

**Model 387
Instrument System
Service Manual**
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Rev. D



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Revision Table

Revision	Date	Description
	01/27/99	Initial release.
A	05/14/99	Changed all occurrences of "2100" to "387", and of "self test" to "initialization"; Fig. 5-22, corrected pin designations on J3 illustration.
B	09/28/99	Added Chapter 6, "Using the Handheld Diagnostic Tool"; removed all references to PTM/VTM replacement and to the ABS system; improved Pyrometer troubleshooting instructions; updated Warning Messages tables to reflect current configuration; various other updates and changes resulting from Engineering Dept. review.
C	03/01/04	Updated and renamed Figure 5-16.
D	01/01/07	Removed contact information.

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Notes:

1 Introduction

1.1 Purpose and Scope

The purpose of this manual is to provide Peterbilt with the knowledge required to produce their own repair procedures. This manual contains the technical repair information necessary to diagnose and repair the Model 387 Instrument System (also referred to as simply the “instrumentation”). The information in this manual is not proprietary and can be used as Peterbilt sees fit.

The manual describes how to operate, service, and troubleshoot the instrumentation installed in vehicles that broadcast engine- and speed-related information over a public data bus (the SAE J1708 data bus). For information about the vehicle’s Electronic Control Unit(s), wiring diagrams, the SAE J1708 data bus, external sensors and other components that are not part of the instrumentation, please refer to the appropriate vehicle service documentation.

1.2 How To Use This Manual

The manual is divided into six chapters:

- **Introduction** - Contains a brief introduction to the product and to the manual itself.
- **Operation** - A complete operator’s manual. Written for the vehicle operator, this chapter describes how to use the instrumentation and how to interpret the information it presents. If you are going to operate the vehicle, you should read and understand the information in this chapter.
- **Functional Description** - Describes the components that make up the instrumentation and how they communicate with other systems in the vehicle. An understanding of the information in this chapter will help you diagnose and find problems in the instrumentation. If you are going to service the instrumentation, you should read and understand the information in this chapter.
- **Service** - Describes how to remove, disassemble, and reinstall the components of the instrumentation. It contains a spare parts list, and other important information. Do not service the instrumentation until you have read and understand the information in this chapter.
- **Troubleshooting** - Provides detailed troubleshooting information that will help you identify faulty components within the instrumentation.
- **Using the Handheld Diagnostic Tool (HDT)** - Describes the operation of the handheld diagnostic tool used to help diagnose problems with the instrumentation.