to allow the program to make changes to your computer. Click on **Yes**. The installation will begin. Once completed, CDS G3 will open with the new software version.

G3 Harness Connections

Connection to the Engine

1. Insert the CDS G3 SmartCraft diagnostic interface USB connector into a powered USB port on the computer. The green power (PWR) light on the CDS G3 SmartCraft diagnostic interface will illuminate to indicate that it is powered up.

2. Connect the SmartCraft diagnostic interface 9-pin connector to the CAN P/CAN H adapter harness 9-pin connector.

3. Connect the CAN P/CAN H adapter harness to the G3 engine harness adapter.

4. Remove the CAN P termination resistor from the engine harness. Refer to the appropriate service manual for the location of the CAN P connector.

5. Connect the G3 engine harness adapter to the CAN P engine harness connector.

IMPORTANT: The G3 engine harness adapter (84-8M0046081) contains the correct termination resistor for the CDS G3 SmartCraft diagnostic interface to communicate on the CAN bus circuit.
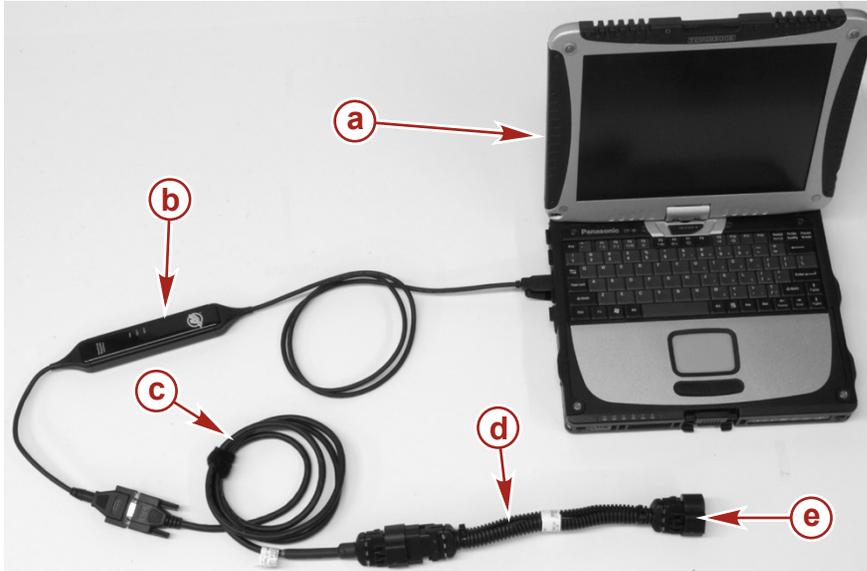
a - Computer
b - CDS G3 SmartCraft diagnostic interface
c - CAN P/CAN H adapter harness
d - G3 engine harness adapter
e - Connector—to CAN P engine harness connector

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Connection to the Junction Box

1. Insert the CDS G3 SmartCraft diagnostic interface USB connector into a powered USB port on the computer. The green power (PWR) light on the CDS G3 SmartCraft diagnostic interface will illuminate to indicate that it is powered up.

2. Connect the SmartCraft diagnostic interface 9-pin connector to the CAN P/CAN H adapter harness 9-pin connector.

3. Connect the CAN P/CAN H adapter harness to the junction box.
IMPORTANT: Ensure that the correct termination resistor is installed on the CAN P bus. The CAN P bus must be properly terminated for the tool to communicate. Improper termination will result in communication errors or a complete loss of communication.
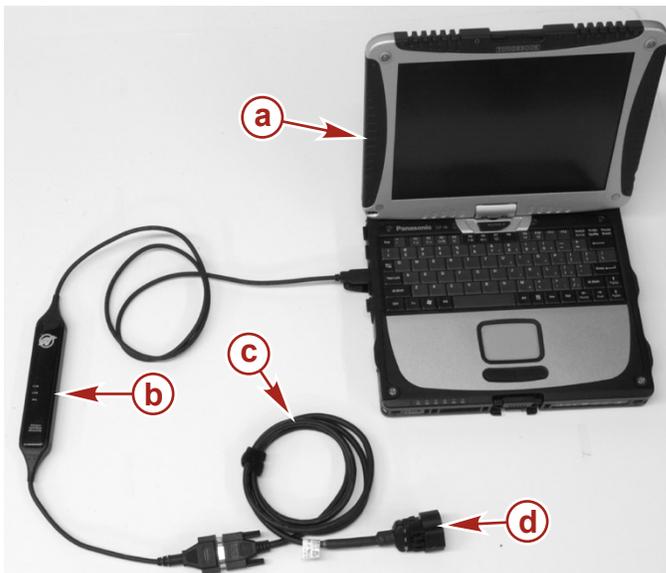
a - Computer
b - CDS G3 SmartCraft diagnostic interface
c - CAN P/CAN H adapter harness
d - Connector—to junction box

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Driver Troubleshooting

When installing CDS G3, the software will check for a previous installation of the SmartCraft diagnostic interface cable, also known as a Kvaser cable. If CDS G3 does not recognize the SmartCraft diagnostic interface cable, the CAN P and CAN H status indicators will be shown in red on the CDS G3 screen, and the green power (PWR) light on the CDS G3 SmartCraft diagnostic interface will flash. Follow these instructions to install the driver.

1. Close all running computer programs, including CDS G3.

2. Unplug the SmartCraft diagnostic interface cable from the computer if it is plugged in.

3. Wait a few moments, then plug the SmartCraft diagnostic interface cable into the computer.

4. When the **Found New Hardware** indicator opens in the lower right-hand corner of the screen, click on the indicator.

5. The **Found New Hardware Wizard** window will open, and it will ask if Windows can connect to Windows Update to search for software. Select **No, not this time**. Click **Next** to continue.

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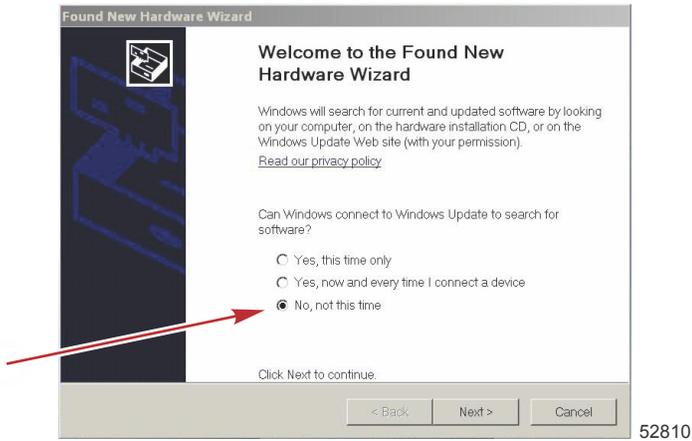
6. On the next screen, select **Install the software automatically (Recommended)**. Click **Next** to continue.

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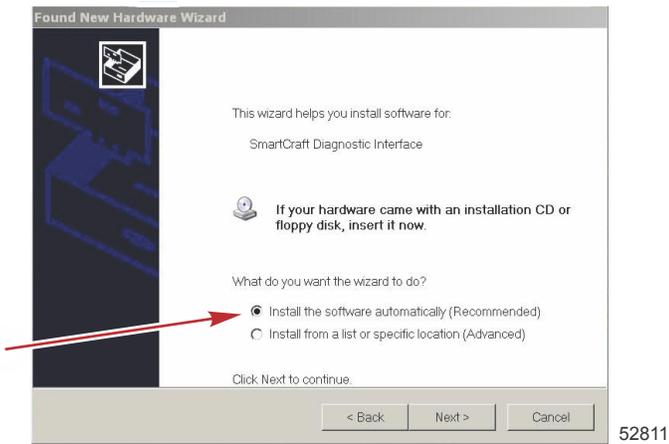
7. When the wizard has finished installing the software, click **Finish** to close the window. Once the installation is completed, the green power (PWR) light on the CDS G3 SmartCraft diagnostic interface will illuminate solid green.

8. Repeat steps 1–7 for all USB ports on your PC.

9. Open CDS G3. The CAN P and CAN H status indicators should be yellow or green, depending on if the engine is connected and powered up. The software will also detect the SmartCraft diagnostic interface cable.
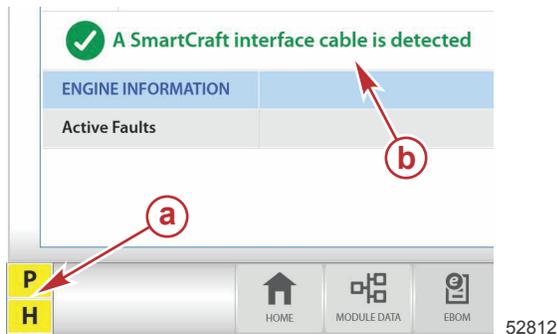
Lower left corner of CDS G3 home screen
a - CAN status
b - Interface cable detected

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