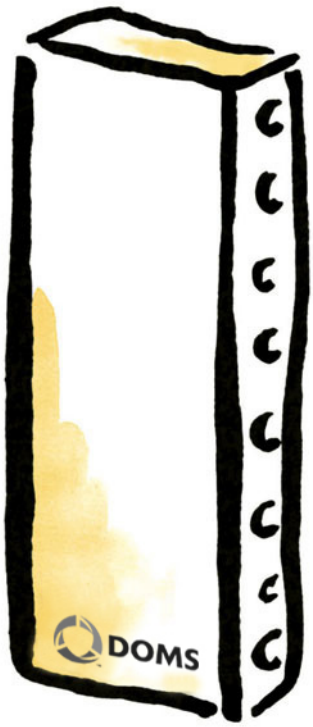
PSS 5000

Technical Manual
For systems with CPB50x



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About This Documentation

Purpose

This documentation provides a general description of the PSS 5000 system components and service facilities. It describes the functions available with the PSS 5000 and contains procedures, which describe how to use the various functions.

For documentation about specific system details, please see the documents listed in the Software Release Document for the actual application or, alternatively, look at ‘D.3 Referenced Documents’ on page 149.

Audience

The content of this documentation is designed for technicians who need to configure or service systems using PSS 5000.

It is assumed that the reader has a basic knowledge of standard PC technologies, such as Windows and Internet browsers, and has attended a foundation course that introduces the workings of the PSS 5000.

Contents

Part I: Getting to Know the PSS 5000

1 Architectural Overview

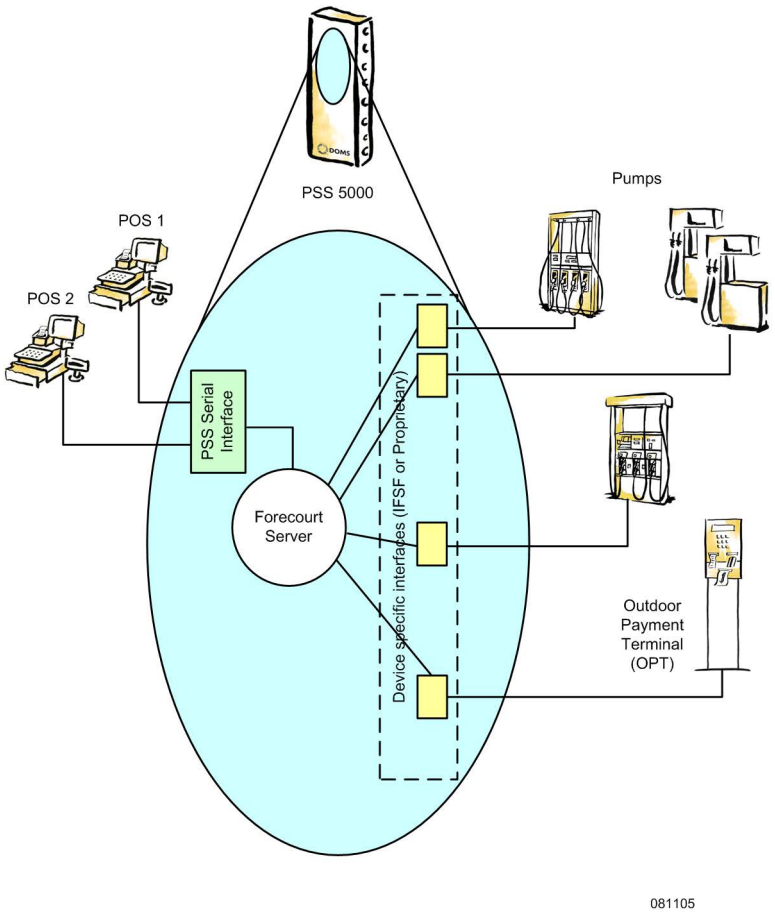
List of PSS 5000 configurations

The PSS 5000 can be used in 3 basic configurations. These are described in the following topics:

1.1 PSS 5000 Without a Network Connection

Illustration of a system using serial POS driver

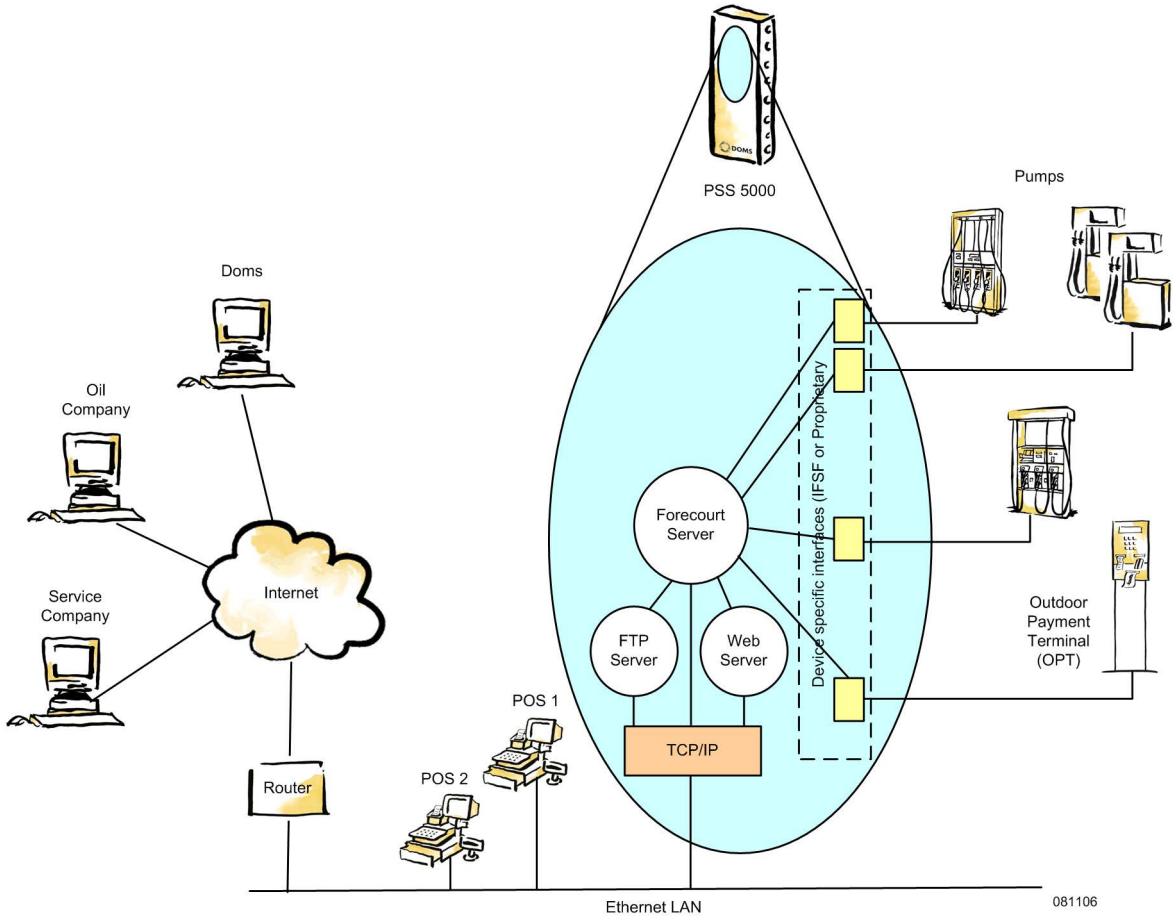
This illustration shows how POS terminals can be used by connecting them to the PSS 5000 using a serial POS driver.



1.2 PSS 5000 With a Network Connection

Illustration of a system using an Ethernet network

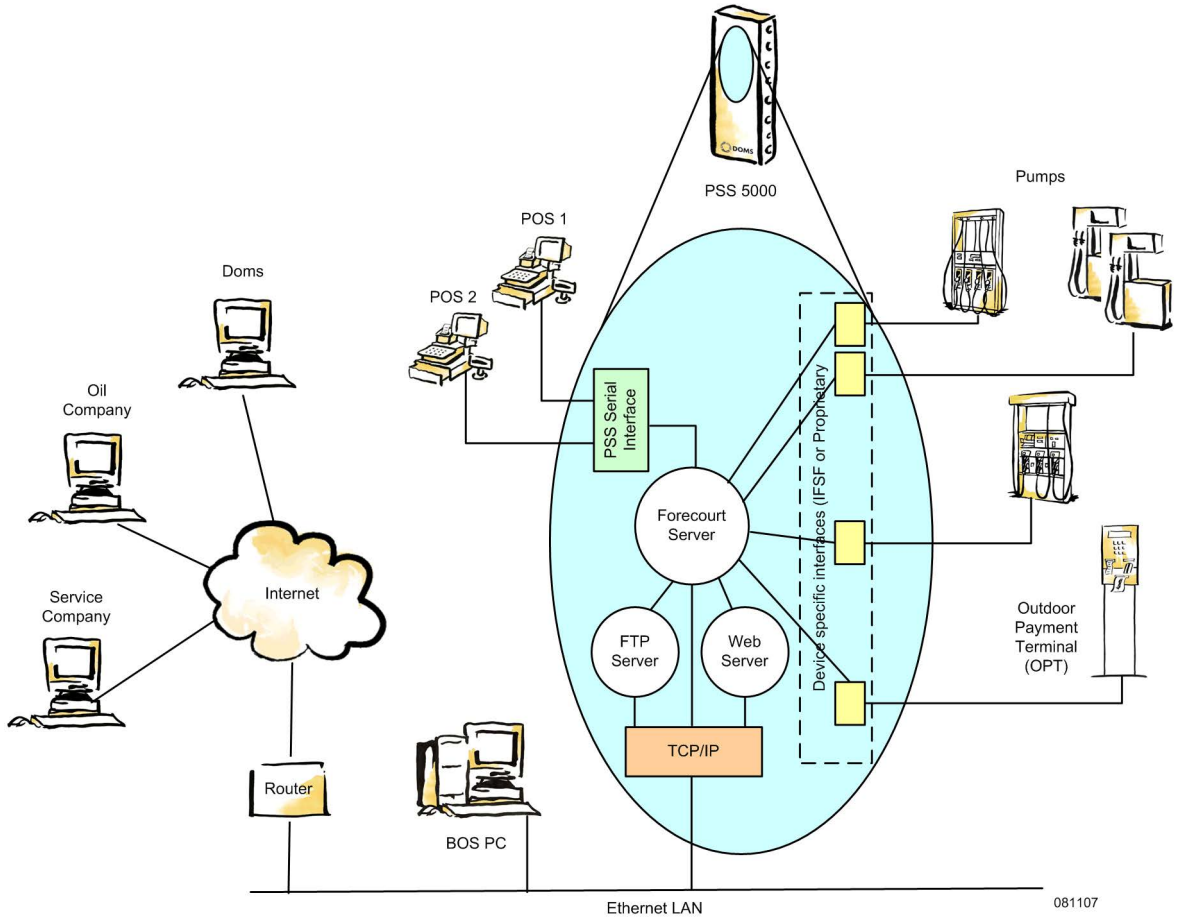
This illustration shows how POS terminals can be used by connecting them to the PSS 5000 using an Ethernet connection.



1.3 PSS 5000 in a Mixed Configuration

Illustration of a system using both an Ethernet network and serial interface

This illustration shows how POS terminals can be used through a serial POS driver even when an Ethernet connection is present.



2 System Description

List of PSS 5000 components

The basic components of the PSS 5000 are described in the following topics:

2.1 PSS 5000 Hardware

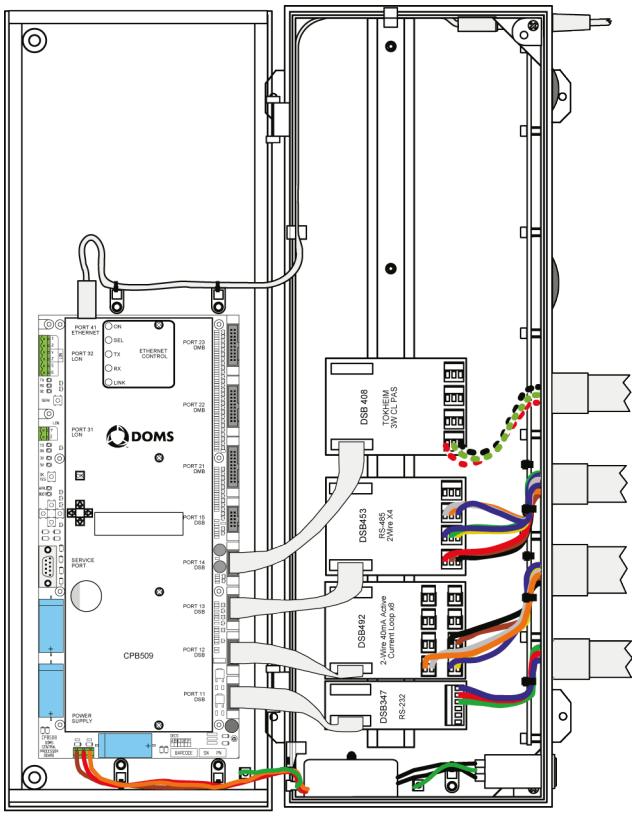
List of hardware components

The PSS 5000 hardware consists of several separate components. These are described in the following topics:

2.1.1 PSS 5000 Cabinets

Contents of the PSS 5000 cabinet

This illustrates the contents of the PSS 5000 standard cabinet with a CPU Board CPB509, 4 Hardware Interface Modules and an Ethernet connection.

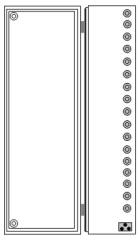
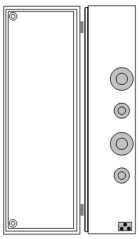
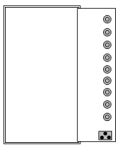


For complete details about the CPU boards available, see [4] for CPB509 and [5] for CPB505.

PSS 5000 cabinet types and specifications

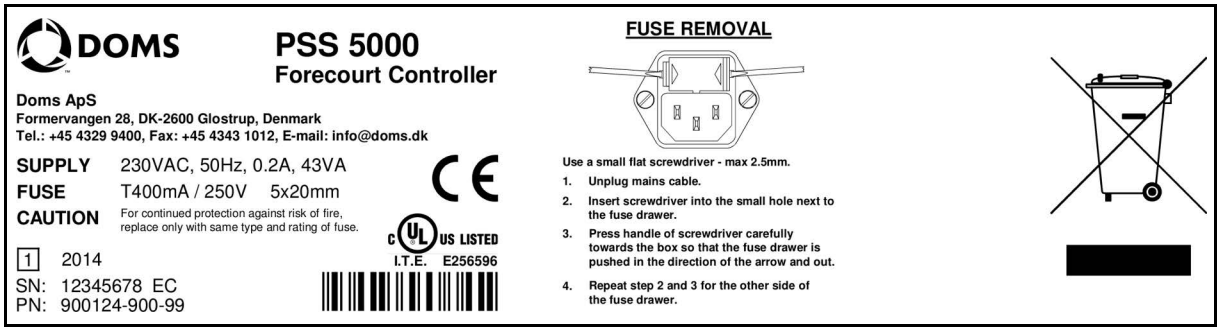
The product specifications for the PSS 5000 cabinet are presented in the table below:

Note: The weights given are for the basic cabinet with a power supply and CPU board (HIMs are not included).

	Cabinet Version		
	Standard - cable  081126	Standard - conduit  081127	Compact  081128
Dimensions: (HxWxD)	600 x 200 x 124 mm (23.5 x 7.9 x 4.9")	600 x 200 x 124 mm (23.5 x 7.9 x 4.9")	363 x 200 x 100 mm (14.3 x 7.9 x 3.9")
Max. number of single-width modules:	14	14	6
Material:	Metal	Metal	Metal
Weight:	8kg (17.6 lbs)	8kg (17.6 lbs)	5kg (11 lbs)
CE + UL Approved:	Yes	Yes	Yes
Hinged door:	Yes	Yes	Yes
No. of grommets:	17 (cables)	4 (conduits)	9 (cables)

The external label

On the outside of the cabinet, located above the power input socket, is a label. This label provides the serial number of the PSS 5000 and informs you which power supply voltage the PSS 5000 can use.



2.1.2 PSS 5000 Computer Processor Boards

PSS 5000 CPU Board specifications

The product specifications for the CPU boards of the PSS 5000 are presented in the table below:

Parameters	CPU Board Version				
	505	**505-2**	**508**	**509**	**539**
CPU Specs					
CPU Type	ColdFire MCF5307				ARM
Flash	8 MB	16 MB	4 MB	16 MB	4 – 256 GB
SRAM	2 MB	4 MB	2 MB	4 MB	1 – 4 GB
Port Types and Number					
DSB	3	3	5[1]	5[1]	6
DMB	1	1	3[1]	3[1]	2
Ethernet	1	1	1 (option)	1	2
Service (RS232, DSUB-9) [3]	0	0	1	1	0
Extension socket (LON - FTT10)	1	1	1	1	0
Ports with speed rating[2]					
Port 11 - DSB	Standard	Standard	High-speed	High-speed	High-speed
Port 12 - DSB	Standard	Standard	Standard	Standard	High-speed
Port 13 - DSB	Standard	Standard	Standard	Standard	High-speed
Port 14 - DSB	n/a	n/a	Standard	Standard	High-speed
Port 15 - DSB	n/a	n/a	Standard	Standard	High-speed
Port 16 - DSB	n/a	n/a	n/a	n/a	High-speed
Port 21 - DMB	Standard	Standard	High-speed	High-speed	High-speed
Port 22 - DMB	n/a	n/a	Standard	Standard	High-speed
Port 23 - DMB	n/a	n/a	Standard	Standard	n/a

[1] : one of the ports is a high-speed port
[2] : the actual baud rate of the ports are determined by the devices and the HIM modules connected to the ports (where the maximum baud rate for a port is: Standard = 9600 bit/s, High-speed = 115 200 bit/s)
[3] : The boot program only supports PPP on the Service port. Software uploads on boards with no Service port must take place via the Ethernet port.

Service Port Cable Connections

The Service Port is used to connect a PC to the PSS 5000 when access via the Ethernet port is not possible. In such circumstances, it is necessary to use a NULL modem cable that has the following cable connections:

9-pin D-Sub (male)		9-pin D-Sub (male)	
Signal	Pin	Pin	Signal
Transmit Data (TD)	3	2	Receive Data (RD)
Receive Data (RD)	2	3	Transmit Data (TD)
Request To Send (RTS)	7	8	Clear To Send (CTS)
Clear To Send (CTS)	8	7	Request To Send (RTS)
Signal Ground (GS)	5	5	Signal Ground (GS)
DataSet Ready (DSR) Carrier Detect (CD)	6+1	4	Data Terminal Ready (DTR)
Data Terminal Ready (DTR)	4	6+1	DataSet Ready (DSR) Carrier Detect (CD)

Note: The Service Port has the standard IP address: 11.0.0.90

See also

For a full description of the computer processor boards, see:

- PSS 5000 Processor Board, Description of CPB 509 – [4]
- PSS 5000 Processor Board, Description of CPB 505 – [5]

2.1.3 Hardware Interface Modules

Hardware Interface Modules

Hardware Interface Modules are interface adapters. They provide a link between the CPU Board of the PSS 5000 and the many types of forecourt devices, with their proprietary interfaces. There are 2 basic HIM types, which are used to communicate with the forecourt devices:

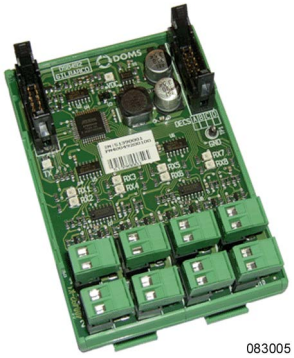
Module	Description
DSB	Doms Serial Bus modules are used for addressable devices.
DMB	Doms Multiplexed Bus modules are used for non-addressable devices.

The HIM modules provide a scalable solution. When new devices are added to the forecourt configuration, or old devices replaced with new ones that use a different protocol, new HIMs can be added, or existing ones replaced, so that they suit the new protocol.

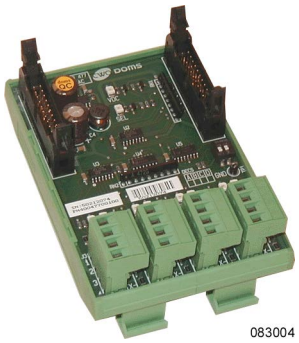
For more information about the individual HIMs, see [1].

Illustration of HIMs

Examples of a DSB HIM and a DMB HIM are shown below.



DSB492



DMB477

Note: The black serial connectors on the DMB modules are wider than those on the DSB models. This extra width is a result of more pins, which are required for the signals used to control the onboard multiplexer.

2.1.4 Service and Maintenance

Spare part recommendations

It is recommended that service organizations carry a stock of spare parts that represents 5% of the installed systems.

Note: This quantity may vary depending on logistics and the individual requirements to the repair turn-around times.

2.2 PSS 5000 Software

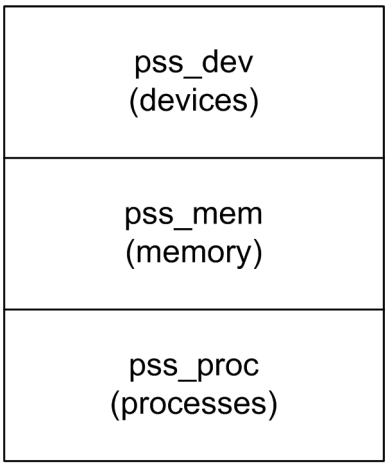
List of software components

The PSS 5000 software consists of several separate components. These are described in the following topics:

2.2.1 Virtual File System

Structure of virtual file system

The PSS 5000 has a UNIX inspired virtual file system, with the following top-level structure:



Description of the virtual file system catalogs

Each of the catalogs present in the virtual file system are described in the table below:

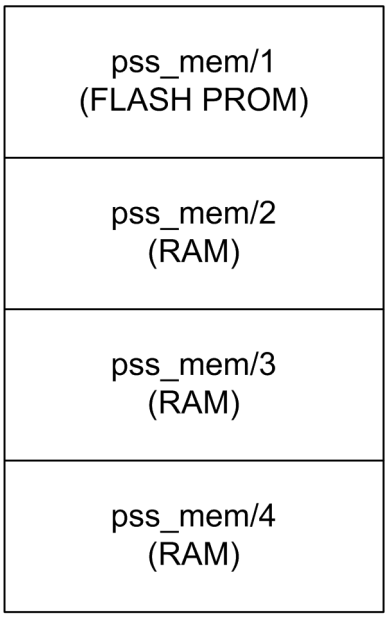
Catalog	Description
pss_dev	The pss_dev catalog gives access to devices; both physical devices (FLASH PROM) and logical (a NULL device).
pss_mem	The pss_mem catalog gives access to the different levels of memory in the PSS 5000; both the FLASH PROM and the static RAM. For more information, see ‘2.2.2 Memory Structure’ on page 17.

Catalog	Description
pss_proc	The pss_proc catalog contains runtime-generated files. All PSS 5000 systems have, as a minimum, the following files in this catalog: • hw_inf.txt (Hardware information) • appl_inf.txt (Application information) • lam_inf.txt (Legal Authority Module information) • boot_inf.txt (BOOT information) • bel.txt (Board Error Log)

2.2.2 Memory Structure

Memory areas on the CPU board

The memory on the PSS 5000 CPU board is divided in to 4 areas.



The difference between the separate memory areas is indicated by what is required to clear or change the data.

Note: The RAM has a battery backup. If a power cut occurs, the battery provides power for more than 2 weeks and ensures that the data present in the RAM is preserved.

Data in pss_mem/4

Data in memory area 4 is held in the RAM and is a "volatile working memory" for programs. Although this area has battery back-up, all the data in this area is cleared when a reset (software initialization) or power down takes place.

Data in pss_mem/3

Data in memory area 3 is held in RAM and is a "non-volatile working memory" for programs. This area has battery back-up, which enables data to be retained during startup (initialization) and to survive a power down for weeks. The area is cleared by a master reset. System configurations and status information are intact after a period without power.

Data in pss_mem/2

Data in memory area 2 is held in RAM and is a "data storage memory" for the programs. This area is cleared by a super master reset, but has battery back-up

to survive a power down for weeks. This data storage area is used for data that must survive system re-configurations and program changes.

Data in pss_mem/1

Data in memory area 1 is held in a Flash Programmable Read Only Memory (PROM) and is used to hold programs and system logs as described below:

Contents of FLASH	Description
APPLICATION PROGRAM	The Application Program holds the main forecourt controller or converter application. The applications are specific for the devices connected to the PSS 5000.
LAM	The Legal Authority Module (LAM) is a parameter module for the Application Program. It holds country specific parameters like decimal point settings and parameters to control functionality required by the local legal authorities. All PSS 5000 applications require a Legal Authority Module.
BOARD UPLOAD LOG	The Board Upload Log holds a log of all the software uploads that have taken place since the first LAM was installed.
BOOT PROGRAM	The BOOT Program is responsible for software upload and access to board peripheral devices, such as the local service panel, when no application is present.

2.2.3 The Software Components

List of PSS 5000 software components

The software components of the PSS 5000 comprises 3 separate binary program blocks. Each block is loaded separately and comes complete with its own check sum. The blocks are:

- Boot Program
- Legal Authority Module (LAM)
- Application Program

To ease identification of the program blocks, each program is assigned an 8 digit ID, which has the following format: *TTT-BB-VVV*. Where *T* defines the program type, *B* defines the program branch (or variant) and *V* defines the program version.

Boot Program

The Boot Program is responsible for the following functions:

- Initializing the CPU board
- Uploading software (which includes various checking functions)
- Launching the uploaded application program

The Boot Program ID has the program type ID: 499-*BB-VVV*

Legal Authority Module (LAM)

The Legal Authority Module (LAM) provides control of parameters that are subject to control by legal authorities. By installing the correct LAM for the region, only parameters that are permitted by the authorities are available. The LAM also provides Weights and Measures functions, which ensure the integ-

rity of the data and make sure that the PSS 5000 is operating correctly and complies to the legal requirements.

The LAM ID has the program type ID: 498-*BB*-*VVV*

The program branch number (*BB*) normally is associated with a country or region.

Application Program

The application program contains the main forecourt controller functions. The application program loaded is specific for the devices present at the users' sites and connected to the PSS. The program works very closely with the LAM to make sure that only permitted data is obtained.

The program type ID for the application program is not limited to a single number. For example, the program type number (*TTT*) can be one of the following: 410, 411 or 420.

The program branch number (*BB*) depends on which functions that are included in the program.

To view & verify the software installed on the PSS 5000

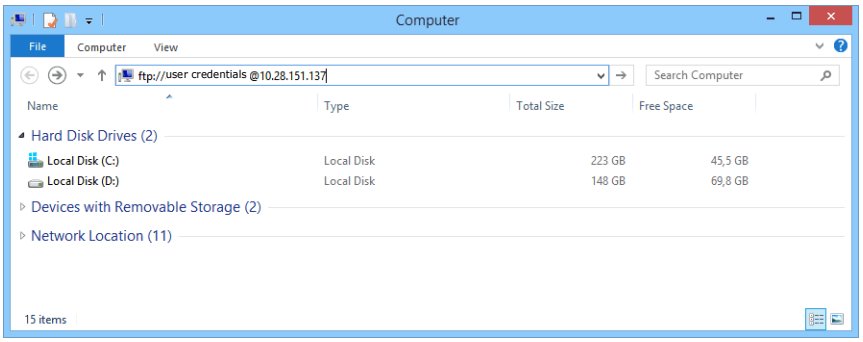
This procedure describes how to access the file system in a PSS 5000 using a Windows Explorer and an FTP connection.

1. Using the standard Windows procedures, open the Windows Explorer.
2. In the file path field, type in the following syntax.

   FTP://<*administrator user*>:<*administrator password*>@<IP address>

   Note: If the PSS has not been accessed previously, then the default PSS administrator user credentials can be found in the relevant BOOT (499-xx-y.yy) Software Release Document (SRD).

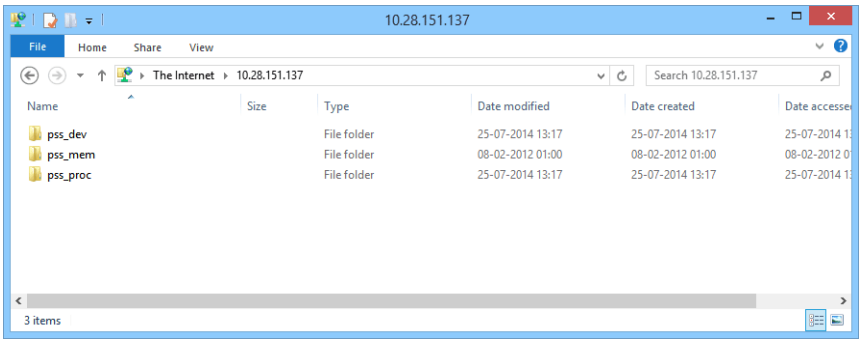
   The illustration below shows how the IP address is entered.



3. When the syntax contains the correct user name, password and IP address,

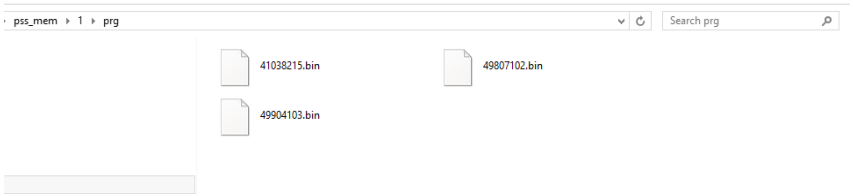
press **Enter** to make the FTP connection.

The file directories present in the PSS 5000 appear.



4. Using the standard Windows procedures, navigate to the following directory: */pss_mem/1/prg*

   The binary files for the Application, LAM and Boot are stored here.



5. Copy the bin files to your computer.
6. Using these files and a 3rd party hash calculator, you can verify that the software present in the PSS 5000 has the correct MD5 hash code.

2.2.4 Web Server

Description of the web server

The embedded web server enables you to access the PSS 5000 Service Menus using a PC with a standard web browser.

Recommended browser versions

The embedded web server, which allows connection via standard browsers or specific applications, has been tested with both Firefox and Microsoft browsers. Some of the features (for example the Peeper applet) require a Microsoft Internet Explorer version 6.0 or higher, or Firefox version 1.5 or higher.

2.2.5 FTP Server

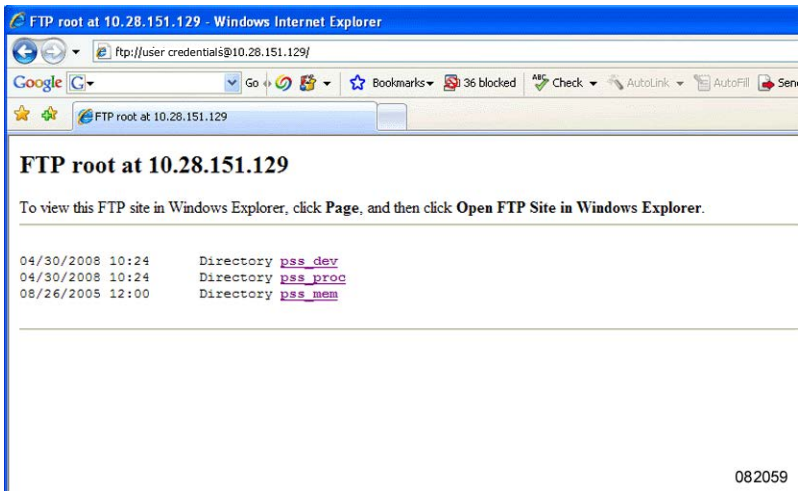
Description of the FTP server

The FTP server enables you to connect to the PSS 5000, see the internal file structure and upload software applications. It also enables you to extract data logs from remote locations.

Illustration of an FTP connection to file system in PSS 5000

This illustrates how to access the file system in a PSS 5000 using a web browser and an FTP connection. The FTP connection to the PSS 5000 is made by typing **FTP://*<administrator user>*:*<administrator password>*@*<IP address>***.

Note: If the PSS has not been accessed previously, then the default PSS administrator user credentials can be found in the relevant BOOT (499-xx-y.yy) Software Release Document (SRD).



Note: Other types of FTP client connections may be used. Use the same log on information with the FTP client of your choice.

2.2.6 Serial Server

Description of the serial server

The PSS 5000 contains a serial server that enables communication over TCP/IP networks to pass-through the PSS 5000 and reach a device, such as a tank gauge console, that is connected via a serial interface.

This functionality is supported by several protocols, which are listed in the Software Release Document distributed with the PSS 5000 application.

Note: For some older versions of the PSS 5000 Applications, special **Protocol-to-Port Assignment** settings are required.

Port connection

To communicate via the serial server a host must use the PSS 5000's IP address + the TCP port number, which has the following format: 6000 + PSS port number.

For example, if the device is connected to port 15, then the TCP port number = 6015.

2.2.7 Network Connection

Description of the network connection

For general access rights to devices on the network, please consult your network administrator. He will know which TCP/IP parameters you must use and will configure the network (DHCP server, firewalls and the like). In this respect, the PSS 5000 is no different from any other network devices.

3 Configuration and Service

Overview

Information about the configuration and service functions of the PSS 5000 are described in the following topics:

3.1 Configuration and Service Menus Access

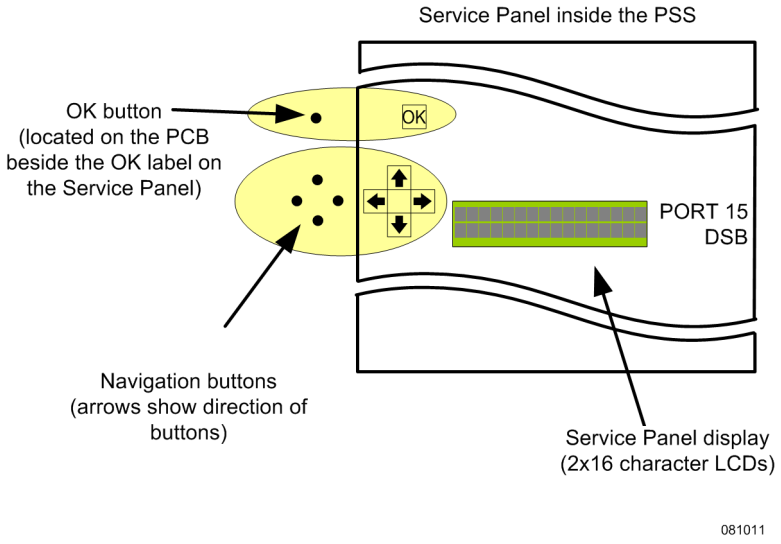
Methods to access menus

There are 2 methods to access the service menus that enable you to configure and monitor the PSS 5000. Information about the access tools are described in the following topics:

3.1.1 Local Service Panel

Purpose of the local service panel

The Local Service Panel allows you to access the PSS 5000 Service Menus.



The navigation buttons and the OK button, which allow you to navigate through the service menus, are located on the CPU Board beside the front panel. The function of each button is shown by an arrow or text label present on the panel.

Functions of the navigation buttons

In general, the navigation buttons are used as follows:

Buttons	Description
	These buttons are used in the following ways: • To move down and up through the structure of the service menus. For example, to move from menu 1 to 2, or from menu 1.1 to 1.2. • To move down and up through lines of data, where each line is a separate item. For example, a line is an individual transaction. • To change the value of the parameter shown in the display.
	These buttons are used in the following ways: • To move to a lower or higher level of the current menu. For example, to move from menu 2 to 2.1. • To move along a single line of data, for example in a transaction log. • Left arrow only – to return to the Idle menu from a top level menu. For example, to move directly to Idle from menu 2.
	This button is used to accept the value of a parameter after it has been changed.

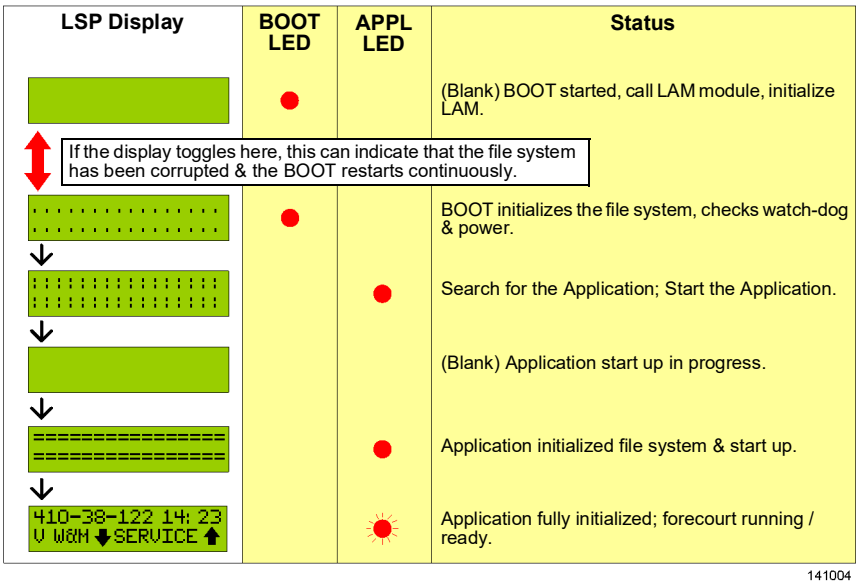
Functions of the CPU board LEDs

The CPU board has 2 LEDs associated with the Service Panel: **BOOT** and **APPL**. These LEDs are used to indicate the status of the program:

BOOT LED	APPL LED	Description
Blink	Off	Boot running. Blink rate is according to the current load rate.
Off	Blink	Appl running. Blink rate according to the current load rate.
On	Off	Super Master Reset in progress. (Status of reset shown in display).
Off	Very Fast Blink	Master Reset in progress (APPL).
On	Off	Reset in progress. (No status information shown in display).
On	On	Erasing Flash (BOOT)
Alternating On		Programming the Flash (APPL).
Off	On	APPL program stopped / Error State.

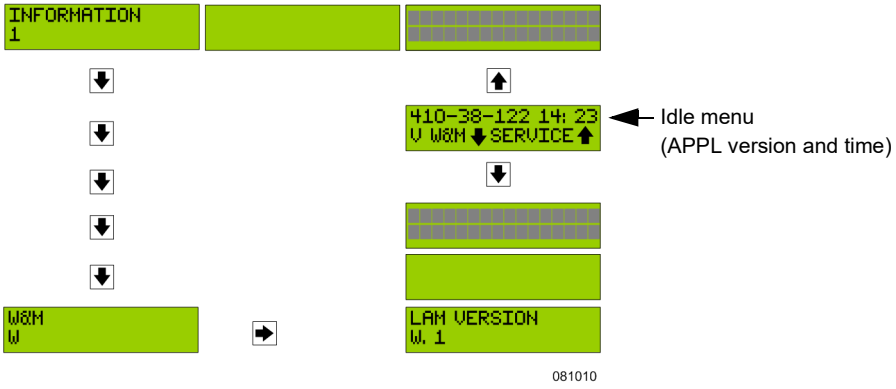
Display cycles during startup

The illustration below shows the Local Service Panel display messages and LEDs during the start up phase.



Local Service Panel display

The display in the Local Service Panel provides you with information about where you are in the menu structure, the software identification numbers, or the current values of parameters selected in the software.



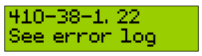
By default the Idle menu is displayed. The system returns to the Idle menu automatically if a navigation button is not pressed within the timeout period. This menu shows the following information:

- An 8 digit number, which is the ID of the Application software.
- The current time of the PSS's internal clock.
- Arrows that inform you which button to press to enter the W&M or Service menus.

The Idle menu provides an entry point to both the W&M menus and the Service menus.

Error messages on the service panel display

The display can show error codes or refer you to the error log file. If some of the errors are unread, then the lower line on the display tells you to look at the log file.



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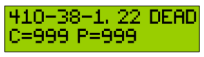
The PSS 5000 has its own post-process, diagnostics program, which prevents the program from running when serious errors occur. When this happens the program number and the text "DEAD" are displayed together with some codes, as shown in the example below:



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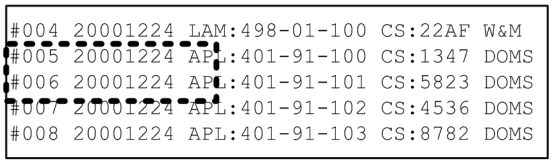
When this happens, write down this information and send it to Doms Support at the following e-mail address: *support@doms.dk*

The "DEAD" text and error codes remain in the display until a button is pressed. This causes the CPU board to reset and attempt to re-start the application, or the CPU board is powered down.

Viewing data in the Local Service Panel display

Data stored in the PSS 5000 memory, such as Recent Transactions or Transaction Log, can be viewed using the local service panel display. However, because of the size of the display, it is important to understand how the data appears and how it can be read. The figure below is an example of data in the memory and illustrates how much of it actually appears in the display.



081067

In the figure above, you can see an example of the upload log. The rectangle with the dotted line represents what you can actually see in the local service display panel. By using the navigation buttons, you are able to move the rectangle so that other data appears in the display panel.

3.1.2 Web Service Pages

Web Service page start-up page

When accessing the Web Service pages a user_id and password is required. For more information about user IDs and passwords, see ‘5.4.1 Password (Menu 2.4.1)’ on page 52.

In addition to the navigation menu, the start up picture for the Web Service page displays some essential information, such as:

- Site ID (Default value is the board serial number)
- Application Software version

Note: The navigation system for the web page uses the same menu numbers as the menu system on the local service panel.

To print a copy of the service menu page

This procedure describes how to print a copy of the current page displayed in the Web Service Menu.

Note: This procedure is for Internet Explorer.

1. Open the pop-up context menu in the frame of the page that you want to print and select **Print Preview...**.

   The **Print Preview** window appears.

2. In the tool bar:
   - Select **Only the selected frame** in the 2nd drop-down menu
   - Select **Shrink to Fit** in the 3rd drop-down menu
   - If necessary, use the orientation buttons to toggle between landscape and portrait. Select the one that suits best.

3. Press **Alt+P** (or print symbol in tool bar).

   The **Print** window with your selected printer appears. If this is not the correct printer, use standard Windows procedures to select the correct printer.

4. Press **Print**.

   The selected frame prints.

3.2 Software Changes

Description of software changes

Changes to the Application Program and/or Legal Authority Module on the PSS 5000 board take place by uploading the software using the Web Service Menus (with a Java applet) or using an FTP connection. (FTP requires only a few commands).

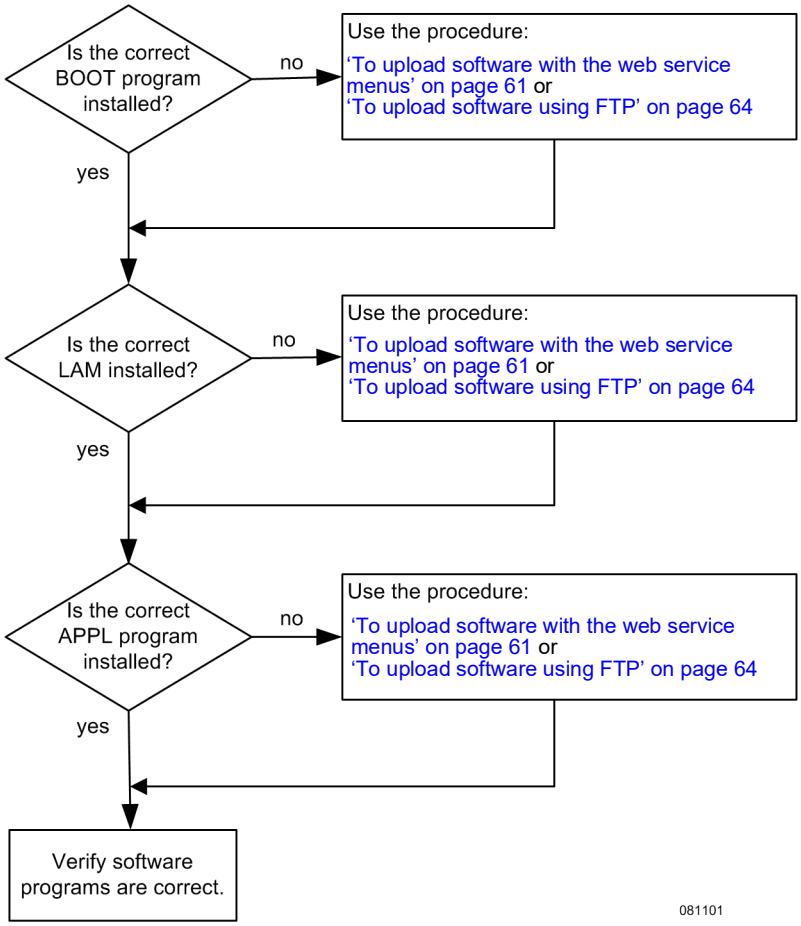
Note: Before attempting to upload an Application Program, please consult the Software Release Document and check the requirements of the BOOT program and LAM.

When a Legal Authority Module is uploaded, the Application Program and all data is cleared. When a new program (APPL or BOOT) is started, the PSS 5000 automatically performs a reset. As the TCP/IP connection is lost during a system reset, it is necessary to create a new connection in order to check the result of the upload.

To change the software in the PSS 5000

This flow diagram shows the order in which software uploads must occur when changing the software in the PSS 5000.

Note: Before software can be uploaded, the PSS 5000 must be set in a state that allows the upload.



Upload log file

All attempts to upload software to the PSS 5000 are recorded in the */pss_mem/1/sys/bul.txt* file. This file cannot be erased and can be viewed using the web service pages, or downloaded using FTP and then viewed either with an FTP client or a simple text editor.

Part II: Using the Service Menus

Note: The individual menu options available in the Service Menus depend on the functions present in the program applications installed in the forecourt controller.

4 Information (Menu 1)

Overview of Information menu

The **Information** menu is divided into the following sub-menus:

- ‘4.1 Program Versions (Menu 1.1)’ on page 30
- ‘4.2 Board Info (Menu 1.2)’ on page 31
- ‘4.3 SW Blocks (Menu 1.3)’ on page 34
- ‘4.4 Protocols (Menu 1.4)’ on page 35
- ‘4.5 LAM (Menu 1.5)’ on page 35

Note: For all Local Service Panel procedures, it is assumed that the Idle menu (see ‘Local Service Panel display’ on page 24) is already shown in the display.

4.1 Program Versions (Menu 1.1)

Description of the Program Versions menu

The **Program Versions** menu provides information about the version and release date of the following programs:

- Application Program
- Boot Program
- LAM (Legal Authority Module)

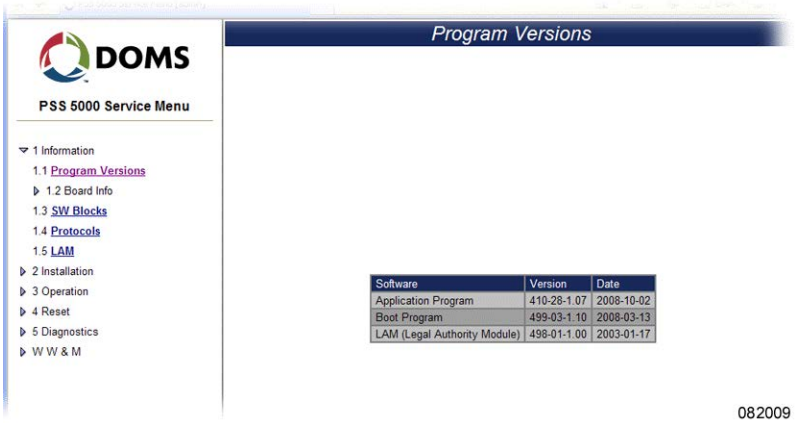
If the program versions are not correct then it may be necessary to change them. A description of how to do this is included in ‘3.2 Software Changes’ on page 27.

To view program versions with web service pages

This procedure describes how to use the Service Menu in the web browser to view the program version information.

1. Select **1 Information → 1.1 Program Versions**.

   The **Program Versions** page appears.

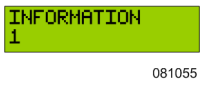


2. Use the information on this page to read the version numbers for the software components: BOOT, LAM and APPLICATION.

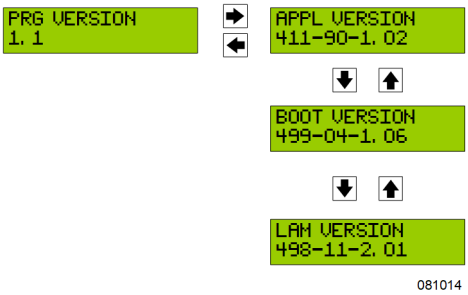
To view program versions with local service panel

This procedure describes how to use the Local Service Panel to view the program version information for the software components: BOOT, LAM and APPLICATION.

1. Press ↑ to move to the **INFORMATION 1** menu.



2. Press → to move to the **PRG VERSION 1.1** menu.
3. Press the buttons in the sequence shown below to move to the sub-menus and view the program versions of the software components in the PSS 5000.



View program versions using virtual file system

The program version information is also available in the following files using the PSS 5000 Virtual File System.

- /pss_proc/sys/boot_inf.txt – contains BOOT information
- /pss_proc/sys/lam_inf.txt – contains Legal Authority Module information
- /pss_proc/sys/appl_inf.txt – contains Application information

4.2 Board Info (Menu 1.2)

Overview of Board Information

From the **Board Info** menu you can get both production information and sealing switch status information. The menu is divided into the following sub-menus:

- ‘4.2.1 Production (Menu 1.2.1)’ on page 31
- ‘4.2.2 Sealing Switch (Menu 1.2.2)’ on page 33

4.2.1 Production (Menu 1.2.1)

Description of Production menu

The **Production** menu provides the following production information:

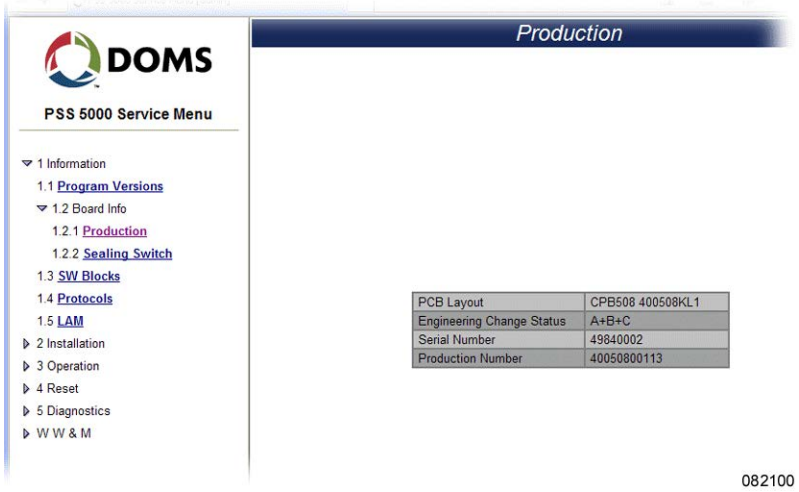
- PCB layout
- Engineering Change Status (ECS)
- Serial Number
- Production Number

To view production information with web service pages

This procedure describes how to use the Service Menu in the web browser to view the production information for the CPU board.

1. Select **1 Information → 1.2 Board Info→ 1.2.1 Production**.

   The **Production** page appears.

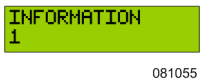


2. Use the information on this page to read the version numbers for the following components:
   - PCB Layout
   - Engineering Change Status
   - Serial Number
   - Production Number

To view production information with local service panel

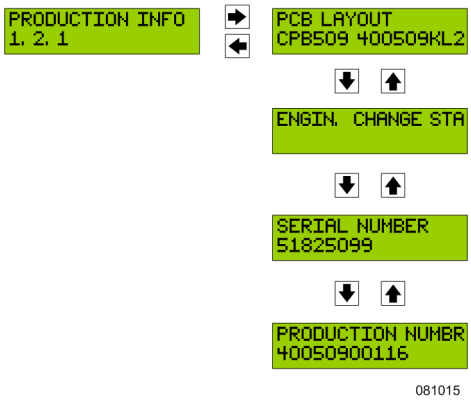
This procedure describes how to use the Local Service Panel to view the production information for the CPU board.

1. Press ↑ to move to the **INFORMATION 1** menu.



2. Press →, ↓, → to move to the **PRODUCTION INFO 1.2.1** menu.

3. Press the buttons in the sequence shown below to move to the sub-menus and view the production information for the PSS 5000.



The serial number and production number shown in the display are unique for the CPU Board of the PSS 5000 you are currently viewing.

4.2.2 Sealing Switch (Menu 1.2.2)

Description of Sealing Switch menu

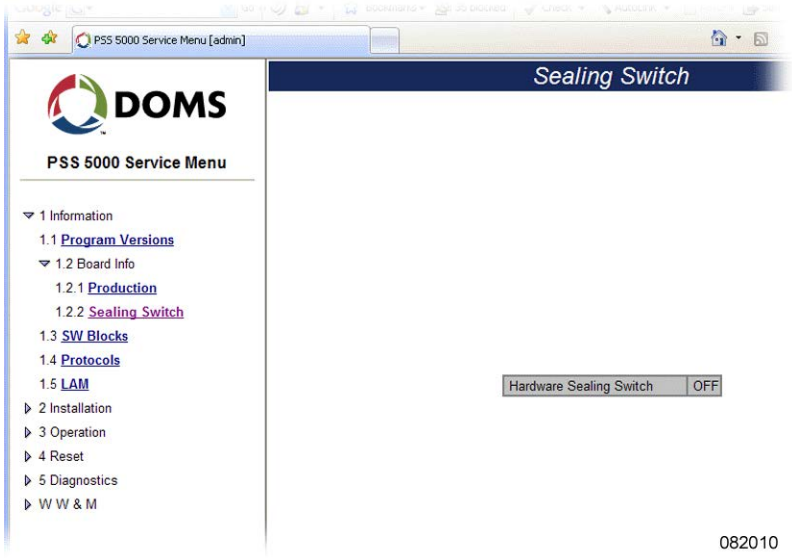
The **Sealing Switch** menu provides information about the status of the sealing switch, which is used to hardware seal the LAM software on the CPU board.

To view sealing switch status with web service pages

This procedure describes how to use the Service Menu in the web browser to view the status of the hardware sealing switch, which is used to enable LAM uploads.

1. Select **1 Information** → **1.2 Board Info**→ **1.2.2 Sealing Switch**.

   The **Sealing Switch** page appears.

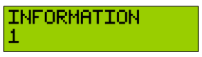


2. Use the information on this page to see the status of the Hardware Sealing Switch.
   - **OFF** - no hardware sealing present on CPB
   - **ON** – hardware sealing present on CPB

To view sealing switch status with local service panel

This procedure describes how to use the Local Service Panel to view the status of the hardware sealing switch.

1. Press ↑ to move to the **INFORMATION 1** menu.



081055

2. Press →, ↓, →, ↓ to move to the **SEALING SWITCH 1.2.2** menu.
3. Press → to view the status of the sealing switch.

081016

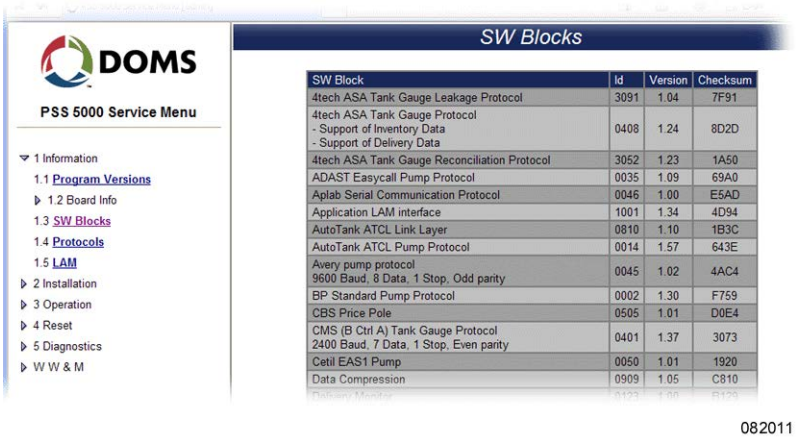
4.3 SW Blocks (Menu 1.3)

To view software blocks in PSS 5000 with web service pages

Each application program in the PSS 5000 is built from several software code blocks. This procedure describes how to use the Service Menu in the web browser to view the SW blocks (names, ID, version and checksum).

1. Select **1 Information → 1.3 SW Blocks**.

   The **SW Blocks** page appears.



082011

2. Use the information on this page to see the Name, ID, Version number and Checksum for the individual software blocks.

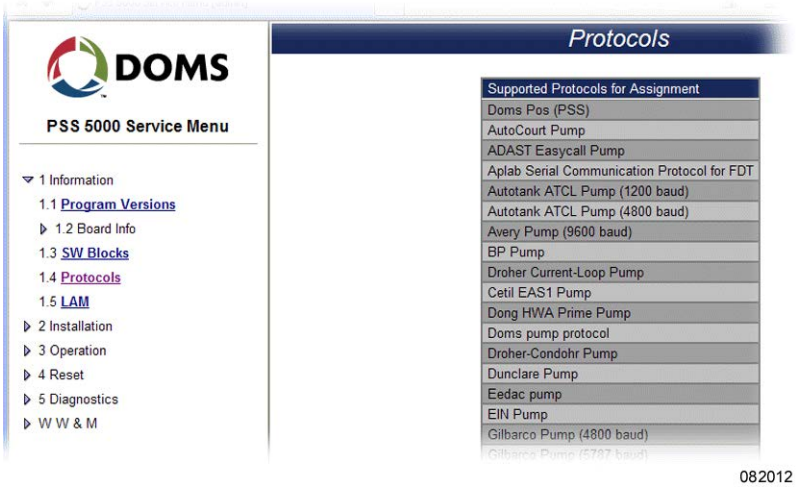
4.4 Protocols (Menu 1.4)

To view available protocols with web service pages

This procedure describes how to use the Service Menu in the web browser to view the protocols that are supported and can be assigned.

1. Select **1 Information → 1.4 Protocols**.

   The **Protocols** page appears.



082012

2. Use the information on this page to see a list of supported protocols.

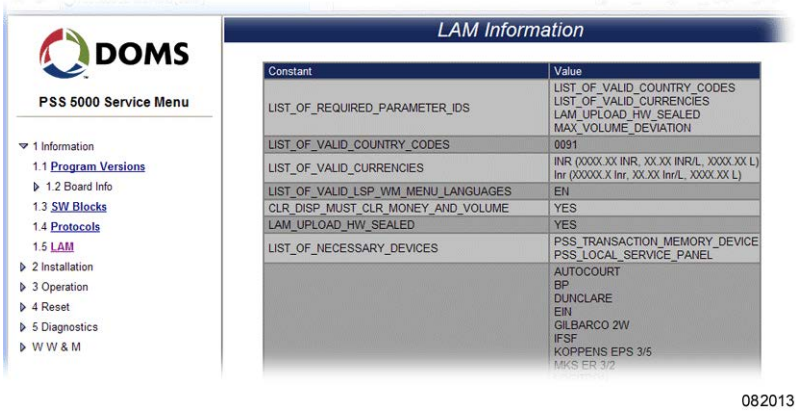
4.5 LAM (Menu 1.5)

To view all the constants for the current LAM

This procedure describes how to use the Service Menu in the web browser to view all the constants set by the current LAM.

1. Select **1 Information → 1.5 LAM**.

   The **LAM Information** page appears.



082013

2. Use the scroll bar to view all the constants, and their values, set by the current LAM.

5 Installation (Menu 2)

Overview of Installation menu

The **Installation** menu is divided into the following sub-menus:

5.1 Protocol to Port Assignment (Menu 2.1)

Description of the protocol to port assignment menu

The PSS 5000 application can use a large number of protocols with which to communicate with the other system devices.

Generally, the serial interface supports only one protocol per port. However, some protocol combinations are available and some protocols have mandatory supplementary protocols. For example, when Doms POS Protocol is assigned on a serial interface port, then the Doms PSS Communication Protocol is assigned automatically. When this occurs, multiple protocols are listed next to the port number.

Some protocols have additional protocol parameters. These parameter values are displayed in the **Protocol** column and can be set from the **Protocol to Port Assignment** window. To do this, see '5.1.2 Setting the Protocol Parameter Values' on page 40.

Some protocol to port assignments are restricted. For a description of these, see '5.1.3 Limitations' on page 41.

Note: Port 99 is a virtual port and does not physically present. Only certain protocols can be assigned to use this port. These protocols are used for special purposes.

Protocol to port assignment overview

The details about the **Protocol to Port Assignment** window are included in the following topics:

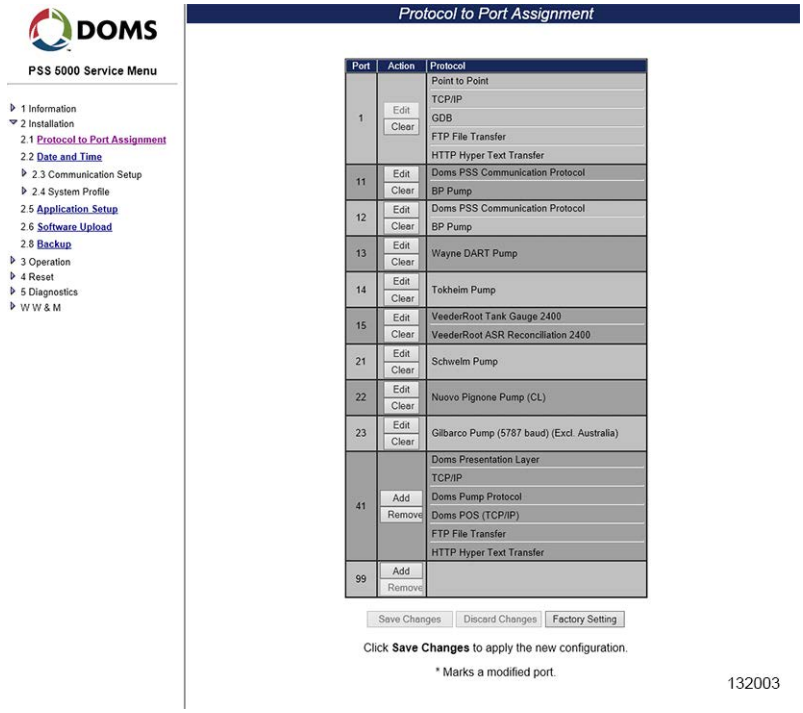
5.1.1 Changing Protocol to Port Assignments

To configure protocol to port assignment with web service pages

This procedure describes how to use the Service Menu in the web browser to configure the protocol to port assignment values.

1. Select **2 Installation → 2.1 Protocol to Port Assignment**.

   The **Protocol to Port Assignment** page appears.



   This page shows the protocols assigned to each of the ports on the CPU board.

   Note: The **Save Changes** and **Discard Changes** buttons are only active after changes have been made. Changes are indicated by a "*" next to the port number.

   Note: Port 1 is labelled **SERVICE PORT** on the PSS 5000 panel.

2. Do one of the following:

   - View the port assignment details; no further action is required.
   - Add a protocol to port assignment (not Port 41 or 99); go to ‘To edit a protocol to port assignment with web service pages’ on page 38
   - Add a new protocol to port assignment to Port 41 or 99: go to ‘To add a protocol to Port 41 or Port 99 with web service pages’ on page 39
   - Set the parameters for a protocol; go to ‘To set protocol parameter values’ on page 40
   - Clear the protocols assigned to a specific port; go to ‘To remove a protocol to port assignment with web service pages’ on page 39.
   - Save all changes (including parameter values) made; go to Step 3.

3. When all the changes have been made (i.e. protocols added / protocol parameters set), click one of the following buttons:
   - **Save Changes** - saves and applies all changes to all ports; go to Step 4.
   - **Discard Changes** - cancels all changes made since the last save.
   - **Factory Setting** - restores all the Protocol to Port assignments to their original values.
4. In the confirmation window, click **OK**

   The changes are saved and the PSS 5000 is Master Reset.

To edit a protocol to port assignment with web service pages

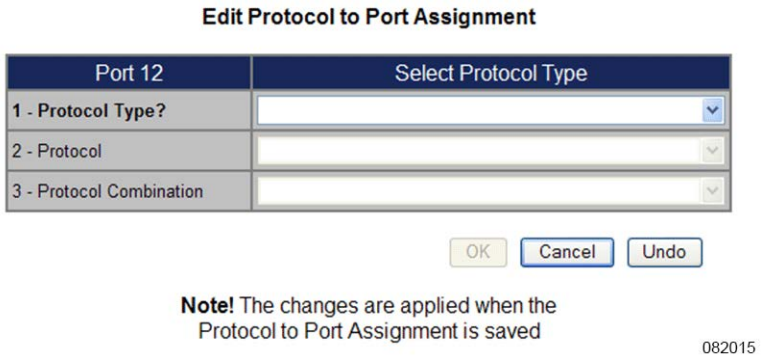
This procedure describes how to use the Service Menu in the web browser to edit a protocol to port assignment.

Note: Do not use this procedure for Port 41 or Port 99.

1. With the **Protocol to Port Assignment** window already open, go to the port number that you want to change and click **Edit**.

   Note: If a protocol is already assigned to this port, it will be removed during this procedure.

   The **Edit Protocol to Port Assignment** table for the selected port appears. The example below shows the table for Port 12.



2. Open the **Protocol Type** drop-down list and select the correct type of device.
3. Open the **Protocol** drop-down list and select the correct protocol.
4. If a protocol combination is possible, open the **Protocol Combination** drop-down list and select the correct option.

   Note: A selection must be made here if there are 2 or more combinations.
5. Click **OK**.

   The page returns to the **Protocol to Port Assignment** list; go to 'To configure protocol to port assignment with web service pages' on page 37, Step 2.

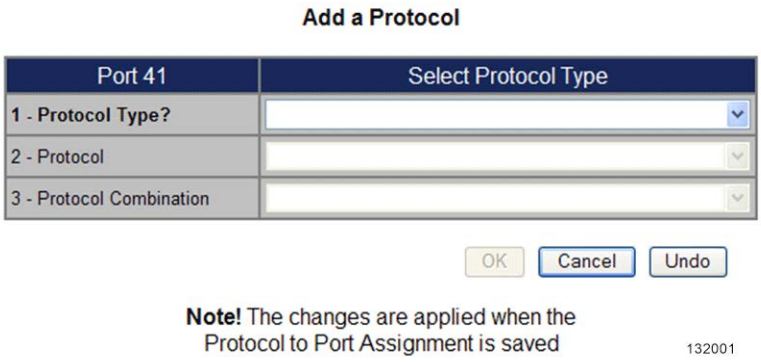
   Note: Changes are not activated until the **Save Changes** button in the **Protocol to Port Assignment** window is used and a Master Reset occurs.

To add a protocol to Port 41 or Port 99 with web service pages

This procedure describes how to use the Service Menu in the web browser to add/change the protocol to port assignment values for Port 41 or Port 99.

1. With the **Protocol to Port Assignment** window already open, go to Port 41 or 99 and click **Add**.

   The **Add a Protocol** table for the port appears.The example below shows the table for Port 41.



2. Open the **Protocol Type** drop-down list and select the correct type of device.
3. Open the **Protocol** drop-down list and select the correct protocol.
4. If a protocol combination is possible, open the **Protocol Combination** drop-down list and select the correct option.

   Note: A selection must be made here if there are 2 or more combinations.

5. Click **OK**.

   The page returns to the **Protocol to Port Assignment** list; go to 'To configure protocol to port assignment with web service pages' on page 37, Step 2.

   When the protocol has parameters, it may be necessary to set these before the **Save Change** button is used.

Note: Changes are not activated until the **Save Changes** button in the **Protocol to Port Assignment** window is used and a Master Reset occurs.

To remove a protocol to port assignment with web service pages

This procedure describes how to use the Service Menu in the web browser to remove a protocol to port assignment.

1. With the **Protocol to Port Assignment** window already open, go to the port where you want to remove the protocol and click **Clear** (or **Remove** for Port 41).
2. Do one of the following:
   - If you used **Clear**, the protocol is removed from the port list. Go to 'To configure protocol to port assignment with web service pages' on page 37, Step 2.
   - If you used **Remove**, the **Remove a Protocol** table appears; go to Step 3.
3. Open the **Protocol Type** drop-down list and select the correct type of device.
4. Open the **Protocol** drop-down list and select the correct protocol.
5. If a protocol combination is used, open the **Protocol Combination** drop-down list and select the correct option.

   Note: A selection must be made here if there are 2 or more combinations.

6. Click **OK**.

   The page returns to the **Protocol to Port Assignment** list; go to 'To configure protocol to port assignment with web service pages' on page 37, Step 2.

   Note: Changes are not activated until the changes are saved in **Protocol to Port Assignment** window and the controller is Master Reset.

5.1.2 Setting the Protocol Parameter Values

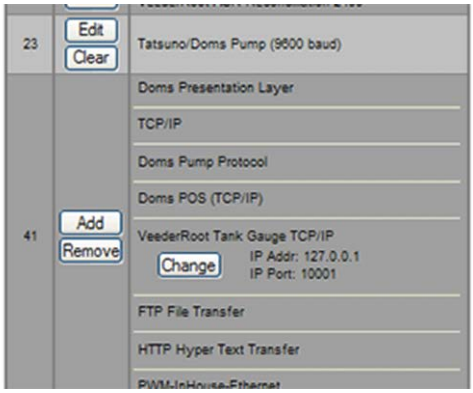
To set protocol parameter values

This procedure describes how to set the parameters for protocols that use these values.

Note: This procedure uses a TCP/IP protocol to illustrate the steps.

1. Select **2 Installation → 2.1 Protocol to Port Assignment**.

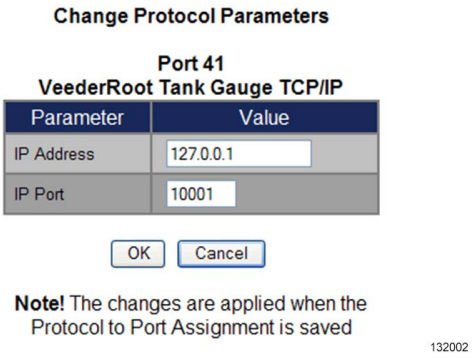
   The **Protocol to Port Assignment** page appears.



132004

2. Go to the port and protocol that you want to set and click **Change**.

   The **Change Protocol Parameters** table appears. The example below shows a tank gauge protocol that uses TCP/IP on Port 41.



132002

3. Select the parameter fields and type in the correct values.

   Note: All values must also be aligned with the local parameters. For example an IP address must match its local subnet.

4. When all the values are correct, click **OK**.

Note: If you typed in a value that is outside the permitted range, a message indicating the valid range appears. You must correct the value(s).

The **Protocol to Port Assignment** window appears.

Note: The parameter changes are not applied until the next steps.

5. In the **Protocol to Port Assignment** window verify that all the values are correct before you continue to the next step.
6. In the **Protocol to Port Assignment** window click **Save Changes** to apply the changes.

   Note: If you do not wish to apply the changes, click **Discard Changes**.
7. In the confirmation window, click **OK**.

   The changes are saved and the PSS 5000 is Master Reset.

5.1.3 Limitations

List of areas with limitations

Not all protocol to port assignments are possible. There can be a number of reasons why an assignment is not possible. The user interface, which is built to prevent the user from making illegal assignments, reduces the selectable options (reduced drop-down lists on the web service). Some of the limitations are explained in the table below:

Note: All TCP/IP protocols are fixed.

Protocols	Explanation
Protocols regarding DMB	Some protocols do not support addressable devices. To overcome this limitation a multiplexed port must be used.
IFSF protocols	Generally, IFSF protocols run on PSS 5000 Port 31 (LON). However, some variants run on Port 41 (TCP/IP).
Single instance protocols	Some protocols cannot be assigned to more than one port (for example, a log printer protocol).
Special protocols	Some protocols need special UART features. For example: • Gilbarco pump (5787 baud) • Satam 008 pump (900 baud) • Scheidt & Bachmann T02 pump • MKS ER 3/2 pump Due to PSS 5000 hardware limitations, it is not possible to run 2 of the protocols listed above on a PSS port pair that share UART hardware. The port pairs are: • port 13 + 21 • port 14 +22 • port 15 +23 For example, if one of the protocols listed above is assigned to port 13, you will not be able to assign any of the protocols listed to port 21.
Point to Point	PPP connections are only available on the DMB ports. And only one DMB port can be configured to use PPP.

5.2 Date and Time (Menu 2.2)

Description of Date and Time menu

The PSS 5000 has it's own Real Time Clock (RTC), which is used to time stamp various events. The RTC setting can be changed via the Web, the Local Service Panel and in some applications via the POS Protocol.

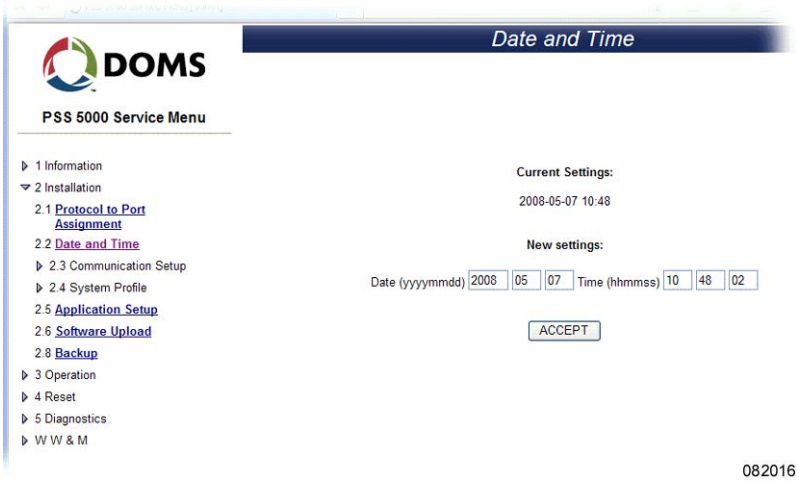
Note: The functionality to change the date and time from the LSP is not available for systems with PSS Applications that have the Software Block: **Service Menu System** version **7.81** or later (released on 08-01-2020).

To view/change the date and time with web service pages

This procedure describes how to use the Service Menu in the web browser to view/change the date and time values in the PSS 5000.

1. Select **2 Installation** → **2.2 Date and Time**.

   The **Date and Time** page appears.



2. Select the **Date (yyyymmdd)** and/or **Time (hhmmss)** fields and type in the correct values.
3. Click **ACCEPT** to apply the changes.

   A message that confirms that the date and/or time has been changed appears.

To view/change the date and time with local service panel

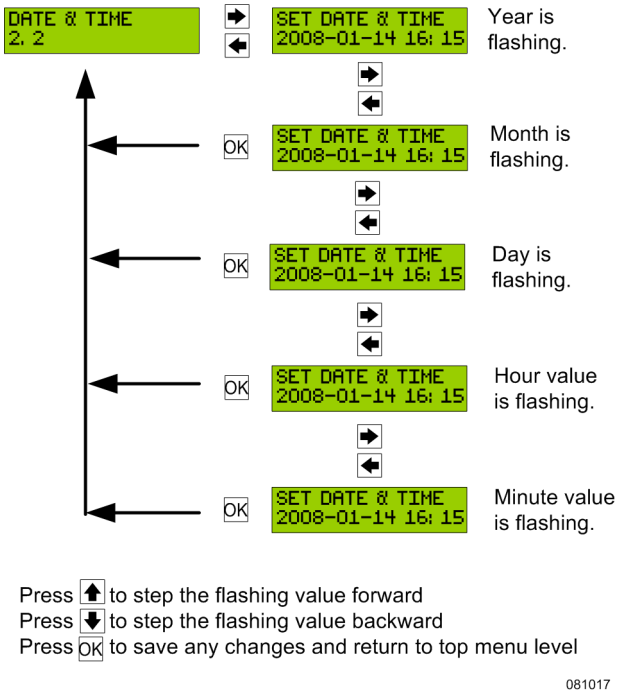
This procedure describes how to use the Local Service Panel to view/change the date and time values in the PSS 5000.

Important: The functionality to change the date and time here is not available for systems with PSS Applications that have the Software Block: **Service Menu System** version **7.81** or later (released on 08-01-2020).

1. Press ↑ to move to the **INFORMATION 1** menu.

2. Press ↓, →, ↓ to move to the **DATE & TIME 2.2** menu.

3. Press the buttons in the sequence shown below to move to the sub-menus and view/change the date and time values in the PSS 5000.



5.3 Communication Setup (Menu 2.3)

Overview of Communication Setup menu

The **Configuration Setup** menu is divided in to the following sub-menus:

- ‘5.3.1 TCP/IP Setup (Menu 2.3.1)’ on page 44
- ‘5.3.2 Service Port Setup (Menu 2.3.2)’ on page 47
- ‘5.3.3 Datalink Timeout for Serial Driver (Menu 2.3.3)’ on page 48
- ‘5.3.4 Service Port Protocol (Menu 2.3.4)’ on page 49
- ‘5.3.5 Menu 2.3.5 – Reserved for Future Use’ on page 50
- ‘5.3.6 Dialup Setup/Test (Menu 2.3.6)’ on page 50
- ‘5.3.7 Online/Offline Event Time (Menu 2.3.7)’ on page 51

5.3.1 TCP/IP Setup (Menu 2.3.1)

Description of TCP/IP Setup menu

Configuration of the TCP/IP parameters must be done in accordance with the IP address plan for the location. In order to avoid conflicts with other network devices, consult your network administrator regarding this subject. The TCP/IP parameters listed in the table below must be assigned before communication is possible.

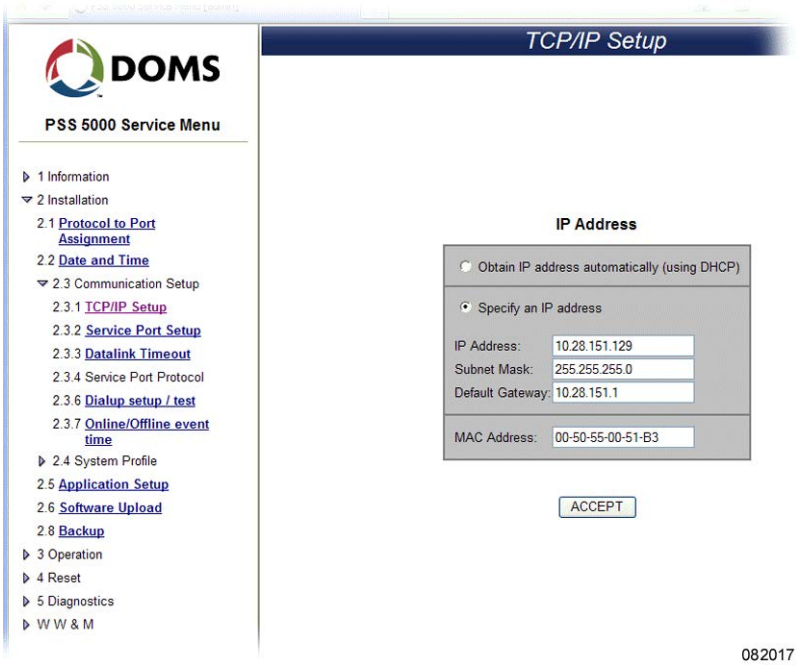
Parameters	Explanation
IP address	The IP address can be assigned in one of 2 ways: • Automatically – from a DHCP server. These are not fixed IP addresses. They are leased from the server. If the lease runs out, or isn't renewed periodically, then the IP address of the device may change. • Manually – this is a fixed IP address assigned to a device and has a standard dot notation, for example 192.10.172.2. If a manual IP address is not supplied, then a default IP address is given. This is 10.10.10.100. This default address is within the "private network" ranges and does not conflict with public Internet IP addresses.
Subnet mask	Using a subnet mask increases the routing efficiency of the network. A subnet keeps the information within the designated subnet mask and reduces traffic over the entire network. The subnet mask has a standard dot notation, for example: 255.255.255.0
Default Gateway	This provides routing between subnets or networks. Enter the IP address in a standard dot notation. The factory setting for the default gateway is 10.10.10.1, which is not in conflict with the factory setting for the PSS 5000 CPU boards
MAC address	Is the fixed physical address for each Ethernet Module

To view/change the TCP/IP setup with web service pages

This procedure describes how to use the Service Menu in the web browser to view/change the values for the TCP/IP setup parameters in the PSS 5000.

1. Select **2 Installation** → **2.3 Communication Setup** → **2.3.1 TCP/IP Setup**.

   The **TCP/IP Setup** page appears.



2. Do one of the following:
   - Select **Obtain IP address automatically (using DHCP)**, go to Step 4.
   - Select **Specify an IP address**, go to Step 3.
3. Use the correct naming conventions and notation to type in the required values for:
   - **IP Address**
   - **Subnet Mask**
   - **Default Gateway**
4. In the **MAC Address:** field, view the MAC address for the Ethernet module.
5. Click **ACCEPT** to apply the changes.

After the IP address has been changed, it is necessary to reconnect to the PSS 5000 using the new IP address.

To view/change the TCP/IP setup with local service panel

This procedure describes how to use the Local Service Panel to view/change the values of the TCP/IP setup parameters in the PSS 5000.

1. Press ↑ to move to the **INFORMATION 1** menu.

2. Press ↓, →, ↓, ↓, → to move to the **TCP/IP SETUP 2.3.1** menu.

3. Press the buttons in the sequence shown below to move to the sub-menus and view/change the IP address in the PSS 5000.

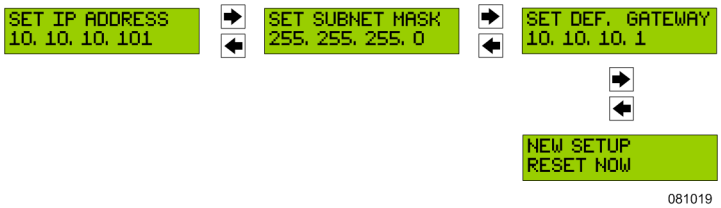
081018

Note: The current DHCP setting is flashing.

4. In the **Use DHCP?** sub-menu, use the ↓ and ↑ buttons to toggle between **NO** and **YES**.
5. Press **OK** to save the change.

- If you selected **USE DHCP? YES**, go to Step 8.
- If you selected **USE DHCP? NO**, go to Step 6.

6. Press → to move to the **SET IP ADDRESS** sub-menu.
7. Use the ↓ and ↑ buttons change the value that is flashing. Use → and ← to move forward to the next or backwards to the previous values, respectively.



081019

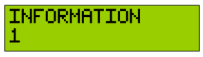
8. Press **OK** when the **NEW SETUP RESET NOW** sub-menu appears.

   The changes to the parameter values are implemented.

To view the MAC address of the Ethernet module with local service panel

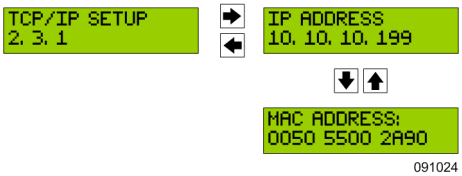
This procedure describes how to use the Local Service Panel to view the MAC address of the Ethernet module in the PSS 5000.

1. Press ↑ to move to the **INFORMATION 1** menu.



081055

2. Press ↓, →, ↓, ↓, → to move to the **TCP/IP SETUP 2.3.1** menu.
3. Press the buttons in the sequence shown below to move to the sub-menus and view the MAC address of the Ethernet module in the PSS 5000.



091024

5.3.2 Service Port Setup (Menu 2.3.2)

Description of service port setup

The **Service Port Setup** menu enables you to set up the communication parameters for the Service Port present on the CPU board. The Service Port is a serial interface port, and the following parameters must be defined:

Parameter	Values
Baud rate	900, 19200, 38400, 57600, 115200
PPP device	modem, NULL modem

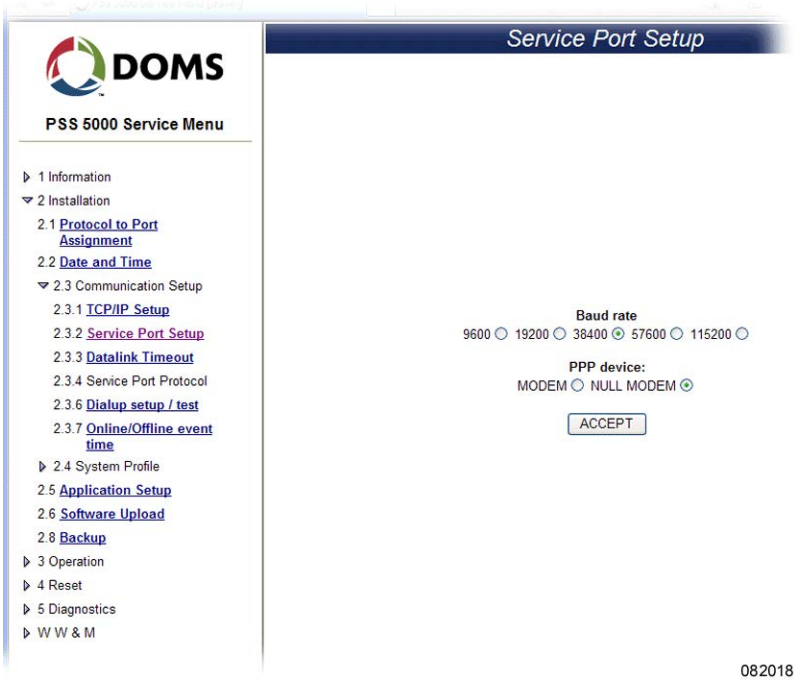
Note: The values underlined are the default values.

To view/change the Service Port setup with web service pages

This procedure describes how to use the Service Menu in the web browser to view/change the values for the Service Port Setup in the PSS 5000.

1. Select **2 Installation → 2.3 Communication Setup → 2.3.2 Service Port Setup**.

   The **Service Port Setup** page appears.



2. Select the Baud rate value that matches your system.
3. Select the PPP device value that matches your system.

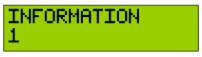
   Note: If Modem is selected, it is necessary to set up the external modem to communicate with the port. In addition to this, the Service port is only able to receive calls, therefore it is not possible to dial out using this port.

4. Click **ACCEPT** to apply the changes.

To view/change the Service Port Setup with local service panel

This procedure describes how to use the Local Service Panel to view/change the values of the Service Port Setup in the PSS 5000.

1. Press ↑ to move to the **INFORMATION 1** menu.



081055

2. Press ↓, →, ↓, ↓, →, ↓ to move to the **SVCPORT SETUP 2.3.2** menu.
3. Press the buttons in the sequence shown below to move to the sub-menus and view/change the baud rate and the PPP device values in the PSS 5000.

081020

Note: The current setting is flashing in each of the sub-menus.

4. Use the ↓ and ↑ buttons to change the value of the current setting, which is flashing.
5. To change the settings in the other sub-menus, repeat steps 3. and 4.
6. Press **OK**.

   The **NEW SETUP RESET NOW** sub-menu appears
7. Press **OK** to apply the changes to the parameters.

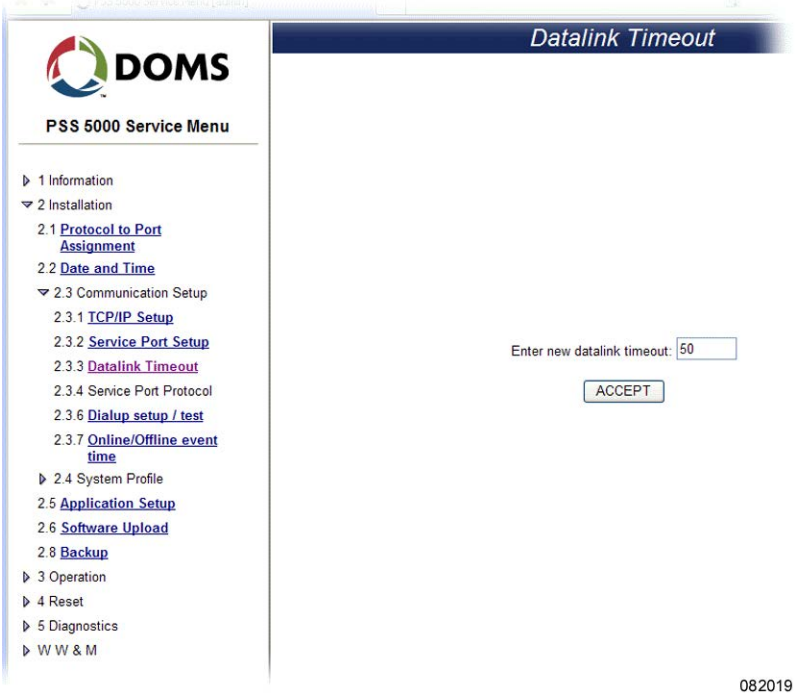
5.3.3 Datalink Timeout for Serial Driver (Menu 2.3.3)

To view/change the Datalink Timeout with web service pages

This procedure describes how to use the Service Menu in the web browser to view/change the values for the Datalink Timeout of the serial driver in the PSS 5000.

1. Select **2 Installation → 2.3 Communication Setup → 2.3.3 Datalink Timeout**.

   The **Datalink Timeout** page appears.



082019

2. In the **Enter new datalink timeout:** field type in the new value (in milliseconds) for the timeout.

   Note: The permitted range is: 50, 51, 52, ..., 998, 999, 1000

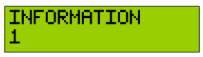
3. Click **ACCEPT** to save the changes.

   The new value is effective after the board is reset.

To view/change the Datalink Timeout with local service panel

This procedure describes how to use the Local Service Panel to view/change the values of the Datalink Timeout for the serial driver in the PSS 5000.

1. Press ↑ to move to the **INFORMATION 1** menu.



081055

2. Press ↓, →, ↓, ↓, →, ↓, ↓ to move to the **DL TIMEOUT 2.3.3** menu.
3. Press the buttons in the sequence shown below to move to the sub-menu and view/change the datalink timeout value in the PSS 5000.

081021

   Note: The current setting is flashing in the sub-menu.

4. Use the ↓ and ↑ buttons to change the value of the current setting, which is flashing.

   Note: The permitted range is: 50, 51, 52, ..., 998, 999, 1000

5. Press **OK**.

   The **NEW SETUP RESET NOW** sub-menu appears

6. Press **OK** to apply the changes to the parameters.

5.3.4 Service Port Protocol (Menu 2.3.4)

Description of service port protocol

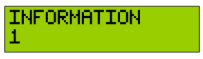
The Service Port Protocol menu enables you to set the protocol used on the service port of the CPU board.

Note: This menu item is only available via the local service panel.

To view/change the Service Port Protocol with local service panel

This procedure describes how to use the Local Service Panel to view/change the value of the Service Port Protocol in the PSS 5000.

1. Press ↑ to move to the **INFORMATION 1** menu.



081055

2. Press ↓, →, ↓, ↓, →, ↓, ↓, ↓ to move to the **SVCPORT PROTOCOL 2.3.4** menu.
3. Press the buttons in the sequence shown below to move to the sub-menu and view/change the datalink timeout value in the PSS 5000.

081093

4. Press **OK** to assign the named protocol.

   The **NEW SETUP RESET NOW** sub-menu appears

5. Press **OK** to apply the changes to the parameters.

5.3.5 Menu 2.3.5 – Reserved for Future Use

Reserved

This menu item is reserved for future use.

5.3.6 Dialup Setup/Test (Menu 2.3.6)

Description of Dialup Setup/Test

The **Dialup Setup/Test** menu enables you to set up the communication parameters for a modem connected to one of the DMB ports in the PSS 5000. Before the dialup connection can work, the following parameters must be defined:

Parameter	Values
Baud rate	900, 19200, 38400, 57600, 115200
PPP device	modem, NULL modem
Modem init string*	Standard AT commands required to initialize modem. String = max. 64 characters
Modem dial string*	Telephone number for outgoing calls. String = max. 32 characters.
User name*	Log on user name required by destination. Maximum of 20 characters allowed.
Password*	Log on password required for user name at destination. Maximum of 20 characters allowed.
*: These parameters are only required when it is necessary to dial out from the PSS 5000. They are not required when null-modem is selected.	

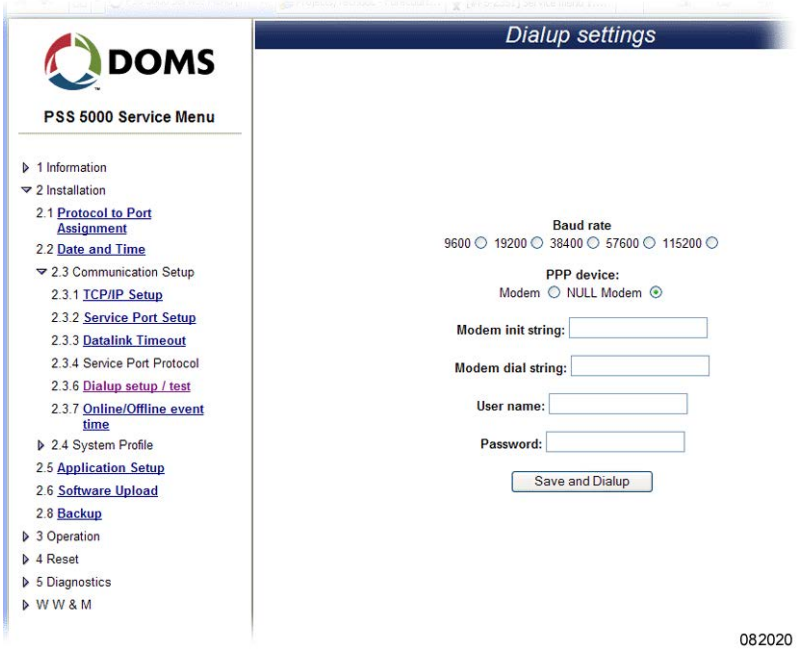
To view/change Dialup Setup/Test with web service pages

This procedure describes how to use the Service Menu in the web browser to view/change the values for the dialup settings in the PSS 5000.

Note: Before these settings are valid, one of the DMB ports in the PSS 5000 must be configured to use the Point to Point Protocol (PPP). See '5.1 Protocol to Port Assignment (Menu 2.1)' on page 36.

1. Select **2 Installation → 2.3 Communication Setup → 2.3.6 Dialup Setup/Test**.

   The **Dialup Settings** page appears.



2. Select the Baud rate value that matches your system.
3. Select the PPP device value that matches your system.
4. In the **Modem init string:** field, type in a string of text that initiates the modem.
5. In the **Modem dial string:** field, type in the telephone number that you want to dial.
6. In the **User name:** field, type in the user name you want to use to access the PSS 5000.
7. In the **Password:** field, type in the correct password for the given user name.
8. Click **Save and Dialup**.

   The new dialup settings are saved, and the modem tests them by connecting to the destination number.

5.3.7 Online/Offline Event Time (Menu 2.3.7)

Description of Online/Offline Event Timer

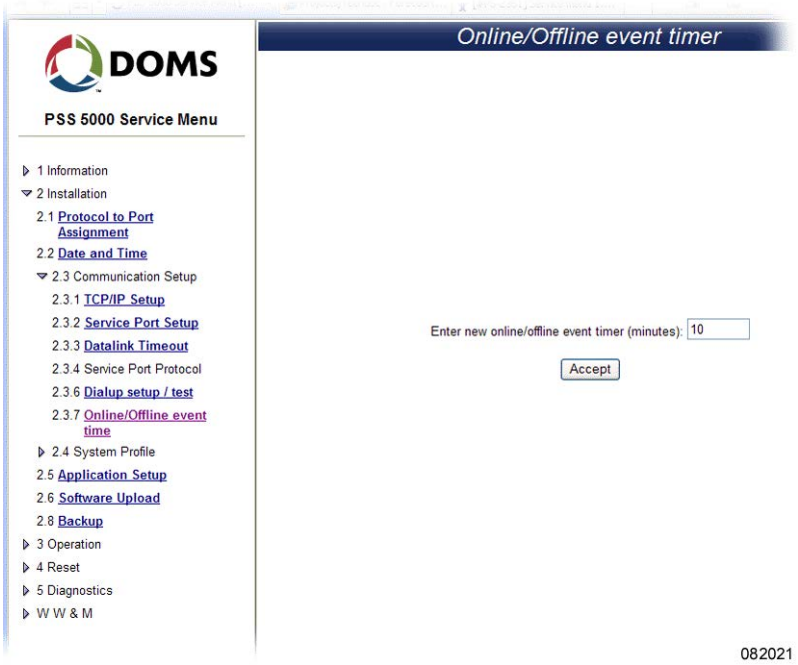
The online/offline event timer is a filter, which reduces the number of online/offline events displayed. Only those online/offline events that exceed the time period (specified in the **Online/Offline Event Timer** page) are displayed.

To view/change the Online/Offline Event Time with web service pages

This procedure describes how to use the Service Menu in the web browser to view/change the values for the Online/Offline Event Timer in the PSS 5000.

1. Select **2 Installation → 2.3 Communication Setup → 2.3.7 Online/Offline Event Time**.

   The **Online/Offline Event Timer** page appears.



2. In the **Enter new online/offline event timer (minutes):** field type in the new value (in minutes) for the timeout.

   The permitted range is: 0, 1, 2, ..., 10, ... 99999 minutes.

   Note: 0 minutes means the timer is disabled.

3. Click **ACCEPT** to save the changes.

   The new value will be effective after the board is reset.

5.4 System Profile (Menu 2.4)

Overview of System Profile menu

The **System Profile** menu is divided in to the following sub-menus:

- '5.4.1 Password (Menu 2.4.1)' on page 52
- '5.4.2 Name and Number (Menu 2.4.2)' on page 56
- '5.4.3 POS Password (Menu 2.4.3)' on page 56
- '5.4.4 Web Preferences (Menu 2.4.4)' on page 57

5.4.1 Password (Menu 2.4.1)

Description of user access rights

The PSS 5000 Service Menus web interface is protected by user/password authentication. The following table shows which access rights the users have:

Note: When a Super Master Reset takes place on the PSS 5000, all the passwords are reset to their default settings.

User	Description
admin	This is used by the PSS system administrator and has all privileges: • Read everything • Change all settings • Perform Reset, Master Reset and Super Master Reset • Upload software • Change passwords for other users
host	This is used by host applications (e.g. Doms Site Info) to access the PSS 5000 (read & write) via Doms Host Protocol.
service	This provides the privileges needed by service technicians: • Read everything • Start embedded peeper to create traces • Perform Reset, Master Reset and Super Master Reset
manager	This provides Read only access to all information and access to change Prices.
guest	This provides Read only access to all information.
vrc	This is used by Vapor Recovery System administrators. This user name is only supported in applications, where Vapor Recovery Controller functionality runs on the PSS 5000.
POS	This is used by POS applications via the Doms POS Protocol. POS users are able to lock and clear transactions.

Passwords can only be changed by the **admin** user, and all fixed passwords must have 3 – 16 characters. Passwords may consist of lower case letters, upper case letters and digits only.

On a clean CPU board without any LAM, only the **admin** user is accepted.

All users can also have a dynamic password of the day. This can be obtained from the system administrator.

Note: 3 incorrect password attempts will block access for one minute. Hereafter, only one attempt is accepted per minute until a successfully log on with a correct password is achieved.

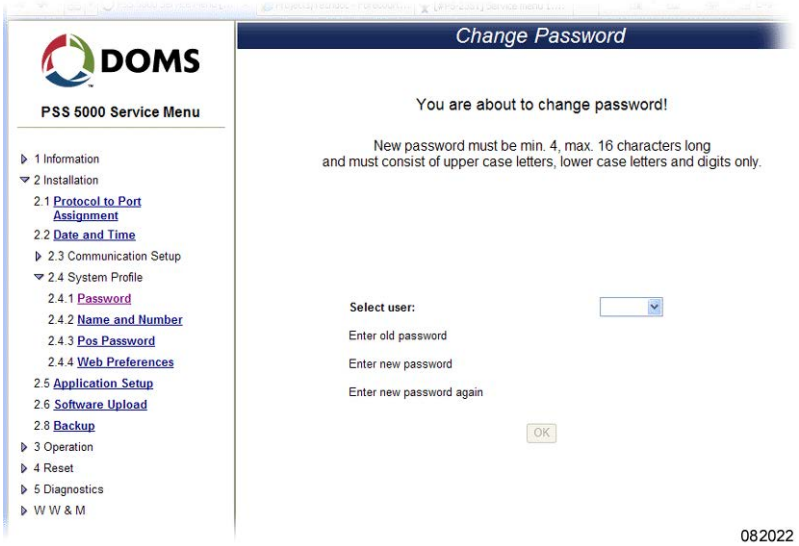
To change the user password with web service pages

This procedure describes how to use the Service Menu in the web browser to change the user password for the PSS 5000.

Note: This procedure describes what is available when an **admin** user is logged on.

1. Select **2 Installation → 2.4 System Profile → 2.4.1 Password**.

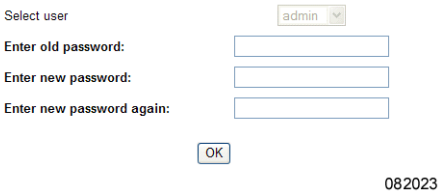
   The **Change Password** page appears.



2. Open the **Select user** drop-down list and select the user that needs the password changed.

   When you select a user, the following fields become active:

   - **Enter old password:** – this field is only active when the admin user is changing the admin password.
   - **Enter new password:**
   - **Enter new password again:**



3. For the **admin** password only – in the **Enter old password:** field type in the current password for the selected user.
4. In the **Enter new password:** field type in the new password for the user.

   Note: The password must have 3 – 16 characters and must not contain any special characters.

5. In the **Enter new password again:** field, re-type the password given in Step 4.
6. Click **OK** to save the changes.

   A message appears which confirms that the password was changed and tells you to log off and reconnect to the PSS 5000.

Emergency access to the PSS 5000

In case passwords are forgotten it is possible to gain access in two different ways:

- 'To use Doms password for a day' on page 55
- 'To use the default user password with local service panel' on page 55

These methods make it possible to restore the fixed passwords to the wanted values, or to give temporary system access to a person on the site.

To use Doms password for a day

The **doms** user has the same privileges as the **admin** user but uses a special dynamic "Doms password of the day". This password has 4 HEX characters (0–9, A–F) and can be obtained by contacting Doms Support.

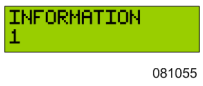
The PSS 5000 has a password validation routine in the Legal Authority Module with fixed user_id/password combinations.

To use the default user password with local service panel

All original user default passwords can be re-enabled temporarily from the Local Service Panel. This enables a technician, who has access to an open box, to always get access to the system. Protection of the physical access to the room or the box itself is outside the scope of this documentation. The box can be behind a locked door or the box can be locked. The default passwords will be active until disabled manually again from the Local Service Panel or until the end of the current day. This procedure describes how to use the Local Service Panel to select the default user password of the PSS 5000.

Important: This functionality is not available here for systems with PSS Applications that have the Software Block: **Service Menu System** version **7.81** or later (released on 08-01-2020).

1. Press ⬆ to move to the **INFORMATION 1** menu.



081055

2. Press ⬇, ➡, ⬇, ⬇, ⬇, ➡ to move to the **DEFAULT PASSWORD 2.4.1** menu.
3. Press ➡ to move to the **ENABLE D.PASSW?** menu.

081022

4. Use the ⬇ and ⬆ buttons to toggle between **YES** and **NO**.
5. Select **YES** and press **OK** to make the changes.

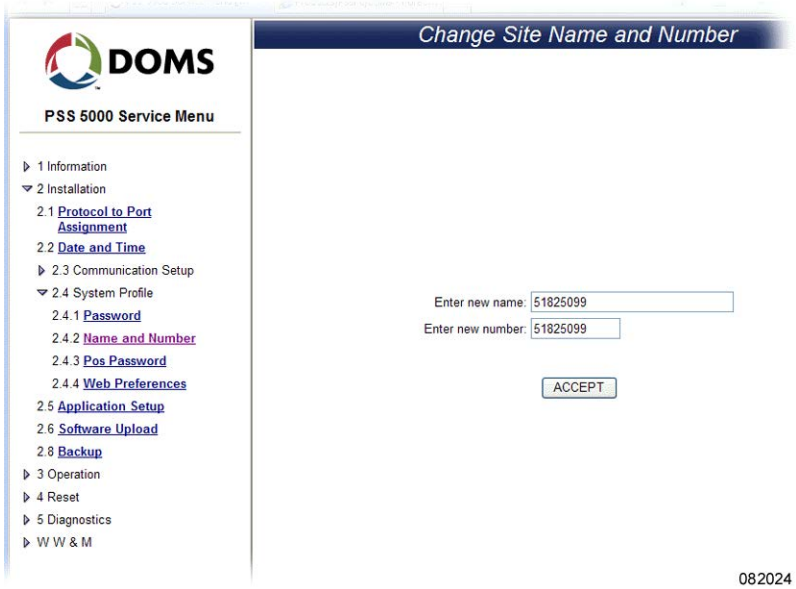
5.4.2 Name and Number (Menu 2.4.2)

To change the system name and number

This procedure describes how to use the Service Menu in the web browser to change the system name and number for the PSS 5000.

1. Select **2 Installation → 2.4 System Profile → 2.4.2 Name and Number**.

   The **Change Site Name and Number** page appears.



2. In the **Enter new name:** field type in a name or number that makes it easy identify the site to which you are connected.

   The site name can have up to 60 characters.

3. In the **Enter new number:** field type in a number for the site.

   The site number can have up to 20 characters.

4. Click **ACCEPT** to save the name and/or number changes.

5.4.3 POS Password (Menu 2.4.3)

Description of POS Password menu

Using a configurable POS password prevents any unauthorized handling of fuelling transactions. Only an authorized POS system that knows and uses the correct POS password can lock and clear transactions.

If the current POS password is different from the default password (which is **POS**), only POS connections that use the configured POS password can authorize fuelling points, as well as lock and clear transactions. POS connections that use the default POS password are still accepted, but cannot be used to handle transactions.

To change password for POS users with web service pages

Use the procedure 'To change the user password with web service pages' on page 53 and select the POS user.

5.4.4 Web Preferences (Menu 2.4.4)

Description of web preferences

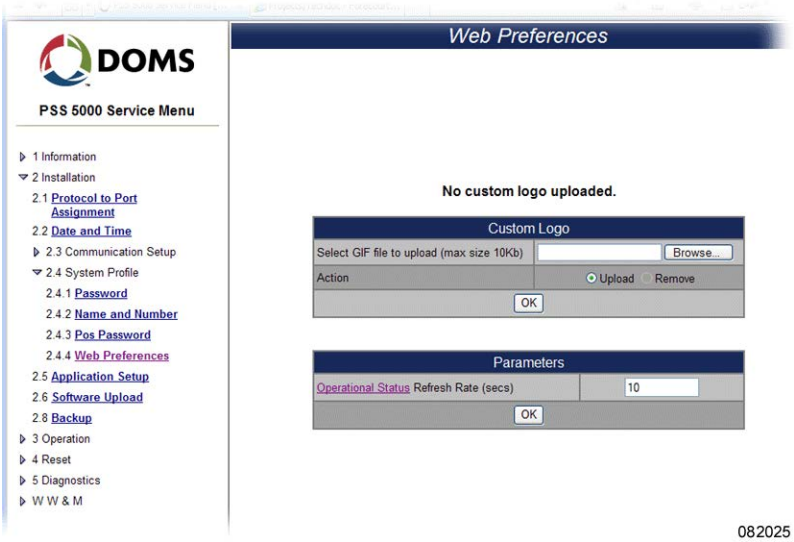
This menu enables you to make some minor changes to the appearance of the web pages. You can include your own logo or graphic in the top left-hand corner of the service menu pages, and you can change the rate by which information in the Operational Status web pages is updated from the PSS 5000.

To change the web preferences

This procedure describes how to use the Service Menu in the web browser to change the appearance of the web pages and the rate by which information is updated from the PSS 5000.

1. Select **2 Installation** → **2.4 System Profile** → **2.4.4 Web Preferences**.

   The **Web Preferences** page appears.



2. To insert a logo/graphic in the top left-hand corner of the web page, click **Browse** in the **Custom Logo** group.

   The **Choose file** window appears.

3. In the **Choose file** window, locate the graphic file you want to include in the web page.

4. Click **Open** to include the path to the graphic file in the field next to the Browse button.

5. Do one of the following:

   - If you want to change the refresh rate parameters, go to Step 6.
   - If you want to include the new logo/graphic now, go to Step 7.

6. In the **Parameters** group, type in the new refresh rate (in seconds).

7. Click **OK** to save and implement the changes.

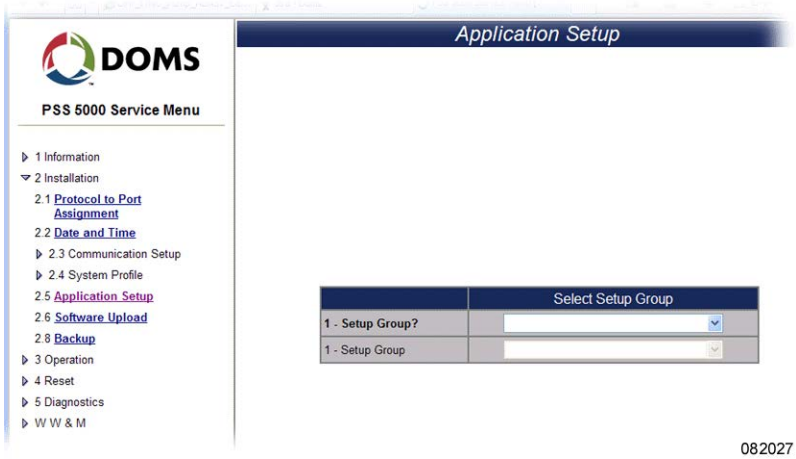
5.5 Application Setup (Menu 2.5)

To set/change the application setup

During installation, various application dependent functions might be configurable using the **Application Setup** menu – the specific applications determine what is actually configurable.

1. Select **2 Installation → 2.5 Application Software**.

   The **Application Setup** page appears.



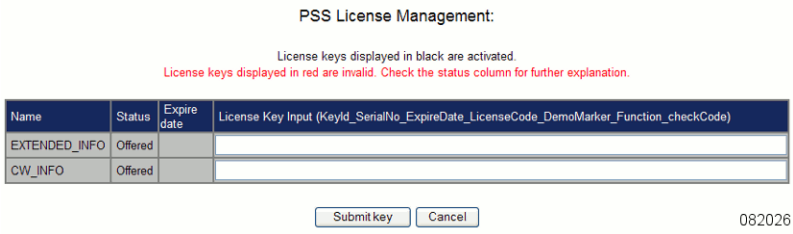
2. In the **Select Setup Group** table, open the **Setup Group?** drop-down list.
3. Select one of the following:
   - **Forecourt Control Setup**. To continue go to 'To set/change the Forecourt Control Setup' on page 58.
   - **Protocol Specific Setup**. To continue go to 'To set/change the Protocol Specific Setup' on page 59.

When you have completed the steps in the procedures above you will be returned to the **PSS 5000 Service Menus**.

To set/change the Forecourt Control Setup

Use this procedure when you have selected the **Forecourt Control Setup** option in the **Application Setup** menu.

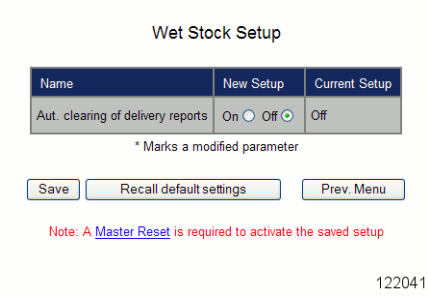
1. In the **Forecourt Application** drop-down list, select one of the following:
   - **PSS License Management**, go to Step 2.
   - **Wet Stock Setup**, go to Step 4.
   - **Totals Setup**, go to Step 6.
   - **Local Service Panel Setup**, go to Step 7.
2. In the **PSS License Management** page, type the License Key for the selected application.



3. Click **Submit key**.

   To continue using the **PSS 5000 Service Menus**, select a new menu option.

4. In the **Wet Stock Setup** page, select the required **New Setup** radio button.

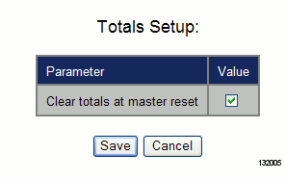


Note: **On** should be selected if delivery information is required but the system does not contain a POS that is capable of clearing the delivery report.

5. Click one of the following.
   - **Save**
   - **Recall default settings**
   - **Prev. Menu**

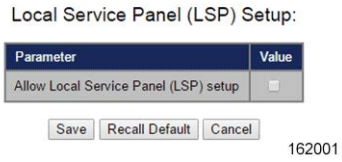
   To continue using the **PSS 5000 Service Menus**, select a new menu option.

6. In the **Totals Setup** page, use the **Clear totals at master reset** option to specify if totals must be retained or removed during a PSS Master Reset:



   - Select the check box to clear totals during a PSS Master Reset (default setting).
   - Clear the check box to keep totals after a PSS Master Reset.

7. In the **Local Service Panel (LSP) Setup** page, use the **Allow Local Service Panel (LSP) setup** check box to allow/prevent changes being made to the following parameters via the LSP.
   - Date & Time (Real Time clock)
   - Prices (in selected Applications)



   By default the check box is selected.

8. Click **Save**.

   To continue using the **PSS 5000 Service Menus**, select a new menu option.

To set/change the Protocol Specific Setup

Use this procedure when you have selected the **Protocol Specific Setup** option in the **Application Setup** menu.

1. In the **Protocol?** drop-down list, select the protocol that is to be configured.
2. In the page that appears, type in the specific configuration parameters and click **OK**.
3. Select a menu option to continue using the **PSS 5000 Service Menu**.

5.6 Software Upload (Menu 2.6)

Description of the Software Upload menu

Software upload is done by uploading a file via FTP and/or by using the Web interface (PSS program dependent).

An upload will clear the old program from the system, so normal operation is interrupted during a program change. A program change automatically results in a Master Reset of the system. Software uploads can be performed from a remote location, but not before someone has set the system in a mode where it is permitted to load software.

Setting the PSS 5000 to accept software uploads is enabled using either the web service pages or the local service panel.

Software upload methods

Several methods to upload software are available:

Interface	Description
Old web service menus	Software upload followed by an FTP upload program session.
New web service menus	Software upload followed by an FTP upload program session.
	Software upload followed by a Web applet based upload program session.
Local service panel	Software upload followed by an FTP upload program session.
FTP	Software upload by uploading file *ok2load.txt* followed by an FTP program upload session.

Important information about BOOT and LAM software

For the PSS 5000 system, two series of program combinations exist (BOOT, LAM and Application). Combinations other than those shown in the table below are incompatible. The following conditions must be fulfilled:

Application Version	Condition
All versions before 1.00	Must use: • BOOT program from the 400-02 series • LAM version lower than 1.00
Version 1.00 or higher	Must use: • BOOT program from the 499-03 series • LAM version 1.00 or higher

Read the Software Release Document for the Application Program to see which BOOT and LAM versions are required.

If you are not sure which software versions are currently installed in the PSS 5000, see '4.1 Program Versions (Menu 1.1)' on page 30.

If the current versions are not correct, change the software in the following order: BOOT, LAM and/or APPLICATION. Use either of the following procedures to do this:

- 'To upload software with the web service menus' on page 61, or
- 'To upload software using FTP' on page 64

Special case

If you are using Application Software 411-41, then you may require more information when upgrading or downgrading, see [7].

Warning!

If the BOOT upload (which is loaded with the BOOT Exchange Program) is interrupted before it is complete, the CPB509 is left without a boot program and cannot be used – it must be returned to Doms.

To upload software with the web service menus

This procedure describes how to use the Service Menu in the web browser to upload software to the PSS 5000.

Note: Before you start this procedure, read 'Important information about BOOT and LAM software' on page 61.

1. Select **2 Installation → 2.6 Software Upload**.

   The **Software Upload** page appears.

   Note: A message warns you that you are about to change the permission to upload software.

2. Select **Yes, allow software upload**, and do one of the following:

   - If you are using a new web service menu, select either **Upload later** (to upload via FTP) or **Upload now** (to upload via an embedded Java applet) and go to Step 3.
   - If you are using the old web service menu, go to Step 4.

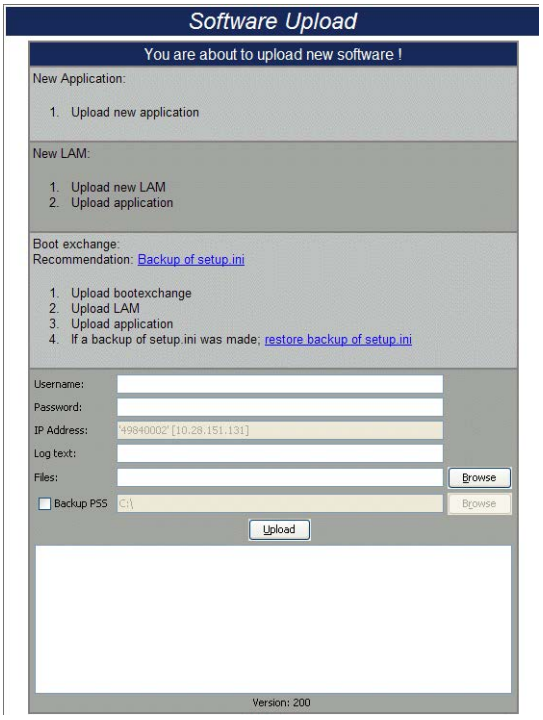
3. Do one of the following:
   - If you selected **Upload later** or **Upload now** in Step 2, open the **Upload Start Timeout** drop-down list and select the timer value. The upload must be started within the time selected or an upload timeout occurs. Possible timeout values are: **3 minutes**, **30 minutes**, **3 hours**, **8 hours** and **24 hours**.
   - If you are using the old web service menu, continue to the next step.
4. Click **Accept**.
   - If you are using an old web service menu or you selected **Upload later**, then a message appears that tells you that the upload is possible until the time shown.

     Upload allowed until
     2008-05-14 09:45:06

     082029

     Use a standard FTP procedure to upload the software file, see 'To upload software using FTP' on page 64, and go to Step 7.
   - If you selected **Upload now**, a new page appears that tells you that you are about to upload software.

     Note: Depending on the Java version installed, you may be required to log in again



5. Type in the correct information for the following fields:
   - **User name** – PSS 5000 user name
   - **Password** – password for PSS 5000 user name
   - **Log text** – additional text to help identify the upload
   - **Files** – location and file name of software you want to upload
   - **Backup PSS** – (optional) specify a location for the backup of the current LAM and Application files
6. Click **Upload**.

   Caution: Do not close the web page until after the upload is finished. If the Java applet is closed, then it may be necessary to upload using FTP.

   A status of the software upload appears in the information field. When the upload is finished, this is shown in the status information.
7. To verify that the software was uploaded correctly, use the **Program Versions** menu.

To allow software uploads with local service panel

This procedure describes how to allow software to be uploaded to the PSS 5000 using the local service panel.

Important: The functionality to allow software to be uploaded here is not available for systems with PSS Applications that have the Software Block: **Service Menu System** version **7.81** or later (released on 08-01-2020).

Note: Before you start this procedure, read 'Important information about BOOT and LAM software' on page 61.

1. Press ⬆ to move to the **INFORMATION 1** menu.

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2. Press ⬇, ➡, ⬇, ⬇, ⬇, ⬇, ⬇ to move to the **SOFTWARE UPLOAD 2.6** menu.
3. Press ➡ to move to the **ALLOW UPLOAD?** menu.

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4. Use ⬇ and ⬆ to toggle between **YES** and **NO**.

   When the **Allow upload** value is **YES**, then it is possible to upload software using FTP, see 'To upload software using FTP' on page 64.

   Note: If you change the Allow upload value to **YES**, then you must reset the PSS 5000 before the software upload can start.
5. Press OK.

   The following file is created: */pss_mem/2/sys/ok2upload.txt*. This file must be present before FTP can be used to upload software. See 'To upload software using FTP' on page 64.

   Note: There is a time limit on the presence of the *ok2upload.txt* file. If too much time passes, an upload timeout occurs and the file is deleted.

It is necessary to repeat the procedure that allows the upload and creates the file.

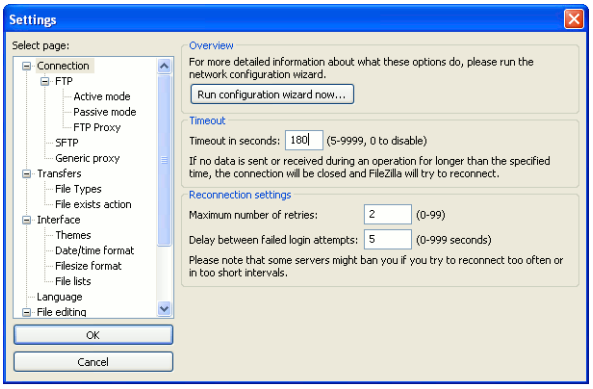
To upload software using FTP

This procedure describes how to use FTP to upload software to the PSS 5000. The commands used in this procedure use FileZilla to illustrate the commands. However, other FTP clients may be used.

Note: When Application files are uploaded, the PSS erases the existing file. As this takes time, it is necessary to set the FTP client's Transfer Timeout setting to ≥ 180 seconds.

Note: Before you start to upload software with FTP, you must make the PSS 5000 ready to accept the software. To do this see 'To upload software with the web service menus' on page 61, or 'To allow software uploads with local service panel' on page 63.

1. Start the FTP client.
2. Check/change the transfer timeout settings. The timeout must be set to ≥ 180 seconds.



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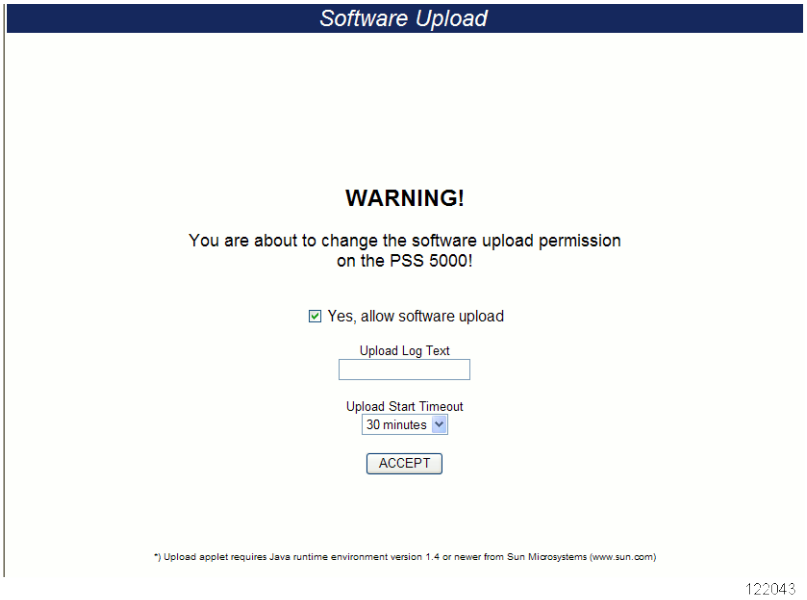
Failure to verify this setting may result in the software upload not being successful.

3. Use the web Service Menu **2.6 Software Upload** to verify that the PSS is

ready to accept the software. The following dialog must appear:



If this dialog does not appear, use menu **4.1 Soft Reset** to reboot the PSS now.

4. Using the FTP client, connect to the PSS 5000 using the following parameters:

   Host: *<PSS IP address>*
   Username: *<administrator user>*
   Password: *<administrator password>*

   Note: If the PSS has not been accessed previously, then the default PSS administrator user credentials can be found in the relevant BOOT (499-xx-y.yy) Software Release Document (SRD).

5. Copy the software **.bin* file to the following location on the PSS 5000:

   pss_mem/1/prg

   Note: If you are uploading more than one bin file, then you must copy the files in the following order: BOOT, LAM, Application.

   When the file is in this directory, the PSS 5000 commences the installation.

6. When all the files have been copied and installed, use the Service Menu 1.1 Program Versions to verify the PSS is using the correct software.

5.7 Peripheral Configuration (Menu 2.7)

To change the setup.ini file using FTP

To overcome limitations in some POS interfaces, a set-up file (*setup.ini* which, for example, contains device pre-configuration) can be uploaded. The *setup.ini* file can be downloaded from and/or uploaded to the PSS 5000 using any FTP client (WP_FTP, CuteFTP) or from a command line using *ftp.exe*.

Note: If a device item is pre-configured in the *setup.ini* file, the specified value is always used. The POS interface controls the remaining items. The POS still needs to send the usual configuration messages.

1. Download the file */pss_mem/2/appl/setup.ini*.
2. Edit the pre-configuration for those devices that need to be pre-configured

in the *setup.ini* file.

3. Upload the modified *setup.ini* file to */pss_mem/2/appl* in the PSS 5000.
4. Perform a Master Reset on the PSS 5000.

   Note: This prepares the PSS 5000 for the new *setup.ini* file, which is not deleted during a Master Reset.
5. Syntax errors in the *setup.ini* file are reported in the file */pss_proc/sys/bel.txt*.

   For more information about parameter descriptions, see the Software Release Document (SRD) for the actual Application Program.

5.7.1 Memory Module (Menu 2.7.1)

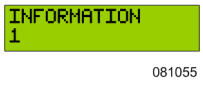
Description of Memory Module menu

From the **Memory Module** menu you can configure the number of memory modules installed in the PSS 5000. This menu is only available using the local service panel.

To configure the number of memory modules with local service panel

The number of memory modules, also known as peripheral devices, can be configured using the local service panel.

1. Press ⬆ to move to the **INFORMATION 1** menu.



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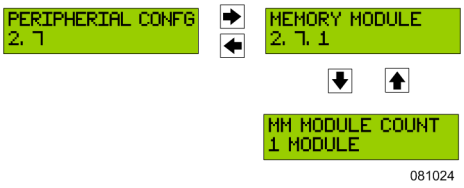
2. Press ⬇, ➡, ⬇, ⬇, ⬇, ⬇, ⬇, ⬇ to move to the **PERIPHERAL CONF 2.7** menu.
3. Press the buttons in the sequence shown to move to sub-menus.



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4. Use ⬇ and ⬆ to select the correct number of modules present.
5. Press **OK**.

   The **NEW SETUP RESET NOW** sub-menu appears
6. Press **OK** to make the changes to the changed parameter values.

To configure the memory modules in the setup.ini file using FTP

This procedure describes how to use the *setup.ini* file to configure the number of memory modules present in the PSS 5000.

Note: The *setup.ini* file can be downloaded from or uploaded to the PSS 5000 using any FTP client (WP_FTP, CuteFTP) or from a command line using *ftp.exe*.

1. Download the */pss_mem/2/appl/setup.ini* file.
2. Open the file with an editor and locate the heading **[Peripherals]**.
3. Find the **PaymentMemoryModuleCount** parameter and change the value to match the actual number of memory modules present in the PSS 5000.

4. Upload the modified *setup.ini* file to */pss_mem/2/appl* in the PSS 5000.
5. Perform a Master Reset on the PSS 5000.

   Note: This prepares the PSS 5000 for the new *setup.ini* file, which is not deleted during a Master Reset.

   Syntax errors in the *setup.ini* file are reported in the file */pss_proc/sys/bel.txt*.

   For more information about parameter descriptions, see the Software Release Document for the actual Application Program.

5.8 Backup (Menu 2.8)

Description of backup menu

The **Backup** menu enables you to safely store a file that contains protocol-to-port assignment, PSS license keys and other setup data configuration information from the PSS 5000.

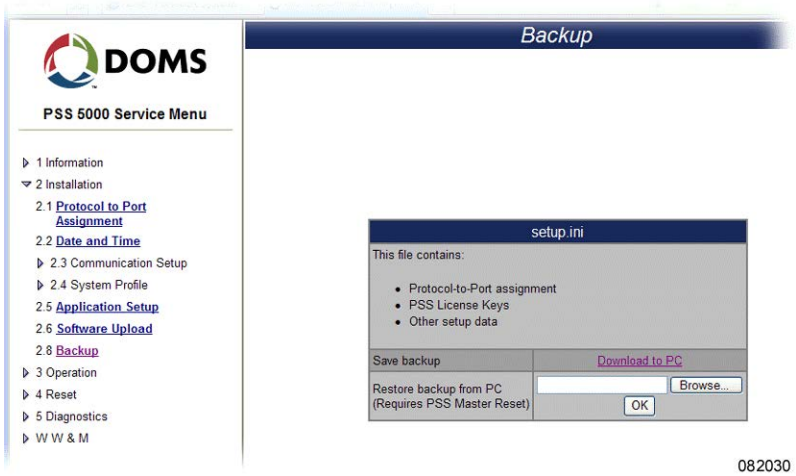
When the backup file is created, it can be stored on a PC. This can then be used to restore the configuration settings after a Super Master Reset, which deletes this information.

To create a backup file

This procedure describes how to use the Service Menu in the web browser to create the *setup.ini* backup file.

1. Select **2 Installation → 2.8 Backup**.

   The **Backup** page appears.



   Note: The backup file is called *setup.ini* and contains the items present in the bullet list shown on screen.

2. Click **Download to PC** to create the *setup.ini* file.

   The **File Download** window appears.

3. Click **Save**.

   The **Save As** window appears.

4. Use standard Windows procedures to select where you want to save the *setup.ini* file and click **Save**.

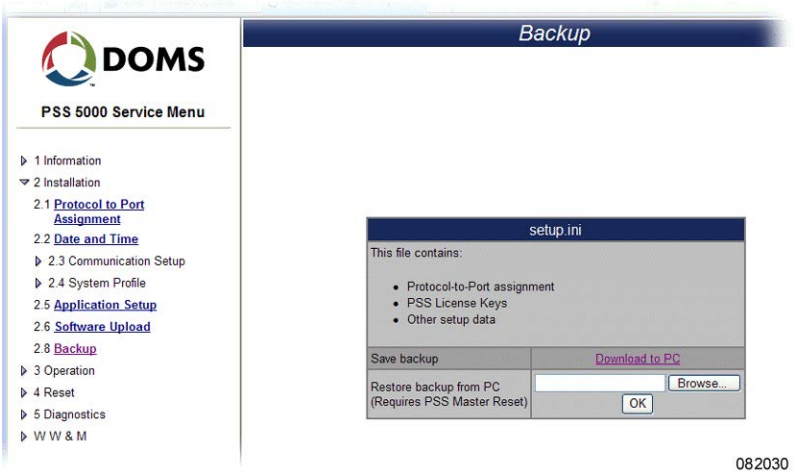
   The file is saved in the defined location.

To restore a backup file to the PSS 5000

This procedure describes how to use the Service Menu in the web browser to restore the *setup.ini* backup file in the PSS 5000.

1. Select **2 Installation** → **2.8 Backup**.

   The **Backup** page appears.



2. Click **Browse** to locate the *setup.ini* file.

   The **Choose file** window appears.

3. Use standard Windows procedures to locate the *setup.ini* file and click **Open**.

   The path to the selected *setup.ini* file appears in the **Restore backup from PC** field.

4. Click **OK**.

   The *setup.ini* file is now copied to */pss_mem/2/appl/* on the PSS 5000.

5. Perform a Master Reset on the PSS 5000 to activate the parameter values in the new *setup.ini* file.

6 Operation (Menu 3)

Overview of Operation menu

The **Operation** menu is divided into the following sub-menus:

6.1 Enter Fallback Mode (Menu 3.1)

Description of fallback mode menu

With the PSS 5000, there is an option to operate in Attendant Fallback Mode. In this mode, the PSS system internally authorizes each pump when a nozzle is lifted and clears transactions without involving any external POS or OPT device.

This is similar to putting all the pumps in manual mode except that it's much easier for the staff as they don't need to re-programme each pump – and it's safer regarding fraud. A connected Tank Gauge System (e.g. TLS-350) still gets information about fuel sales during the fallback period – the Web Operation Status is available, as well as the host interface if that is used.

When the controller is in Fallback Mode, it will calculate 'Fallback Totals', which tell how much is fuelled on each pump during the fallback period.

When the POS is operational again, it can use the Fallback Total information to create EOS / EOD reports (regarding both money and westock), which cover the Fallback period without loss of data.

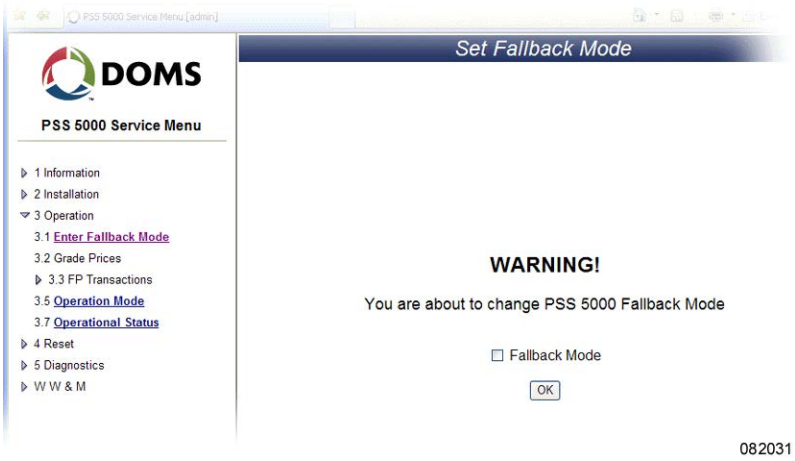
Note: Only an operational POS is able to switch the PSS 5000 from Fallback Mode to a normal operational state again.

To set Fallback Mode with web service pages

This procedure describes how to use the Service Menu in the web browser to select the Fallback Mode.

1. Select **3 Operation → 3.1 Enter Fallback Mode**.

   The **Set Fallback Mode** page appears.



2. Select **Fallback Mode**.
3. Click **OK**.

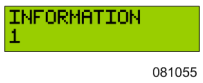
   The PSS 5000 is now in Fallback mode and will remain there until an operational POS forces it back to normal operation.

To set Fallback Mode with local service panel

This procedure describes how to use the Local Service Panel to select the Fallback Mode in the PSS 5000.

Important: This functionality is not available here for systems with PSS Applications that have the Software Block: **Service Menu System** version **7.81** or later (released on 08-01-2020).

1. Press ↑ to move to the **INFORMATION 1** menu.



2. Press ↓, ↓, → to move to the **FALLBACK MODE 3.1** menu.
3. Press the buttons in the sequence shown below to move to the sub-menu and view/change the Fallback mode value.

4. Use the ↓ and ↑ buttons to change between **YES** and **NO**.
5. Press **OK**.

   When **YES** is selected, the system is set in Attendant Fallback Mode and remains in this mode until an operational POS is detected.

   Note: The function will vary depending on the application. Refer to the Software Release Document for details about the actual application.

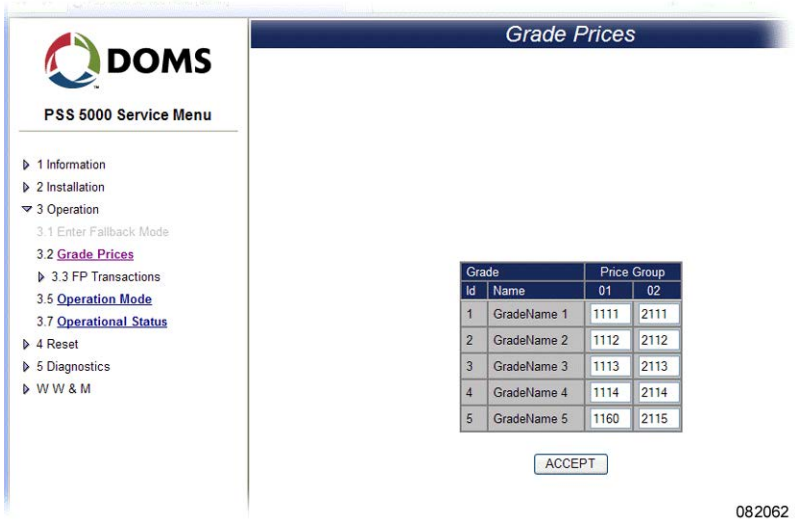
6.2 Grade Prices (Menu 3.2)

To set view/change grade prices with web service pages

This procedure describes how to use the Service Menu in the web browser to view/change the prices for the individual product grades.

1. Select **3 Operation → 3.2 Grade Prices**.

   The **Grade Prices** page appears.



2. Select the grade name and change the price(s) for the price group(s).
3. If the price of more than one grade needs to be changed, repeat Step 2.
4. Click **ACCEPT**.
5. Click **OK** when asked to accept the prices.

   A confirmation that the changes grade prices are accepted appears and then the page returns to the normal **Grade Prices** page, which shows a list of product grades and prices.

To view/change grade prices with local service panel

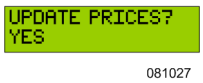
This procedure describes how to use the Local Service Panel to view/change the grade prices in the PSS 5000.

Note: This function is not available for all Application Programs.

1. Press ↑ to move to the **INFORMATION 1** menu.

2. Press ↓, ↓, →, ↓ to move to the **GRADE PRICES 3.2** menu.
3. Press the buttons in the sequence shown below to move to the sub-menus, select the products and view the prices. Use ↑ and ↓ to change the prices.

4. To change the prices for the remaining products, repeat Step 3. When you have changed the price for the last product, you are ready to update the prices.



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5. Press **OK** to set the new prices.

6.3 FP Transactions (Menu 3.3)

Overview of FP Transactions menu

The **FP Transactions** menu is divided in to the following sub-menus:

- '6.3.1 Monitor (Menu 3.3.1)' on page 72
- '6.3.2 Log (Menu 3.3.2)' on page 73

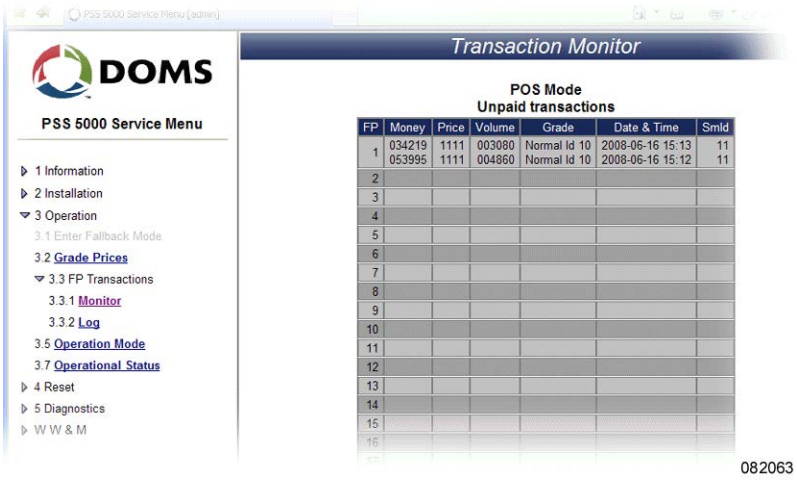
6.3.1 Monitor (Menu 3.3.1)

To monitor transactions

Transactions from each fuelling point can be monitored with the **Transaction Monitor** page.This procedure describes how to use the Service Menu in the web browser to use POS Mode to monitor unpaid transactions.

1. Select **3 Operation** → **3.3 FP Transactions** → **3.3.1 Monitor**.

   The **Transaction Monitor** page appears.



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   Each fuelling point is listed with the details of the latest unpaid transaction.

   Note: **Money**, **Price** and **Volume** values are shown as a number string. Refer to the LAM (see '4.5 LAM (Menu 1.5)' on page 35) to see the correct position of the decimal point for each of the parameters.

2. Use the list to view which fuelling points have unpaid transactions.

   Note: Once the POS acknowledges payment the entry in the table is removed.

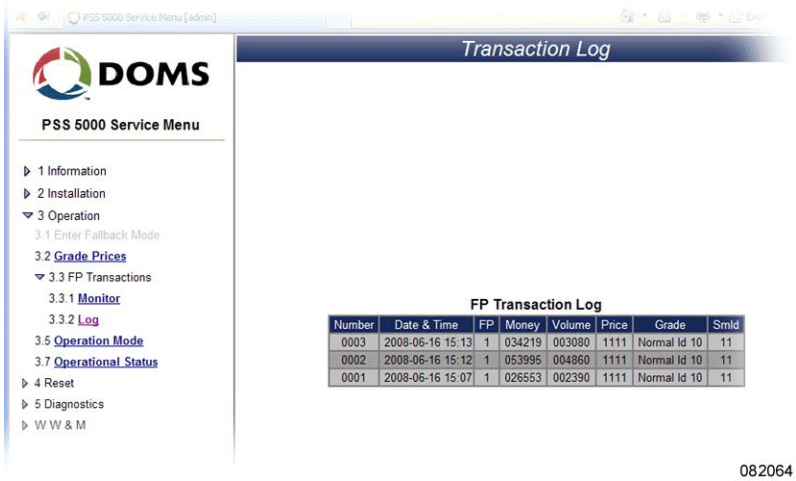
6.3.2 Log (Menu 3.3.2)

To view the transaction log

This procedure describes how to use the Service Menu in the web browser to show the last 10 fuel transactions.

1. Select **3 Operation** → **3.3 FP Transactions** → **3.3.2 Log**.

   The **Transaction Log** page appears.



2. Use the list view the last 10 transactions, both paid and unpaid.

   Note: Error transactions are shown in red.

6.4 Payment Server (Menu 3.4)

Description of Payment Server menu

The Payment Server menu is used to control which cards that can be used on the site.

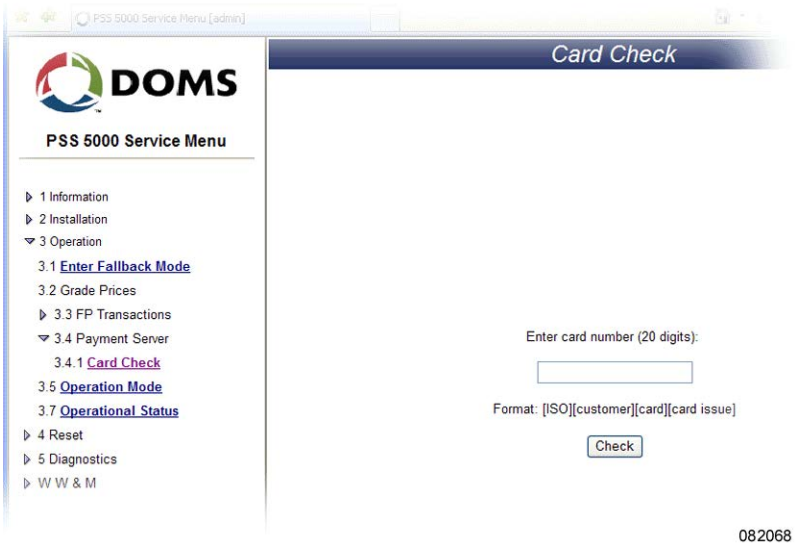
Note: Not all versions of the PSS 5000 application software include the payment server.

To check the validity of a card

The **Card Check** menu enables you to check if a card is included in the white list loaded in the PSS 5000.

1. Select **3 Operation** → **3.4 Payment Server** → **3.4.1 Card Check**.

   The **Card Check** page appears.



2. Type in the 20 digit number for the card and click **Check**.

   Information about the validity of the card appears.

6.5 Operation Mode (Menu 3.5)

Description of the Operation Mode

The operation mode for specific forecourt device can be changed by using the **Operation Mode** menu.

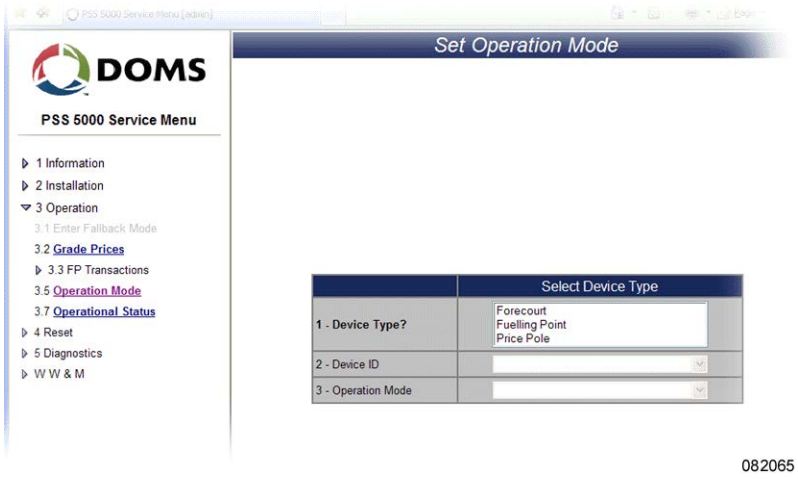
Some application dependant operation modes might be available for special purposes such as disabling intrusion detection of an OPT, or setting an OPT in maintenance mode to perform various technical tests on the OPT.

To view/set operation mode

This procedure describes how to use the Service Menu in the web browser to set the operation mode of specific forecourt devices.

1. Select **3 Operation → 3.5 Operation Mode**.

   The **Set Operation Mode** page appears.



2. In the **Device Type** field, select either the whole forecourt or a specific type of device.

   Note: Only devices that are configured in the controller and can use the operation mode are included in the list.

   Possible specific device types are:

   - Fuelling Point
   - Price Pole
   - Terminal

3. Open the drop-down list for **Device ID** and select the ID for a specific device or all IDs.

   When the Device ID is selected, then the current **Operation Mode** appears.

4. Open the drop-down list for **Operation Mode** and select the required mode.

   Confirmation of the selected operation mode appears briefly on screen.

5. Verify the values shown on screen are correct.

6.6 Menu 3.6 Reserved for Future Use

Reserved

This menu is reserved for implementation of future features in the PSS 5000.

6.7 Operational Status (Menu 3.7)

Description of Operational Status menu

The **Operational Status** menu provides the current status of all the forecourt devices connected to the PSS 5000. The status is updated automatically or, if necessary, can be updated manually.

Note: The value for the automatic update period is defined in the Web Preferences page, see '5.4.4 Web Preferences (Menu 2.4.4)' on page 57.

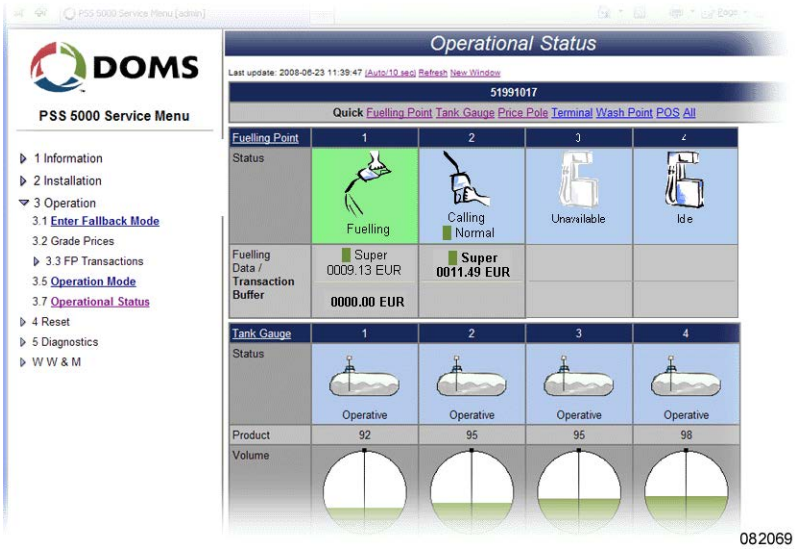
By selecting a specific type of forecourt device, more detailed information about the individual devices appears.

To view operational status of forecourt devices

This procedure describes how to use the Service Menu in the web browser to view the operational status of the forecourt devices.

1. Select **3 Operation → 3.7 Operational Status**.

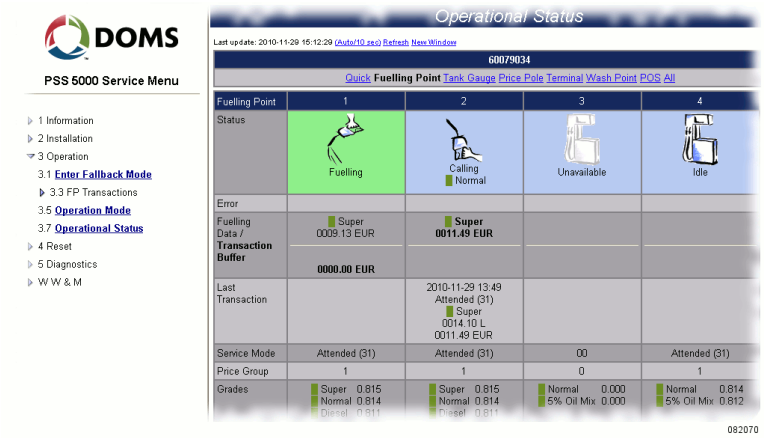
   The **Operational Status** page appears.



   This provides a status summary for all the forecourt devices connected to the PSS 5000.

2. To see more details for a specific type of device, click on the hyperlink for the device type at the top of the page. For example, click **Fuelling Point**.

   Now the **Operational Status** page contains only those devices for the selected type, and additional details appear. The example below is for fuelling points.



6.8 TeleTerminal (Menu 3.8)

Description of TeleTerminal

The TeleTerminal interface is used by some national bank card acquires, for example Danish PBS. It is used when the transaction amount is known when the card is read.

Note: This is currently only used for car wash sales.

6.9 Reconciliation Report (Menu 3.9)

Description of Reconciliation Report menu

Reconciliation reports provide a comparison between metered sales (measured by the pumps) and gauged sales (measured by the tank gauge system). By comparing these two sources of information, it is possible to detect leaks, theft and other types of irregular product movements.

Note: Before reconciliation reports can be created by the PSS 5000, it is important that the relationships between each of the fueling points and the associated tanks are configured in the PSS 5000.

The Reconciliation Report page presents both Totalizer Readings and ATG Readings with start and stop time stamps. The Totalizer Readings are provided by the PSS 5000 and are metered sales values for each of the tanks associated with each fueling point. The ATG Readings are gauged tank volumes provided by the tank gauge system.

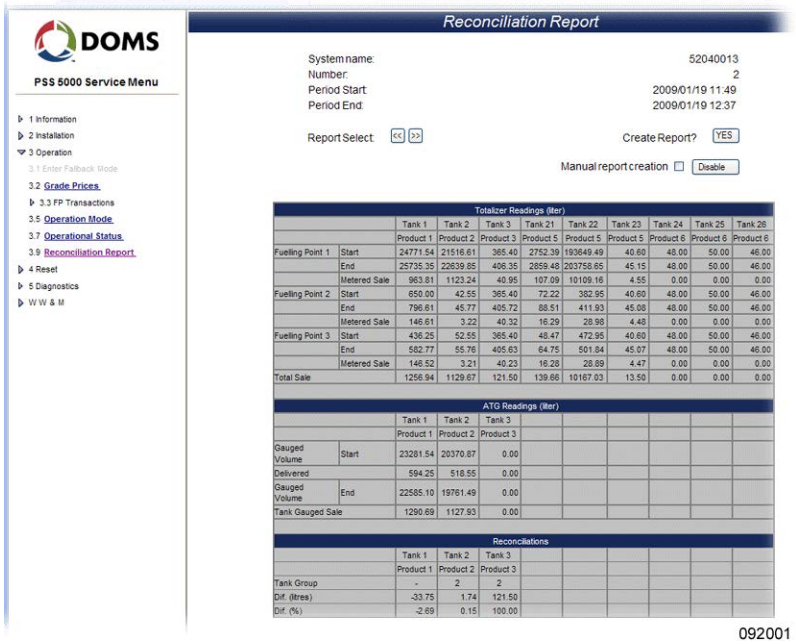
The data required to create a reconciliation report is stored in the PSS 5000. Normally, this data is compiled once a day (24 hours) into a site report (*site_rep.xml* file). Although the PSS 5000 can store up to 3 of these reports, only the oldest report is available when requested using the xml output command.

When the reconciliation functionality is included in the forecourt application, it is possible to store up to 7 *site_rep.xml* files. All of these reports can be viewed on the Reconciliation Report page using the Service Menu in the PSS 5000's embedded web server. In addition to this, the Reconciliation Report

page also allows you to create new reports manually. This means that you can increase or decrease the frequency of the report generation.

Reconciliation report page parameters

The Reconciliation Report page (shown below) is available using the PSS 5000 Service Menu.



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The table below provides explanations for the various parameter fields present on the Reconciliation Report page:

Parameter	Description
Report Identifiers	
System name	This is the id assigned to the PSS 5000.
Number	This shows which report is displayed. **Note:** If the Number value is equal to or greater than 7, then there are 7 reconciliation reports you can view.
Period Start	Provides the date (yyyy/mm/dd) and time (hh:mm) for the start of the reconciliation report.
Period End	Provides the date (yyyy/mm/dd) and time (hh:mm) for the end of the reconciliation report.
Report Select	Selector buttons that enable you to display the previous/next reconciliation report. **Note:** Even though the Number value is greater than 7, only 7 reconciliation reports are available.
Create Report?	This Yes button enables you to create reports manually. **Note:** When the Yes button is active, the automatic report generation (default time 00:00) is disabled.

Parameter	Description
Manual report creation	A check box and Enable/Disable button that allow you to activate/deactivate the Create Report button. **Note:** Both the check box and the button must be used to change the state of the Create Report button.
Totalizer Readings (liter)	
Fuelling Point *n*	Each fuelling point has 3 values: • Start – this value is provided by the previous Site report. • End – this values is provided by the current Site report. • Metered Sale – this is a calculated value: (End value – Start value) **Note:** Depending on the type of pump, the Start and End values can be either measured values from the pump or calculated values from transaction data.
Total Sale	This is a summation of Metered Sale values for all the fuelling points connected to the tank.
ATG Readings (liter)	
Gauged Volume: Start	This is measured value from the tank gauge system when the previous site report was created.
Delivered	This is measured value provided by tank gauge system, which states the amount of any deliveries made after the Start and before the End values were provided.
Gauged Volume: End	This is measured value from the tank gauge system when the current site report was created.
Tank Gauge Sale	This is a calculated value: (End – Start) + Delivered
Reconciliations	
Tank Group	This is a tank group ID. It is only relevant when multiple tanks are manifolded.
Dif. (liters)	This is a calculated value (for each tank), which compares the values supplied by the 2 sources: $\text{Total Totalizer Sale} - \text{Total Tank Gauge Sale}$
Dif. (%)	This is a calculated value (for each tank) which compares the values supplied by the 2 sources: $\frac{(\text{Total Totalizer Sale} - \text{Total Tank Gauge Sale}) \times 100}{\text{Total Totalizer Sale}}$

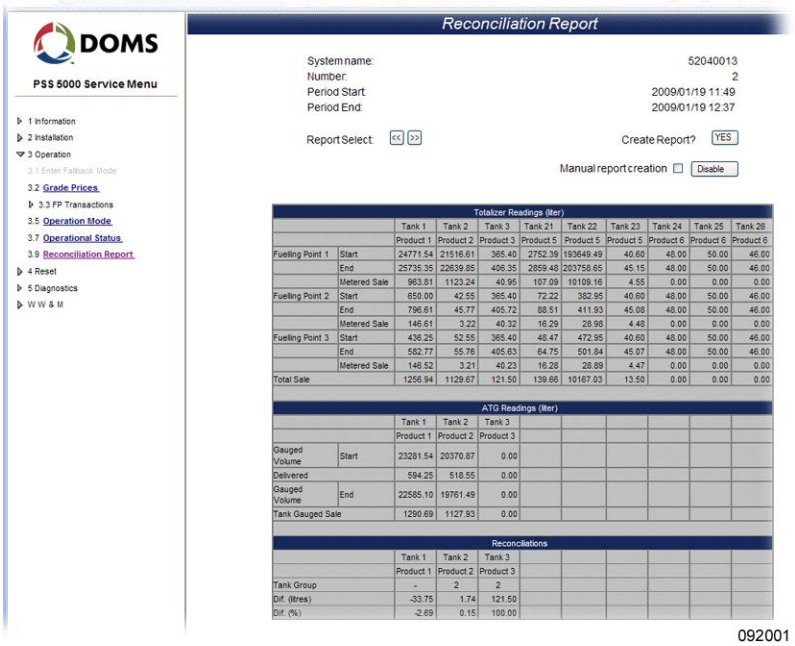
To view reconciliation reports

This procedure describes how to use the Service Menu in the web browser to view the reconciliation reports stored in the PSS 5000.

Note: Before reconciliation reports can be created by the PSS 5000, it is important that the relationships between each of the fueling points and the associated tanks are configured in the PSS 5000.

1. Select **3 Operation → 3.9 Reconciliation Report**.

   The **Reconciliation Report** page appears.



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   The newest reconciliation report is displayed. It contains metered values from the pumps and gauged values from the tank gauge system. A comparision of these values is shown in the Reconciliations part of the table at the bottom of the Reconciliations Report.

2. Use the **Report Select** arrow buttons to view the remaining reconciliation reports.

   It is possible to view multiple reconciliation reports using this page.

3. If you want to change the status of the report generation, select the **Manual report creation** check box and press the **Enable**/**Disable** button.

   If you pressed the **Enable** button, you are now able to create new reconciliation reports by pressing the **Create Report?** button.

   Note: Automatic report generation is deactivated when manual report creation is activated.

   If you pressed the **Disable** button, manual report creation is no longer possible and the automatic report function is activated.

   Note: By default the automatic report generation occurs at 00:00 each day. This time is configurable. Disabling the report auto-generation does not result in the time being reset to the default time.

7 Reset (Menu 4)

Overview of Reset menu

The **Reset** menu is divided into the following sub-menus:

- '7.1 Soft Reset (Menu 4.1)' on page 81
- '7.2 Master Reset (Menu 4.2)' on page 82
- '7.3 Super Master Reset (Menu 4.3)' on page 83

7.1 Soft Reset (Menu 4.1)

Description of Soft Reset

Activating the Soft Reset will have the same effect as a short power off. The system stops for a short period and the hardware and communication drivers are re-initialized, but the state of the operation starts from where it was stopped.

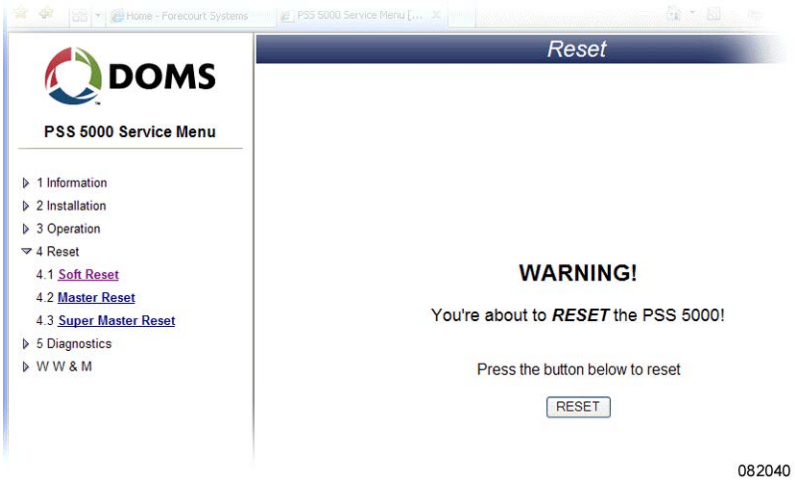
Note: When a Soft Reset or power down occurs, the contents of the virtual file system *pss_mem/4* is cleared.

To make a soft reset with web service pages

This procedure describes how to use the Service Menu in the web browser to make a soft reset.

1. Select **4 Reset** → **4.1 Soft Reset**.

   The **Reset** page appears.



2. Click **RESET**.

   The hardware and communication drivers are re-initialized and the software continues from where is was stopped.

To make a soft reset with local service panel

This procedure describes how to use the Local Service Panel to make a soft reset.

1. Press ↑ to move to the **INFORMATION 1** menu.

2. Press ↓, ↓, ↓, → to move to the **SOFT RESET 4.1** menu.

3. Press → to select the **SOFT RESET?** menu.

4. Use the ↓ and ↑ buttons to toggle between **YES** and **NO**.
5. Select **YES** and press **OK**.

   The system performs a soft reset.

7.2 Master Reset (Menu 4.2)

Description of a master reset

A Master Reset will, in general, clear the configuration data for the Application, for example, the configuration data for Fuelling Points and Tank Gauges. Some specific parameters, such as protocol to port assignments, IP address and the like, are not cleared by a Master Reset.

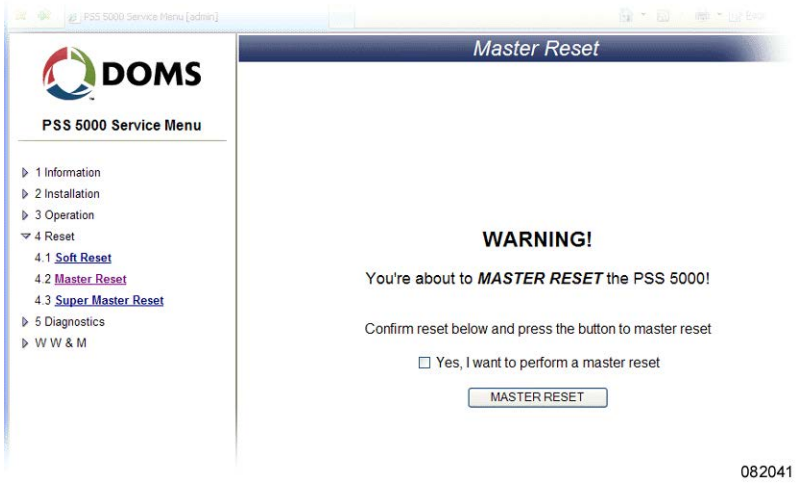
Note: When a Master Reset occurs, the contents of the virtual file system *pss_mem/4* and *pss_mem/3* are cleared.

To make a master reset with web service pages

This procedure describes how to use the Service Menu in the web browser to make a Master Reset.

1. Select **4 Reset → 4.2 Master Reset**.

   The **Master Reset** page appears.



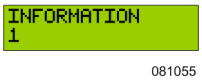
2. Select **Yes, I want to perform a master reset** to confirm your actions.
3. Click **MASTER RESET**.

   The application configuration data is cleared.

To make a master reset with local service panel

This procedure describes how to use the Local Service Panel to make a Master Reset.

1. Press ↑ to move to the **INFORMATION 1** menu.



2. Press ↓, ↓, ↓, →, ↓ to move to the **MASTER RESET 4.2** menu.

3. Press → to select the **MASTER RESET?** menu.

4. Press and hold **OK** for 10 seconds.

   The system performs a master reset. The display shows **OK MASTER RESET...**.

7.3 Super Master Reset (Menu 4.3)

Description of a super master reset

The Super Master Reset simply clears all the memory. All configuration data and parameters, such as Port assignments, return to their default values.

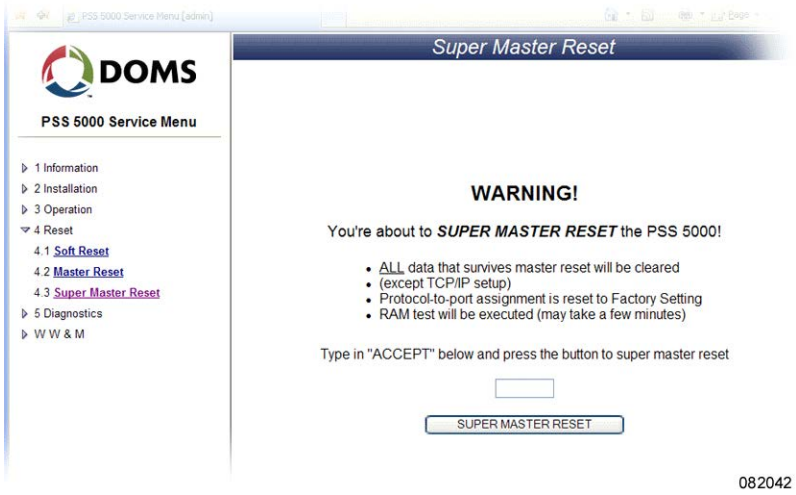
Note: When a Super Master Reset occurs, the contents of the virtual file system *pss_mem/4*, *pss_mem/3* and *pss_mem/2* are cleared.

To make a super master reset with web service pages

This procedure describes how to use the Service Menu in the web browser to make a Super Master Reset.

1. Select **4 Reset → 4.3 Super Master Reset**.

   The **Super Master Reset** page appears.



2. Type `CEEGRV` in the empty field.
3. Click **SUPER MASTER RESET**.

   All configuration settings return to their default values.

To make a super master reset with local service panel

This procedure describes how to use the Local Service Panel to make a Super Master Reset.

1. Press ↑ to move to the **INFORMATION 1** menu.

2. Press ↓, ↓, ↓, →, ↓ to move to the **SUPER M RESET 4.3** menu.

3. Press → to select the **SUPER M RESET?** menu.

4. Press and hold **OK** + ↑ for 10 seconds.

   The system performs a Super Master Reset and the display shows **...SUPER MASTER RESET**.

8 Diagnostics (Menu 5)

Overview of Diagnostics menu

The **Diagnostics** menu is divided into the following sub-menus:

8.1 Forecourt Devices (Menu 5.1)

Overview of Forecourt Devices information

From the **Forecourt Devices** menu you can see which devices are online and receive status and error information for the forecourt devices. The menu is divided into the following sub-menus:

8.1.1 Online List (Menu 5.1.1)

Description of Online List menu

For each type of forecourt device there is access to a list of online devices. Even before the PSS is configured, it will start polling possible addresses on each port, so this can be used to check that the installation and cabling has been made correctly.

For protocols with large numbers of possible addresses (IP addresses or serial number), this is not possible and these will not be shown as online until they are configured.

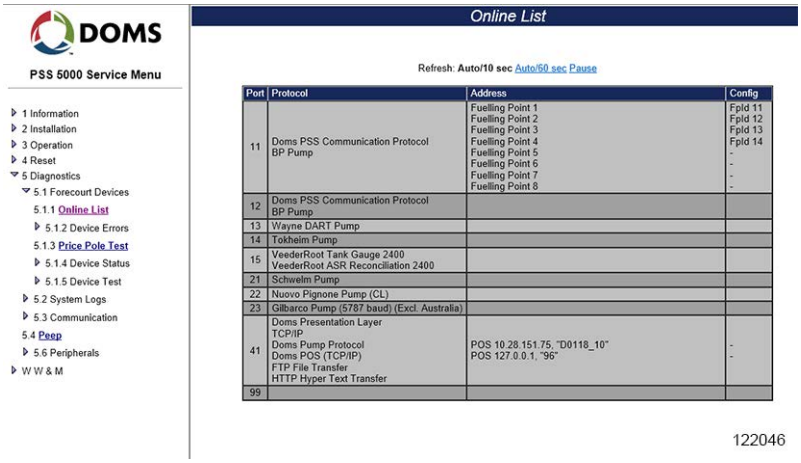
To list online devices with web service pages

This procedure describes how to use the Service Menu in the web browser to view a list of devices that are online.

Note: The items listed in this list are devices associated with the forecourt, such as pumps, tank gauges and the like.

1. Select **5 Diagnostics** → **5.1 Forecourt Devices**→ **5.1.1 Online List**.

   The **Online List** page appears.



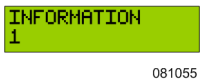
2. Use the list to see which devices are currently online. The columns contain the following information:

Column	Description
Port	The number of the port on the PSS 5000 CPB to which the devices are connected.
Protocol	List of protocols assigned to the port (see '5.1 Protocol to Port Assignment (Menu 2.1)' on page 36).
Address	The communication address of the device online.
Config.	The ID that is assigned to the device during configuration and is used by the PSS 5000.

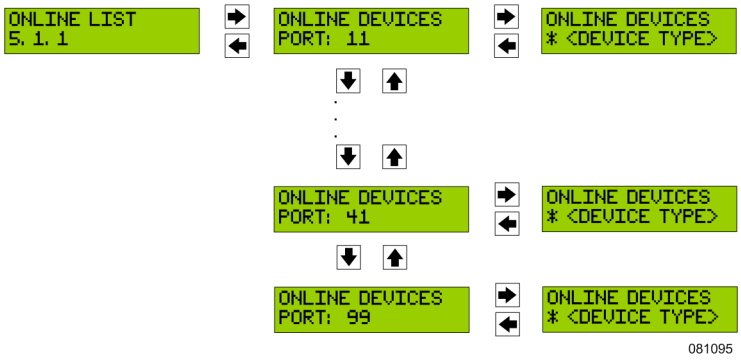
To list online devices with local service panel

This procedure describes how to use the Service Menu in the local service panel to view a list of devices that are online.

1. Press ↑ to move to the **INFORMATION 1** menu.



2. Press ↓, ↓, ↓, ↓, →, → to move to the **ONLINE LIST 5.1.1** menu.
3. Press the buttons in the sequence shown below to move to the sub-menus and view which devices are connected to the individual ports.



8.1.2 Device Errors (Menu 5.1.2)

Description of Device Errors menu

From the **Device Errors** menu it is possible to view the latest error that has occurred on each device and/or view the last error for a specific device.

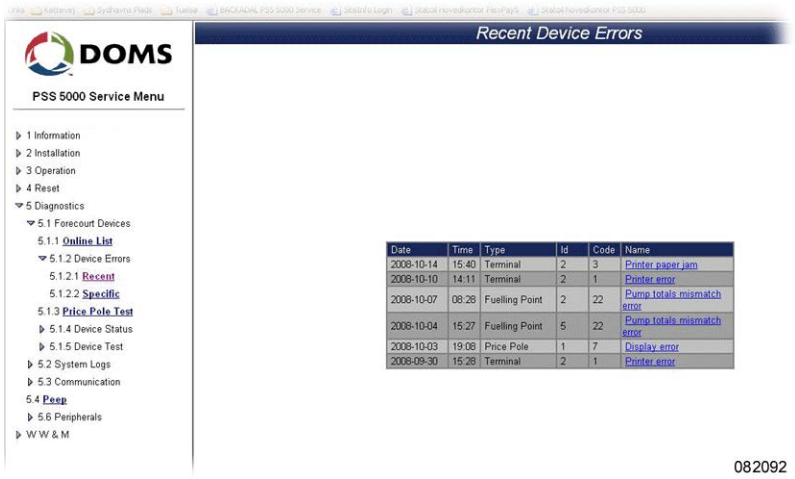
Note: At present, only fuelling points and POS online information is available.

To view recent errors for all devices with web service pages

This procedure describes how to use the Service Menu in the web browser to view the latest error for each device.

1. Select **5 Diagnostics → 5.1 Forecourt Devices → 5.1.2 Device Errors → 5.1.2.1 Recent**.

   The **Recent Device Errors** page appears.



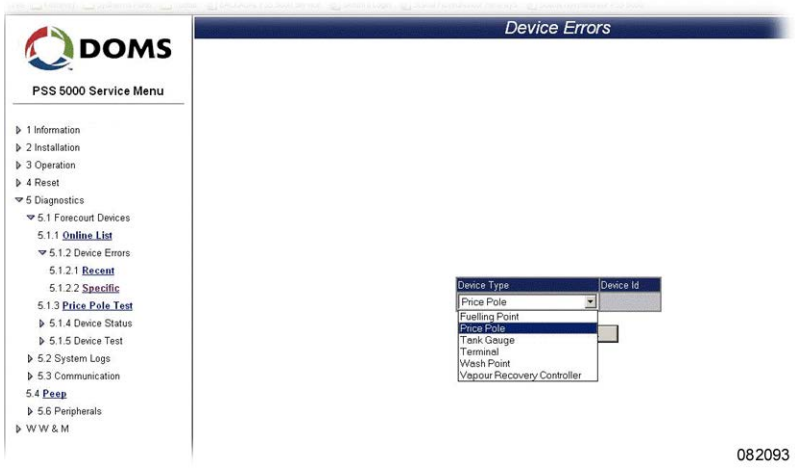
2. Use the list to see when the most recent error for each device occurred.

To view recent errors for a specific device with web service pages

This procedure describes how to use the Service Menu in the web browser to view the latest error for a specific device.

1. Select **5 Diagnostics → 5.1 Forecourt Devices → 5.1.2 Device Errors → 5.1.2.2 Specific**.

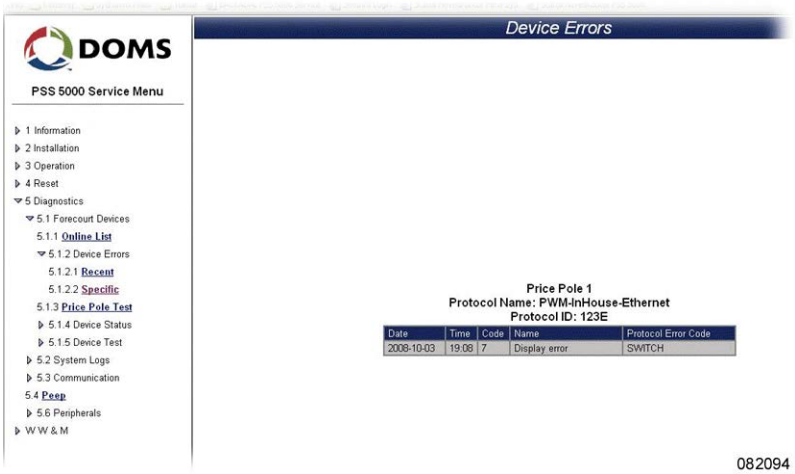
   The **Device Errors** page appears.



2. Open the **Device Type** drop-down list, select the specific device type.
3. Click **DEVICE TYPE OK**.

4. Open the **Device Id** drop-down list and select the ID for the specific device.
5. Click **DEVICE ID OK**.

   A table with the error details for this device appears. The example below shows the error details for a price pole.



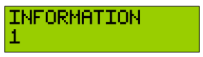
6. Use the table to view all the details.

   If you want to view details for other devices, go back to Step 1.

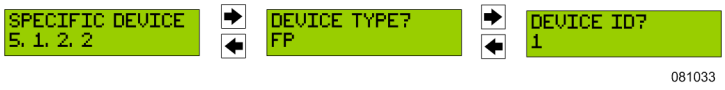
To view recent errors for a specific device with local service panel

This procedure describes how to use the Service Menu in the local service panel to view the latest error for a specific device.

1. Press ↑ to move to the **INFORMATION 1** menu.



2. Press ↓, ↓, ↓, ↓, →, →, ↓, →, ↓ to move to the **SPECIFIC DEVICE 5.1.2.2** menu.
3. Press the buttons in the sequence shown below to move to the sub-menus and view which devices are connected to the individual ports.



4. Use ↓ and ↑ to select the correct Device Type and Device ID.

   The details for the error (date, time and error code) are displayed.

   Note: If no errors are present, then a NO ERRORS message appears.

8.1.3 Price Pole Test (Menu 5.1.3)

Description of the price pole test

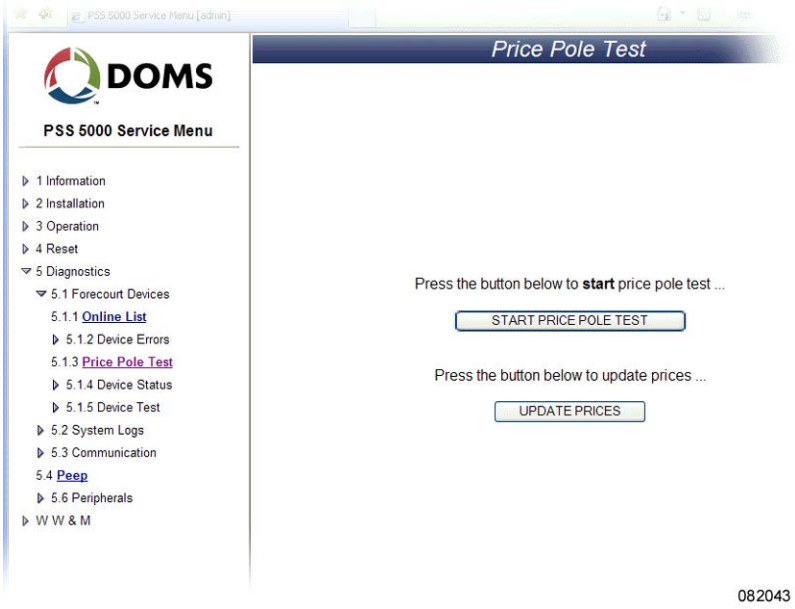
Two special features have been implemented to test Price Poles. One is a segment test for the price poles and the other is a simple command to re-send the last prices.

To start a price pole test with web service pages

This procedure describes how to use the Service Menu in the web browser to test the price pole.

1. Select **5 Diagnostics → 5.1 Forecourt Devices → 5.1.3 Price Pole Test**.

   The **Price Pole Test** page appears.



2. Click **START PRICE POLE TEST**.

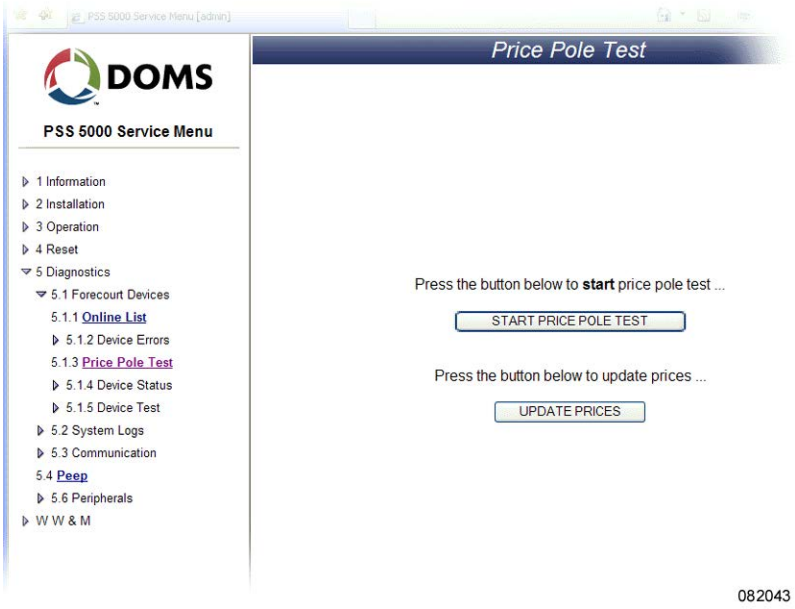
   The price pole test starts.

To start a price pole test with web service pages

This procedure describes how to use the Service Menu in the web browser to test the price pole by updating the prices shown on the pole.

1. Select **5 Diagnostics → 5.1 Forecourt Devices → 5.1.3 Price Pole Test**.

   The **Price Pole Test** page appears.



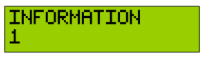
2. Click **UPDATE PRICES**.

   The prices are sent to the price pole and the updated prices appear on the price pole.

To start a price pole test with local service panel

This procedure describes how to use the Service Menu in the local service panel to start a price pole test.

1. Press ↑ to move to the **INFORMATION 1** menu.



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2. Press ↓, ↓, ↓, ↓, →, →, ↓, ↓ to move to the **PRICE POLE TEST 5.1.3** menu.
3. Press the buttons in the sequence shown below to move to the sub-menus. The current test state is flashing.

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4. Use ↓ and ↑ to toggle between **YES** and **NO**.
5. Select **YES** and press **OK**.

   The price pole test starts.

8.1.4 Device Status (Menu 5.1.4)

Description of Device Status menu

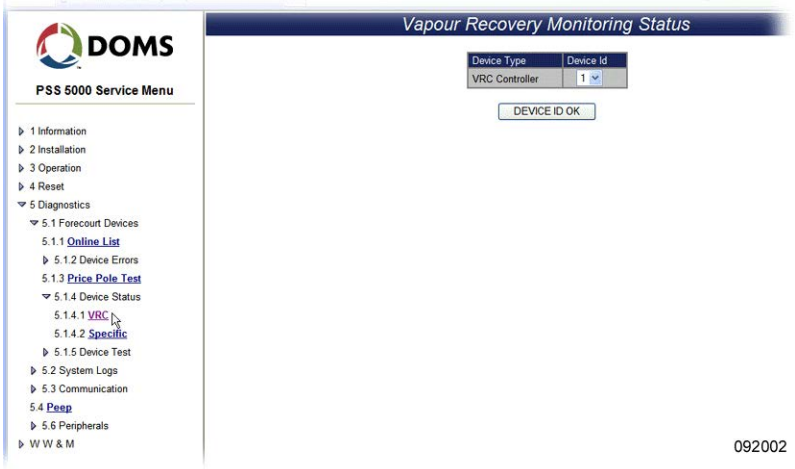
Use this menu to view the status of the various devices connected to the PSS 5000.

To view the status of VRC devices with web service pages

This procedure describes how to use the Service Menu in the web browser to view the status of the VRC (Vapor Recovery Controller).

1. Select **5 Diagnostics** → **5.1 Forecourt Devices** → **5.1.4 Device Status** → **5.1.4.1 VRC**.

   The **Vapour Recovery Monitoring Status** page appears.



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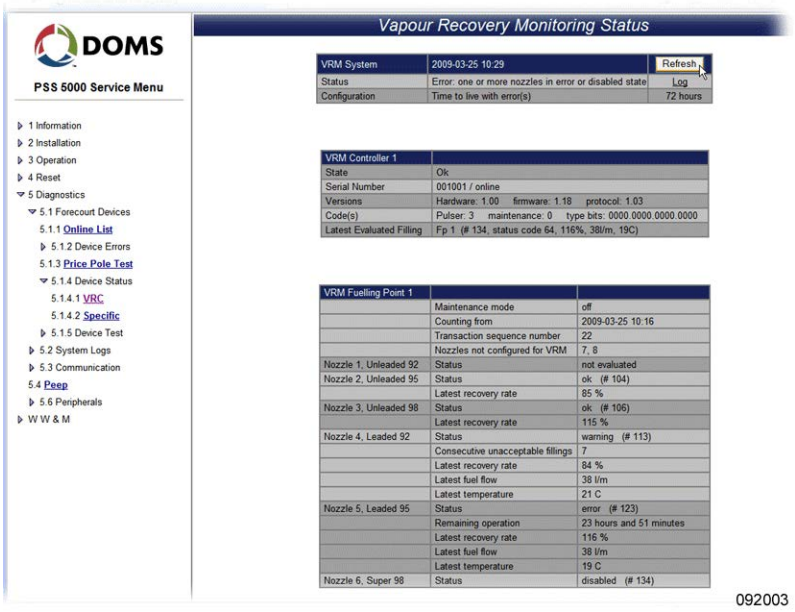
2. Open the drop-down list for the **VRC Controller** and select a device ID for

the controller.

3. Click **DEVICE ID OK**.

   The most important Vapor Recovery Monitoring status information appears.



4. If required, click **Refresh** to update the data shown on this page.

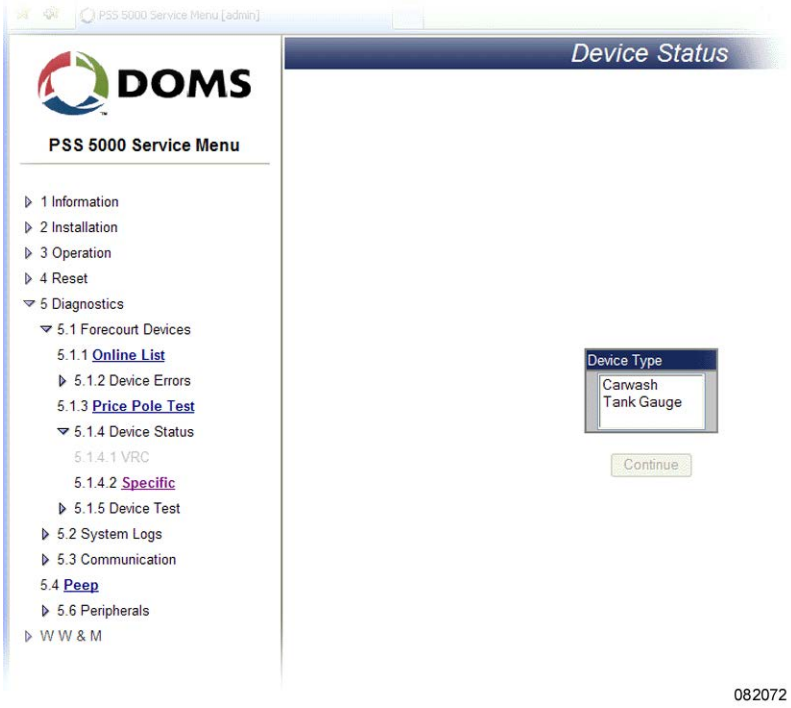
To view the status of specific devices with web service pages

This procedure describes how to use the Service Menu in the web browser to view the status of specific devices.

1. Select **5 Diagnostics** → **5.1 Forecourt Devices** → **5.1.4 Device Status** →

5.1.4.2 Specific.

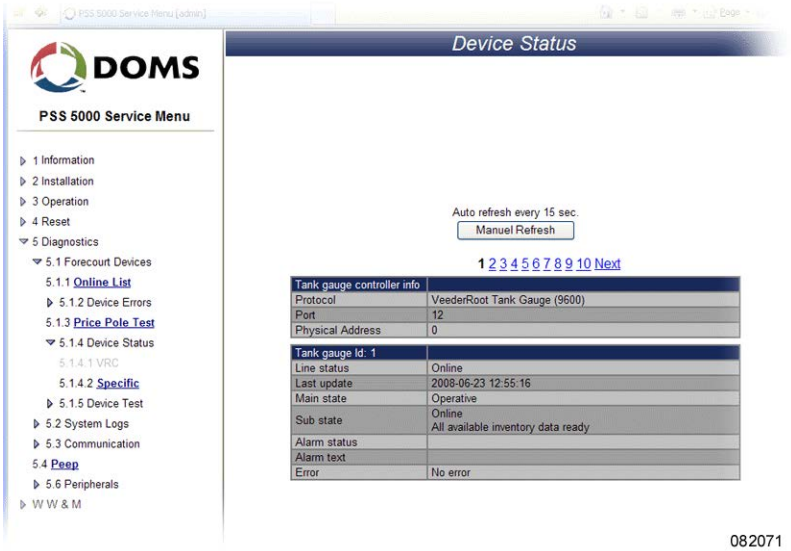
The **Device Status** page appears.



Note: The **Device Type** list includes only those device types that are connected to and available from the PSS 5000.

2. In the **Device Type** list select the specific device type.
3. Click **Continue**.

   The latest status for the selected device appears. The figure below is an example of a tank gauge.



   The data is refreshed automatically every 15 seconds.

4. If it is necessary to refresh the data more frequently, click **Manual Refresh**

to update immediately.

8.1.5 Device Test (Menu 5.1.5)

Description Device Test menu for VRC

The Special Vapor Recovery Monitoring functions for test and service can only be accessed when you are logged on to the PSS 5000 System as a VRC user.

The default password credentials for the **vrc** user are the same as the default password credentials for the **admin** user.

To view the internal VRM test functions with web service pages

This procedure describes how to use the Service Menu in the web browser to view the internal VRM (Vapor Recovery Monitoring) test functions.

Note: You must be logged on with the user name: **vrc**.

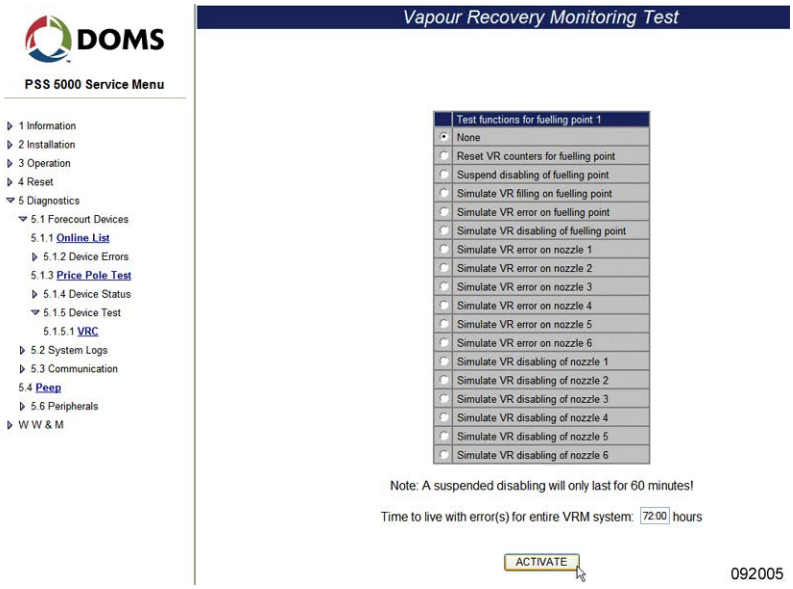
1. Select **5 Diagnostics** → **5.1 Forecourt Devices** → **5.1.5 Device Test** → **5.1.5.1 VRC**.

   The **Vapour Recovery Monitoring Test** page appears.

2. Open the **Device Id** drop-down list and select the ID for the selected device type.

3. Click **DEVICE ID OK**.

   A page with a list of test functions for the selected device appears.



4. In the **Time to live with error(s) for entire VRM system** field, type in the correct value.

   Note: The format for **Time to live ...** values is HH:MM. The permitted range is 00:01 to 99:59 hours, and the default value is 72 hours.

5. From the list of test functions, select the function to be activated:

Test function	Description
None	Returns to normal system mode.
Reset VR counters for fuelling point	All Vapor Recovery counters for all the nozzles belonging to the selected fuelling point are reset.
Suspend disabling of fuelling point	Disabling of the fuelling point is suspended temporarily.
Simulate VR error on fuelling point	Simulate a vapor recovery error on the selected fuelling point.
Simulate VR disabling on fuelling point	Simulate vapor recovery disabling on the selected fuelling point.
Simulate VR disabling on nozzle *n*	Simulate vapor recovery disabling of a specific nozzle on the fuelling point.

6. Click **ACTIVATE** to start the selected test function.

   The PSS 5000 replies with a message that informs you which function is activated.

Device Test menu description for Terminal Text Test

The PSS 5000 has a built-in text bank. This makes it possible to show different texts in the terminal's display. The actual text in the text bank changes depend-

ing on which application programs are installed. The text in the text bank can be viewed in the Appendix (**.apx)* file released with the application program.

The texts in the text bank are indexed. The individual texts can be sent to the terminals display either by a command from the POS or by using a device on the forecourt, which is handled automatically by the PSS 5000.

Instead of sending commands from a POS, or using the devices on the forecourt, the Terminal Text Test provides an easy method to check that the texts are shown correctly on the terminal display.

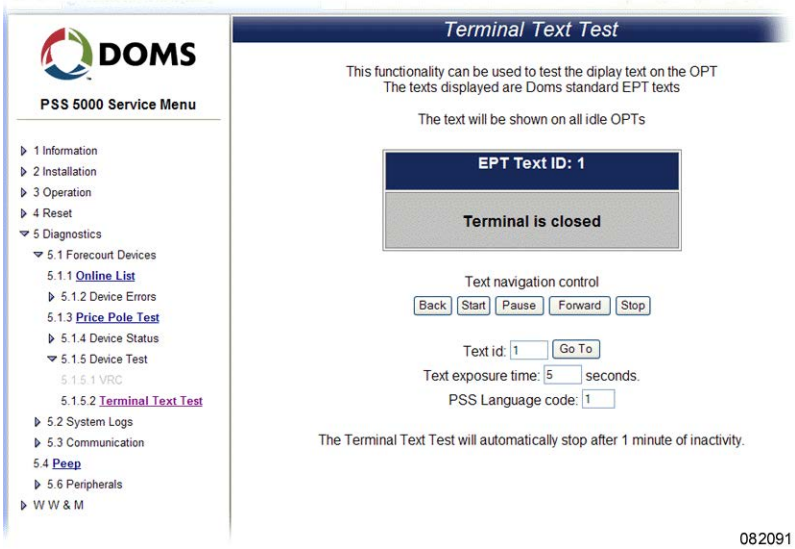
It is possible to have up to 6 different languages in the text bank. Each language is indexed. So, it is possible to replace an unwanted language with one that is required for the specific application.

To view the available terminal display texts with web service pages

This procedure describes how to use the Service Menu in the web browser to view the terminal display texts available.

1. Select **5 Diagnostics → 5.1 Forecourt Devices → 5.1.5 Device Test → 5.1.5.2 Terminal Text Test**.

   The **Terminal Text Test** page appears.



   The page contains several text navigation buttons. Before you use these buttons, read the following steps.

2. In the **Text exposure time** field, type in a number for the required number of seconds you want the text to be displayed during the test sequence.

3. In the **PSS Language code** field, type in the code for the selected language.

   There are up to 6 language versions available. But the actual languages are defined in the application program. To see which languages are available and the Language code for each language, look in the Appendix (**.apx*) file released with the software.

   Note: When adding text (language versions) for a terminal in the Appendix file, you must use the same character set as that used by the terminal, for example ISO 8859-1.

4. Use the navigation buttons to navigate through the various tests.
   - **Back**: change the Text ID to the one prior to the ID number shown in the **Text id** field.
   - **Start**: Start a test sequence that shows all the texts present in the text bank. The sequence starts at Text id 1.
   - **Pause**: Stops the test sequence until **Start** is used to continue the test sequence from the Text id where it was paused.
   - **Forward**: Change the Text ID from the ID shown in the **Text id** field to the next ID number in the sequence.
   - **Stop**: Stops the test sequence and returns the **Text id** field to 1.
   - **Go To**: Use this button if you want to jump directly to a specific **Text id**.

8.2 System Logs (Menu 5.2)

Overview of System Logs information

From the **System Logs** menu you can see several types of log information. The menu is divided into the following sub-menus:

- '8.2.1 Upload Log (Menu 5.2.1)' on page 96
- '8.2.2 Reset Logs (Menu 5.2.2)' on page 97
- '8.2.3 Application Log (Menu 5.2.3)' on page 101
- '8.2.4 Access Log (Menu 5.2.4)' on page 102
- '8.2.5 Board Error Log (Menu 5.2.5)' on page 103

8.2.1 Upload Log (Menu 5.2.1)

Description of the Upload Log menu

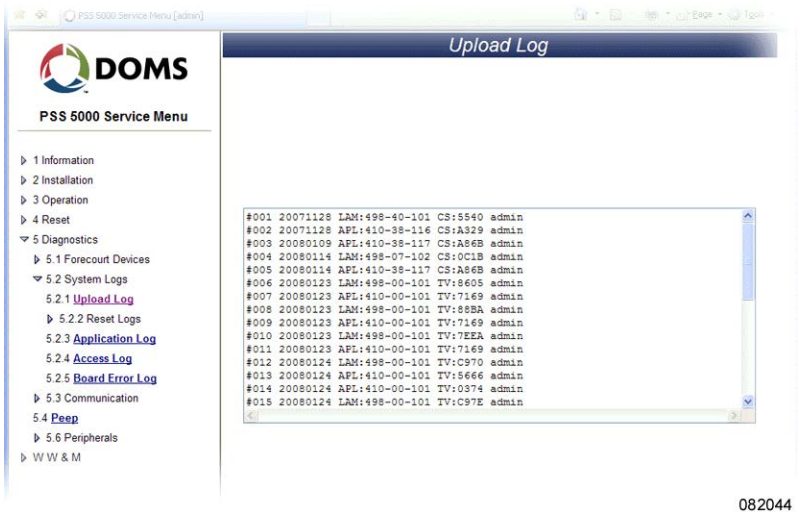
The **Upload Log** menu provides a record of when the LAM and application software were uploaded to the PSS 5000. Each record contains a date stamp, the software version number and an ID of the user who made the upload.

To view the Upload Log with web service pages

This procedure describes how to use the Service Menu in the web browser to view the upload log for the PSS 5000.

1. Select **5 Diagnostics** → **5.2 System Logs** → **5.2.1 Upload Log**.

   The **Upload Log** page appears.

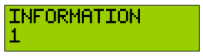


2. Use the list of upload entries to see when the uploads occurred, the software versions and who made the uploads.

To view the Upload Log with local service panel

This procedure describes how to use the Service Menu in the local service panel to view the upload log.

1. Press ↑ to move to the **INFORMATION 1** menu.



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2. Press ↓, ↓, ↓, ↓, →, ↓, → to move to the **UPLOAD LOG 5.2.1** menu.
3. Press → enter the upload log.
4. Use the navigation buttons, ↑ & ↓ to move vertically and ← & → to move horizontally around the log data.

   For more details about viewing data, see ‘Viewing data in the Local Service Panel display’ on page 25.
5. Press **OK** to exit the log data.

To view the upload log file

The upload log data is stored in: */pss_mem/1/sys/bul.txt*. Use FTP to access this file and read the contents.

For information about starting an FTP session, see ‘2.2.5 FTP Server’ on page 20.

8.2.2 Reset Logs (Menu 5.2.2)

Description of Reset Logs menu

There are 3 types of reset. Therefore, there are 3 types of reset logs:

- **Soft**
- **Master**
- **Super Master**

These logs tell when the specific reset type occurred and the cause of the reset.

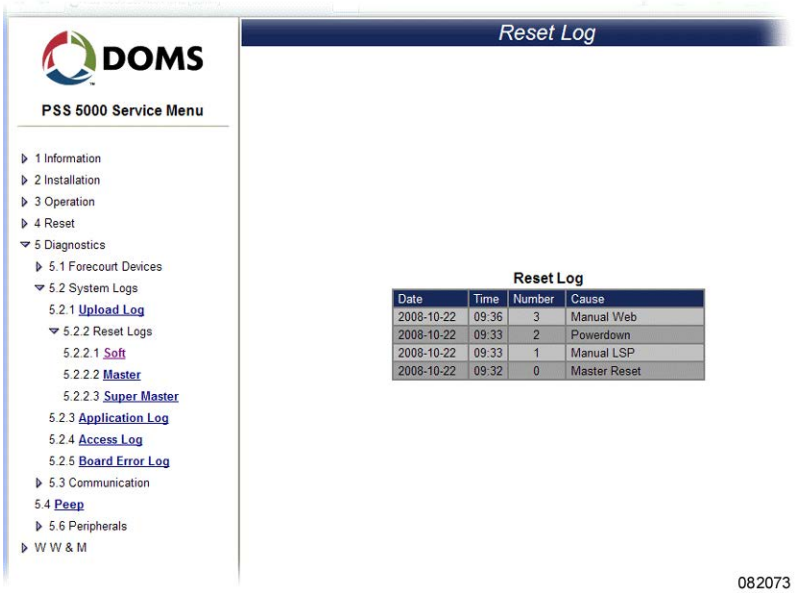
Note: The Soft Reset Log is reset by a Master Reset and the Master Reset Log is reset by a Super Master Reset.

To view the Soft Reset Logs with web service pages

This procedure describes how to use the Service Menu in the web browser to view the Soft Reset logs.

1. Select **5 Diagnostics → 5.2 System Logs → 5.2.2 Reset Logs → 5.2.2.1 Soft**.

   The **Reset Log** page appears.



2. Use the list to see when the latest resets occurred and what caused the reset.

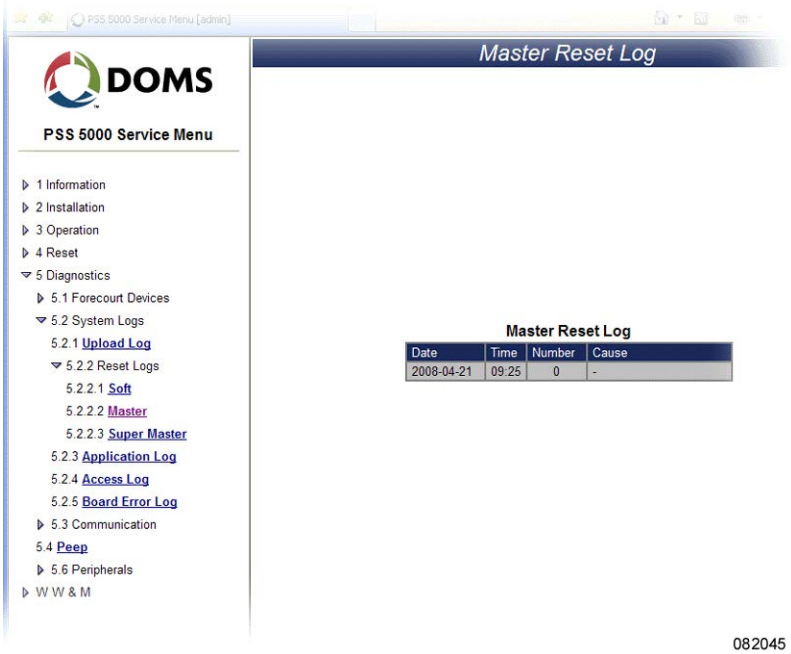
To view the Master Reset Logs with web service pages

This procedure describes how to use the Service Menu in the web browser to view the Master Reset logs.

1. Select **5 Diagnostics → 5.2 System Logs → 5.2.2 Reset Logs → 5.2.2.2 Mas-**

ter.

The **Master Reset Log** page appears.



This log has only a single entry, which shows when the last Master Reset occurred.

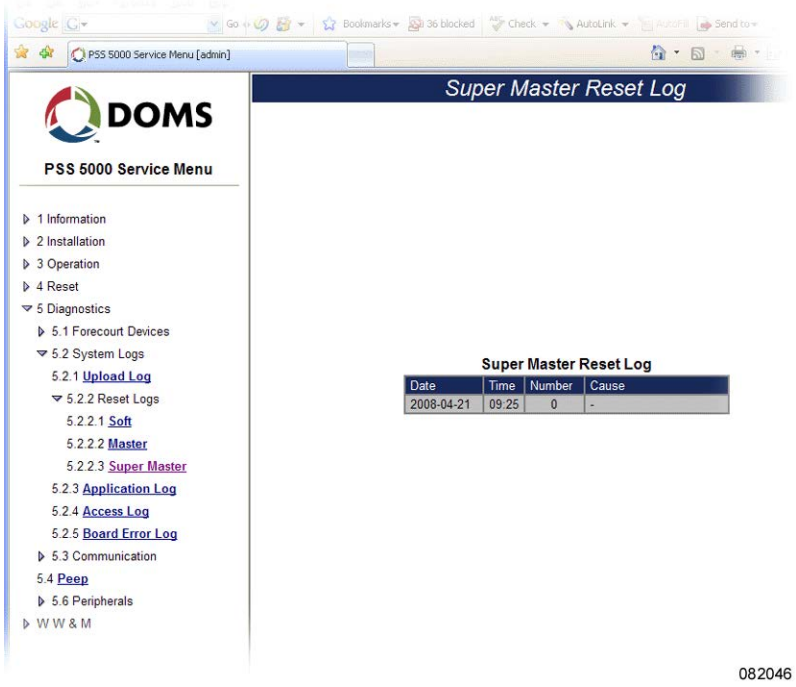
To view the Super Master Reset Logs with web service pages

This procedure describes how to use the Service Menu in the web browser to view the Super Master reset logs.

1. Select **5 Diagnostics → 5.2 System Logs → 5.2.2 Reset Logs → 5.2.2.3 Super**

Master.

The **Super Master Reset Log** page appears.

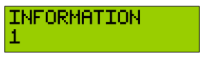


This log has only a single entry, which shows when the last Super Master Reset occurred.

To view the Soft Reset Log with local service panel

This procedure describes how to use the Service Menu in the local service panel to view the Soft reset log.

1. Press ↑ to move to the **INFORMATION 1** menu.



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2. Press ↓, ↓, ↓, ↓, →, ↓, →, ↓, → to move to the **SOFT RESET LOG 5.2.2.1** menu.
3. Press → to display the log.
4. Use the navigation buttons, ↑ & ↓ to move vertically and ← & → to move horizontally around the log data.

   For more details about viewing data, see 'Viewing data in the Local Service Panel display' on page 25.

   Note: If the latest reset was a Master Reset or a Super Master Reset, then this log displays only when this reset occurred.

To view the Master Reset Log with local service panel

This procedure describes how to use the Service Menu in the local service panel to view the Master reset log.

1. Press ↑ to move to the **INFORMATION 1** menu.

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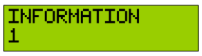
2. Press ↓, ↓, ↓, ↓, →, ↓, →, ↓, →, ↓ to move to the **MASTER RESET LOG 5.2.2.2** menu.
3. Press → to display the log.

   The log contains a single line – a date and time stamp, which tells when the last Master Reset occurred.

To view the Super Master Reset Log with local service panel

This procedure describes how to use the Service Menu in the local service panel to view the Super Master reset log.

1. Press ↑ to move to the **INFORMATION 1** menu.



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2. Press ↓, ↓, ↓, ↓, →, ↓, →, ↓, →, ↓, ↓ to move to the **SUPER MASTER RESET LOG 5.2.2.3** menu.
3. Press → to display the log.

   The log contains a single line – a date and time stamp, which tells when the last Master Reset or Super Master Reset occurred.

8.2.3 Application Log (Menu 5.2.3)

Description of the Application Log menu

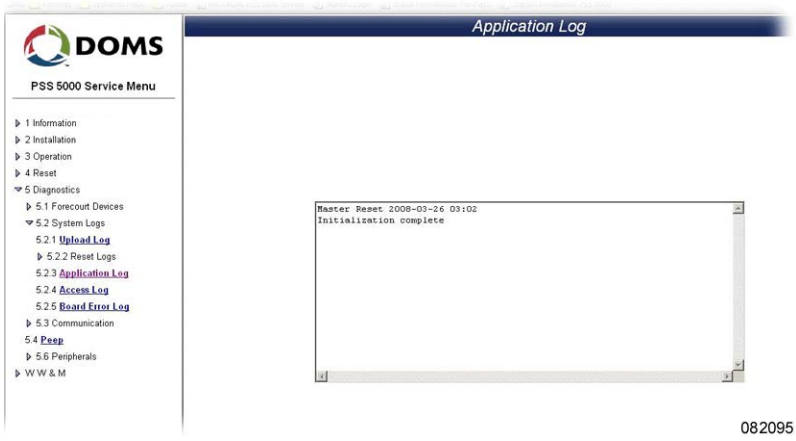
The application log is used for various application program issues, for example, to indicate "Initialization complete" or the status of "CRC error".

To view the Application Log with web service pages

This procedure describes how to use the Service Menu in the web browser to view the Application Logs.

1. Select **5 Diagnostics** → **5.2 System Logs** → **5.2.3 Application Log**.

   The **Application Log** page appears.



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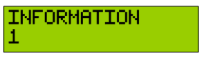
To view the Application Log with local service panel

This procedure describes how to use the Service Menu in the local service panel to view the Application Log.

1. Press ↑ to move to the **INFORMATION 1** menu.



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2. Press ↓, ↓, ↓, ↓, →, ↓, →, ↓, ↓ to move to the **APPLICATION LOG 5.2.3** menu.
3. Press → to display the log.

To view the application log file

The application log is stored in: */pss_mem/2/appl/applog.txt*. Use FTP to access this file and then view the contents.

For information about starting an FTP session, see '2.2.5 FTP Server' on page 20.

8.2.4 Access Log (Menu 5.2.4)

Description of Access Log

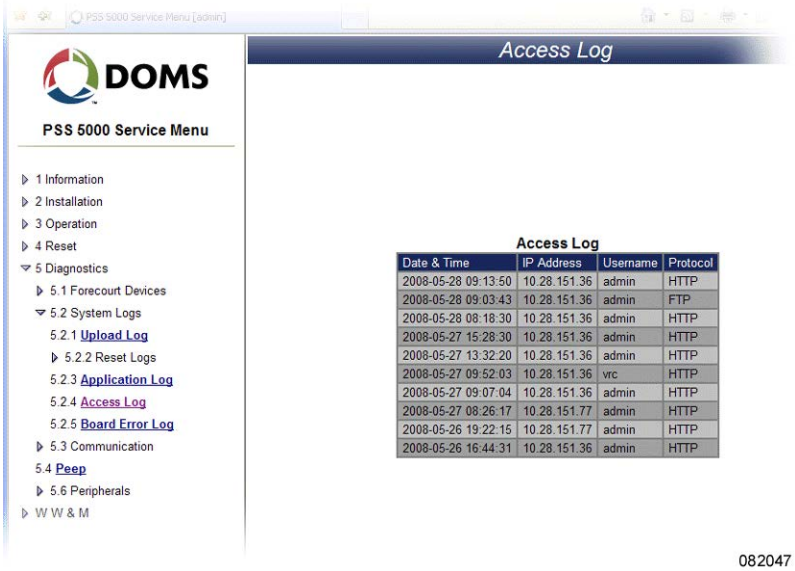
The **Access Log** menu shows who has logged on and when the log on occurred.

To view the Access log with web service pages

This procedure describes how to use the Service Menu in the web browser to view the Access log.

1. Select **5 Diagnostics** → **5.2 System Logs** → **5.2.4 Access Log**.

   The **Access Log** page appears.

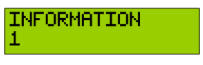


2. Use the details in the table to see who logged on and when.

To view the Access Log with local service panel

This procedure describes how to use the Service Menu in the local service panel to view the Access log.

1. Press ↑ to move to the **INFORMATION 1** menu.



2. Press ↓, ↓, ↓, ↓, →, ↓, →, ↓, ↓, ↓ to move to the **ACCESS LOG 5.2.4** menu.
3. Press → to display the log.
4. Use the navigation buttons, ↑ & ↓ to move vertically and ← & → to

move horizontally around the log data.

For more details about viewing data, see 'Viewing data in the Local Service Panel display' on page 25.

8.2.5 Board Error Log (Menu 5.2.5)

Description of Board Error Log

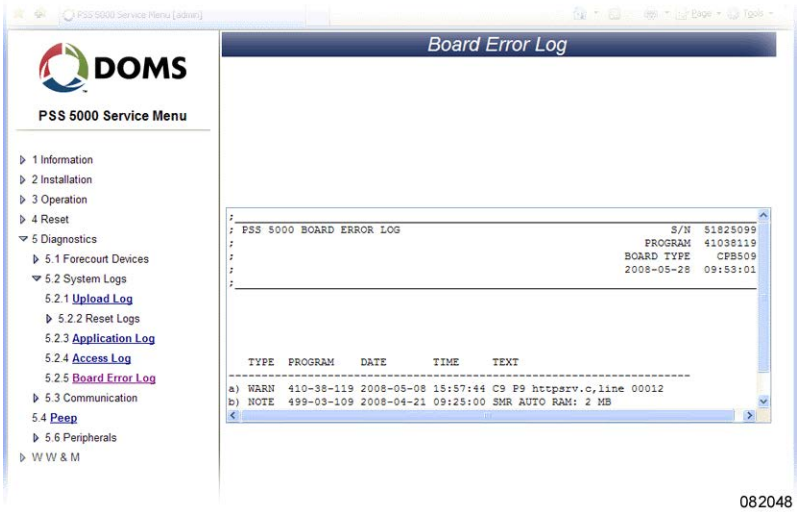
The **Board Error Log** menu shows all the fatal errors that have occurred on the PSS 5000 CPU board.

To view the Board Error log with web service pages

This procedure describes how to use the Service Menu in the web browser to view the Board Error log.

1. Select **5 Diagnostics** → **5.2 System Logs** → **5.2.5 Board Error Log**.

   The **Board Error Log** page appears.



2. Use the scroll bars to view the details in the table.

To view the board error log file

The board error log is stored in: */pss_proc/sys/bel.txt*. Use FTP to access this file and view the contents.

For information about starting an FTP session, see '2.2.5 FTP Server' on page 20.

8.3 Communication (Menu 5.3)

Overview of Communication information

From the **Communication** menu you can see which communication statistics and protocols are available. The menu is divided into the following sub-menus:

- '8.3.1 Ethernet Statistics (Menu 5.3.1)' on page 104
- '8.3.2 Port Statistics (Menu 5.3.2)' on page 104
- '8.3.3 Protocols (Menu 5.3.3)' on page 105

8.3.1 Ethernet Statistics (Menu 5.3.1)

Description of Ethernet Statistics menu

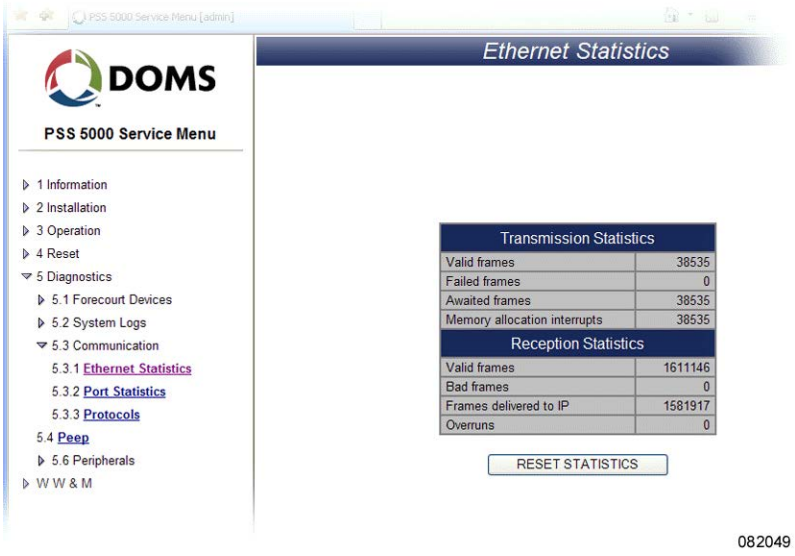
The **Ethernet Statistics** menu provides data about the network communication. Information about the amount of traffic, and the number of bad frames and overruns is displayed.

To view the Ethernet Statistics with web service pages

This procedure describes how to use the Service Menu in the web browser to view the Ethernet Statistics.

1. Select **5 Diagnostics** → **5.3 Communication** → **5.3.1 Ethernet Statistics**.

   The **Ethernet Statistics** page appears.



2. If necessary, click **RESET STATISTICS** to set all counters to 0.

8.3.2 Port Statistics (Menu 5.3.2)

Description of Port Statistics menu

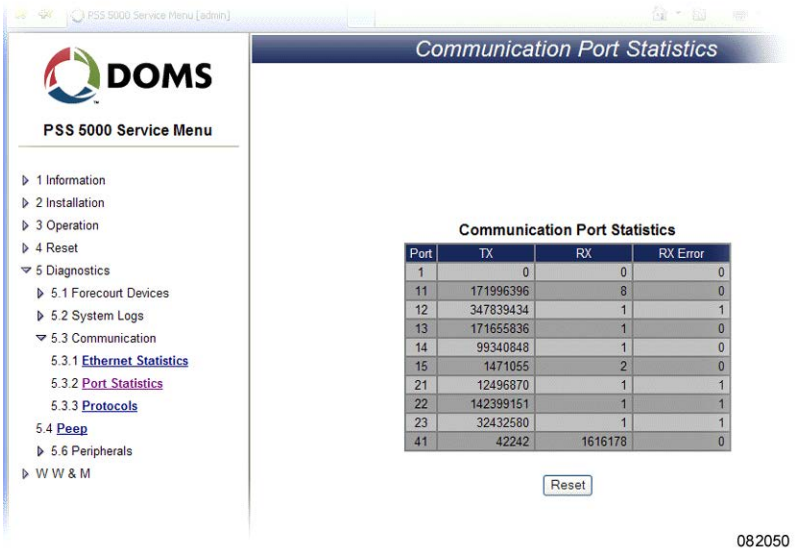
The **Port Statistics** menu provides data about the amount of traffic and the number of errors present on each of the ports on the PSS 5000 CPU board.

To view the Port Statistics with web service pages

This procedure describes how to use the Service Menu in the web browser to view the PSS 5000 statistics for the communication ports on the CPU board.

1. Select **5 Diagnostics** → **5.3 Communication** → **5.3.2 Port Statistics**.

   The **Communication Port Statistics** page appears.



2. Use the information in the table to see the traffic load on each port and where, if any, errors have occurred.

8.3.3 Protocols (Menu 5.3.3)

Description of Protocols menu

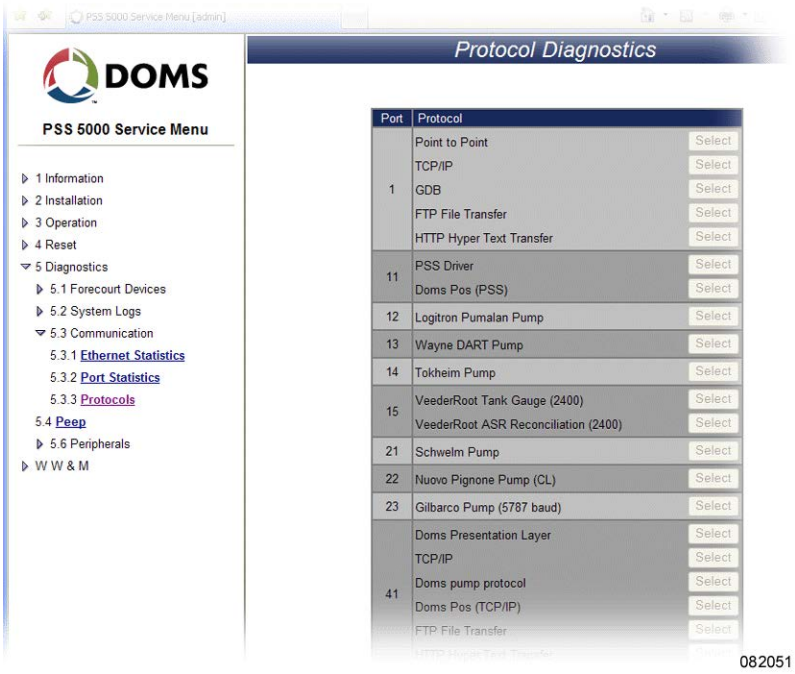
The **Protocols** menu provides a list of protocols assigned to the individual ports on the PSS 5000 CPU board.

To view the Protocols with web service pages

This procedure describes how to use the Service Menu in the web browser to view the protocol to port assignments in the PSS 5000.

1. Select **5 Diagnostics** → **5.3 Communication** → **5.3.3 Protocols**.

   The **Protocol Diagnostics** page appears.



2. Click **Select** to view a list of error counters for the selected protocol.

   Note: The **Select** button is only available for certain protocols with specific Application software.

8.4 Peep (Menu 5.4)

Description of the Peep menu

The PSS 5000 has an embedded communication dump facility, which is called a peep. The peep can basically run in two different modes. These modes are described in the table below:

Mode	Description
Peep File Swap	When running in the swap mode the peeper will swap between two file series, a and b. For example: peepfile.a00... peepfile.b00... peepfile.a00... This continues until the sequence number is increased manually by a user pressing the 'Skip' button. This is typically done when an 'interesting' event has occurred. After this, the peeper will continue swapping between peepfile.a01... peepfile.b01... peepfile.a01... and so on.
Peep File Incremental	When running in the incremental mode the peeper will create a continuous series of peep files. The file extension is c*xx*, where xx is a 2 digit sequence number from 00 to 99. After peepfile.c99 the peeper automatically continues with d00... d99... e00... e99... ...z99.

Note: Each file can be named with an optional file name (default is peepfile) and with an extension letter followed by a 2 digit sequence number (from 00 to 99).

When the Java Peep Applet is started via the systems home page, it is possible to start the peeper facility and collect peeper trace files (peep files) from the PSS 5000 system and store them on the connected PC.

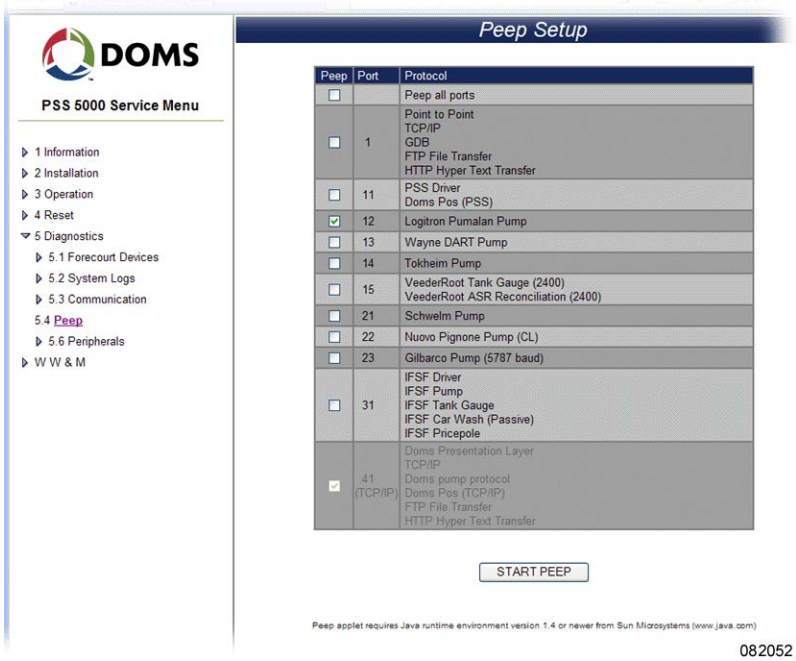
The Peeper Applet has a digital signature from VeriSign. This proves that it is an authentic Doms Java Applet. When the Applet is activated you are prompted to accept the digital signature. This ensures that the peep files are written to the hard disk. If the signature is not accepted, then the peep applet doesn't run.

To start peep with web service pages

This procedure describes how to use the Service Menu in the web browser to start the peeper.

1. Select **5 Diagnostics** → **5.4 Peep**.

   The **Peep Setup** page appears.



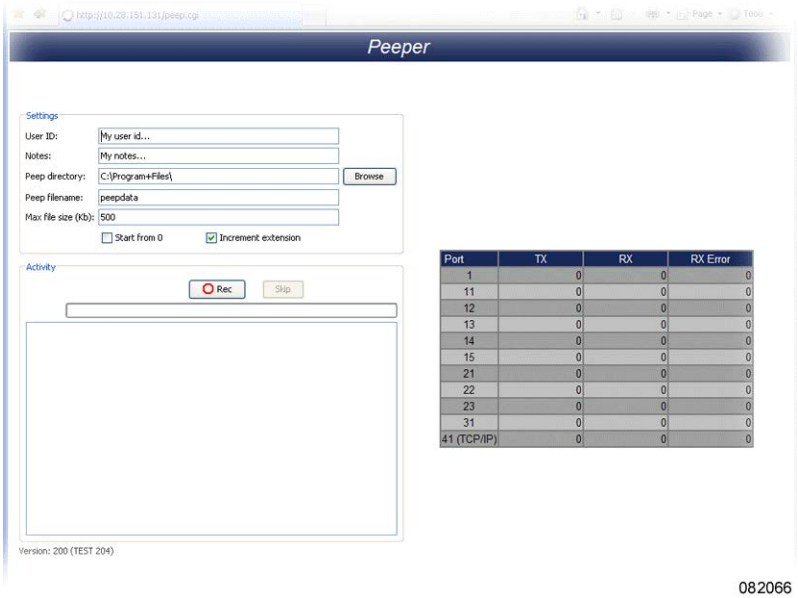
2. Select the ports where the peeper is to be active.

   Note: Port 41 is always selected. In addition to this, the following ports are also selected:
   – ports selected the last time the page was open
   – ports where the PSS 5000 has received more than 100 counters.

3. Click **START PEEP**.

Note: If you have not used this function previously, click **Run** to accept the digital signature when the security warning appears.

The Java Applet starts and the **Peeper** page appears.



4. In the **Settings** group box, provide the following information:

Field	Action
User ID	Type in your ID to make identification easier. This information appears at the top of the peep file.
Notes	Provide a short description of the problem. This information appears at the top of the peep file.
Peep directory	Use the **Browse** button to define the location for the peep file(s).
Peep filename	Type in the name to assign to the file(s). **Note:** Peep directory and filename must not exceed 100 characters.
Max. file size (Kb)	Define the maximum size of the separate peep files. Range: 1, 2, 3, ..., 1000, ..., 9998, 9999
Increment extension	Select this check box if the incremental mode is used.
Start from 0	Select this check box if only one file (a00 (swap) or c00 (incremental)) is required.

5. Click **Rec** to begin creating the peep file(s).

   The screen shows which peep file is currently active. The TX and RX counters change while data is being collected. If you want to jump to the next peep file in the sequence, click **Skip**.

6. When you have gathered enough peeper data, click **Stop**.

   The peeper stops. Before you can read the peep files it is necessary to translate them.

   Caution: If you are sending the peep files anywhere, always send the raw, unprocessed files – because these files are encrypted.

See also

For more information about translating peep files, see [6].

8.5 Test (Menu 5.5)

Overview of Test information

The **Test** menu is divided into the following sub-menus:

- ‘8.5.1 Menu 5.5.1’ on page 109
- ‘8.5.2 Boot (Menu 5.5.2)’ on page 109
- ‘8.5.3 GDB (Menu 5.5.3)’ on page 109

The use of these menu items is restricted to software developers only.

8.5.1 Menu 5.5.1

Reserved

This menu item is reserved for future use.

8.5.2 Boot (Menu 5.5.2)

Restricted

Do not use this menu item. The use of this menu item is restricted to software developers.

The function forces the PSS 5000 to remain in the boot mode. This prevents the Application Program installed from starting.

8.5.3 GDB (Menu 5.5.3)

Restricted

Do not use this menu item. The use of this menu item is restricted to software developers.

The default value for the GDB parameter is **Off**. If the state of this parameter is changed, then the Service port can not be used to access the Service menus in the PSS 5000.

8.6 Peripherals (Menu 5.6)

Overview of Peripherals

From the **Peripherals** menu you can see which devices are currently online and which peripherals have shown any recent or specific errors. The menu is divided into the following sub-menus:

- ‘8.6.1 Online List (Menu 5.6.1)’ on page 110
- ‘8.6.2 Errors (Menu 5.6.2)’ on page 110
- ‘8.6.3 Memory Module (Menu 5.6.3)’ on page 112

8.6.1 Online List (Menu 5.6.1)

Description of online list menu

The **Online List** menu provides a list of all the peripherals currently online with the PSS 5000.

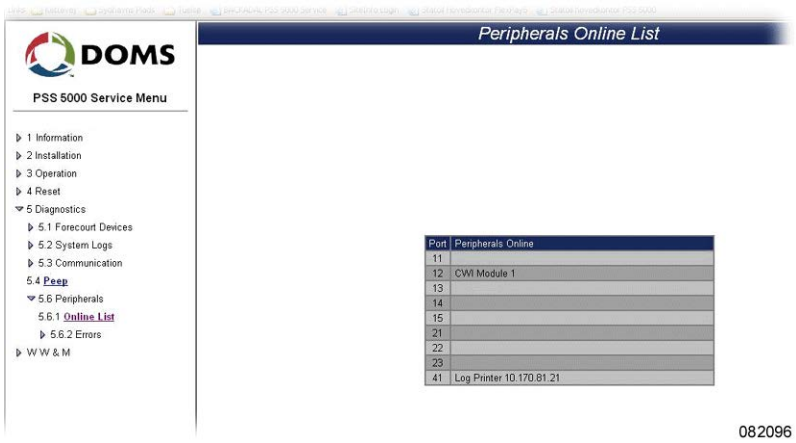
To view the peripherals online with web service pages

This procedure describes how to use the Service Menu in the web browser to view which peripherals are connected to the ports of the CPU board.

Note: The items listed in this list are devices associated with the PSS 5000, for example a memory module.

1. Select **5 Diagnostics** → **5.6 Peripherals** → **5.6.1 Online List**.

   The **Peripherals Online List** page appears.



2. Use the list to see which peripherals are actually connected to the ports of the CPU board.

8.6.2 Errors (Menu 5.6.2)

Description of Errors menu

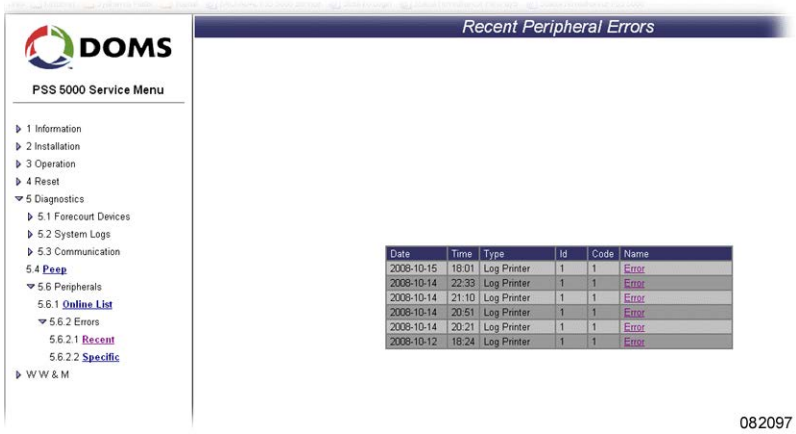
The **Errors** menu enables you to see all the recent errors on all the peripherals. Alternatively, you can create a list of errors for specific types of peripheral devices.

To view recent errors with web service pages

This procedure describes how to use the Service Menu in the web browser to view which errors have occurred recently on the peripherals.

1. Select **5 Diagnostics** → **5.6 Peripherals** → **5.6.2 Errors** → **5.6.2.1 Recent**.

   The **Recent Peripheral Errors** page appears.



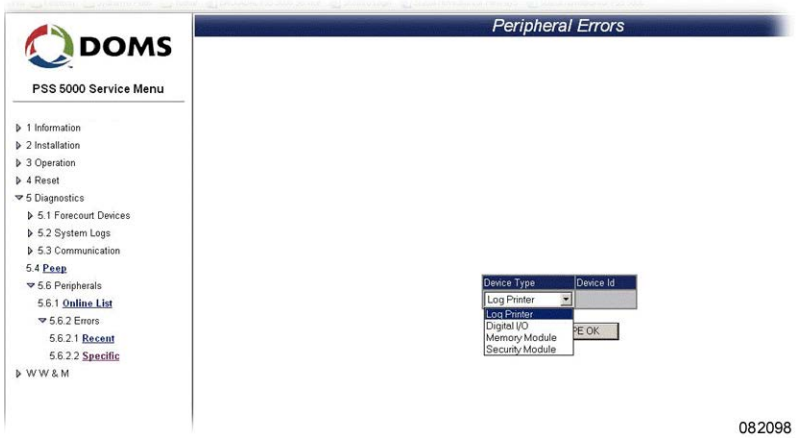
2. Use the list to see where errors have occurred recently on the peripherals.

To view errors on specific peripherals with web service pages

This procedure describes how to use the Service Menu in the web browser to see where errors have occurred on specific peripheral device types.

1. Select **5 Diagnostics** → **5.6 Peripherals** → **5.6.2 Errors** → **5.6.2.2 Specific**.

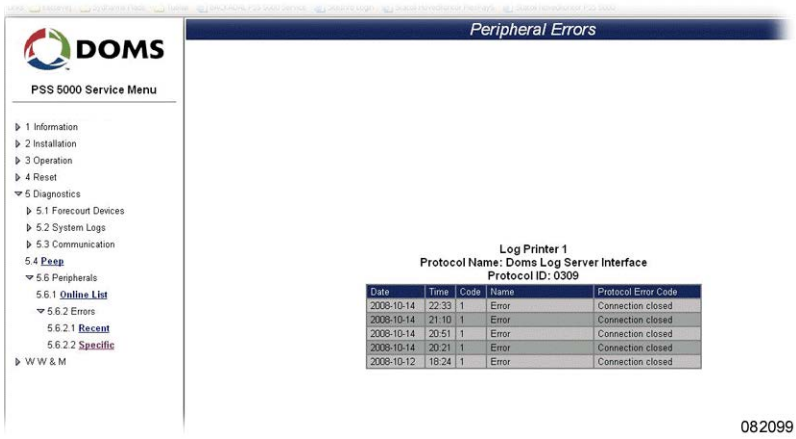
   The **Peripheral Errors** page appears.



2. Open the **Device Type** drop-down list and select the peripheral device type.
3. Click **DEVICE TYPE OK**.
4. Open the **Device ID** drop-down list and select the ID number for the specific peripheral.

5. Click **DEVICE ID OK**.

   A list of errors for the specific peripheral device appears.



6. Use the list to view the errors that have occurred on the selected peripheral device.

8.6.3 Memory Module (Menu 5.6.3)

Description of Memory Module menu

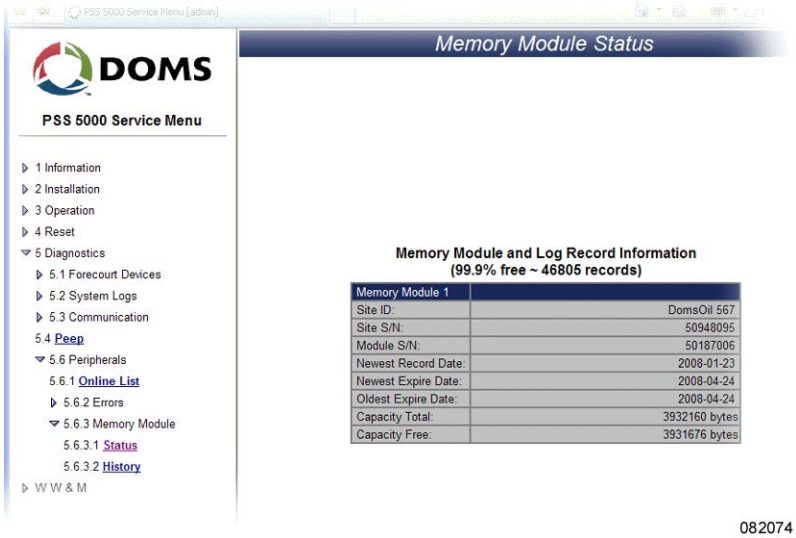
Using the Memory Module menu enables you to see the ID of the sites where the modules have been used previously, the total memory capacity of the module and how much free-space is still available on the module.

To view status of the memory module with web service pages

This procedure describes how to use the Service Menu in the web browser to view the status of the memory module(s) installed in the PSS 5000.

1. Select **5 Diagnostics** → **5.6 Peripherals** → **5.6.3 Memory Module** → **5.6.3.1 Status**.

   The **Memory Module Status** page appears.



2. Use the information on the page to view the details for the memory module, where it is installed, the total amount of memory and the amount of free-memory still available.

Note: If multiple modules are installed, the details for each module appear in separate tables.

To view errors on specific peripherals with web service pages

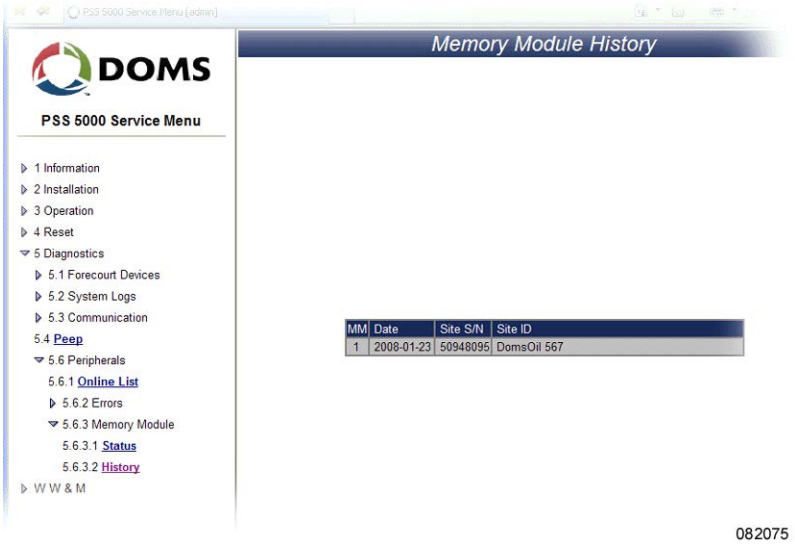
This procedure describes how to use the Service Menu in the web browser to see where memory modules that have been installed previously were used.

Note: Each time a memory module is installed, the site details are logged in the memory of the memory module.

1. Select **5 Diagnostics → 5.6 Peripherals → 5.6.3 Memory Module → 5.6.3.2 History**.

   The **Memory Module History** page appears.

   Note: It may take some time to display this page.



2. Use the information on the page to view the details of where the memory module has been installed previously.

9 W & M (Menu W)

Overview of W & M menu

The **W & M** menu is divided into the following sub-menus:

Description

The PSS 5000 contains several Weights and Measures facilities. These facilities ensure the correct operational status of the PSS 5000 and the integrity of the data it collects and stores. The facilities continually check that operational critical functions, such as the Local Service Panel display, are functioning correctly. Should an error occur in one or more of these functions, then the W&M facilities will ensure that large transactions or unattended terminal payments cannot continue until the error is corrected.

The W&M Menu enables you to obtain important information about the PSS 5000 system and provides a way for you to check that the W&M facilities are functioning correctly. You are able to simulate an error on one or more of the operational critical functions, for example the Local Service Panel display, and see if the PSS 5000 reacts accordingly. By being able to do this and see the results, you can verify that no errors are present on any of the checking facilities.

LSP Idle menu

For all the local service panel procedures, it is assumed that the Idle menu is shown in the display at the start of the procedure. For more information about the idle menu, see ‘Local Service Panel display’ on page 24.

9.1 LAM Version (Menu W.1)

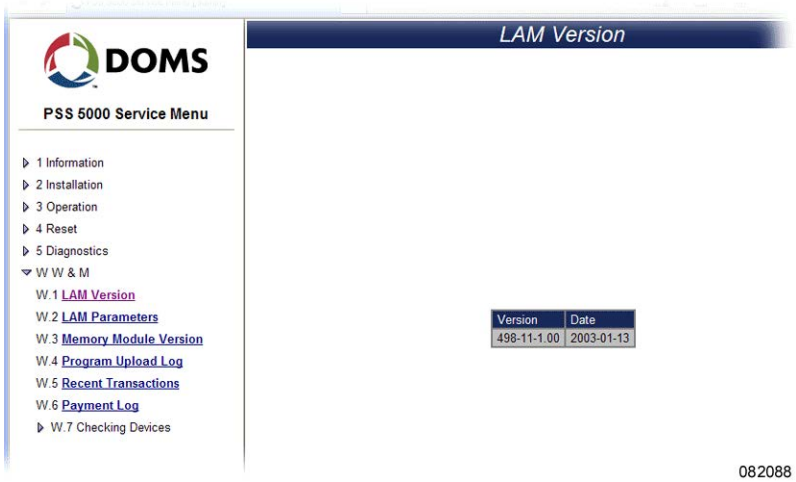
To view the LAM version with web service pages

This procedure describes how to use the Service Menu in a web browser to view the version and checksum number of the LAM currently loaded in the PSS 5000.

Note: It is assumed that the Service Menu is already open in a web browser application.

1. Select **W W & M → W.1 LAM Version**.

   The **LAM Version** window appears.



2. Read the LAM version and the date when the LAM file was created from the table.

To view the LAM version with local service panel

This procedure describes how to use the Local Service Panel to view the version and checksum number of the LAM currently loaded in the PSS 5000.

Note: It is assumed that the Idle menu is shown in the display.

1. Press ↓ to move to the **LAM VERSION W.1** menu.

081056

2. Press → to move to the **LAM VERS. CHKSUM** menu.

081057

   View the LAM version and checksum data for the LAM installed.

9.2 LAM Parameters (Menu W.2)

Description of LAM parameters

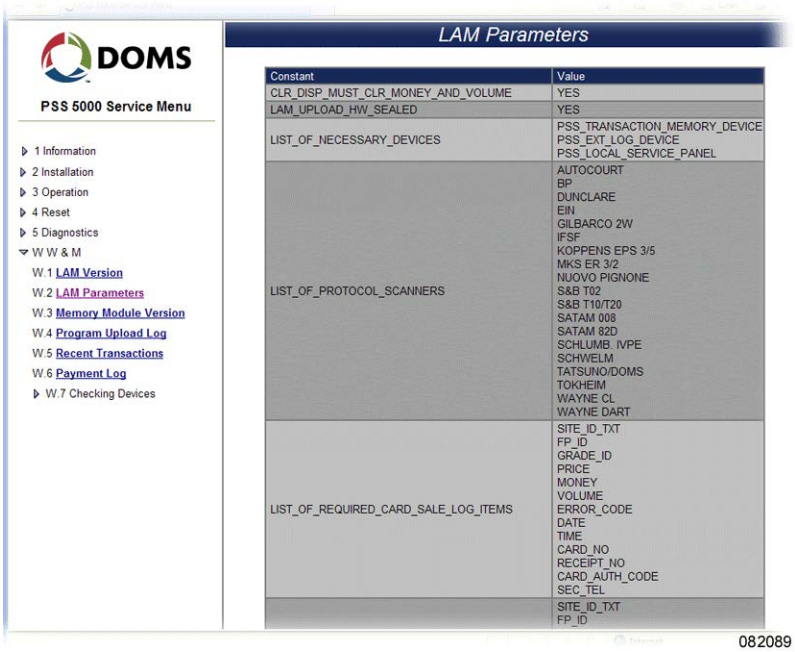
The LAM parameters are specific for each version for the LAM. For specific details, please see the country specific LAM documentation.

To view LAM parameters with web service pages

This procedure describes how to use the Service Menu in the web browser to view the LAM parameters for the current LAM.

1. Select **W W & M** → **W.2 LAM Parameters**.

   The **LAM Parameters** page appears.



   Note: The actual parameters displayed depend on the actual LAM loaded in the PSS 5000

2. Use the list to view the actual LAM parameters.

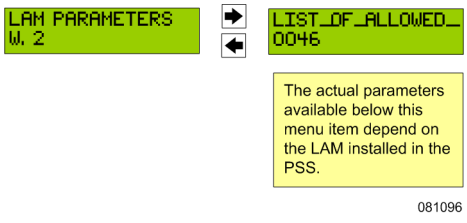
To view LAM parameters with local service panel

This procedure describes how to use the Local Service Panel to view the version and checksum number of the LAM currently loaded in the PSS 5000.

Note: It is assumed that the Idle menu is shown in the display.

1. Press ↓ to move to the **LAM VERSION W.1** menu.

2. Press ↓ to move to the **LAM PARAMETERS W.2** menu.
3. Press → to move to the first LAM parameter.



4. Use the 4 navigation buttons to move through the LAM parameters and view the set values.
5. Press OK to stop viewing the parameters and return to **LAM PARAMETERS W.2**.

6.

9.3 Memory Module Version (Menu W.3)

Description of Memory Module Version menu

Using the **Memory Module Version** menu, you can view the program version and checksum for each memory module.

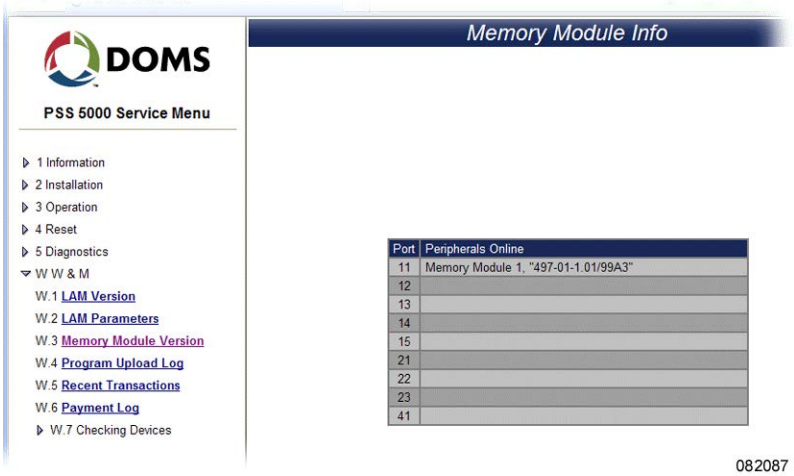
Note: This menu is only relevant if the PSS 5000 is configured with at least one memory module and the memory module(s) must be configured in the *setup.ini* file. For information about configuring the file see '5.7 Peripheral Configuration (Menu 2.7)' on page 65.

To view the memory module details with web service pages

This procedure describes how to use the Service Menu in the web browser to view the memory module details.

1. Select **W W & M → W.3 Memory Module Version**.

   The **Memory Module Info** page appears.



2. Use the information on screen to see how many memory modules are installed, the ID of each module and to which CPB port(s) they are connected.

To view the memory module details with local service panel

This procedure describes how to use the Service Menu in the local service panel to view the memory module details.

1. Press ↓ to move to the **LAM VERSION W.1** menu.

2. Press ↓, ↓ to move to **MEM. MODULE INFO W.3** menu.
3. Press → to move to the sub-menus and view the details for the memory module(s).

9.4 Program Upload Log (Menu W.4)

Description of the Upload Log menu

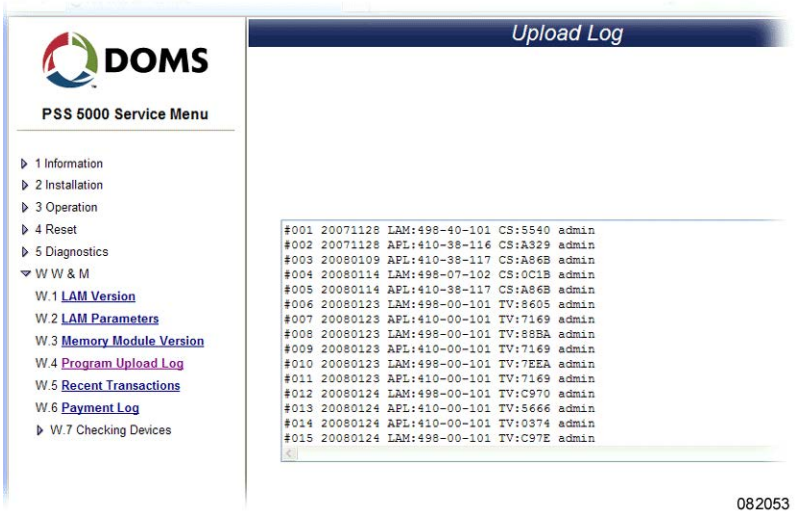
The upload log menu provides a record of when the LAM and application software were uploaded to the PSS 5000. Each record contains a date stamp, the software version number and an ID of the user who made the upload.

To view upload log with web service pages

This procedure describes how to use the Service Menu in the web browser to view the upload log details.

1. Select **W W & M → W.4 Program Upload Log**.

   The **Upload Log** page appears.



2. Use the list of upload entries to see when the uploads occurred.

To view the upload log with local service panel

This procedure describes how to use the Service Menu in the local service panel to view the upload log details.

1. Press ↓ to move to the **LAM VERSION W.1** menu.

2. Press ↓, ↓, ↓ to move to **PROG UPLOAD LOG W.4** menu.
3. Press → to move to view the upload log data.

4. Use the 4 navigation buttons to move around upload log data.
5. Press OK to stop viewing the data and return to **PROG UPLOAD LOG W.4**.

See also

For more information about viewing the details in the log, see:

- 'Viewing data in the Local Service Panel display' on page 25

9.5 Recent Transactions (Menu W.5)

To view Recent Transactions data with local service panel

This procedure describes how to use the Local Service Panel to view all the data for recent transactions that have taken place in the PSS 5000.

Note: It is assumed that the Idle menu is shown in the display.

1. Press ↓ to move to the **LAM VERSION W.1** menu.

081056

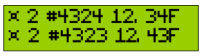
2. Press ↓, ↓, ↓, ↓ to move to the **RECENT TRANSAC. W.5** menu.

081058

3. Press → to move to the **PUMP NUMBER?** menu.

081059

4. Press ↓ or ↑ to select the number of the pump from which you want to view data.
5. Press → to move to the transaction data of the selected pump.



081060

6. Use the navigation buttons to view the transactions data for the selected pump.
7. Press OK to exit the transaction data and return to the **RECENT TRANSAC. W.5** menu.

See also

For more information about the format of recent transaction data:

- 'A.1 Recent Transactions File Format' on page 129.

9.6 Payment Log (Menu W.6)

Description of the payment log menu

The **Payment Log** menu is used to view the payment log for unattended transactions, such as paid BNA (bank note) and Card transactions. The transaction payment log is stored on the PSS Flash Memory Module.

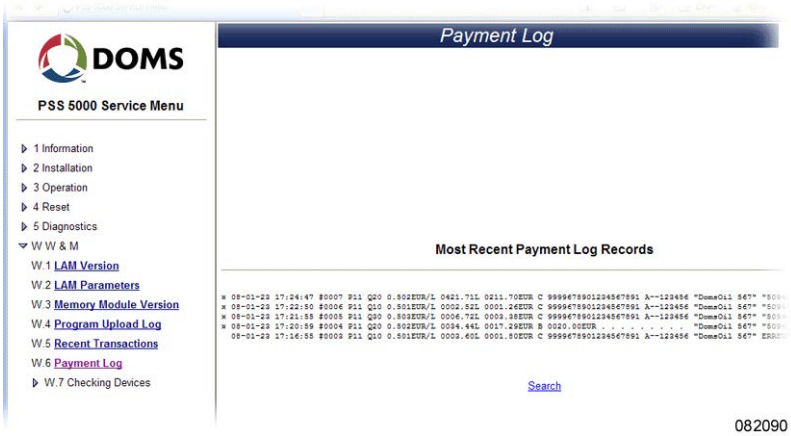
A payment record is selected and identified by the transaction type (Note or Card), date and a 4-digit receipt number. Any transaction with the wrong LogRecordAuthenticationCode will be marked with 'LOGERR'.

To view the payment log data with web service pages

This procedure describes how to use the Service Menu in the web browser to view data for payments that have taken place recently

1. Select **W W & M** → **W.6 Payment Log**.

   The **Payment Log** page appears.



2. Use the information on screen to view the most recent payment log records.

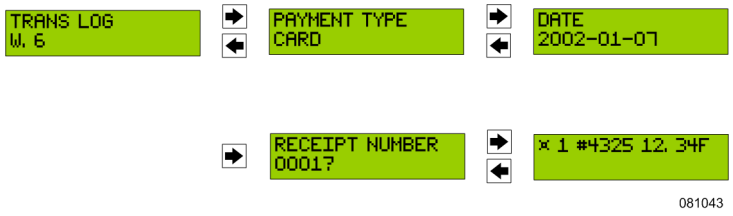
To view payment log data with local service panel

This procedure describes how to use the Local Service Panel to view all the data for payments that have taken place in the PSS 5000.

Note: It is assumed that the Idle menu is shown in the display.

1. Press ↓ to move to the **LAM VERSION W.1** menu.

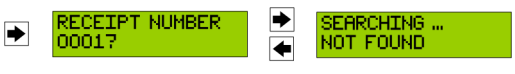
2. Press ↓, ↓, ↓, ↓, ↓ to move to the **PAYMENT LOG W.6** menu.
3. Press the buttons in the sequence shown below to move to the sub-menus and view the payment log data.



   Use ↓ or ↑ to change values or selections in the sub-menus.

4. When the correct record log is located, use the navigation buttons to view the data in the whole record.

   If no transactions are present, then the following message appears.



See also

For more information about the format of transaction log file format:

- 'A.2 Transaction Log File Format' on page 130.

9.7 Checking Devices (Menu W.7)

Overview of Checking Devices menu

From the sub-menus under the **Checking Devices** menu, you can see which devices are online and get status and error information for the forecourt devices. The **Checking Devices** menu is divided into the following sub-menus:

- '9.7.1 Display Error (Menu W.7.1)' on page 122
- '9.7.2 Send Error Security Telegram (Menu W.7.2)' on page 123
- '9.7.3 LAM Code Error (Menu W.7.3)' on page 123
- '9.7.4 RTC Error (Menu W.7.4)' on page 124
- '9.7.5 Trans Memory (Menu W.7.5)' on page 125

Description of the Checking Devices menu

The **Checking Devices** menu is a way to check/test the functionality of the PSS 5000. By activating the built-in checking device(s), which simulate/introduce various errors or malfunction states, and observing the reaction(s), it is possible to see if the tested functions in the PSS 5000 are behaving correctly.

To activate checking devices with web service pages

This procedure describes how to use the checking device functions in the Service Menu. By simulating an error on an operational critical function you are able to make sure that the checking facility in the PSS 5000 registers the error and responds in the correct manner.

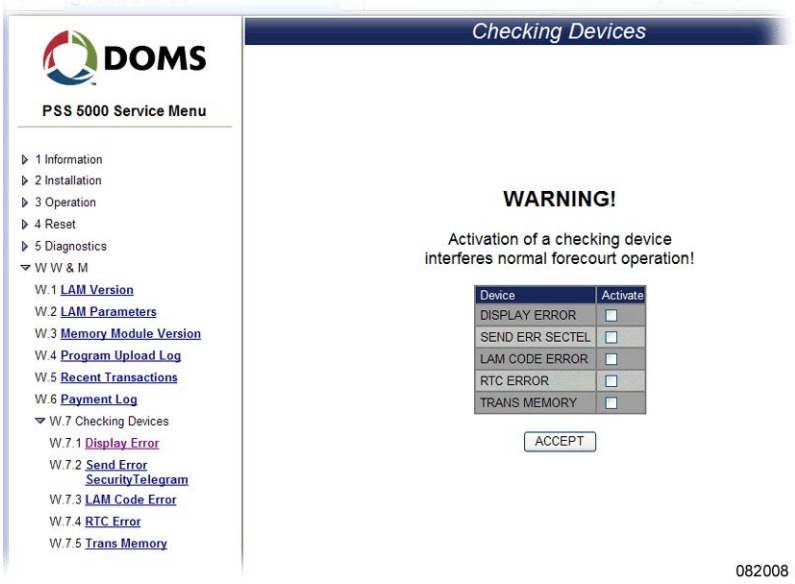
1. Select **W W&M → W.7 Checking Devices → W.7.x <*sub-menu*>**.

   Where the <*sub-menu*> selection is one of those present in the list.

   The steps below provide an example for using the Checking Devices menu, where the sub-menu **W.7.1 Display Error** is selected.

2. Select **W W&M → W.7 Checking Devices → W.7.1 Display Error**.

   The **Checking Devices** window appears.



Note: Although it is possible to select more than one checking device, we recommend that you select only one. Alternatively, start with a single checking device and then, if necessary, select an additional one.

3. Select the checking device option you want to activate.

4. Press **ACCEPT**.

   The message **Checking devices set OK** appears. This informs you that the selected device now has a simulated error present.

5. You are now able to check that the PSS 5000 has responded in the correct way.

6. Select **W.7 Checking Devices** again.

7. In the **Checking Devices** window, clear the selection from the checking device error selected in Step 3.

8. Press **ACCEPT**.

   Failure to clear the checking device error results in the PSS 5000 not being fully operational.

9. If you want to start another checking device, repeat Steps 3. through 8.

9.7.1 Display Error (Menu W.7.1)

To activate display errors with web service pages

The procedure used here is the same procedure as is used to check all the devices, see 'To activate checking devices with web service pages' on page 121.

To activate display errors with local service panel

This procedure describes how to activate the built-in checking device that makes sure that the Local Service Panel display checking facility is operating correctly.

Note: It is assumed that the Idle menu is shown in the display.

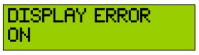
1. Press ↓ to move to the **LAM VERSION W.1** menu.

081056

2. Press ↓, ↓, ↓, ↓, ↓, ↓ to move to the **CHECKING DEVICES W.7** menu.

081065

3. Press →, → to move to the **DISPLAY ERROR** menu.



081066

4. Use the ↓ and ↑ buttons to toggle between **ON** and **OFF**.

5. Press OK to activate the selected state.

   When the Display Error value is **ON**, this simulates that there is an error on the display. The PSS 5000 must react accordingly.

Note: Remember to return the checking device setting to **OFF** before you leave the PSS 5000. Failure to do this will result in the PSS 5000 not operating correctly.

9.7.2 Send Error Security Telegram (Menu W.7.2)

To activate SECTEL errors with web service pages

The procedure used here is the same procedure as is used to check all the devices, see 'To activate checking devices with web service pages' on page 121.

To activate SECTEL errors with local service panel

This procedure describes how to activate the built-in checking device that makes sure that the security telegram checking facility is operating correctly.

Note: It is assumed that the Idle menu is shown in the display.

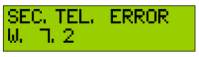
1. Press ↓ to move to the **LAM VERSION W.1** menu.

081056

2. Press ↓, ↓, ↓, ↓, ↓, ↓ to move to the **CHECKING DEVICES W.7** menu.

081065

3. Press →, ↓ to move to the **SEC.TEL. ERROR W.7.2** menu.



081068

4. Press →, to move to the **SEC.TEL. ERROR** menu.

081069

5. Use the ↓ and ↑ buttons to toggle between **ON** and **OFF**.
6. Press OK to activate the selected state.

   When the SEC.TEL. ERROR value is **ON**, this simulates that the security telegram function has an error and the PSS 5000 must react accordingly.

Note: Remember to return the checking device setting to **OFF** before you leave the PSS 5000. Failure to do this will result in the PSS 5000 not operating correctly.

9.7.3 LAM Code Error (Menu W.7.3)

To activate LAM code errors with web service pages

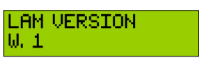
The procedure used here is the same procedure as is used to check all the devices, see 'To activate display errors with web service pages' on page 122.

To activate checking LAM Code errors with local service panel

This procedure describes how to activate the built-in checking device that makes sure that the LAM Code checking facility is operating correctly.

Note: It is assumed that the Idle menu is shown in the display.

1. Press ↓ to move to the **LAM VERSION W.1** menu.



081056

2. Press ↓, ↓, ↓, ↓, ↓, ↓ to move to the **CHECKING DEVICES W.7** menu.

081065

3. Press →, ↓, ↓ to move to the **LAM CODE ERROR W.7.3** menu.

081070

4. Press → to move to the **LAM CODE ERROR** menu.

081071

5. Use the ↓ and ↑ buttons to toggle between **ON** and **OFF**.
6. Press OK to activate the selected state.

   When the LAM CODE ERROR value is **ON**, this simulates that the LAM coder function has an error and the PSS 5000 must react accordingly.

Note: Remember to return the checking device setting to **OFF** before you leave the PSS 5000. Failure to do this will result in the PSS 5000 not operating correctly.

9.7.4 RTC Error (Menu W.7.4)

To activate RTC errors with web service pages

The procedure used here is the same procedure as is used to check all the devices, see 'To activate checking devices with web service pages' on page 121.

To activate checking RTC errors with local service panel

This procedure describes how to activate the built-in checking device that makes sure that the RTC (Real Time Clock) checking facility is operating correctly.

Note: It is assumed that the Idle menu is shown in the display.

1. Press ↓ to move to the **LAM VERSION W.1** menu.

081056

2. Press ↓, ↓, ↓, ↓, ↓, ↓ to move to the **CHECKING DEVICES W.7** menu.

081065

3. Press →, ↓, ↓, ↓ to move to the **RTC ERROR W.7.4** menu.

081072

4. Press → to move to the **RTC ERROR** menu.

081073

5. Use the ↓ and ↑ buttons to toggle between **ON** and **OFF**.
6. Press OK to activate the selected state.

   When the RTC ERROR value is **ON**, this simulates that the real time clock has an error and the PSS 5000 must react accordingly.

Note: Return the checking device setting to **OFF** before you leave the PSS 5000. Failure to do this will result in the PSS 5000 not operating correctly.

9.7.5 Trans Memory (Menu W.7.5)

To activate trans memory errors with web service pages

The procedure used here is the same procedure as is used to check all the devices, see 'To activate checking devices with web service pages' on page 121.

To activate checking Transaction Memory with local service panel

This procedure describes how to activate the built-in checking device that makes sure that the Transaction Memory checking facility is operating correctly.

1. Press ↓ to move to the **LAM VERSION W.1** menu.

081056

2. Press ↓, ↓, ↓, ↓, ↓, ↓ to move to the **CHECKING DEVICES W.7** menu.

081065

3. Press →, ↓, ↓, ↓, ↓ to move to the **TRANS MEMORY ERR W.7.5** menu.

141001

4. Press → to move to the **TRANS MEMORY ERR** menu.

141002

5. Use the ↓ and ↑ buttons to toggle between **ON** and **OFF**.
6. Press OK to activate the selected state.

   When the TRANS MEMORY value is **ON**, this simulates that the memory has an error and the PSS 5000 must react accordingly.

Note: Remember to return the checking device setting to **OFF** before you leave the PSS 5000. Failure to do this will result in the PSS 5000 not operating correctly.

To activate checking Transaction Read with local service panel

This procedure describes how to activate the built-in checking device to verify that the Trans Read checking facility is operating correctly.

1. Press ↓ to move to the **LAM VERSION W.1** menu.

081056

2. Press ↓, ↓, ↓, ↓, ↓, ↓ to move to the **CHECKING DEVICES W.7** menu.

081065

3. Press →, ↓, ↓, ↓, ↓, ↓ to move to the **TRANS READ ERR W.7.6** menu.

151004

4. Press → to move to the **TRANS READ ERR** menu.

151006

5. Use the ↓ and ↑ buttons to toggle between **ON** and **OFF**.
6. Press OK to activate the selected state.

   When the TRANS READ ERR value is **ON**, this simulates that there is an error when reading transactions and the PSS 5000 must react accordingly.

Note: Remember to return the checking device setting to **OFF** before you leave the PSS 5000. Failure to do this will result in the PSS 5000 not operating correctly.

To simulate Trans Log Read errors with local service panel

This procedure describes how to activate the built-in checking device to verify that the Trans Read checking facility is operating correctly.

1. Press ↓ to move to the **LAM VERSION W.1** menu.

081056

2. Press ↓, ↓, ↓, ↓, ↓, ↓ to move to the **CHECKING DEVICES W.7** menu.

081065

3. Press →, ↓, ↓, ↓, ↓, ↓, ↓ to move to the **TRANS LOG RD ERR W.7.7** menu.

151005

4. Press → to move to the **TRANS LOG RD ERR** menu.

151007

5. Use the ↓ and ↑ buttons to toggle between **ON** and **OFF**.

6. Press OK to activate the selected state.

   When the TRANS LOG RD ERR value is **ON**, this simulates that there is an error when reading transactions and the PSS 5000 must react accordingly.

Note: Remember to return the checking device setting to **OFF** before you leave the PSS 5000. Failure to do this will result in the PSS 5000 not operating correctly.

9.8 Date & Time Change Log (Menu W.8)

Description of the Date & Time Change Log menu

The Date & Time Change Log menu provides a list of entries that shows when the Date and Time parameters for the system were changed. Each record contains a sequence number, the date and time when the change took place, the date and time that were set and an indication as to where the change was made.

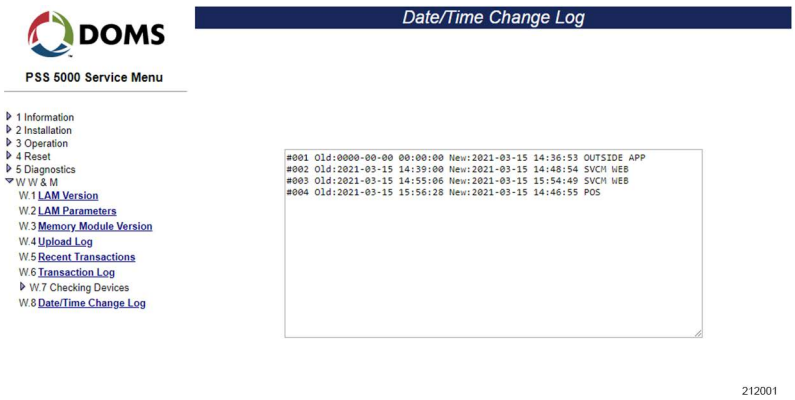
To view Date & Time Change log with web service pages

This procedure describes how to use the Service Menu in the web browser to view the Date & Time Change log details.

Note: This is a read-only page.

1. Select **W W & M** → **W.8 Date & Time Change Log**.

   The **Date & Time Change Log** page appears.



2. Use the list of upload entries to see when the date and time changes occurred.

Part III: Reference Information

A File Formats in the PSS 5000

Overview of file format information

File formats used in PSS 5000 are described in the following topics:

- 'A.1 Recent Transactions File Format' on page 129
- 'A.2 Transaction Log File Format' on page 130
- 'A.3 Upload Log File Format' on page 134

The formats of these files are of interest because, when viewing the files using the Local Service Panel, no labels are available and only a limited amount of the file is visible.

A.1 Recent Transactions File Format

Recent Transactions file format (LAM vers. 1.xx)

The figure below is an example of part of a Recent Transactions file for LAM software version 1.xx.

1	2	3	4	5	6	7	8	9	10
¤	08-01-23	15:50:24	P11	#0005	0.511EUR/L	0005.40L	0002.76EUR	–	
¤	08-01-23	15:50:10	P11	#0004	0.511EUR/L	0004.44L	0002.27EUR	M	
¤	08-01-23	15:49:48	P11	#0003	0.511EUR/L	0003.24L	0001.66EUR	–	*
	08-01-23	15:49:09	P11	#0002	ERROR TRANSACTION			–	*
¤	08-01-23	15:44:38	P11	#0001	0.511EUR/L	0001.56L	0000.80EUR	M	*

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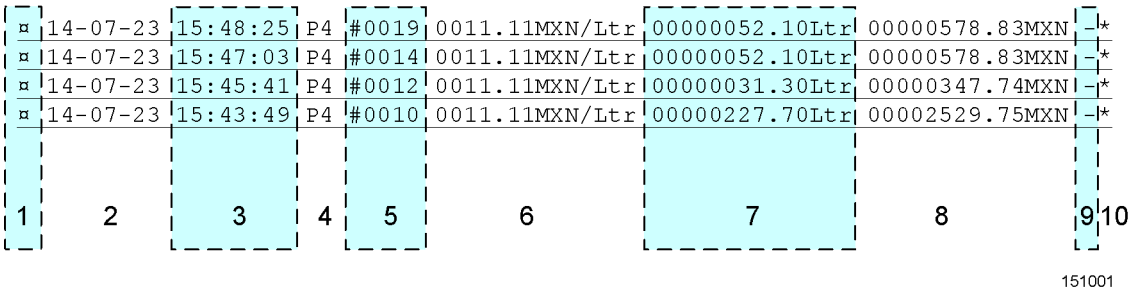
The table below explains what is represented by the values in the different columns of the transaction data.

Column	Explanation
1	W&M character. "¤" indicates that the security telegram is intact.
2	Date of the transaction. Date has the format: *yy-mm-dd*.
3	Time of the transaction. Time has the format: *hh*:*mm*:*ss*.
4	Number of pump where transaction occurred.
5	The transaction sequence number. This sequence is reset when the PSS 5000 is Master Reset.
6	Volume price. The currency unit and volume units are determined by the LAM.
7	Total volume of the transaction. A measured value from the pumps. The volume unit is determined by the LAM.
8	Total cost for the transaction. This value comes from the pumps.
9	Transaction Status. **M** indicates that the transaction is stored in memory. **–** indicates that the transaction is a current transaction.
10	Payment Status. * indicates that the transaction is paid. <*empty*> indicates that the transaction is not paid.

Recent Transactions file format (LAM vers. 2.xx)

The figure below is an example of part of a Recent Transactions file for LAM software version 2.xx.



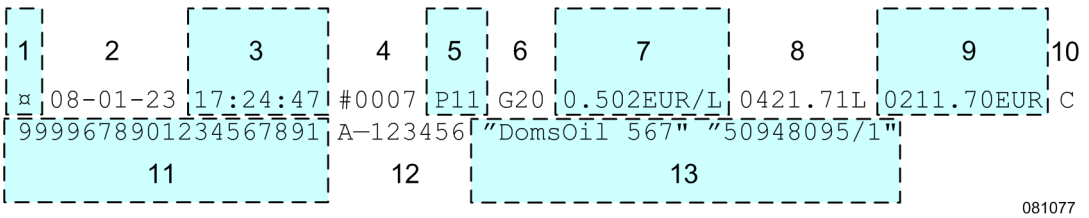
The table below explains what is represented by the values in the different columns of the transaction data.

Column	Explanation
1	W&M character. "¤" indicates that the security telegram is intact.
2	Date of the transaction. Date has the format: *yy-mm-dd*.
3	Time of the transaction. Time has the format: *hh*:*mm*:*ss*.
4	Number of pump where transaction occurred.
5	The transaction sequence number. This sequence is reset when the PSS 5000 is Master Reset.
6	Unit price. The currency unit and volume units are determined by the LAM.
7	Total volume of the transaction. A measured value from the pumps. The volume unit is determined by the LAM.
8	Total cost for the transaction. This value comes from the pumps.
9	Transaction Status. **M** indicates that the transaction is stored in memory. **–** indicates that the transaction is a current transaction.
10	Payment Status. * indicates that the transaction is paid. <*empty*> indicates that the transaction is not paid.

A.2 Transaction Log File Format

Transaction Log file format (card payment) (LAM vers. 1.xx)

The figure below shows an example of a single line from a Transaction Log file for LAM software version 1.xx. The data shows that it was a card payment transaction that occurred.

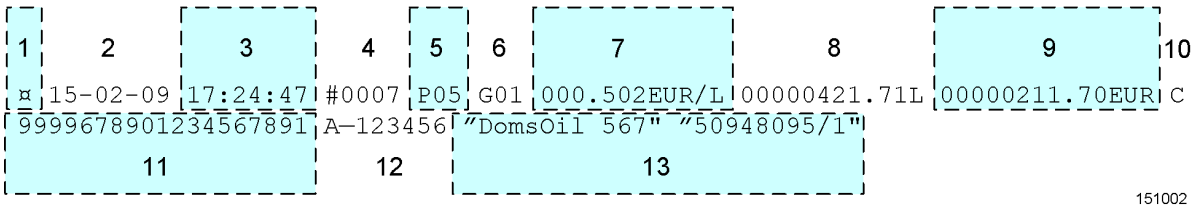


The table below explains what is represented by the values in the different columns of the transaction data.

Column	Explanation
1	W&M character. "¤" indicates that the security telegram is intact.
2	Date of the transaction. Date has the format: *yy-mm-dd*.
3	Time of the transaction. Time has the format: *hh*:*mm*:*ss*.
4	Transaction sequence number.
5	Number of pump where transaction occurred.
6	Transaction grade ID .
7	Volume price. The currency unit and volume units are determined by LAM.
8	Total volume of the transaction. A measured value from the pumps. The volume unit is determined by LAM.
9	Total cost for the transaction. This value comes from the pumps.
10	Type of Payment. **C** indicates that a card payment occurred. **N** indicates that a banknote payment occurred.
11	Card number used.
12	Authorization code for card transaction.
13	Station ID or name.

Transaction Log file format (card payment) (LAM vers. 2.xx)

The figure below shows an example of a single line from a Transaction Log file for LAM software version 2.xx. The data shows that it was a card payment transaction that occurred.



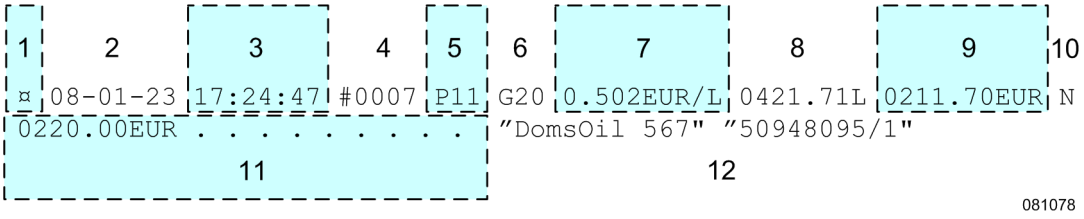
The table below explains what is represented by the values in the different columns of the transaction data.

Column	Explanation
1	W&M character. "¤" indicates that the security telegram is intact.
2	Date of the transaction. Date has the format: *yy-mm-dd*.
3	Time of the transaction. Time has the format: *hh*:*mm*:*ss*.
4	Transaction sequence number.
5	Number of pump where transaction occurred.
6	Transaction grade ID.
7	Unit price. The currency unit and quantity units are determined by LAM.

Column	Explanation
8	Total volume of the transaction. A measured value from the pumps. The volume unit is determined by LAM.
9	Total cost for the transaction. This value comes from the pumps.
10	Type of Payment. **C** indicates that a card payment occurred. **N** indicates that a banknote payment occurred.
11	Card number used.
12	Authorization code for card transaction.
13	Station ID or name.

Transaction Log file format (banknote payment) (LAM vers. 1.xx)

The figure below shows an example of a single line from a Transaction Log file for LAM software version 1.xx. The data shows that it was a banknote payment transaction that occurred.

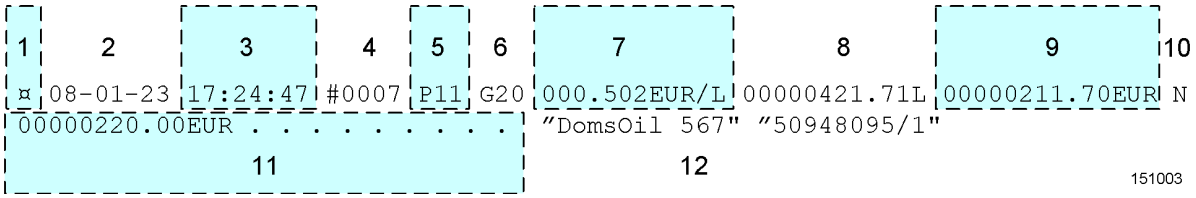


The table below explains what is represented by the values in the different columns of the transaction data.

Column	Explanation
1	W&M character. "¤" indicates that the security telegram is intact.
2	Date of the transaction. Date has the format: *yy-mm-dd*.
3	Time of the transaction. Time has the format: *hh*:*mm*:*ss*.
4	Transaction sequence number.
5	Number of pump where transaction occurred.
6	Transaction grade ID.
7	Volume price. The currency unit and volume units are determined by the LAM.
8	Total volume of the transaction. A measured value from the pumps. The volume unit is determined by the LAM.
9	Total cost for the transaction. This value comes from the pumps.
10	Type of Payment. **C** indicates that a card payment occurred. **N** indicates that a banknote payment occurred.
11	Prepaid monetary value.
12	Station ID or name.

Transaction Log file format (banknote payment) (LAM vers. 2.xx)

The figure below shows an example of a single line from a Transaction Log file for LAM software version 2.xx. The data shows that it was a banknote payment transaction that occurred.



The table below explains what is represented by the values in the different columns of the transaction data.

Column	Explanation
1	W&M character. "¤" indicates that the security telegram is intact.
2	Date of the transaction. Date has the format: *yy-mm-dd*.
3	Time of the transaction. Time has the format: *hh*:*mm*:*ss*.
4	Transaction sequence number.
5	Number of pump where transaction occurred.
6	Transaction grade ID.
7	Unit price. The currency unit and quantity units are determined by the LAM.
8	Total volume of the transaction. A measured value from the pumps. The volume unit is determined by the LAM.
9	Total cost for the transaction. This value comes from the pumps.
10	Type of Payment. **C** indicates that a card payment occurred. **N** indicates that a banknote payment occurred.
11	Prepaid monetary value.
12	Station ID or name.

A.3 Upload Log File Format

Upload log file format

The figure below is an example of part of an upload log file.

Note: The name and location of the file is: */pss_mem/1/sys/bul.txt*

```
#001 20071128 LAM:498+00-101 CS:5540 admin
#002 20071128 APL:410-38+116 CS:A329 admin
#003 20080109 APL:410-38-117 CS:A86B admin
#004 20080114 LAM:498+07+102 CS:0C1B admin
#005 20080114 APL:410-38-117 CS:A86B admin
#006 20080123 LAM:498+40-101 CS:8605 admin
  1      2      3    4   5   6     7     8   9
```

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The table below explains what is represented by the values in the different columns of the log.

Column	Explanation
1	Recorded sequence number. Starts from 000
2	Date of the record. Date has the format: *yyyy-mm-dd*.
3	Program Category. Can be either LAM or APL.
4	Program Type.
5	Program branch.
6	Program version.
7	Program Checksum.
8	Upload user ID.
9	Optional data.

B Web Service Connections

Overview

PSS 5000 connectivity issues are described in the following topics:

B.1 PC and Browser Requirements

Description of PC and browser requirements

Access to the web pages is supported both for Microsoft Internet Explorer and for Firefox. In order to have full access to the PSS 5000 system functionality, Microsoft Internet Explorer version 6 or higher, or Firefox 1.5 or higher is required. The pages are optimized for a screen resolution of 600x800.

The PSS 5000 Web Pages can be accessed using an Ethernet connection and/or via the Service Port using a modem or null modem connection.

B.2 Ethernet Connections

Description of the Ethernet connection

For a normal network connection the IP address of the boards are set up according to the IP address plan for the site. This address is then used when connecting to the PSS 5000 system.

Note: Access to the system on this IP address is controlled by external devices such as routers and firewalls. These are configured by the network administrator.

Cable types

When connecting the PSS 5000 using an Ethernet connection, use the following cables:

Connecting to...	Cable Type
Network	Patch cable (straight thro')
PC	Cross cable

B.3 Service Port Connection

Description of Service Port connections

The Service Port uses TCP/IP via PPP. This must be configured either for a modem connection or a null modem connection.

Note: The IP address of the PSS Service Port is fixed = 11.0.0.90.

The default setting from the factory is a null modem connection.

For information about setting up the Service Port, see '5.3.2 Service Port Set-up (Menu 2.3.2)' on page 47.

B.3.1 Modem Connection

Description of modem connections

Commercial modems connected to the Service port must be initialized before they are connected to the Service port. For details on how to configure the mo-

dem and store the configuration, refer to the user documentation for the modem.

The modem must be configured to use Full Handshake support and the Baud rate must have the same setting as defined in '5.3.2 Service Port Setup (Menu 2.3.2)' on page 47.

B.3.2 Null Modem Connection

Description of null modem connections

A null modem connection enables a PC to connect directly to the Service Port of the PSS 5000 using a serial cable. A null modem connection involves the following procedures:

Note: Windows Vista does not support null modem connections.

Step	Procedure
1.	Connect the PC to the PSS 5000 using a null modem cable. See • 'To install null modem on a PC using Windows 2000' on page 136, or • 'To install null modem on a PC using Windows XP' on page 137
2.	Create a null modem connection from the PC. See: • 'To create a null modem connection on a PC using Windows 2000' on page 137, or • 'To create a null modem connection on a PC using Windows XP' on page 138.
3.	Configure the null modem connection to enable communication between the PC and the PSS 5000 and then connect. See 'To configure the null modem connection properties' on page 138.

Note: A null modem driver is available from the PSS 5000 Development CD.

B.3.3 Installing Null Modem Connections

To install null modem on a PC using Windows 2000

This procedure describes how to install null modem on a PC that uses Windows 2000.

1. Select **Start** → **Settings** → **Network and Modem Connections** → **Create New Connection**.

   The **Control Panel** window appears.

2. Double-click **Phone and Modem Options**.

   The **Phone and Modem Options** window appears.

3. Select the **Modems** tab.

4. Click **Add**.

   The **Add Hardware Wizard** window appears.

5. Select **Don't detect my modem; I will select it from a list**. and click **Next**.

   The **Install New Modem** page of the wizard appears.

6. In the **Manufacturer** list, select **Standard Modem Types** and in the **Models** list select **Communications cable between two computers** and click **Next**.

7. Select **Selected Ports** radio button and select the communication port (for example, COM1). Click **Next**.

8. Click **Finish** to complete the hardware installation.

   The wizard closes and returns to the **Phone and Modem Options** window.

9. Click **OK**. The setup is now saved and ready.

To install null modem on a PC using Windows XP

This procedure describes how to install null modem on a PC that uses Windows XP.

1. Select **Start** → **Settings** → **Control Panel**.

   The **Control Panel** window appears.

2. Double-click **Phone and Modem Options**.

   The **Phone and Modem Options** window appears.

3. Select the **Modems** tab.

4. Click **Add**.

   The **Add Hardware Wizard** window appears.

5. Select **Don't detect my modem; I will select it from a list**. and click **Next**.

   The **Install New Modem** page of the wizard appears.

6. In the **Manufacturer** list, select **Standard Modem Types** and in the **Models** list select **Communications cable between two computers** and click **Next**.

7. Select **Selected Ports** radio button and select the communication port (for example, COM1). Click **Next**.

8. Click **Finish** to complete the hardware installation.

   The wizard closes and returns to the **Phone and Modem Options** window.

9. Click **OK**. The setup is now saved and ready.

B.3.4 Dialling Up Using a Null Modem Connection

Restrictions

Windows Vista does not support null modem connections.

To create a null modem connection on a PC using Windows 2000

This procedure describes how to create a null modem connection on a PC that uses Windows 2000.

1. Select **Start** → **Settings** → **Network and Modem Connections** → **Create New Connection**.

   The **Control Panel** window appears.

2. Double-click **Phone and Modem Options**.

   The **Phone and Modem Options** window appears.

3. Select the **Modems** tab.

4. Click **Add**.

   The **Add Hardware Wizard** window appears.

5. Select **Don't detect my modem; I will select it from a list**. and click **Next**.

   The **Install New Modem** page of the wizard appears.

6. In the **Manufacturer** list, select **Standard Modem Types** and in the **Models** list select **Communications cable between two computers** and click **Next**.

7. Select **Selected Ports** radio button and select the communication port (for example, COM1). Click **Next**.
8. Click **Finish** to complete the hardware installation.

   The wizard closes and returns to the **Phone and Modem Options** window.
9. Click **OK**. The setup is now saved and ready.

To create a null modem connection on a PC using Windows XP

This procedure describes how to create a null modem connection on a PC that uses Windows XP.

1. Select **Start** → **Settings** → **Control Panel**.

   The **Control Panel** window appears.
2. Double-click **Network Connections**.

   The **Network Connections** window appears.
3. Select the **File** → **New Connection...**.

   The **New Connection Wizard** window appears.
4. Click **Next**.

   The **Network Connection Type** page of the wizard appears.
5. Select **Set up an advanced connection** and click **Next**.

   The **Advanced Connection Options** page of the wizard appears.
6. Select **Connect directly to another computer** and click **Next**.

   The **Host or Guest** page of the wizard appears.
7. Select the **Guest** radio button and click **Next**.

   The **Connection Name** page of the wizard appears.
8. Type in a name that identifies the connection, for example PSS 5000 and click **Next**.

   The **Select a Device** page of the wizard appears.
9. In the **Select a device** drop-down list, select **Communications cable between two computers (COM1)** and click **Next**.

   The **Connection Availability** page of the wizard appears.
10. Select the **Anyone's use** radio button and click **Next**.

    The **Completing the New Connection Wizard** page appears.
11. Click **Finish** to complete the connection.

    The wizard closes and the **Connect <*connection name*>** window appears. You are now ready 'To configure the null modem connection properties' on page 138. Go to Step 2.

To configure the null modem connection properties

This procedure describes how to configure the null modem connection between the PC and a PSS 5000.

1. Select **Start** → **Settings** → **Network Connections** → **<connection name>**.

   The **Control Panel** window appears.

2. Click **Properties**.

   The ***<connection name>*** **Properties** window appears. This window has 5 tabs:

   - **General**
   - **Options**
   - **Security**
   - **Networking**
   - **Advanced**

3. On the **General** tab, open the **Select a device** drop-down list and select **Communications cable between two computers (COM1)** if it is not already in the field.

4. Click **Configure**.

   The **Modem Configuration** window appears.

5. Set up the parameters as shown below:

   - **Maximum speed (bps): 38400**
   - Clear all check boxes

6. Click **OK**.

7. Select the **Networking** tab and set the following parameters:

   - Type of dial-up server I am calling, : **PPP: Windows ...**
   - Select **Internet Protocol (TCP/IP)** check box
   - Clear all remaining check boxes

8. Click **OK**.

   The connection is now configured correctly to communicate with PSS 5000 and the **Connect <connection name>** window appears.

9. Type in an administrator user name and administrator password for the PSS 5000 and click **Connect**.

   Note: If the PSS has not been accessed previously, then the default PSS administrator user credentials can be found in the relevant BOOT (499-xx-y.yy) Software Release Document (SRD).

   The PC now uses the null modem cable and the connection configured above to connect to the PSS 5000.

C Virtual File System

Overview

The information about the virtual file system is divided into the following topics:

C.1 The Virtual File System

List of significant vfs files

The list of files shown below is an extract of the */pss_proc/sys/vfs_inf.txt* file. It lists the most significant VFS files (and their location) that can be downloaded using FTP and viewed using any ASCII text editor. In general, these files are of interest to specialists, but a few may be of interest to technicians.

```
PSS 5000 VFS FILE SYSTEM STATUS                                  S/N  51825099
                                                               PROGRAM  41167112
                                                            BOARD TYPE    CPB509
                                                            2008-06-23  16:34:25


VFS SUPER NODE INFORMATION
   Board serial number: 51825099
   File system version: 101
   Maximum number of files: 499
   File node size: 68

VFS FILE LIST
...
   -rw-r--r-- doms    doms    2005-08-26 12:00:00    1920    1920 00000010 /pss_mem/1/sys/bul.txt
   -rw-rw-r-- admin   doms    2008-06-18 10:47:18       0    1024 553F6530 /pss_mem/2/sys/load_rsp.txt
   -rw-r--r-- admin   doms    0000-00-00 00:00:00       0       0 553E6530 /pss_proc/sys/hw_inf.txt
   -rw-rw---- admin   doms    2008-06-18 10:47:18       0    1024 553E6130 /pss_mem/2/sys/.ok2load.txt
   -rw-r--r-- admin   doms    0000-00-00 00:00:00       0       0 553E6530 /pss_proc/sys/boot_inf.txt
   -rw-r--r-- admin   doms    0000-00-00 00:00:00       0       0 553E6530 /pss_proc/sys/lam_inf.txt
   -rw-r--r-- admin   doms    0000-00-00 00:00:00       0       0 553E6530 /pss_proc/sys/appl_inf.txt
   -rw-r--r-- admin   doms    0000-00-00 00:00:00       0       0 553E6530 /pss_proc/sys/task_inf.txt
   -rw-r--r-- admin   doms    0000-00-00 00:00:00       0       0 553E6530 /pss_proc/sys/bel.txt
...
```

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C.2 System Setup

Description of the system setup file

The System *setup.ini* file is used to set up the system and contains configuration data that is not supported by the POS interface. The location and name of the file is:

/pss_mem/2/appl/setup.ini

Here is an example of the contents of the file:

```
[DqctfRtqhkng_
Pcog?Ekv{a6a3:
UkvgPwodgt?73:4472;;
```

```
]RtqvqeqnVqRqtvCuukipogpv_
Rqtva3a2?2423
Rqtva3a3?2324
Rqtva4a2?2244
Rqtva5a2?223F
Rqtva6a2?222;
Rqtva7a2?2628
Rqtva7a3?2629
Rqtva8a2?223;
Rqtva9a2?2237
Rqtva:a2?2246
Rqtva;a2?2427
Rqtva;a3?223C
Rqtva;a4?2627
Rqtva;a5?3235
Rqtva;a6?225E
Rqtva33a2?2428
Rqtva33a3?2429
Rqtva33a4?2257
Rqtva33a5?232:
Rqtva33a6?2923
Rqtva33a7?2924
Rqtva34a2?242:
Rqtva34a3?2429
Rqtva34a4?2532
Rqtva34a5?2923
Rqtva34a6?2924
Ejgemuwo?9ED5

]DRFcvcnkpmVtcpurqtv_
Vkogqwv?72
```

C.3 Board Upload Log

Description of the Board Upload Log file

The Board Upload Log file contains a list of files that have been uploaded since the last Super Master Reset. The location and name of the file is:

/pss_mem/1/sys/bul.txt

Here is an example of the contents of the file:

```
42"%223"4229334:"NCO<6;:/62/323"EU<7762"cfokp
6C"%224"4229334:"CRN<632/5:/338"EU<C54;"cfokp
55"%225"422:232;"CRN<632/5:/339"EU<C:8D"cfokp
42"%226"422:2336"NCO<6;:/29/324"EU<2E3D"cfokp
5;"%227"422:2336"CRN<632/5:/339"EU<C:8D"cfokp"
45"%228"422:2347"NCO<6;:/22/323"EU<3397"cfokp"
```

C.4 Load Response

Description of the Load Response file

The Load Response file is a log of events that occurred while uploading files. The location and name of the file is:

/pss_mem/2/sys/load_rsp.txt

Here is an example of the contents of the file:

```
FCVG<"422:/28/32          @@"Wrnqcf"yckvkpi"vkog<"2"uge
                          @@ Rgtokuukqp<422:/28/32 23<6:<37
VKOG<"23<6:<37"*222222oU+"@@"Rtgrctkpi"eqfg"wrnqcf
VKOG<"23<6:<37"*22226;oU+"@@"Tgeqipk|gf"hkng<"63225325025:
VKOG<"23<6:<37"*222272oU+"@@"Ejgemkpi"eqfg"eqorcvkdknkv{
VKOG<"23<6:<37"*222299oU+"@@"Crrgpfkpi"wrnqcf"nqi"tgeqtf
VKOG<"23<6:<37"*222478oU+"@@"Fgngvkpi"hncuj"ugevqtu
VKOG<"23<6:<45"*2224:4oU+"@@"Vtcpuhgttkpi"eqfg"vq"hncuj
VKOG<"23<6:<62"*238::4oU+"@@"Xgtkh{kpi"wrnqcfgf"eqfg
VKOG<"23<6:<65"*242894oU+"@@"Eqfg"xgtkhkgf"QM
```

C.5 Hardware Information

Description of the hardware information file

The Hardware Information file provides information about the CPB hardware. The location and name of the file is:

/pss_proc/sys/hw_inf.txt

Here is an example of the contents of the file:

```
;_____________________________________________________________
; PSS 5000 HARDWARE                          S/N      51654234
;                                          PROGRAM    41003103
;                                       BOARD TYPE      CPB509
;                                       2008-06-10     13:18:23
;_____________________________________________________________

BOARD
  Serial number: 51654234
  Engineering change status:
  Printed circuit board type: CPB509 400509KL2
  Production number: 40050900109

CPU
  Type:  Motorola MCF5307
  Speed: 90MHz
  Mask:  2J20C

MEMORY
  FLASH: 16Mb, AM29DL640G
  SRAM:  4Mb, 70nS
  DRAM:  0Mb

SOFTWARE UPLOAD SEAL
  Physical seal: not mounted

SERIAL COMMUNICATION PORTS
  5 DSB ports
  3 DMB ports
  1 service port
  1 ethernet port

OPTIONAL MODULES
  LON 1: not mounted
  LON 2: not mounted

INTERNAL PARALLEL PORTS
  PP0: input 0x7BD0, output 0x7BD0
  PP1: input 0xFF01, output 0xFFFD
  PP2: input 0xFFFC, output 0xCFCF

REAL TIME CLOCK & CPU SYSTEM TIMER
  RTC Type: RTC-8564
  RTC Timer (seconds elapsed since 1970):  1213103903
  CPU Timer (seconds elapsed since reset):      41321
                                                  081103
```

C.6 Ok2load File

Description of the ok2upload file

This file is only present when it has been created using either the web service menu or the local service panel. This file makes it possible to upload software to the PSS 5000. The location and name of the file is:

/pss_mem/2/sys/ok2upload.txt

Here is an example of the contents of the file:

```
]Wrnqcf_
UgeqpfuVqYckv?5822
QrvkqpcnTgeqtfVgzv?Lqjp"Fqg
```

C.7 Boot Information

Description of the boot information file

The boot information file contains details about the boot program. The location and name of the file is:

/pss_proc/sys/boot_inf.txt

Here is an example of the contents of the file:

```
;_____________________________________________________________
; PSS 5000 BOOT PROGRAM                          S/N  51654234
;                                              PROGRAM  41003103
;                                           BOARD TYPE    CPB509
;                                              2008-06-10  13:18:23
;_____________________________________________________________

Program
  Name: 499-03-109
  Checksum: ECBE
  Date: 2005-08-26

                                                          081104
```

C.8 LAM (Legal Authority Module) Information

Description of the LAM information file

The Legal Authority Module file provides information about the parameters set by the installed LAM. The parameters are specific for each LAM. The location and name of the file is:

/pss_proc/sys/lam_inf.txt

Here is an example of part of the contents of the file:

```
;_____________________________________________________________
; PSS 5000 LEGAL AUTHORITY MODULE          S/N        51654234
;                                          PROGRAM    41038122
;                                          BOARD TYPE CPB509
;                                          2008-06-10 13:18:23
;_____________________________________________________________

PROGRAM
  Name: 498-06-101
  Checksum: 084C
  Printed circuit board type: CPB509 400509KL2
  Date: 2003-06-03

DEFINITIONS
  Country code:  0044

LIST_OF_REQUIRED_PARAMETER_IDS
  LIST_OF_VALID_COUNTRY_CODES
  LIST_OF_VALID_CURRENCIES
  LAM_UPLOAD_HW_SEALED
  LIST_OF_PROTOCOL_SCANNERS
  LIST_OF_SECURITY_TELEGRAM_TYPES
  MAX_VOLUME_DEVIATION
  LIST_OF_NECESSARY_DEVICES
  MAX_NUMBER_OF_STORED_TRANSACTIONS_PR_FP
  CLR_DISP_MUST_CLR_MONEY_AND_VOLUME
  MIN_START_DELAY_AFTER_PRICE_CHANGE
  MIN_NUMBER_OF_RECENTLY_PAID_TRANS_IN_LAM
  MAX_TIME_WITHOUT_RECEIPTS
  MAX_AUTHORIZATIONS_PR_POS

LIST_OF_VALID_COUNTRY_CODES
  0044

LIST_OF_VALID_CURRENCIES
  GBP  (XXXX.XX GBP, X.XXX GBP/L,  XXXX.XX L)
  EUR  (XXXX.XX EUR, X.XXX EUR/L,  XXXX.XX L)

LIST_OF_VALID_LSP_WM_MENU_LANGUAGES
  EN
```

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C.9 Application Information

Description of the application information file

The Application Information file provides information about the type and version of the application program installed. The location and name of the file is:

/pss_proc/sys/appl_inf.txt

Here is an example of the contents of a file:

```
;_____________________________________________________________
; PSS 5000 APPLICATION PROGRAM                  S/N    51654234
;                                           PROGRAM    41038122
;                                        BOARD TYPE      CPB509
;                                        2008-06-10     13:18:23
;_____________________________________________________________

PROGRAM
  Name: 498-38-122
  Checksum: AB1C
  Date: 2003-06-03
```

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C.10 Board Error Log

Description of the board error log file

The Board Error Log file provides information about the errors that have occurred. The location and name of the file is:

/pss_proc/sys/appl_inf.txt

Here is an example of the contents of a file:

```
;_____________________________________________________________
; PSS 5000 BOARD ERROR LOG                      S/N    51654234
;                                           PROGRAM    41038122
;                                        BOARD TYPE      CPB509
;                                        2008-10-31     13:18:23
;_____________________________________________________________

    TYPE     PROGRAM     DATE        TIME      TEXT
-------------------------------------------------------------------------------------------------
a)  ERROR    410-38-122  2008-08-15  10:53:10  C111 P3 LAM: RTC error
b)  ERROR    410-38-122  2008-08-07  15:23:36  C111 P5 LAM: Display error
c)  NOTE     499-03-109  2008-07-31  09:52:07  SMR AUTO RAM:  2  MB
```

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D PSS 5000 Reference Information

Overview of reference information

This documentation refers to several types of reference information. These are described in the following topics:

D.1 List of Abbreviations

APC	Application Codes
ATC	Automatic Temperature Compensation
ATR	Attendant Tag Reader
AVI	Automated Vehicle Identification
BNA	Bank Note Acceptor
BOR	Back Office Record
BOS	Back Office System
CRIND	Card Reader IN Dispenser
EPT	Electronic Payment Terminal
DHP	Doms Host Protocol
DMB	Doms Multiplexed Bus
DSB	Doms Serial Bus
EPS	Embedded Payment Server
EPT	Electronic Payment Terminal
FC	Forecourt Controller
Fp	Fuelling Point
FPOS	Forecourt Point-Of-Sale
HIM	Hardware Interface Module

HOS	Head Office System
MPD	Multi-Product Dispenser
OPT	Outdoor Payment Terminal
POS	Point-Of-Sale
RTC	Real Time Clock
TGS	Tank Gauge System
TLG	Tank Level Gauges
VRM	Vapor Recovery Monitoring
W&M	Weights and Measures

D.2 List of Terms

ADT Module	Adapter Module, for example an Ethernet module
DCB Module	Doms Connection Board. A print board with a specific function, for example DCB449 provides a LON interface.
DSB Module	Doms Serial Bus module that connects to the PSS 5000 via a DSB port. It is used for protocols that have addressable devices.
DSB Port	Port with a Doms Serial Bus hardware interface. It is a subset of the DMB port. The DSB ports are numbered from 11 to 15 on the CPU board.
DMB Module	Doms Multiplexed Bus module that connects to the PSS 5000 via a DMB port. It is used for protocols that have non-addressable devices.
DMB Port	Port with a Doms Multiplexed hardware interface. It is a DSB port with the addition of 2 multiplexer control signals. The DMB ports are numbered from 21 to 23 on the CPU board.
Grade	A fuel dispensed/supplied to the customer. A grade can be a pure product, for example diesel, or a blend of two Products.
Manifolded	When multiple tanks are connected together so that the Product in the tanks flows freely. In practice, this creates "one" large Tank. **Note:** The connected tanks must contain the same Product.
Port	Physical communication connection point. Like a COM-port or printer port on a PC.

Product	A fuel type as delivered to a filling station and, typically, stored in a Tank.
Protocol	This is a set of rules for communication between devices. Protocols exist at several levels and application areas. Probably the best known TCP/IP protocols are HTTP, FTP, SMTP, etc). But we often refer to the protocols used to communicate with the forecourt devices, for example as the Pump Protocol or Tank Gauge Protocol.
PSS 5000	This is the latest in a long line of forecourt controllers.
SRD	Software Release Document, which accompanies all PSS software releases. The SRD contains references to general system documentation and information about program retirements and changes.
Tank	A container, typically but not always underground, that holds a single product.
TGS	This provides an automated method to see how much Product is present in each Tank. It also registers how much product is filled in the tank when a delivery occurs.

D.3 Referenced Documents

List of reference documents

[1] PSS 5000 Hardware Configuration Guide – PSS5000/CONF/804473/--

[2] PSS 5000 Product Guide – PSS5000/PRPR/802727/--

[3] PSS 5000 Installation Guide – PSS5000/INGU/802659/--

[4] PSS 5000 Processor Board, Description of CPB509– CPB509/MODA/805414/--

[5] PSS 5000 Processor Board, Description of CPB505– CPB505/MODA/805413/--

[6] PeepShow User's Manual – DSW23301/USGU/803151/--

[7] PSS 5000 Cook Book, Using BOOT Exchange with 411-41 Applications – PSS5000/DESC/804828/--

E PSS 5000 XML Output

Overview of xml out information

PSS 5000 contains multiple xml files. These provide various details about the PSS. Detailed information about the most used files and how to access them is described in the following topics:

E.1 Accessing the XML Files

Locating the xml files

The xml files are saved in the PSS 5000 at the following location:

<PSS IP address>/pss_mem/1/appl/http/

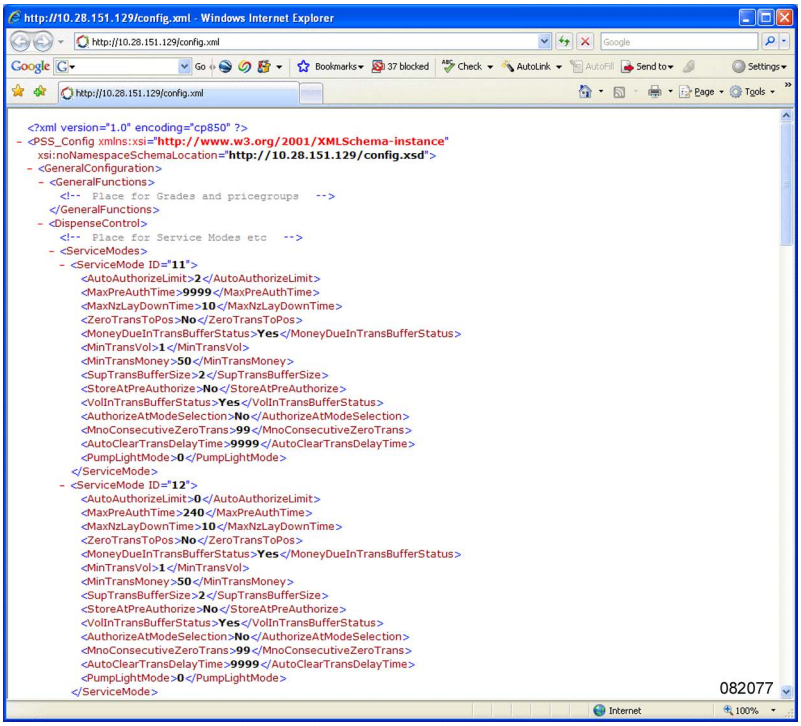
Viewing an xml file

All you require to access the xml files is a standard browser, the IP address of the PSS 5000, and the name of the file you want to view. To view the contents of the xml file, type the following syntax in the URL field:

URL syntax: *http://<PSS IP address>/<file name>.xml*

Example of an xml file using a browser

This example shows the *config.xml* file in a standard browser.



Saving the information for an xml file

The contents of the xml files can be saved directly from the standard browser as an xml file in a location you specify.

The example below explains how to save an *config.xml* file in a standard Windows Internet Explorer.

Note: This procedure may differ depending on the browser used.

10. In the browser, click on the **Page** button (or select **File** in the menu bar) and open the drop-down menu.
11. Select **Save As...**.

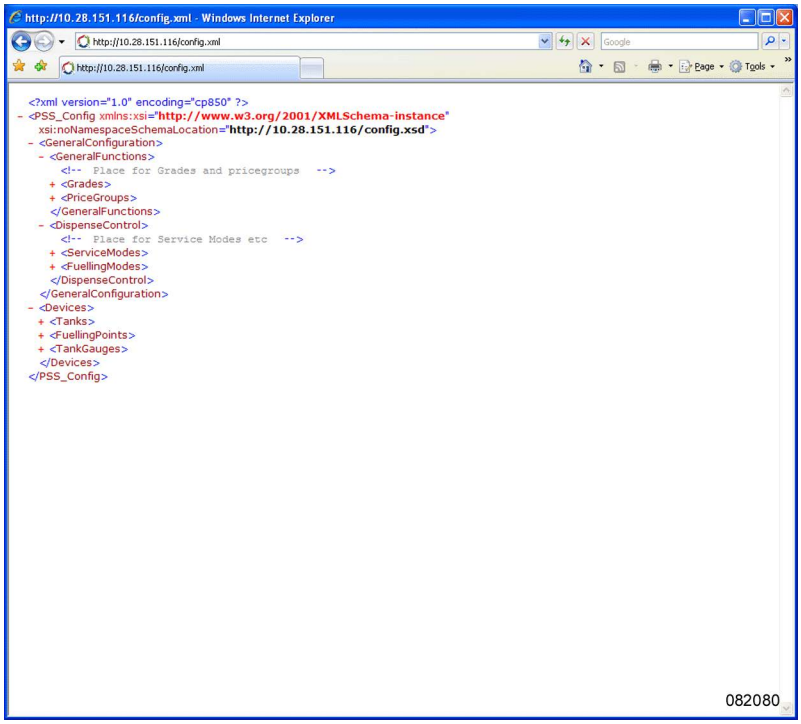
    The **Save As** window appears.
12. Select the location of the file and make sure that the **Save as type** field is XML.
13. Click **OK**.

    The contents of the xml file is now saved as an xml file in the location specified.

E.2 Config.xml File

Description of config.xml file

The *config.xml* file provides configuration details for the PSS 5000. This could, for example, contain some of the configuration areas shown below:



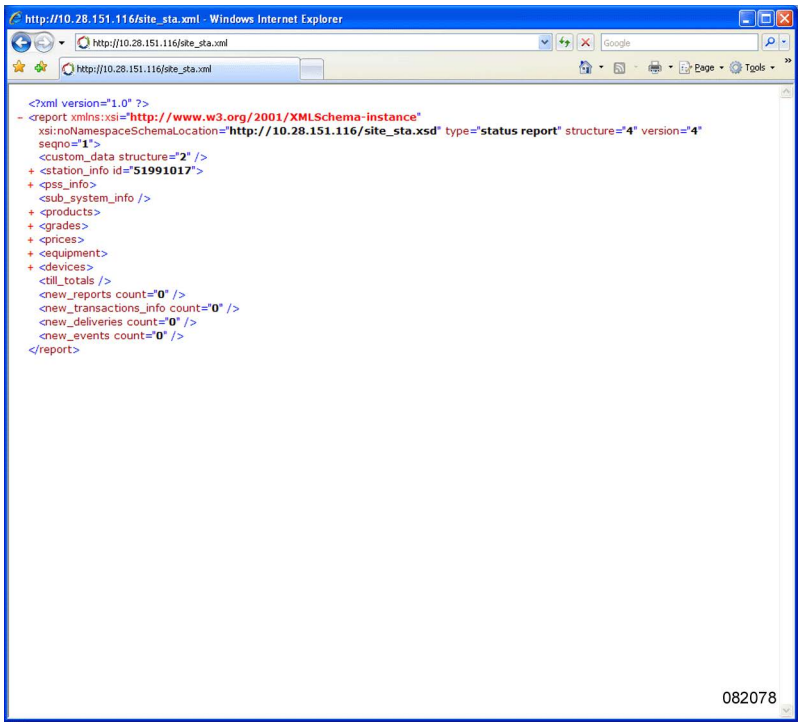
Note: The contents of the *config.xml* file changes depending on the applications installed and the devices configured.

E.3 Site_sta.xml File

Description of site_sta.xml file

The *site_sta.xml* file provides a status report for the PSS 5000 and the devices associated with it. The status shown in the file is a snap shot of the current sta-

tus and may change when the refresh option is used. The contents of this file could, for example, be as shown below:



Note: The contents of the *site_sta.xml* file changes depending on the applications installed and the devices configured.

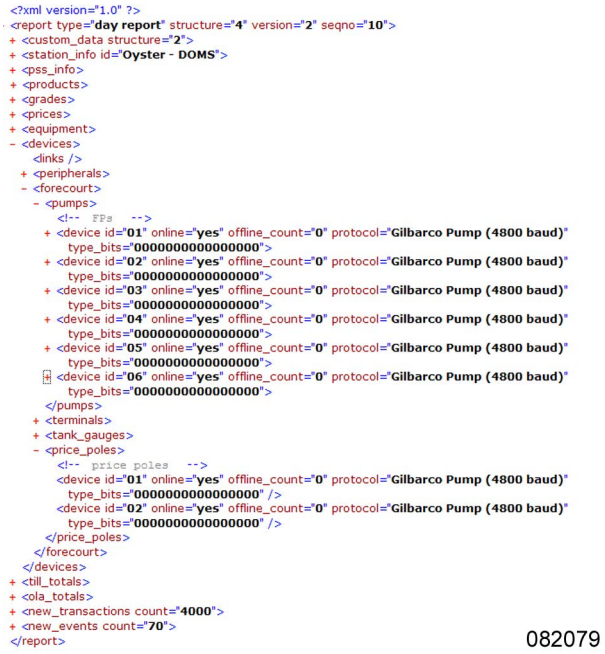
E.4 Site_rep.xml File

Description of site_rep.xml file

The *site_rep.xml* file provides a report for the previous day (or 24 hours). The report can contain data about the accumulated sales, pump totals, errors that occurred on the forecourt, and information about equipment that went off-line. A *site_rep.xml* file is generated each day at a given time (default time is 00:00). The previous file is overwritten each time a new file is generated.

Note: When a *site_rep.xml* file is downloaded from the PSS 5000 (not just viewed using a browser) then the file is cleared. A new file is not available until the next scheduled file generation.

When the *site_rep.xml* file is viewed in the PSS 5000, only a template for the information is displayed. The downloaded file contains all the accumulated information and is similar to the one shown below.



F Revision Information

Revision history

This documentation has changed as follows:

Rev.	Date	Description of Changes
00	Jan. 21, 2002	First release
01	Aug. 23, 2002	Description of BOOT Exchange added
02	May 27, 2003	• Description of Java based program upload • Description of Port to Protocol Assignment added • Description of Vapor Recovery Controller added • Description of Application Log added
03	April 18, 2005	• New CPU Board (CPB509) added • All references to Windows95 removed • Description of XP Connection added • Description of new functions via Web added: – SW Blocks – Protocols – POS Password – Terminal Text Test – Access Logon – Board Error Log • Description of Operation Mode Menu system (Menu 3.5) • Description of Application Setup (Menu 2.5) • Description of specific Device Status (Menu 5.1.4.2) • TCP/IP Tutorial appendix removed
04	Aug. 17, 2009	• Restructuring and restyling of document • Added description of new compact cabinet • Added new CPU Board (CPB505) • Added manager user profile • Added information about changing software • Changed screen shots to reflect changes in GUI menu items, for example Information for Menu 1 • Added information for the following new menu items: – LAM (menu 1.5) – Service Port Protocol (menu 2.3.4) – Dialup Setup/Test (menu 2.3.6) – Web Preferences (menu 2.4.4) – Memory Module (menu 2.7.1) – Backup (menu 2.8) – Payment Server (menu 3.4) – Operational Status (menu 3.7) – TeleTerminal (menu 3.8) – Reconciliation Report (menu 3.9) – Port Statistics – Protocols – Test • Added information about the output from xml files • Added a procedure that describes how to print pages from the web server service menus. • Included an index • Updated the information for the Software Upload and Reset Log pages, which use a new Java applet

Rev.	Date	Description of Changes
05	Nov. 30, 2010	• Updated HIM information • Only the admin user is able to change Passwords • Only the admin user is valid on CPBs without LAM • Added Wet Stock Setup option in Menu 2.5 • Updated the description for Fallback Mode • Improved the data in the Operational Status window • Minor text changes
06	July 2, 2012	• Updated PSS License Management information and screen • Included more details about wet stock setup • Updated software uploads to PSS using FTP clients • Updated Online List screen to illustrate POS Id
07	April 16, 2013	Updated the Protocol to Port Assignment procedures and added a new procedure to set the protocol parameters.
08	May 30, 2013	Updated the Protocol to Port Assignment procedures to match the removal of the Now and Later radio buttons.
09	August 21, 2013	Updated the Application Setup information with Totals Setup option.
10	November 1, 2013	• Updated Protocol to Port Assignment options with port 99 • Updated Online List with port 99
11	Jan. 3, 2014	Removed Extension port (31) option from CPB specs.
12	Jan. 21, 2014	• Added description of Serial Server functionality • Updated user access rights
13	Jun. 23, 2014	• Added details about Service Port NULL modem cable connections. • Updated sections W.7.2 and W.7.5 with new LSP displays.
14	Oct. 31, 2014	• Updated the Setting the Protocol Parameter Values procedure. • Added details about LSP displays during a startup cycle.
15	Feb. 17, 2015	• Updated the CPB specifications table. • Updated the activating checking procedures W.7.1 – W.7.5. • Added activating checking procedures for W.7.6 & W.7.7.
16	Mar. 17, 2015	• Updated the File Formats with the extended format. • New procedure to view/verify software installed on PSS. • Updated the characters required for PSS passwords. • Updated the valid range for Datalink Timeout.
17	May 17, 2016	• Updated the Forecourt Controller Setup procedure by adding control of Local Service Panel (LSP). • Changed the minimum number of characters required in a password to 3.
18	Dec. 30, 2016	Added text "For systems with CPB50x" to the front page and page footers.
19	Jun. 16, 2020	Updated the drawing in PSS 5000 Cabinets.

Rev.	Date	Description of Changes
20	Mar. 24, 2021	• Updated Date and Time sections: not all PSS Applications support setting the date and time from the LSP • Updated Fallback Mode section: not all PSS Applications support selecting Fallback Mode via the LSP • Added W8 Date & TIme Change Log section
21	May 25, 2021	Updated the values for the PSS APPL, LAM and BOOT when viewed via the LSP menu 1.1 PRG VERSION.
22	Jun. 22, 2021	Removed detailed log on credentials for the administrator user.

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