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Revised with new part number for the harness adapter

Diagnostic Tool Kit—CDS G3

Models Affected

Models Covered	Serial Number Range
Axius models	All
Models with Emissions Control	All

NOTE: Models with Emissions Control produced before August 2009 will require installation of a new engine calibration for the propulsion control module (PCM).

Situation

Mercury Marine is pleased to announce that it has developed a PC-based diagnostic tool kit to enhance and supplement the Mercury Computer Diagnostic System (CDS). The new program, CDS G3, runs efficiently on any of the CDS computers sold through SPX. CDS G3 and the current version of CDS are compatible with one another and can be installed on the same computer.

CDS G3 will complement the current version of CDS by providing diagnostic support for engines and Joystick Boat Control systems not covered by CDS. In its first release, CDS G3 will provide limited diagnostic coverage for the MerCruiser Axius control system and MerCruiser engines with Emissions Control (EC). Internet updates are planned to complete the diagnostic functionality for both the Axius and EC product. Future updates on the Internet will provide support for additional engines and control systems.

CDS G3 presents an easy-to-use graphical interface with a fresh new design and appearance. The first release will provide the following electronic data:

- **Configuration:** Provides a means for configuration of the Axius electronic steering system, Axius and standard DTS helm stations, Axius electronic compasses and all CAN-based (controller-area network) TrackPads.
- **Module Data:** Provides detailed information on each module on the SmartCraft CAN-bus. Data will include, but is not limited to: software and calibration IDs, city IDs (electronic addresses), module status and module quantity.
 - **Fault Status:** Displays the active and historic faults (trouble codes) available from each module, as well as freeze frame buffers where applicable.
 - **Data Stream:** Displays sensor values, ECU (engine control unit) calculations, actuator information and other important information.
- **Active Tests:** Allows the technician to set and adjust ECU parameters and control ECU outputs. These types of functions help the technician to quickly configure product for delivery, as well as providing powerful functions that will enhance the diagnostic experience.

The current version of CDS continues to be offered through SPX in several configurations: software-only, on a Dell laptop, or on a Panasonic ToughBook. Basic and deluxe versions of the kits are available for both laptop brands. Electronic service manuals will continue to be hosted by the current version of CDS. For more information, visit <http://mercurymarinecds.spx.com/> (Europe: <http://www.spxeurope.com/index.php?id=260>).

At this time, English is the only language available for the CDS G3 program. Additional languages are planned for future updates. CDS G3 will require a new interface cable, which will be available for purchase from Mercury Marine Parts and Accessories. The CDS G3 program is included with the cable. The interface cable will provide communication with two separate SmartCraft CAN-bus networks and connects to a standard SmartCraft 10-pin junction box-style connector.

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Connection points are made at the engine or the helm. Regardless of connection point, proper CAN bus termination must be maintained. When removing a termination resistor to allow connection of the interface cable, use adapter harness part number 8M0045065, which is provided in the kit and has a termination resistor. This adapter harness must be used when connecting to the CAN P connection on the engine wire harness where the termination resistor has been removed.

The interface cable may be extended by using a suitable yellow 10-pin SmartCraft data cable. On EC product only, you may use either yellow or blue 10-pin SmartCraft data cables. Proper termination must be maintained when using any extension.

Minimum Computer Specifications for CDS and CDS G3

Requirement	Note
900 MHz Pentium processor	Or equivalent
256 MB RAM	512 MB highly recommended
20 GB hard drive	A 40 GB minimum hard drive is recommended if installing all of the electronic service manuals and the Electronic Parts Catalog.
Integrated 9-pin RS-232 serial port	
Graphics 1024 × 768 display	The graphics resolution requirement for the current version of CDS was originally 800 × 600. The specification for CDS G3 (and recommended for current CDS) is 1024 × 768.
USB 2.0 port	
DVD-ROM optical drive	
PCMCIA card slot	
Windows XP Professional, Service Pack 3	Earlier version of Windows XP can be upgraded through Windows or Microsoft Update.

Operating System Requirements

The CDS G3 program will work on all CDS computer systems sold through SPX Corporation. If you purchased a CDS kit with a Dell or Panasonic computer before September 2004, your computer was shipped with the Windows 2000 operating system. Because G3 requires Windows XP, Service Pack 3, it is necessary to update the operating system on these computers. As originally planned, computers purchased with CDS kits from SPX are licensed for Windows 2000 and Windows XP. Through an agreement with Dell, Panasonic, and Microsoft, these computers have a Windows XP certificate of authority and were "downgraded" from Windows XP to Windows 2000 at SPX. SPX shipped these early Dell and Panasonic computers with special Windows 2000 recovery CDs that would return the computer to its original setup (as it left SPX). SPX also included the Windows XP recovery discs that were supplied by Dell or Panasonic. These discs will return the computer to its original Dell or Panasonic factory setup with Windows XP. These discs will be needed to upgrade the operating system to Windows XP.

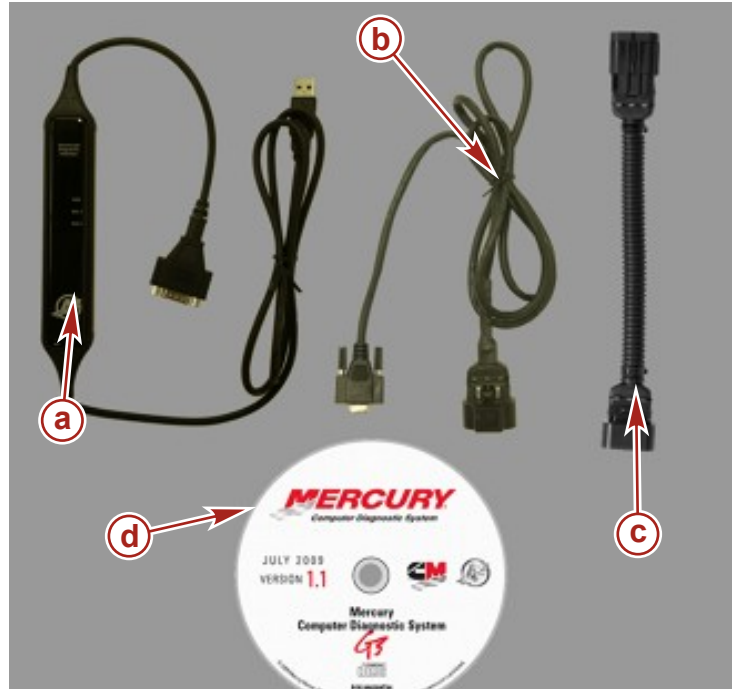
NOTE: *The Windows 2000 downgrade process remained in effect from the original release of CDS through CDS Version 3.23. Starting with CDS Version 4.18, CDS became compatible with Windows XP. At that time (September of 2004), SPX stopped the downgrade process and began shipping computers (Dell, HP, or Panasonic) with their original Windows XP operating system intact. If you are currently using an SPX computer with the Windows 2000 operating system, watch for future communications detailing the Windows XP upgrade process. Now is a good time to locate the Windows XP recovery CDs that were shipped with your CDS kit.*

IMPORTANT: Restoring the computer to the original factory setup will result in the loss of all data and programs stored on the hard drive. Before restoring the computer to its original factory setup, follow the kit instructions concerning backup of all data and having program discs available.

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Ordering Information



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Ref.	Description	Part Number
	CDS G3 kit (all pieces pictured above)	8M0046124
a	SmartCraft Interface Cable	879365022
b	Can P and H adapter	8M0044023
c	Harness adapter (with resistor)	8M0046081
d	CDS G3 Installation CD	898289T87

Order the parts through your normal parts distribution network. For additional information, pricing, or help with ordering a kit, contact Mercury Marine Parts and Accessories.

First-time hook-up of the SmartCraft Interface Cable: The first time that the SmartCraft Interface Cable is hooked up to the computer's USB port, an installation wizard box will appear, asking to install the cable drivers. Select whatever choice is necessary to install the cable drivers automatically.

Installation Precautions

Administrative rights: To install the G3 software, the user performing the installation must have administrative rights. All CDS kits that have the "MCDS" user originally had administrative rights. Some large dealer chains with IT (information technology) departments restricted these rights to administrators. In those cases, the IT department will have to perform the software installation or they will need to return administrative rights to the user. Dealers that purchased software-only kits will be responsible for determining whether their computers' users have administrative rights.

Anti-virus and Internet security products: Anti-virus and internet security products are recommended for use on computers running CDS or CDS G3 programs. These products will help protect the computer from threats during Internet sessions. Due to the sensitivity of some of these products, they may display "false" security warnings to the user during installation of the software. The user will be required to verify that the CDS or CDS G3 installation program is the cause of such warnings and respond in a way that will allow the software to proceed and complete the installation.

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