



# Installation Guide

Doms Forecourt Controller System for 230VAC

## PSS 5000



Date 24 January 2008  
Document number PSS5000/INGU/802659/11

Doms A/S

Formervangen 28  
DK-2600 Glostrup

Tel. +45 4329 9400  
Fax +45 4343 1012

info@doms.dk  
www.doms.com

## 1 Preface

This installation guide describes how to install a PSS 5000 system. It is assumed that the system is already configured correctly. If not, please refer to the appropriate documentation.

## 2 Conditions

Temperature range (MID, 2004/22/EC:2004) operation	-10 - +50°C
Storage temperature	-20 - +80°C

Ambient humidity, H1 (OIML D11:2004)	max. 90% RH, non-condensing
--------------------------------------	-----------------------------

Mains power voltage	max. 230VAC +10% = 253VAC min. 230VAC -15% = 195VAC
---------------------	--

Electromagnetic Environment Class (OIML D11:2004) (residential, commercial and light industrial building)	E1
--	----

Mechanical Environment (MID, 2004/22/EC) (locations with vibration and shocks of low significance)	M1
---	----

It is recommended that power is supplied from the same mains phase as:  
the POS (Point Of Sale) and BOS (Back Office System) equipment,  
the connected pump electronic, CC/BNT terminals, tank level gauge,  
price signs etc.

Mains power is switched off by removing the mains cable plug from the inlet.

The mains cable must be installed according to local regulations. See section 5.1 for further information.

All external units, such as POS/BOS or pumps, must be connected using shielded cables. The cables should be twisted pair with plaited shield with min. 80% cover. It is very important that the cable shield is connected properly in both ends of the cable. See Fig. 4 for shield connection instructions.

Only Doms HIM (Hardware Interface Modules) may be installed in the PSS 5000 cabinet.

## 3 Technical data

Dimensions (H x W x D)	600 x 200 x 124mm
Weight approx.	8kg

Supply voltage, nominal	230VAC
Max. power consumption	43W
Fuse, 5 x 20mm, slow blow	T400mA

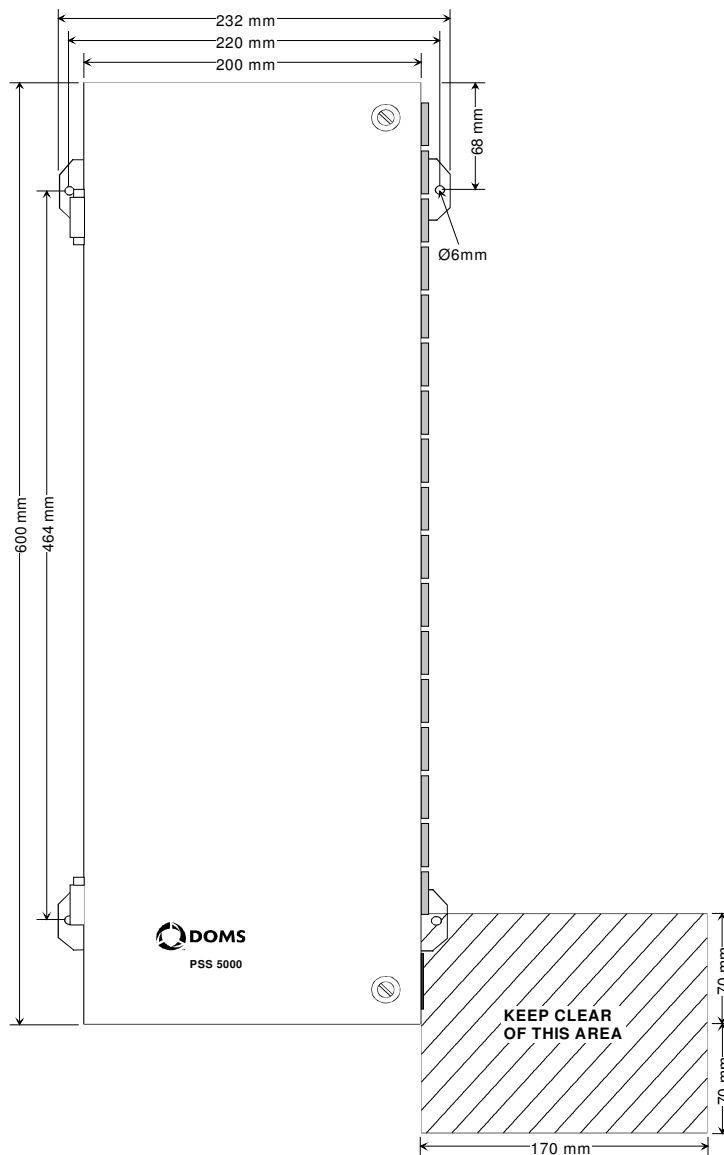
Degree of protection	IP 30
----------------------	-------

## 4 Recommended cables

DomS cable, twisted pair with plaited shield, 2 x 6 x 0.5mm <sup>2</sup> stock no.	116209
DomS cable, twisted pair with plaited shield, 2 x 2 x 0.5mm <sup>2</sup> stock no.	119042

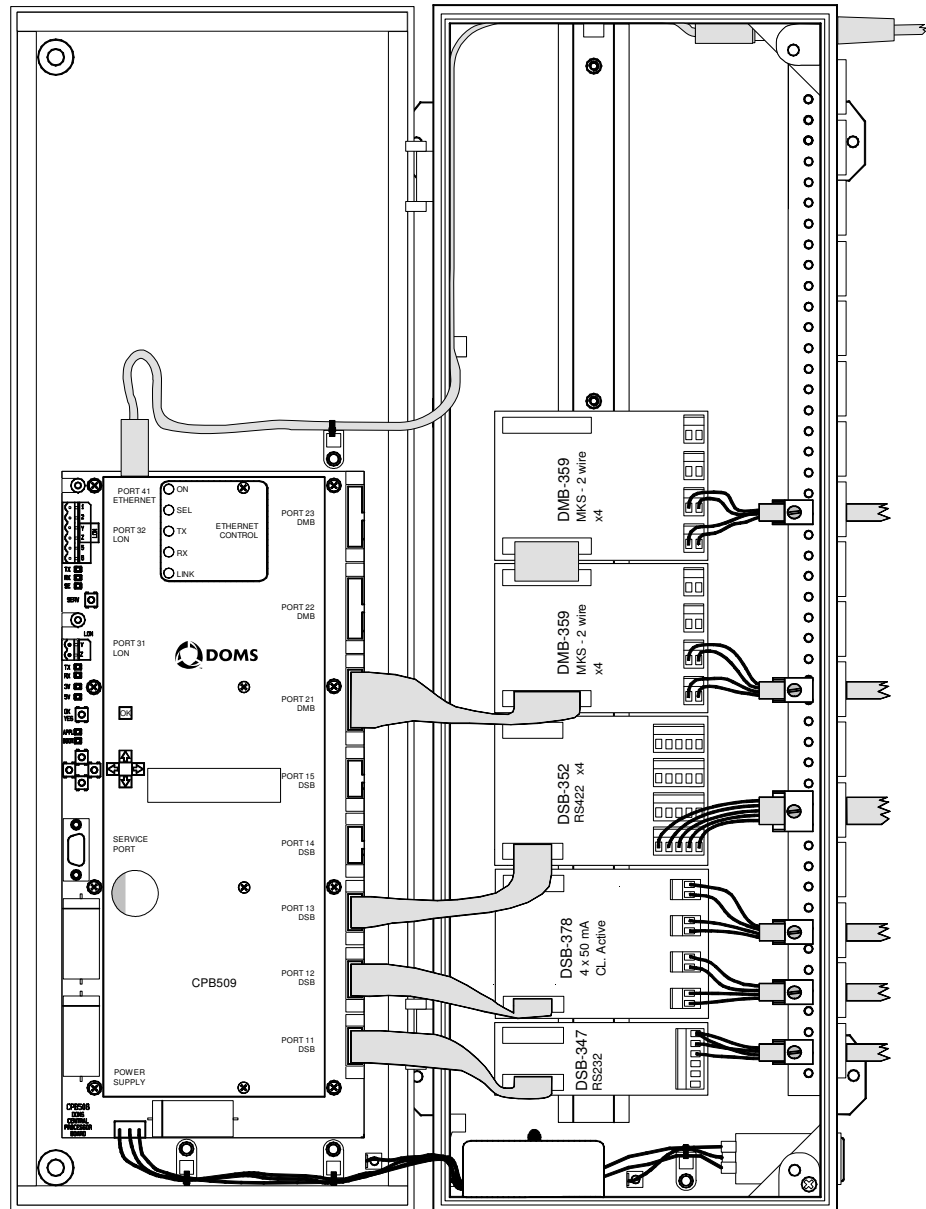
## 5 Installation

1. Make sure that there is enough room for the box and for the cables on the right hand side of the cabinet.
2. The cabinet must be oriented correctly when mounted. This mean that it should be installed upright as shown in Fig. 1, otherwise the display is not readable.



**Fig. 1 Installation dimensions**

3. Mount the cabinet on the wall using screws, washers and plugs suitable for the wall material. Make sure to leave enough space for unplugging the mains plug and removing the fuse (see Fig. 1).
4. Open the cabinet by turning the two lid lock screws counterclockwise.

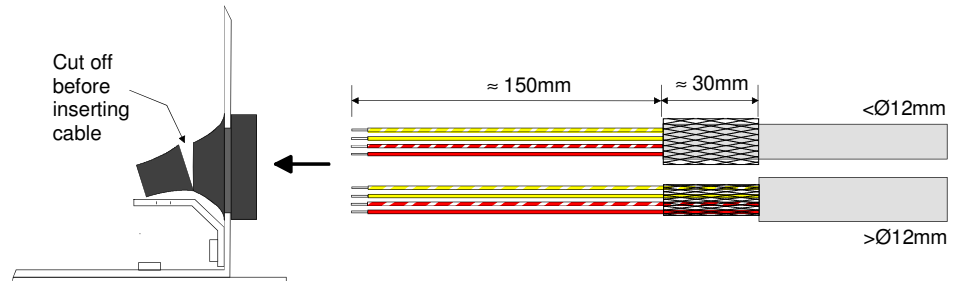


**Fig. 2 Open PSS 5000 cabinet with different modules installed**

5. Turn on the power by connecting the mains cable to the inlet socket. The yellow 3V and the 5V LED's should turn on indicating power-on and after approx. 10 seconds the red APPL LED should be flashing. Make sure that this takes place and turn the power off by pulling out the mains cable from the inlet socket.

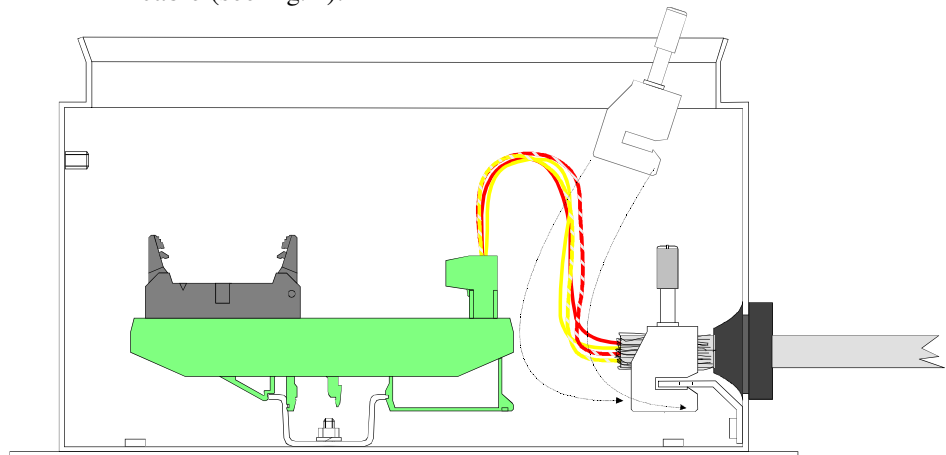
6. Prepare the signal cables for insertion to the box. Correct connection of the cable shield is very important. To do this, these few steps must be followed:

- 6.1. Remove insulation from the cable as shown in Fig. 3.



**Fig. 3 Cables with insulation removed**

- 6.2. The shield is cut off so it has a suitable length (approx. 30mm).
- 6.3. For cables where  $D < \varnothing 12\text{mm}$ : Pull the remaining shield back and over the outer insulation of the cable.
- 6.4. Use a sharp knife to remove the end of the cable gland.
- 6.5. Press the cable through the hole until the shield is through to the other side of the shield bar, then mount the cable relief over the cable (see Fig. 4).



**Fig. 4 Correct connection of cable and shield**

- 6.6. Tighten the screw on the cable relief until the cable is firmly fit to the box.
- 6.7. Mount the wires to the appropriate HIM-module according to the connection drawing for that particular module.
7. Connect ethernet RJ-45 cat. 5 STP cable to the connector situated in the top right of the box.
8. Turn on the power and observe the behaviour of the LEDs like described in step 5.
9. Close the box by turning the lock screws clockwise.

## 5.1 Additional precautions

Each connected fuel dispenser must be marked with information about where to turn off mains power and interface power. This means that the marking must include how to unplug the relevant connector from the PSS 5000 controller and where the controller is located.

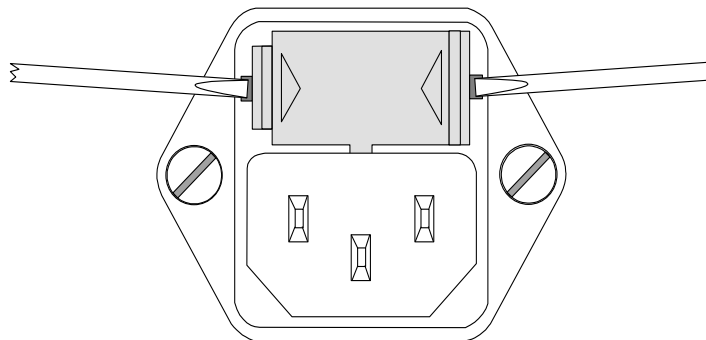
In case of maintenance or repair, a single fuel dispenser can be isolated from the PSS 5000 controller by unplugging the relevant connector from the HIM module.

If local regulations require the fuel dispensers to be completely without energy when the emergency stop is activated, the PSS 5000 must be mains powered from a source that turns off when the emergency stop is activated.

## 6 Replacing fuse

The fuse is located in the mains inlet socket. In order to change a blown fuse, follow these steps:

1. Turn the power off by removing the mains plug.
2. Use a small flat screwdriver (max 2.5mm) to open the fuse drawer.
3. Insert the screwdriver tip into the small hole next to the fuse drawer as shown in Fig. 5.



**Fig. 5 How to open the fuse drawer**

4. Press the handle of the screwdriver carefully towards the box, so that the fuse drawer is pushed in the direction of the arrow and out.
5. Repeat step 3 and 4 for the other side of the fuse drawer.
6. Remove the defective fuse from the fuse drawer.
7. The fuse drawer is divided into two sections, making room for a spare fuse. Use the spare fuse if available - it must be a T400mA type.
8. Close the fuse drawer.
9. Make sure that the reason for the blown fuse is eliminated and turn on the power. The system should be running normally.

Spare fuse (5 x 20mm, T400mA):

Doms stock no. 112944

## 7 History

Date	Rev.	Init.	Comments
Feb. 21 <sup>st</sup> 2000	00	RLV	First issue.
Mar. 2 <sup>nd</sup> 2000	01	RLV	Fuse information added.
Apr. 4 <sup>th</sup> 2001	02	RLV	Document properties changed to 'Auto Select Tray'.
Jul. 25 <sup>th</sup> 2002	03	JyP	New layout.
Aug. 14 <sup>th</sup> 2002	04	RLV	Fuse changed to 400mA.
Aug. 19 <sup>th</sup> 2002	05	RLV	Reference to Technical Manual removed.
May 26 <sup>th</sup> 2004	06	RLV	Changed to CPB509.
Nov. 24 <sup>th</sup> 2004	07	RLV	New logos.
Oct. 20 <sup>th</sup> 2005	08	IbJ	DSB363 removed
Dec. 20 <sup>th</sup> 2005	09	IbJ	Power voltage variation info added
Mar. 28 <sup>th</sup> 2006	10	RLV	Cable inlets changed (UL)
Jan. 24 <sup>th</sup> 2008	11	IbJ	MID environmental specifications included.