

SUPPLEMENT TO CERTIFICATE

Series S010 Revision 1

Certificate No.	Supplement No.
1958/53*	69
2437/38*	42
2486/54*	62
2780	8

(*) Refers to the dispenser only, the self service device described in these certificates is not part of this approval

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Authorisation is hereby given by the Secretary of State for Trade and Industry for the following Certificate of approval relating to a pattern of a liquid flowmeter to be modified as described below.

As described in the following Certificate but modified to have an alternative self service device, as detailed in the descriptive annex, and having the following characteristics:-

DISPENSER: Dispensers described in above certification numbers.

SITE CONTROLLER: DOMS PSS2000 and PSS5000 as described in the descriptive annex.
Torex Retail 9730 site controller as referenced within the descriptive annex.

KIOSK CONTROL UNIT AND POINT OF SALE: Arciris IRIDIUM combined kiosk control and point of sale system as described in the descriptive annex



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Descriptive Annex

1 INTRODUCTION

Having the dispensers specified on page 1 connected via a DOMS PSS2000 forecourt control unit (FCU) to the Arciris IRIDIUM combined point of sale and kiosk control system.

The IRIDIUM is a combined kiosk control and point of sale system based on the EPSON IR POS with a serial link to the DOMS PSS2000 forecourt control unit. A back office computer, with connected modem and printer is also attached to the IRIDIUM system. The EPSON IR POS is a PC-based unit incorporating a touch screen. Attached to, or part of, the POS may be a magnetic card reader, barcode reader, receipt printer, cash drawer, customer display and an optional modem.

Multiple POSs may be connected, each having its own serial link to the DOMS PSS2000 FCU.

All Primary POS mains powered components are powered via an uninterruptible power supply (UPS). A schematic diagram of the system is shown in Figure 1.

Throughout this document the word "button" refers to the icons that appear on the touch screen. Most of these icons are pictures of buttons.

2 CONSTRUCTION

2.1 Forecourt control unit DOMS PSS2000 (Figure 2)

The forecourt control units, the DOMS PSS2000, is housed in a metal rectangular box. It controls the interaction between the IRIDIUM POSs and the dispensers.

Internally, there are three main sub-assemblies: the power supply unit, the processor unit, and the interface boards. Interconnection between these units is via ribbon cables. There may be a number of interface boards depending on the number of dispensers connected to the system and whether a tank gauge is connected to it or not. The connections to the KCU, tank gauge and dispensers are made on the appropriate interface boards. The processor unit is a PROM/EPROM based unit and handles the control signal from the dispensers to the KCU. The sub-assemblies and interface boards are all mounted onto a DIN rail inside the housing. A mains supply is made to the unit via a fused assembly within the housing. The DOMS PSS2000 is powered through the main pump Emergency Stop button.

2.2 Point of sale PC, Epson M137A (Figures 3 and 4)

The point of sale PC is an EPSON IR POS with a 200 MHz Intel Pentium processor incorporating a colour touch screen panel, a built in receipt printer and a detachable customer display. The PC has either internal or any CE approved external speakers. The speakers provide audible warnings on the system condition.

The following components are identified as follows:

Manufacturer	Description	Part number
ASET	Mother board (bus type AT66)	2030002
BrainBoxes	AT RS 232 serial card	

2.2.1 Interactive touch-sensitive visual operator display.

The operator display is an LCD touch-sensitive display that is part of the EPSON IR POS. The screen has a matrix covering the screen that is sensitive to the touch of a finger and reacts to the icon selected. Only functions that are valid at a particular time will have icons on the screen. For example when in the middle of a sale it is not valid to shut down the POS, the shutdown icon will therefore not be shown as an option within special functions. These icons provide the following functions:-

Alphanumeric icons: For the input of various alphanumeric entries as required for point of sale transactions, such as sales amounts or car registrations.

Product/department icons: For the input of sales values against dry stock products that will increment the total value of the transaction.

Method of payment icons: These icons are used to offset the payment of the dry stock or wet stock sale against.

Special function icons: These icons are used to access specific tasks relating to the POS.

Pump control icons: For the control of the pump functions, including authorisation.

2.2.2 Barcode reader

Any CE approved barcode reader may be used.

2.2.3 Receipt printer

The receipt printer may be built into the IR POS or an alternative printer may be connected externally. If an external printer is connected a plastic cover is fitted over the empty recess for the built in printer. Both of these printers are powered from the EPSON IR POS

2.2.3.1 Epson TM88 (Figure 5)

This is a thermal printer for printing receipts.

2.2.3.2 Epson H5000 printer M128C (Figure 6)

This is a receipt and slip printer.

2.2.3.3 Epson H6000 printer M147A

This is a receipt and slip printer.

2.2.4 EFT card reader

The card reader is attached to the side of the operator display. This unit is for reading magnetically encoded credit and debit cards.

2.2.5 Cash drawer

This may be any CE marked simple cash drawer with a solenoid release. It is triggered from the back of the POS if an internal printer is used, or from the back of the external printer.

2.2.6 Customer display unit: Epson M58DA (Figure 8)

The customer display is normally attached to the Epson IR POS. The display has two rows each of twenty characters. The characters are 5 mm tall. The customer display may alternatively be attached to the Epson H5000 printer.

2.2.7 American power conversion uninterruptible power supply (Figure 7)

The UPS, which is a mandatory component of the system, provides mains power for the IRIDIUM system for up to 15 minutes after mains power failure. Connection is shown in Figure 1. The back office PC and its peripherals are not powered from the UPS. Any CE approved UPS in the APC range may be connected.

2.2.8 Modem

Connected to the POS may be either an internal or external, PSTN or ISDN modem. Any CE approved modem may be connected. The modem is used for on-line authorisation for credit and debit cards.

2.3 Back office PC

The back office is an IBM-compatible PC with a hard disk drive, a keyboard, mouse and a visual display unit. Any CE marked IBM-compatible PC may be connected.

2.3.1 Back office modem

Attached to the back office is a BT-approved modem. This is used for general external communications, on-line diagnostics, stock ordering and transmission of management information. Any BT-approved modem may be used.

2.3.2 Back office printer

The back office printer is used to print management reports and barcode labels. Any CE approved, compatible printer may be connected.

3 OPERATION

3.1 Control method

The dispensers are controlled by the DOMS PSS2000 FCU, which sends information to and receives information from the IRIDIUM system.

3.1.1 Monitoring the dispensers

The dispensers status is displayed on the pump control icons in the top section of the operator display. A change in status is reflected within the icon and accompanied by an audible tone. A change of status of a pump, e.g. when it is authorised, shows on every POS.

3.1.2 Dispenser call

When a nozzle is removed from a dispenser the pump control icon will appear, for that pump, and a pump call tone sounds. To authorise the dispenser the appropriate pump control icon is touched. The icon changes to reflect the fact that the command to start the pumps has been sent to the DOMS FCU. When the dispenser tells the DOMS FCU that fuelling is taking place the DOMS reports this to the POS and the pump icon changes to reflect the change of state. When the nozzle is returned to the dispenser the pump finished tone will sound and the pump button changes colour to denote a completed fuel sale. Whenever the cashier is required to take some course of action, such as authorising a pump, the pump icons flash.

3.1.3 Stopping the dispensers

To stop a single pump the appropriate pump control icon is selected and the stop icon is selected. If it is necessary to stop all of the pumps the "Stop All Pumps" icon is pressed.

NB: The section of the screen that deals with the dispensers, including the Stop All Pumps icon, is available at all times and is never covered by other screens.

3.2 Normal sales operation (primary and subsequent points of sale)

Sales operations are identical on all POSs.

3.2.1 Follow on transactions

When a nozzle is returned to the dispenser the pump finished tone will sound. If the nozzle is removed for a second purchase then, the dispenser may be authorised for the next transaction. Following completion of this transaction, and providing there is a stored transaction, the dispenser will not be able to be authorised until either the current or stored transactions are cleared through for payment.

3.2.2 Drive off alert

If a fuel sale is outstanding for longer than a pre-set time then the pump control icon will change colour and an outstanding fuel sale tone will sound.

3.2.3 Clearing for payment

Following a completed transaction the appropriate pump control icon is selected and a payment sub screen will appear. If two sales are present on the selected dispenser then both amounts will be shown. Pressing the appropriate icon will initiate a sales transaction and the amount to pay and any other required data, will be displayed on the customer display unit. The fuel transaction can be selected at any point of a sales transaction, before a method of payment is selected, and it will be added to that transaction.

The operator agrees the transaction details with the customer. The transaction details are displayed simultaneously on both the operator monitor and the customer display. The customer display is the primary display.

If the customer disagrees with the transaction, then this is cleared by pressing the MODIFY icon then the VOID LINE, or VOID TRANSACTION, icon. An alternative transaction may then be selected by pressing the appropriate pump icon.

3.2.4 Multiple fuel transactions on one receipt

Further fuel transactions can be added to the sales transaction at any point, before the method of payment is selected, by following the procedure in Section 3.2.2.

3.2.5 Dry stock sales

Dry stock items are normally sold by swiping them using the barcode reader. For sales by value, or when a barcode cannot be read, the sale may be entered through one of the sale sub-screens that are accessed by pressing the "Sales" icon on the front screen.

3.3 Method of payment (all points of sale)

For any transaction where a split method of payment is allowed the operator will be asked to enter the amount of payment once a method of payment is selected. Receipt printing takes place after the cash drawer has been triggered.

3.3.1 Cash sales

Touching the cash or exact change icon on the visual display unit will complete the transaction and the cash drawer will open.

3.3.2 Cheque sales

Touching the payment and then the cheque icon on the visual display unit will allow the transaction to be completed and the cash drawer will open if required.

3.3.3 Manual credit card sales

The transaction can be completed by manual credit card by selecting the appropriate method of payment icons on the operator display. The POS is then freed for another transaction.

3.3.4 Automatic card sales

Swiping a magnetic card through the card reader can complete the transaction. The transaction is finalised when the printer has printed the card and sales details and when the operator has approved the customer's signature.

4 INTERLOCKS AND SECURITY FEATURES

4.1 UPS

In the event of any type of mains power failure the UPS will allow maintain the primary POS for at least 15 minutes.

4.2 Fuel price changes

The DOMS PSS2000 ensures that no price changes may occur on the dispenser at disallowed times.

4.3 Duplicate receipts

Any duplicate transaction receipts are clearly marked "DUPLICATE RECEIPT" near the top of the receipt.

4.4 Operating system security

The POS is PC based and runs the Windows operating system. The only exit from the programme to the operating system is through a password-protected icon within the "Functions" sub-menu. The password for this exit changes and is dependant on a pseudo-randomly generated three digit code and is reserved for use by an Engineer. The system is further protected by the Windows operating system registry being edited to prevent unauthorised access. The BIOS is password protected and is set so that the floppy drive is disabled.

4.5 Software version

The software version number of the IPC (integrated pump controller) is 1.00a and is displayed during the start up process. The "a" denotes the cosmetic change to show the fuelling data which is shown in Figure 9. This version number relates to all pump control functions and any other parts of the system that is the subject of this certificate. Included within this are the format of the fuel information on the customer display and the relevant sections of the printed receipt.

5 AUTHORISED ALTERNATIVES

5.1 Alternative PC based POS

The existing POS PC and associated operator display and customer display unit may be replaced with any POS described in section 5.1.1 and 5.1.2. Peripheral equipment is connected as described in the certificate.

5.1.1 TEC 5600 (Figure 11)

The TEC5600 POS comprises of a PC having connected to it an LCD touch screen operator display with a built-in card swipe and a customer display unit. There are two versions of PC case, one having two expansion slots, the other having four (Figure 12). The POS may contain the following additional cards:

Manufacturer	Description	Type
Creative Labs	Sound card	Soundblaster PCI
Brain Boxes	Serial card	Brain Boxes PCI

The equipment is identified as follows:

Equipment	Manufacturer	Model No
TEC 5600 PC (2 expansion slots)	Toshiba TEC	ST-5601-B2nnn-nn (n may be any character)
Mother board	Toshiba TEC	LAJB00299xx
Power supply	Toshiba TEC	API-4085
TEC 5600 PC (4 expansion slots)	Toshiba TEC	ST-5601-B24C2
Mother board	Toshiba TEC	LAJB00299xx
Power supply	Toshiba TEC	API-4085 / GDB-0097002
Customer display	TEC	LIUST 51
Operator display	TEC	TSTS-56-T-1V

5.1.2 Epson IM-310 Model no. M156A (Figure 13)

The point of sale PC incorporates a colour touch screen panel, a detachable customer display unit and a built in receipt printer. A card swipe (Model no.: DM-MR123) may be incorporated into the touch screen panel. A protective plastic cover is fitted on the rear of the unit covering the external connection ports and must not be removed during normal use. The POS may contain the following additional cards:

Manufacturer	Description	Type
Creative Labs	Sound card	Soundblaster PCI
Brain Boxes	Serial card	Brain Boxes PCI

NOTE: The serial connection to the DOMS forecourt control unit may only be to one of the four ports shown in Figure 14.

The equipment is identified as follows:

Equipment	Manufacturer	Model No
Epson IM-310 POS PC	Epson	M156A
Mother board	Epson	IM-310 MAIN 2034124-01 / 2034698-01
Power supply	Epson	APS-138 / 68-1320-91
Customer display	Epson	M58DA

5.2 Dione Xchequer EFT payment and loyalty terminal

As described in the certificate but having the Dione Xchequer EFT payment and loyalty terminal (Figure 15) connected to an RS232 port on the Iridium combined KCU/POS or POS.

5.3 Alternative Forecourt Controller DOMS PSS 5000

As described in the certificate but having the DOMS PSS 5000 forecourt controller which is a direct replacement for the DOMS PSS 2000.

5.3.1 Construction

The DOMS PSS5000 forecourt controller comprises a metal rectangular box (Figure 16) housing the following main components. The general arrangement is shown in Figure 17.

- A power supply
- A Central Processing Board (CPU) with 8 serial ports (CPB508).
This has an LCD 16x2 character alphanumerical display and a keyboard comprising 5 keys for navigating the menu options, an adjacent legend describes the key functions as shown in Figure 18.
- Hardware interface modules.
Dispensers are connected to the CPU board via an appropriate hardware interface module compatible with the communication protocol of the dispenser.

5.3.2 Software

The DOMS PSS5000 has a legal authority module (LAM) for the UK containing specific parameter values and functions. The LAM version number is 498-06-100 and the checksum number is 0D6C or 084C. These can be viewed by selecting the appropriate menu heading using the operator keys on the CPU.

5.3.3 Operation

The operation of the Iridium forecourt control system remains the same. The LAM version number and checksum are accessed as follows.

When the PSS is powered on, the first line displays the application software version and the current time. The second line displays the W&M Service menu. Pressing the Down Arrow once, displays the W & M menu which comprises 7 sub-menus, W.1 to W.7. Press the right button once to obtain W.1 – LAM INFO and press again to display Version and Checksum information.

5.3.4 DOMS 5000 SITE CONTROLLER with LAN (Ethernet) connectivity

As described in the certification but having connected the DOMS 5000 site controller with provision of LAN (Ethernet) connectivity. Implementation of this connectivity is achieved by the following options:

- a) By use of separate Ethernet add-on module (ADT458). This version is designated CPB508.
- b) By fitting revised main board incorporating the Ethernet circuitry. This version is designated CPB509.

5.4 Weighing instrument

Any weighing instrument having a test certificate in accordance with The Council Directive 90/384/EEC on Non-Automatic Weighing Instruments may be connected to the store controller serial port, typically COM 5. The software controlling the operation of the weighing instrument is described in NWML Test Certificate GB-1156.

5.5 Alternative POS PC - Epson IR-320 Model no. M156X (Figure 19)

The existing POS PC and associated operator display and customer display unit may be replaced with the Epson IR320 POS PC.

A protective plastic cover is fitted on the rear of the unit covering the external connection ports and must not be removed during normal use. The POS may contain the following additional cards:

Manufacturer	Description
Brain Boxes	RS 232 Serial card

NOTE: The connection to the DOMS forecourt control unit may only be to one of the four standard serial ports grouped together at the rear of the unit.

The equipment is identified as follows:

Equipment	Manufacturer	Model No
Epson IR-320 POS PC	Epson	M156X
Mother board	Epson	2084077-00
Power supply	Epson	P-310C
Customer display	Epson	M58DB

5.6 Alternative POS PC - Epson IM-800 Model no. M183A

The existing POS PC and associated operator display and customer display unit may be replaced with the Epson IM 800 POS PC (Figure 20).

A protective plastic cover is fitted on the rear of the unit covering the external connection ports and must not be removed during normal use.

The equipment is identified as follows:

Epson IM-800 PC unit, model number M183A

Epson DM-M820-024 touch screen panel with card swipe, model number S1201D.

Epson DM-110 Customer Display Units (CDUs): M580B or M129C

Note: Any suitable CE marked CDUs may be used.

5.6.1 Alternative PSU with 24 V dc output

Having fitted an alternative Power Supply Unit (PSU) providing a 24 Vdc output suitable for supplying printers and/or till units, or any device requiring 24 Vdc.

The modified power supply unit has the part number Delta Electronics INC DPS-180MB-2 XX (where XX=0-9, A-Z or blank). A view of the back panel (cover shown removed) is shown in Figure 21 to this amendment.

5.7 Iridium operating as kiosk control unit

As described in the certificate, but having the option of setting-up the Iridium to operate as a fuel Kiosk Control Unit with completed fuel transactions being electronically transferred to any CE marked third party POS system.

As described in the certificate, but having the option of setting-up the Iridium unit operate as a Kiosk Control Unit, with completed fuel transactions being electronically transferred to any CE marked third party POS system.

The changes required do not affect the metrology software issues status which therefore remains as stated in the certificate.

Where the Iridium connects to a POS system with authorisation to connect to Weighing Instruments, the following shall apply:

Any weighing instrument having a type approval certificate in accordance with The Council Directive 90/384/EEC on Non-Automatic Weighing Instruments may be connected to the serial port of the third party POS equipment. The software controlling the operation of the weighing instrument shall be as described in the applicable NWML Test Certification.

5.8 Alternative site controller Torex Retail 9730.

As described in the certificate, but having the option of using the Torex Retail 9730 site controller described in 2780 Supplement 7.

5.9 IBM surePOS 563 electronic till with Arciris 'Iridium' fuel POS solution

As described in the certificate, but having connected the IBM surePOS 563 electronic till. This equipment is detailed below and views are shown in Figures 22, 23, and 24.

The changes required do not affect the metrology software issues status which therefore remains as stated in the certificate.

5.9.1 Operation with Weighing Instruments

Where the Iridium connects to a POS system with authorisation to connect to Weighing Instruments, the following shall apply:

Any weighing instrument having a type approval certificate in accordance with The Council Directive 90/384/EEC on Non Automatic Weighing Instruments may be connected to a suitable port on the IBM surePOS 563. The software controlling the operation of the weighing instrument shall be as described in the applicable NWML Test Certification.

5.9.2 IBM SUREPOS 563

The IBM SUREPOS 563 is a PC based electronic till having an LCD touch screen operator display with a built-in card swipe. An integrated customer display unit (CDU) is mounted high on the rear of the unit.

The equipment is identified as follows:

Equipment	Manufacturer	Model No
IBM surePOS 563	IBM	IBM SurePOS 500 Series (4840) Model 563

5.10 Alternative POS PC - Hewlett Packard RP 5000 POS PC (Figure 25)

A point of sale PC incorporating an LCD colour touch screen panel, a customer display and a separate receipt printer.

5.11 Alternative POS PC: Epson IR 700

As described in the certification, but having the option to use the Epson IR 700 POS unit as described below and as shown in Figures 26 and 27.

A POS system comprising:

- Epson IR 700 PC unit, model number M215A
- Epson DM-LX121SV touch screen panel model number M217A.
- Epson 3 track magnetic stripe reader (MSR).
- Epson DM-D210 Customer Display Units (CDUs): M59DB
- Note: Any suitable CE marked CDUs may be used.
- Epson printer TM-T88IIIX, model M216A
- Note: Any suitable CE marked serial port printer may be used.

5.12 Alternative POS PC: Fujitsu team POS 2000-M

As described in the certificate, but having connected the Fujitsu team POS 2000-M electronic till. This equipment is detailed below and views are shown in Figures 28, 29, and 30, of this amendment.

The changes required do not affect the metrology software issues status which therefore remains as stated in the certificate.

5.12.1 Operation with Weighing Instruments

Where the Iridium connects to a POS system with authorisation to connect to Weighing Instruments, the following shall apply:

Any weighing instrument having a type approval certificate in accordance with The Council Directive 90/384/EEC on Non Automatic Weighing Instruments may be connected to a suitable port on the Fujitsu team POS 2000-M. The software controlling the operation of the weighing instrument shall be as described in the applicable NWML Test Certification.

5.12.2 Fujitsu team POS 2000-M

The Fujitsu team POS 2000-M is a PC based electronic till having an LCD touch screen operator display with a built-in card swipe. An integrated customer display unit (CDU) is mounted high on the rear of the unit.

The equipment is identified as follows:

Equipment	Manufacturer	Model No
Fujitsu team POS 2000-M	Fujitsu	TP2000M

5.12.3 Serial port assignments (see Figure 30)

- COM 1 - Touch screen
- COM 2 - DOMS
- COM 3 - Receipt printer (powered port)
- COM 4 - OLA
- COM 5 - Scales
- COM 6 - Customer display (powered port)
- COM 7 - Not used (powered port)
- COM 8 - Chip and pin
- COM 9 - Not used (powered port)
- COM 10 - Not used (powered port/cash drawer)
- COM 11 - Codax
- COM 12 - Loyalty
- COM 11 & 12 - provided by BrainBoxes PCI expansion card

5.12.4 Interfaces

The following ports of the POS terminal may be used:

- RS323 PS/2 LCD LCD Power
- Network USB Speaker CRT

5.13 Alternative POS PC: Toshiba TEC ST-6501-C74C2-QM

As described in the certificate but having the alternative PC as detailed below. Views are shown in Figures 31, 32, and 33, of this amendment.

The changes required do not affect the metrology software issues status, which therefore remains as stated in the certificate.

5.13.1 Operation with Weighing Instruments

Where the Iridium connects to a POS system with authorisation to connect to Weighing Instruments, the following shall apply:

Any weighing instrument having a type approval certificate in accordance with The Council Directive 90/384/EEC on Non Automatic Weighing Instruments may be connected to a suitable port on the Toshiba TEC ST-6501. The software controlling the operation of the weighing instrument shall be as described in the applicable NWML Test Certification.

5.13.2 Toshiba TEC ST-6501

The Toshiba TEC ST-6501 is a PC based electronic till having an LCD touch screen operator display with a built-in card swipe.

The equipment is identified as follows:

Equipment	Manufacturer	Model No
Toshiba TEC ST-6501	Toshiba TEC	ST-6501

5.13.3 Serial Port Assignments (see Figure 33)

- COM 1 – Online Authorisation
- COM 2 – Used internally for touch screen
- COM 3 – Customer display
- COM 4 – Receipt printer (Cash drawer)
- COM 5 – DOMS
- COM 6 – (USB to serial adapter) Chip & Pin

5.14 Alternative POS PC: Galeo manufactured by AURES Technologies Ltd

As described in the certificate but having the alternative POS PC designated Galeo manufactured by AURES Technologies Ltd.

This is a PC based electronic till having an LCD touch screen operator display with a built-in card swipe as shown in Figures 34, 35 and 36.

5.14.1 Approved serial ports (Figure 36)

The 4 x RS232 ports are designated for use for connections as shown in System schematic (Figure 1).

The remaining ports may be used for suitable non-metrological peripheral equipment.

5.15 Alternative POS PC: Odysse manufactured by AURES Technologies Ltd

As described in the certificate but having the alternative POS PC designated Odysse manufactured by AURES Technologies Ltd.

This is a PC based electronic till having an LCD touch screen operator display with a built-in card swipe as shown in Figures 37, 38 and 39.

5.15.1 Approved serial ports (Figure 39)

The 4 x RS232 ports are designated for use for connections as shown in System schematic (Figure 1).

The remaining ports may be used for suitable non-metrological peripheral equipment.

5.16 Alternative POS PC: Xn905 manufactured by Xn Checkout Ltd

As described in the certificate but having the alternative POS PC designated Xn905 manufactured by Xn Checkout Ltd.

This is a PC based electronic till having an LCD touch screen operator display with a built-in card swipe as shown in Figures 40, 41 and 42.

5.16.1 Approved serial ports (Figure 42)

The 3 x RS232 ports are designated for use for connections as shown in System schematic (Figure 1).

The remaining ports may be used for suitable non-metrological peripheral equipment.

6 CERTIFICATE HISTORY

ISSUE NO.	DATE	DESCRIPTION
Series S010	23 May 2007	Certificate first issued as a supplement.
Series S010 Revision 1	9 December 2008	- Addition of 1958/53 supplement 69, 2437/38 supplement 42 and 2486/36 supplement 62 - Addition of alternative PC's sections 5.14, 5.15 and 5.16

For clarity the POS peripherals have been excluded.
Other POSs may be connected in the same manner.

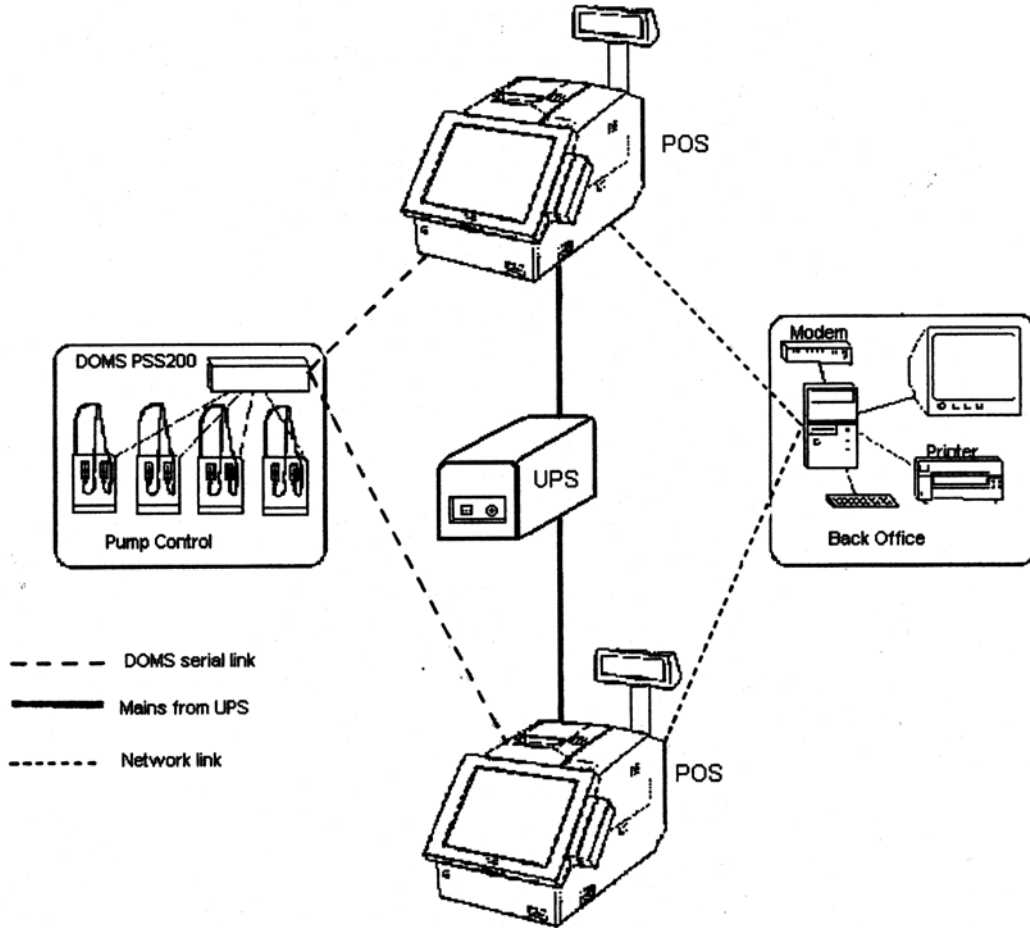


Figure 1 System schematic



Figure 2 **DOMS PSS200 forecourt control unit**



Figure 3
Epson M137A point of sale PC with built-in printer and customer display unit



Figure 4 Epson M137A point of sale PC without printer



Figure 5 Epson TM88 receipt printer



Figure 6 Epson H5000 receipt printer (incorporating customer display unit)



Figure 7 **Uninterruptible power supply**



Figure 8 **Customer display unit showing information layout**

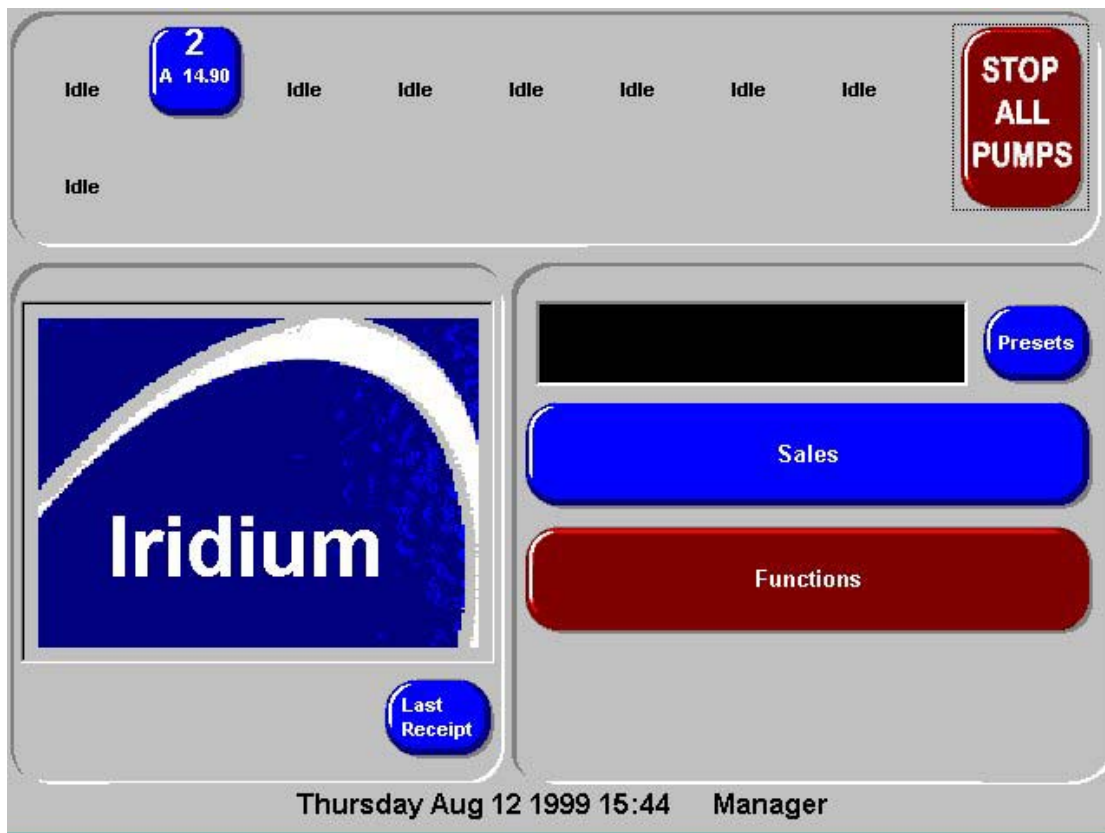


Figure 9 Typical operator display screen layout

Sowton Services Harrier Way Sowton Exeter Devon EX4 7HU Tel: 01392 445325 VAT: 999-984-32567	Sowton Services Harrier Way Sowton Exeter Devon EX4 7HU Tel: 01392 445325 VAT: 999-984-32567
RECEIPT	DUPLICATE RECEIPT
Transaction Number 000584 03/03/1997 : 00:55	Transaction Number 000584 03/03/1997 : 00:55
Pump 4 Diesel A 22.20L @ 0.632 14.03	Pump 4 Diesel A 22.20L @ 0.632 14.03
-----	-----
Sales Sub Total 14.03	Sales Sub Total 14.03
-----	-----
Cash 14.03	Cash 14.03
-----	-----
Payment Sub Total 14.03 Change 0.00	Payment Sub Total 14.03 Change 0.00
=====	=====

Figure 10 Typical customer receipts



Figure 11 TEC 5600 POS system (PC with 2 expansion slots)



Figure 12 TEC 5600 PC with 4 expansion slots



Figure 13 Epson IM-310 POS

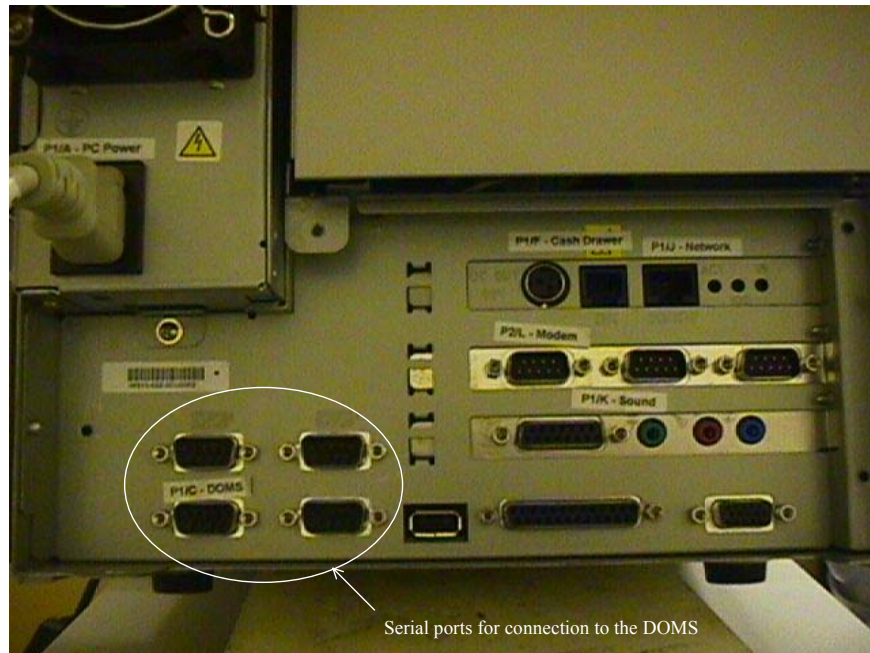


Figure 14 Rear of Epson IM-310 showing serial ports for connection to the DOMS



Figure 15 Dione Xchequer EFT payment and loyalty terminal

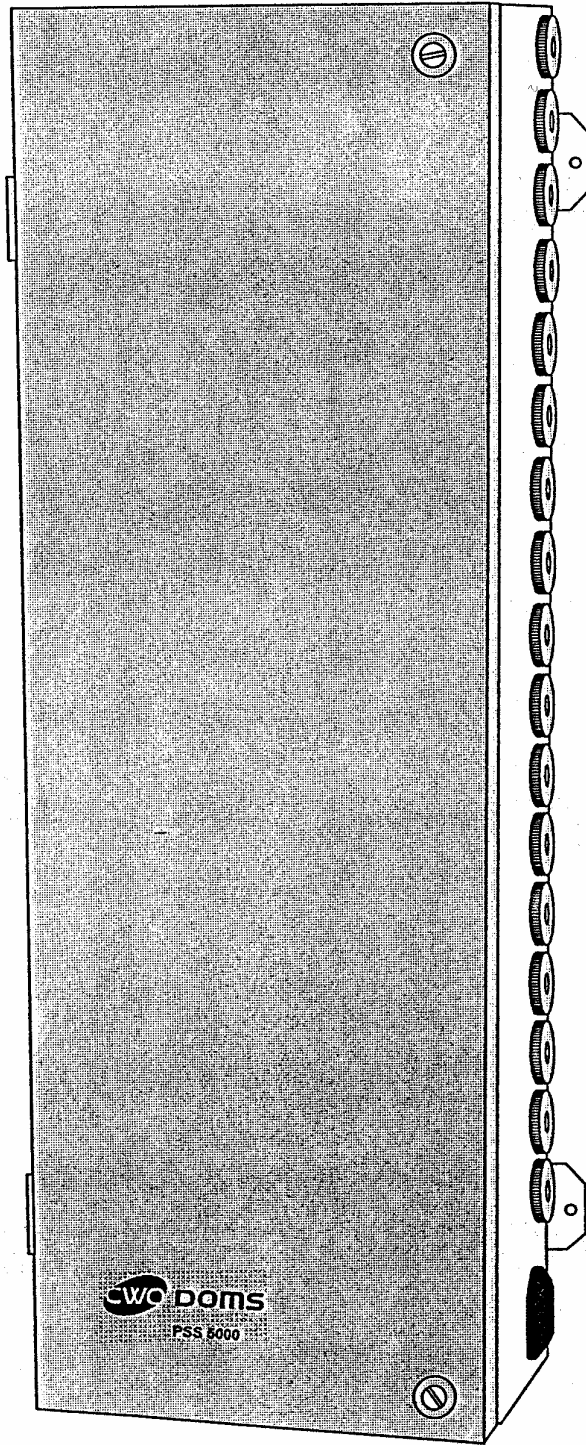


Figure 16 DOMS PSS 5000 enclosure

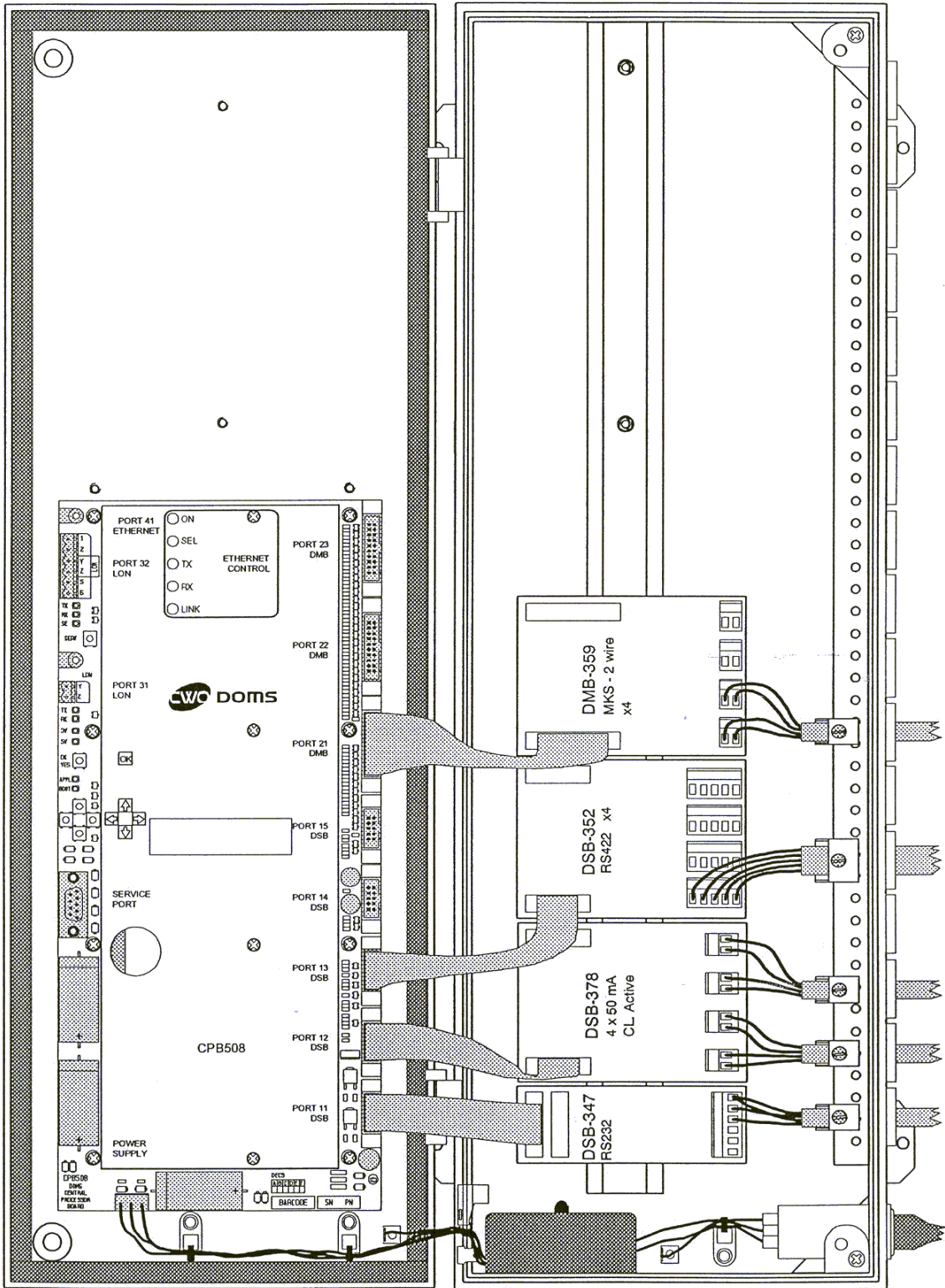


Figure 17 DOMS PSS 5000 typical electronic component layout



Figure 18 Central Processing Board (CPB508) display and menu navigation keys



Figure 19 Epson IR-320 Model no. M156X



Figure 20 Rear of Epson IR-800 Model no. M183A with cover removed

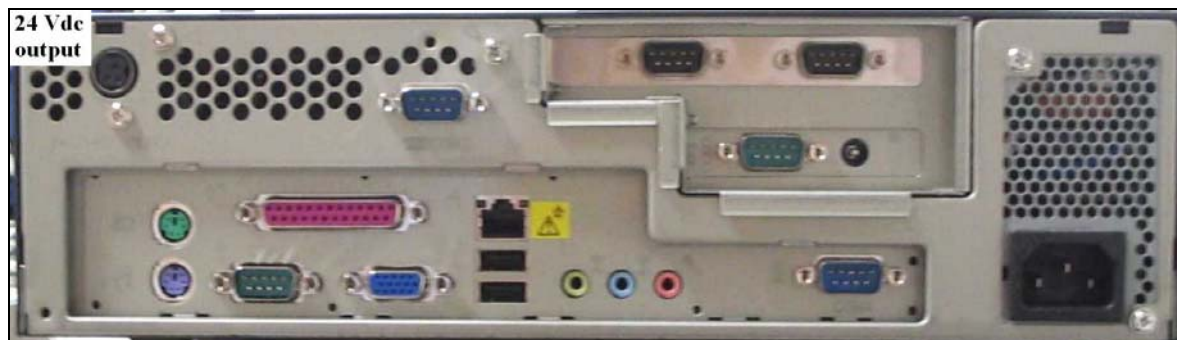


Figure 21 View of back panel – cover removed - showing 24 V outlet



Figure 22
IBM surePOS 563,
showing integrated card swipe



Figure 23
IBM surePOS 563,
rear view showing integrated CDU

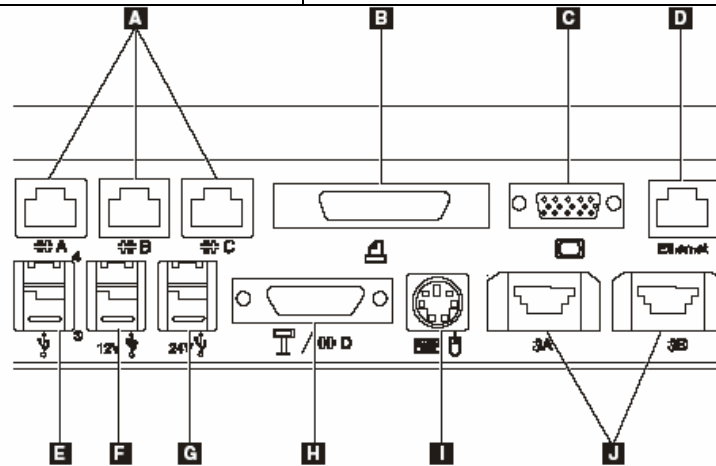


Figure 39. Rear connector panel

Ref.	Connector
A	Serial connectors (3)
B	Parallel connector
C	External video connector
D	Ethernet connector
E	USB connectors (2)
F	12-volt USB connector
G	24-volt USB connector
H	Distributed customer display connector
I	Keyboard/mouse cable
J	Cash drawer connectors (2)

Figure 24
IBM surePOS 563,
schematic view showing ports and connections – cover removed



Figure 25 Hewlett Packard RP 5000 POS PC (front and rear views)



Figure 26 Epson IR 700 – front view



Figure 27 Epson IR 700 – showing rear connections with protective cover removed



Figure 28
Fujitsu team POS 2000-M,
showing integrated card swipe



Figure 29
Fujitsu team POS 2000-M,
rear view showing CDU



Figure 30
Fujitsu team POS 2000-M,
schematic view showing ports and connections – cover removed

Figure 31
Toshiba TEC ST-6501 – TFTST56 flat display
showing integrated card swipe



Figure 32
Toshiba TEC ST-6501 -
LIUST51 CDU



Figure 33
Toshiba TEC ST-6501, schematic view showing ports and connections – cover removed





Figure 34 Aures Galeo POS PC
(showing operator display)



Figure 35 Aures Galeo POS PC
(showing customer display)



Figure 36 Aures Galeo POS PC showing ports and connections – cover removed



Figure 37 Aures Odysse POS PC
(showing operator display)



Figure 38 Aures Odysse POS PC
(showing customer display)



Figure 39 Aures Odysse POS PC showing ports and connections – cover removed



Figure 40 Xn905 POS PC (showing operator display)

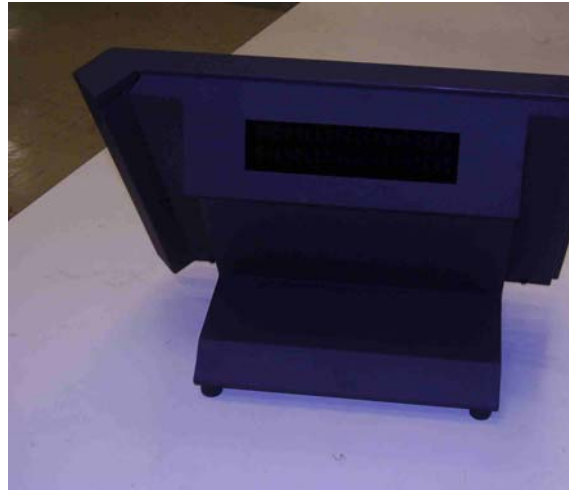


Figure 41 Xn905 POS PC (showing customer display)



Figure 42 Xn905 POS PC showing ports and connections – underside