

scully

SAFS™ Automated Fueling System

Vehicle Data Computer Installation and Programming Manual



scully



Table of Contents

| | | |
|------------------|---|-----------|
| Section 1 | Description | 2 |
| Section 2 | Installation | 3 |
| 2.1 | Defining the Installation Layout | 3 |
| 2.2 | Tools and Parts Required..... | 5 |
| 2.3 | VDC Mounting Location | 5 |
| 2.4 | Odometer Transducer Location | 6 |
| 2.5 | Engine Hours Connection | 9 |
| 2.6 | Transmitter Coil (T-Ring) Mounting | 10 |
| 2.7 | Optional Harness Assembly | 11 |
| 2.8 | Final Inspection | 13 |
| Section 3 | Configuration | 13 |
| 3.1 | Battery Replacement | 14 |
| 3.2 | Keypad Operation | 15 |
| 3.3 | HHP Operating Modes | 16 |
| 3.4 | Odometer Pulse Factor | 18 |
| 3.5 | CALC Pulse Factor | 20 |
| 3.6 | Testing the Programmed VDC | 20 |
| 3.7 | Manual Authorizer | 20 |
| Section 4 | Maintenance | 21 |
| 4.1 | Troubleshooting | 21 |
| 4.2 | Battery Life Conservation Setting..... | 22 |
| 4.3 | T-Ring Maintenance..... | 22 |
| 4.4 | Odometer Transducer Maintenance | 22 |
| Section 5 | Appendix | 23 |
| 5.1 | VDC Dimensions | 23 |
| 5.2 | VDC Wiring: Mechanical Odometer | 24 |
| 5.3 | VDC Wiring: Electronic Odometer | 25 |
| 5.4 | VDC System Diagram (CENELEC)..... | 26 |
| | VDC Program Data Sheet | 27 |
| | Vehicle Calibration Factor Data Sheet | 28 |

Section 1 Description

Please read this manual carefully before beginning installation and programming of the Vehicle Data Computer (VDC). It is strongly recommended that an installation plan be developed for each specific vehicle. The VDC must be installed as described in this manual to ensure the reliability and proper operation of the system. Scully Signal Company provides a toll-free number for customers and installers having any question pertaining to the installation. Please call SAFS™ Technical Support at 1-800-272-8559.

This document is provided to assist in installation, programming, service and maintenance of the Scully Automated Fueling System (SAFS™), VDC and associated equipment. SAFS™ allows the secure unattended refueling of a fleet of vehicles from a land based or mobile station and records vehicle transaction information for use in managing the fleet. Vehicles in the fleet are authorized to pump by transmitting authorizing information from a VDC. The authorizing information or Vehicle Communications (VCOMM) contains the Vehicle ID, Fleet ID, Engine Hours, Odometer Mileage, and CHECKSUM for error detection. The Vehicle Communications packets are sent electromagnetically from the VDC through a transmitter coil (T-Ring) on the vehicle's fuel tank inlet, to a receiving coil on the refueling nozzle (N-Ring). The VCOMM packets are then transmitted electronically to the System Controller, which validates the packets, controls pumping, and keeps track of transaction information.

VDC installation must be done in accordance with federal, state and local codes, and the National Fire Protection Association code NFPA-30, "Flammable and Combustible Liquids Code" or European CENELEC standards, if applicable. The VDC complies with Part 15 of the FCC rules. Operation is subject to the two following conditions:

1. The device may not cause harmful interference.
2. The device must accept any interference received, including interference that may cause undesired operation.



CAUTION

**Changes or modifications to this equipment not expressly approved by the party responsible for FCC part 15 compliance could void the users authority to operate the equipment.
Failure to receive authorization violates the warranty conditions of the equipment.**