



# Service Bulletin

Bulletin No. 2004-03R1

Jet Drive No. 2004-01R1

OEM No. 2004-05R1

Circulate to:  Sales Manager  Accounting  Service Manager  Technician  Parts Manager

▲ = Revised August 2004. This bulletin supercedes the previous bulletin 2004-03 April 2004.

## Computer Diagnostic System

### Models Affected

#### MerCruiser<sup>1</sup>.

Models Covered	Serial Number Or Year
MCM/MIE MEFI, EFI (TBI) and MPI Gasoline Models	All Models
MCM/MIE PCM/ECM 555 or PCM 03 Gasoline Models	All Models

#### Mercury/Mariner Outboards<sup>1</sup>.

Models Covered	Serial Number Or Year
OptiMax with PCM 555 or PCM 03	▲ 2001 and up
EFI with PCM 555 or PCM 03	2002
30/40/50/60 EFI FourStroke with ECM 555	2002 and up
▲ Non-PCM 555 OptiMax	▲ 1998-2000 ½

#### Jet Drives<sup>1</sup>.

Models Covered	Serial Number Or Year
200 DFI	All Models
240 EFI with PCM 555	All Models

#### Mercury Racing<sup>1</sup>.

Models Covered	Serial Number Or Year
Outboards with PCM 555 or PCM 03	All Models
▲ Non-PCM 555 OptiMax Outboards	▲ All Models
MerCruiser Models with MEFI Fuel Injection	All Models
MerCruiser Models with PCM 555 or PCM 03	All Models

1. Future software releases will include other models with digital processors.

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## Situation

Mercury Marine has partnered with SPX Corporation to develop a PC-based system designed to aid the dealership technician by reducing the diagnostic times required to identify the root cause of electrical and electronic fuel controlled system problems. The software consists of a user friendly menu driven interface, engine data screens, step-by-step pinpoint guided diagnostics for certain models, internet connectivity for timely software updates, and integrated service manuals.

The basic Computer Diagnostic System (CDS) is offered in three different configurations. The first will consist of diagnostic software, SmartComms Interface Box, storage case Dell D500 laptop and Quick Setup Guide. The second configuration includes all of the items listed above and includes a "Rugged" Panasonic CF-18 laptop computer in place of the Dell D500 laptop. The third configuration is designed for our partners who have recently purchased a computer and do not wish to purchase another. The diagnostic software and SmartComms Interface Box is offered to those who have a computer that meets the minimum system requirements.

Optional kit accessories available include: an Electrical Harness Break-Out Box, Harness Pin Probes, 12 Volt DC Adapters, and the DMT 2004 VOM Meter with communications interface. Additionally, Mercury Precision Parts is developing an Electronic Dual Pressure Tester with communications interface. These communications interfaces will reduce required technician key strokes, remove entry errors and decrease troubleshooting times when using the pinpoint guided diagnostics.

Version in English is available; other languages will be supported in future releases.

The CDS system will use the same diagnostic harness assemblies as the DDT. Diagnostic harness assemblies are not included in the kit from SPX and must be ordered from Mercury Precision Parts. The diagnostic harness assemblies are listed at the end of the bulletin.

## Minimum System Requirements

900 MHz Pentium Processor  
USB port  
▲ Windows XP or Windows 2000  
56K Modem  
▲ Serial Port

PCMCIA slot  
256MB Ram  
DVD Drive  
10 GB Hard Drive

**NOTE:** ▲ *CDS software is Windows XP compatible with version 4.18 or higher.*

## Ordering Information

To get additional information, pricing or to order the Computer Diagnostic system contact:

SPX Corporation  
▲ 28635 Mound Rd.  
Warren, MI 48092

or call:

USA - 1-800-345-2233  
Canada - 800-345-2233  
Europe - 49 6182 959 149  
Australia - (03) 9544-6222

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## Adapter Cable Harnesses

### MERCURY/MARINER OUTBOARD AND JET DRIVE ADAPTER HARNESSSES

Harnesses are purchased from Mercury Precision Parts.

**NOTE:** All harnesses are not used with current software revision level. Future software releases will use additional harnesses.

Description	Part Number
1994 3.0L Carb Engines	84-822560A 1
1994-1/2 and up 2.5L EFI (with 824003 ECM only) 1994-1/2 Pro Max/Super Max/Super Magnum 1997 and up DFI/OptiMax Outboards	84-822560A 5
1995 - 2001 3.0L EFI and Carb Outboards (Use with 84-822560A 7)	84-822560A 6
1995 - 2001 3.0L EFI and Carb Outboards (Use with 84-822560A 6)	84-822560A 7
All Hi-Performance 2.0L/2.5L EFI Outboards (with 11350A ECM only) (Use with 84-822560A 7)	84-822560A 8
25-40 hp 4-cycle Outboards. (Use with 84-822560A 7)	84-822560A10
Extension Harness, 2-pin 4.57 m (15 ft.) (Use with 84-822560A 5)	84-822560T11
2000 Digital OptiMax Outboards only. This T Harness allows the DDT to be connected under the dash at the 5-pin tachometer harness outlet.	84-875232T 1
For Verado 200-275 hp (adapts flat 4-pin connector to 2-pin 84-822560A5 harness).	84-822560T12
Verado 200-275 hp 4-Cycle Outboards (4-pin connectors, no additional harness required)	84-822560A13
▲ 225 EFI FourStroke. • Cable compatible with CDS only.	84-822560A14
▲ CAN 1 diagnostics cable. Connects into a junction box or male to male adapter cable for Command Module configuration. • Cable compatible with CDS only.	84-892663
Male to male adapter cable. Allows connection between CAN 1 communications cable and Command Module harness in applications where a junction box is not used.	84-892452A01

### MERCURY/MARINER OUTBOARD INJECTOR TEST HARNESSSES

Description	Part Number
1986 and up 2.4L/2.5L/3.0L EFI Outboards. (Use with 84-822560A 7) 1982 and up Hi-Performance 2.0L/2.4L/ 2.5L/3.4L EFI Outboards (Use with 84-830043A 2)	84-830043A 1
1982 and up Hi-Performance 2.0L/2.4L/2.5L/3.4L EFI Outboards (including Offshore models). (Use with 84-830043A 1)	84-830043A 2

### MERCURUISER ADAPTER HARNESSSES

Harnesses are purchased from Mercury Precision Parts.

**NOTE:** All harnesses are not used with current software revision level. Future software releases will use additional harnesses.

Description	Part Number
For MEFI-1/-2/-3 ECM models	84-822560A 2
For PCM 555 models (adapts 4-pin MerCruiser connector to 2-pin Outboard harness)	84-822560T12 and 84-822560A 5

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Description	Part Number
For PCM 555 models (4-pin connectors, no additional harness required)	84-822560A13
1997 and up V6 and V8 Carb Engines with Thunderbolt V Ignition. Allows RPM history stored in Ignition Module to be read. (Use with 84-822560A 7)	84-861540A 1
▲ CAN 1 diagnostics cable. Connects into a junction box or male to male adapter cable for Command Module configuration. • Cable compatible with CDS only.	84-892663
Male to male adapter cable. Allows connection between CAN 1 communications cable and Command Module harness in applications where a junction box is not used.	84-892452A01

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