Service Bulletin

Bulletin No. 2010-74
CMD 2010-14

Circulate to: ☐ Sales Manager ☐ Accounting ☑ Service Manager ☑ Technician ☑ Parts Manager

Diagnostic Tool Kit—CDS G3

Models Affected

Models Covered	Serial Number or Year
CMD DTS models	All
CMD SmartCraft 2.x non-DTS models	All
CMD Axius models	All
CMD Zeus models	All

Scope

Worldwide.

Situation

Cummins MerCruiser Diesel is pleased to announce the development of CDS G3, a PC-based diagnostic tool kit created to enhance and supplement the Mercury Computer Diagnostic System (CDS). Both are compatible with one another and can be installed on the same computer.

The CDS G3 Diagnostic tool will support CMD engines that use DTS SmartCraft, non-DTS SmartCraft version 2.0 and later, as well as Axius and Zeus drive systems. Future updates will provide support for current SmartCraft changes and additional SmartCraft control systems via the Internet.

The CDS G3 tool will not diagnose the engine ECM, but it will show engine faults that may be generated and logged in other SmartCraft modules. For Cummins engines, the INSITE service tool is still used to diagnose engine issues. For Cummins MerCruiser high-speed diesel product (QSD), the current version of Mercury CDS service tool (not G3) will be used to diagnose engine issues.

CDS G3 is a standalone system that provides the following electronic services:

- **Configuration:** provides a means for configuration of the helm, steering system, electronic compass, and all CAN based TrackPads used on CMD Products
- **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 trailer limits for sterndrive applications.

At this time, English is the only language available for the CDS G3 program. Additional languages are planned for future updates.

The CDS G3 kit includes a program CD, a SmartCraft interface cable, a CAN P and CAN H adapter, and a harness adapter with resister. 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.

Connection can be made at the engine or the helm, but proper CAN bus termination must be maintained. When removing a termination resistor to allow connection of the interface cable, use the provided harness adapter, part number 8M0045065, which has a built-in termination resistor.

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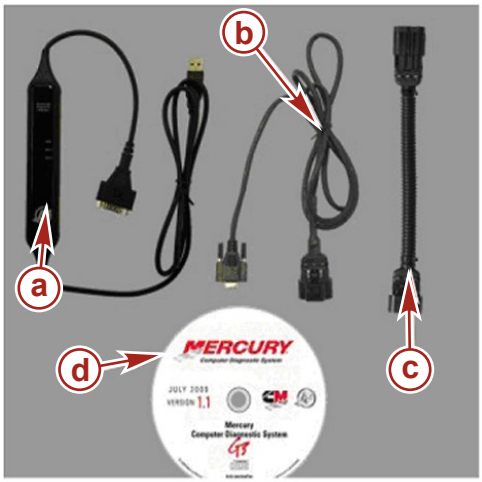
The interface cable may be extended by using a suitable yellow 10-pin SmartCraft data cable. Proper termination must be maintained when using an extension.

NOTE: *Extending CAN drops should be limited. Always maintain proper SmartCraft specifications on CAN line drops to ensure proper data display.*

Minimum Computer Specifications for CDS and CDS G3

Requirement	Note
Processor	900 MHz Pentium or equivalent
MB RAM	512 MB highly recommended
Hard drive	20 GB minimum; 40 GB minimum is recommended if installing all the electronic service manuals and the Electronic Parts Catalog on the same computer
Ports and inputs	Integrated 9-pin RS-232 serial port
Graphics	1024 x 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	USB 2.0 port
DVD-ROM drive	Read-only is sufficient.
PCMCIA card slot	Optional, but helpful in transferring data files
Windows XP Professional (Service Pack 3) or Windows 7.0	Earlier version of Windows XP can be upgraded through Windows Update or Microsoft Update.

Ordering



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Ref	Description	Part Number
	CDS G3 kit (all pieces pictured above)	8M0046124
	CDS G3 kit without the harness adapter ©)	898289K86
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.

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First-time hook-up of the SmartCraft Interface Cable: An installation wizard box will appear the first time that the SmartCraft interface cable is hooked up to the computer USB port. When prompted to install the cable drivers, select the option that instructs the system to install cable drivers automatically.

Notes on Installation

Administrative rights: The user performing the installation of G3 must have administrative rights. Some dealer chains with information technology (IT) departments restrict these rights. In those cases, the IT department will have to perform the software installation or return administrative rights to the user. Dealers who purchased software-only kits will be responsible for determining whether their computers' users have administrative rights.

Cummins PC: To install the G3 software on a Cummins-provided PC, the user must request the MCDS G3 software package from the Cummins software shelf. The user will be directed to purchase the G3 kit from Mercury Marine and the installation will be scheduled for remote download installation by the Cummins IT Service Department

NOTE: *Registration of the G3 software requires an approved Mercury Dealer number. Some Cummins Distributors may be required to obtain a Mercury Dealer number from their CMD Dealer to properly register the software.*

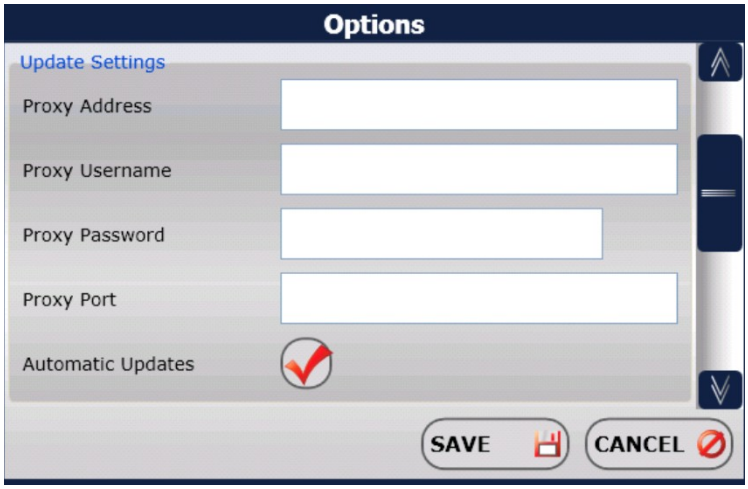
Online updates: The G3 tool can connect to the Internet to perform online updates whenever new data is available. Users initiate the update by selecting "G3 Updates" in the tool's "Option" menu. These updates are also the method for distributing new module software and calibrations to the field for module reflash.

Anti-virus and Internet security products: Anti-virus and internet security products are recommended for computers running CDS or CDS G3 programs. These products will help protect the computer from threats during Internet sessions. The sensitivity of these products may cause them to display "false" security warnings 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.

Registering the Software

G3 requires the user to register the software online after installation and update it every 30 days thereafter. To register the software:

1. Open the Mercury Computer Diagnostic System G3 application. From the application’s menu bar, select "Tools" > "Options."
2. In the "Options" window, enter the following settings:



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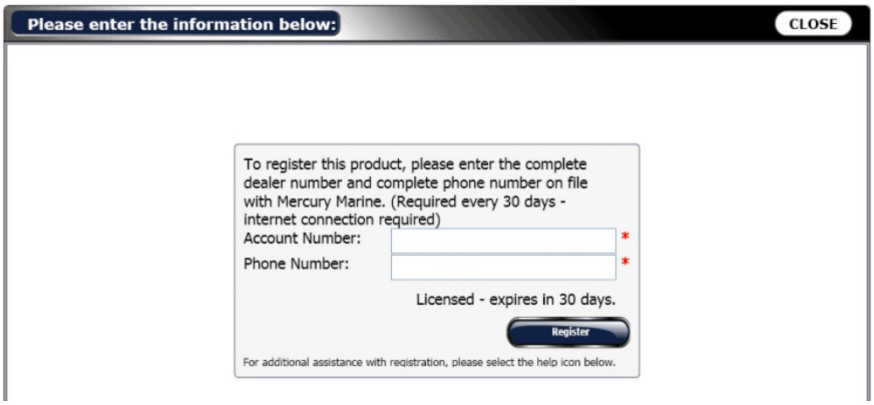
   a. "Proxy Address": **fw1.cummins.com**
   b. "Proxy Username": the PC user’s WWID
   c. "Proxy Password": the PC user’s current network password
   d. "Proxy Port": **80**
3. Click "SAVE."
4. From the application’s menu bar, select "Tools" > "Registration."

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5. In the registration window, enter the following settings:



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   a. "Account Number" needed to register the software
   b. "Phone Number" needed to register the software, without dashes
6. Click "Register."
7. At the "Registered" message box, click "CLOSE."

Mercury CDS G3 Training Certification

Certification training on the G3 Diagnostic tool is available and required to maintain CMD engine certification. This program is being delivered through a distance learning course via the CMD Academy.

➢ [7012] G3 Diagnostic Tool Familiarization - Distance Learning WEB

This training aims to educate technicians on how to effectively diagnose the CMD integrated systems across all CMD products. The technician must complete this course by 01 January 2012 to maintain the following existing qualifications:

- 2006 - 48Q Marine QSB, QSC, and QSL CM850 Engine Qualification
- 2006 - 57Q Marine QSM11 Engine Qualification
- 2007 - 01Q Marine QSD2.0, QSD2.8, and QSD4.2 Engine Qualification
- 2007 - 30Q Marine Zeus Propulsion System Qualification
- 2010 - 07Q Marine QSM11 Zeus Qualification
- 2009 - 05Q Marine Axius Full Service Qualification

Course Access

You must have a Cummins ProMotion ID to receive qualification credit for this course. If you do not have a Cummins ProMotion ID, contact your Cummins MerCruiser Diesel Distributor.

To access the course on CMD Internet Academy, log on at http://www.cmdmarine.com/ourcompany/index.html and then click "CMD Internet Academy" for more information.

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