



Australian Government
National Measurement
Institute

Bradfield Road, West Lindfield NSW 2070

Cancellation
Supplementary Certificate of Approval
No S421

Issued by the Chief Metrologist under Regulation 60
of the
National Measurement Regulations 1999

This is to certify that the approval for use for trade granted in respect of the

Megabus Model SERVSTAT Control System for Fuel Dispensers for Motor
Vehicles

submitted by Pixen Pty Ltd
 182 Scarborough Beach Road
 Mount Hawthorne WA 6915

has been cancelled in respect of new instruments as from 1 April 2011.

Signed by a person authorised by the Chief Metrologist
to exercise his powers under Regulation 60 of the
National Measurement Regulations 1999.

A handwritten signature in black ink, consisting of stylized cursive letters.



Australian Government

National Standards Commission

12 Lyonpark Road, North Ryde NSW 2113 Australia

Supplementary Certificate of Approval

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Megabus Model SERVSTAT Control System for Fuel Dispensers for Motor Vehicles

submitted by Pixen Pty Ltd
182 Scarborough Beach Road
Mount Hawthorne WA 6915.

NOTE: This Certificate relates to the suitability of the pattern of the instrument for use for trade only in respect of its metrological characteristics. This Certificate does not constitute or imply any guarantee of compliance by the manufacturer or any other person with any requirements regarding safety.

CONDITIONS OF APPROVAL

This approval becomes subject to review on 1 July 2008, and then every 5 years thereafter.

Instruments purporting to comply with this approval shall be marked NSC No S421 and only by persons authorised by the submitter.

Instruments incorporating a component purporting to comply with this approval shall be marked NSC No S421 in addition to the approval number of the instrument.

It is the submitter's responsibility to ensure that all instruments marked with this approval number are constructed as described in the documentation lodged with the Commission and with the relevant Certificate of Approval and Technical Schedule. Failure to comply with this Condition may attract penalties under Section 19B of the National Measurement Act and may result in cancellation or withdrawal of the approval, in accordance with the Commission's Document NSC P 106.

The Commission reserves the right to examine any instrument or digital indicator of an instrument purporting to comply with this approval.

Auxiliary devices used with this instrument shall comply with the requirements of General Supplementary Certificate No S1/0/A.

DESCRIPTIVE ADVICE

Pattern: approved 30 June 2003

- A Megabus model SERVSTAT control system for use with compatible Commission-approved fuel dispensers for motor vehicles.

Technical Schedule No S421 describes the pattern.

FILING ADVICE

The documentation for this approval comprises:

Supplementary Certificate of Approval No S421 dated 7 April 2004
Technical Schedule No S421 dated 7 April 2004 (incl. Table 1)
Figures 1 to 4 dated 7 April 2004

Signed by a person authorised under Regulation 60 of the National Measurement Regulations 1999 to exercise the powers and functions of the Commission under this Regulation.

A handwritten signature in black ink, appearing to be 'J. H. T.', is located in the bottom right corner of the page.

TECHNICAL SCHEDULE No S421

Pattern: Megabus Model SERVSTAT Control System for Fuel Dispensers for Motor Vehicles

Submittor: Pixen Pty Ltd
182 Scarborough Beach Road
Mount Hawthorne WA 6915

1. Description of Pattern

The pattern is a Megabus model SERVSTAT point of sale system control system to provide an attended self-service facility for compatible (#) Commission-approved fuel dispensers for motor vehicles. The system (Figure 1) includes at least the Megabus model SERVSTAT console, a Postec model PCC4 controller and a Postec model PIPI intelligent purchaser indicator .

(#) "Compatible" is defined to mean that no additions/changes to hardware/software are required for satisfactory operation of the complete system including all checking facilities.

1.1 Field of Operation

- The Megabus model SERVSTAT point of sale (POS) system is approved for environmental class A, a climate-controlled environment between 5°C and 30°C.
- The system can provide a self-service arrangement for up to 32 compatible Commission-approved fuel dispensers fitted with Transponder Technologies model T5 indicators (as described in the documentation of NSC approval No S414) or other compatible Commission-approved fuel dispensers.
- The system is only approved for use with dedicated fuel dispensers exclusively controlled by the pattern.
- The system allows post-payment or pre-payment deliveries; in the latter case the fuel dispenser must incorporate a pre-set device.
- The system allows up to two transactions per fuel dispenser, i.e. current sale on the fuel dispenser and a stored transaction.
- The nominal supply voltage is 240 V AC.

1.2 System Description

- (i) The Megabus model SERVSTAT POS system (Figure 2) comprises an IBM compatible computer, with SERVSTAT software version 11.00 running under an MS-DOS 6.22 or compatible operating system, as the operator control console.
- (ii) A Postec PCC4 controller (Figure 3) and a Postec Intelligent Purchaser Indicator (PIPI) operating with software version as listed in the documentation of NSC approval No S398, are both interfaced to the computer via an RS232 interface.

The PIPI display updates automatically for the benefit of the purchaser, with the following information:

- The fuel dispenser ID number;
- The type of fuel;
- The measured volume of fuel; and
- The total price.

(iii) In addition to the operator console the following optional devices may be connected:

- A Quest one-touch programmable point of sale (POS) keyboard (Figure 3);
- A barcode scanner;
- An uninterruptible power supply; and
- A Citizen model iDP 3550 customer receipt printer. Note that the printer is mandatory for pre-payment transactions. Sample tickets are shown in Figure 4.

1.3 Checking Facilities

(i) Printer

If an error occurs with the printer a message is displayed on the screen indicating the error.

(ii) Customer Display

If the connection to the PIPI from the PC is interrupted or an error occurs with the PIPI, an error message is displayed on the operator's screen.

The button on the PIPI display will allow the manual recall of necessary transaction information, including the status (e.g. current sale or stored transaction).

(iii) The system monitors the communication with the fuel dispensers and any error detected is displayed to the operator.

1.4 Markings

The SERVSTAT control console is marked with the following data, together in one location:

| | |
|-----------------------------|---------|
| Manufacturer's name or mark | |
| Model number | |
| Serial number | |
| NSC approval number | S421 |
| Environmental class | Class A |

1.5 Verification/Certification Provision

The SERVSTAT control console has provision for a certification/verification mark to be applied.

TEST PROCEDURE

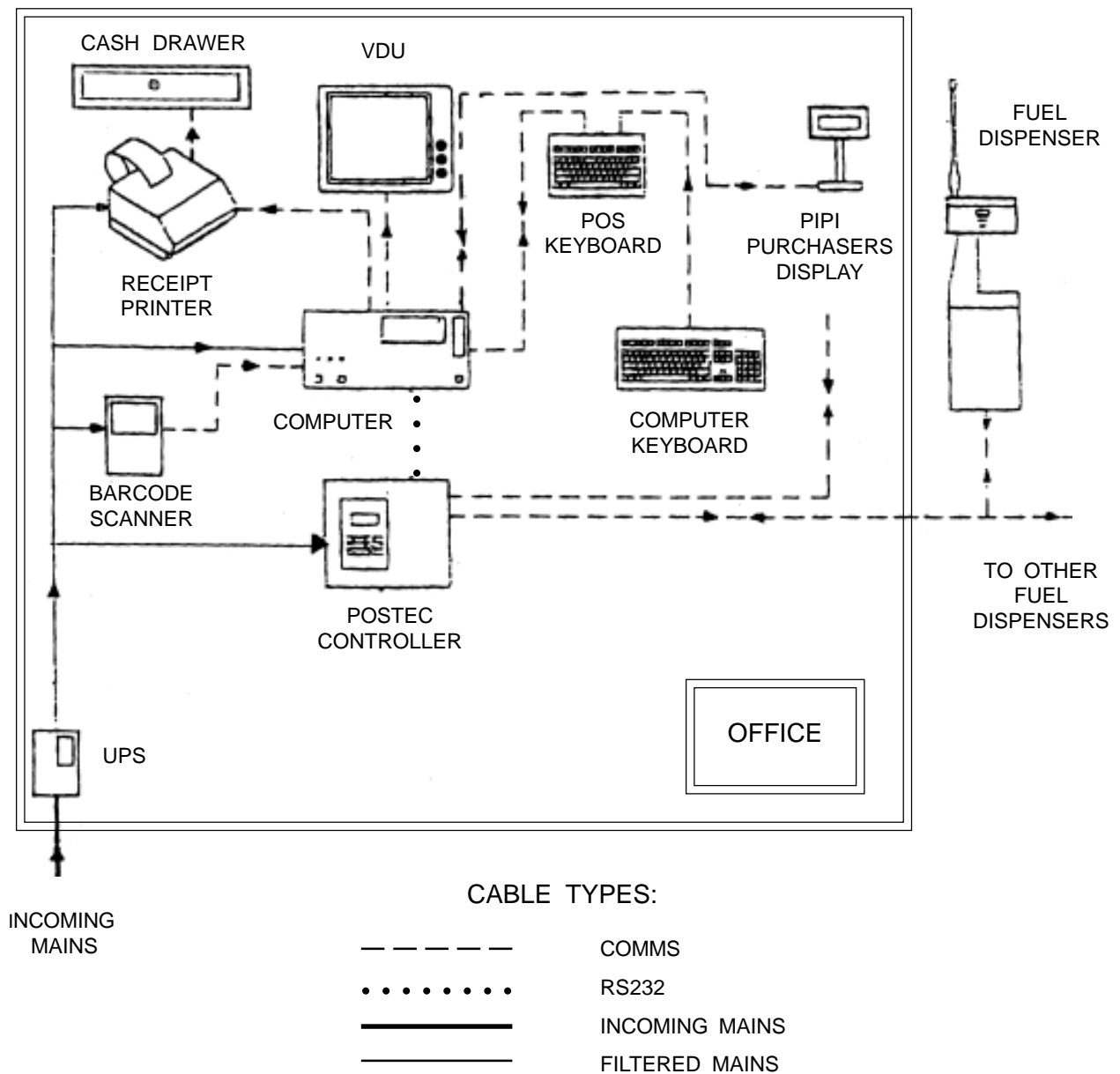
Instruments shall be tested in conjunction with any test specified in the approval documentation for the instrument to which the pattern is connected, as appropriate, and accordance with any relevant tests in NSC Test Procedure 5, *Driveway Flowmeters*.

The maximum permissible errors applicable are those applicable to the fuel dispenser to which the pattern is connected, as stated in the approval documentation for the dispenser.

Items 3-7 below are required at **commissioning**, thereafter may be conducted at the discretion of the inspecting officer.

1. Check the SERVSTAT software version number from the user login screen.
2. Check the PCC4 controller software version number at the PIPI by pressing the button down for more than 5 seconds and then releasing.
3. Check that the unit price change for the grade of fuel is implemented to the allocated fuel dispensers when they are available for authorisation.
4. Check that the control console and the PIPI identify and display the correct data for the corresponding number allocated to the fuel dispenser.
5. Check that when the PIPI is disconnected from the Postec PCC4 controller (simulation of fault), the fuel dispenser cannot be authorised for a second delivery unless the transaction for the first delivery has been completed.
6. Check that when the PIPI is disconnected from the SERVSTAT console, a warning message appears advising that the "Customer Purchases indicator is not available". Ensure that while the PIPI is connected to the PCC4 controller transaction details can be retrieved manually.
7. A pre-paid delivery is only possible for fuel dispensers with pre-set facility. For a pre-paid delivery check that the amount displayed on the fuel dispenser equals the pre-paid amount. The maximum permissible error for the volume indicated and the actual volume delivered shall not exceed the minimum specified volume deviation (E_{min}). For fuel dispensers with $V_{min} = 2L$, $E_{min} = \pm 20 \text{ mL}$. Note: This test can be carried out in conjunction with the pre-set test for the fuel dispenser.
8. For systems with a printer, check that the printed receipt contains the correct format and data as per the typical samples in Figure 4.

FIGURE S421 – 1



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FIGURE S421 – 2



Major Components of a Megabus Model SERVSTAT Control System

FIGURE S421 – 3



Postec Model PCC4 Controller



Quest Programmable POS Keyboard

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FIGURE S421 – 4

Megabus
Mt Hawthorn WA 6147 08 9201 1255
ABN 10000000000

TAX INVOICE
CASH

| Desc | Qty | Value |
|--|-----|----------|
| Pump 03 DIESEL | | |
| 17.14 L 0.875 \$/L | | \$15.00* |
| TOTAL SALE VALUE | | \$15.00 |
| Total includes GST of | | \$1.36 |
| THANK YOU FOR CHOOSING MEGABUS PLEASE DRIVE CAREFULLY | | |
| #16065 25-02-2004 15:58 | | |

Megabus
Mt Hawthorn WA 6147 08 9201 1255
ABN 10000000000

PREPAID FUEL DOCKET

| | | |
|--------|-------------|---------|
| Pump 3 | Amount paid | \$15.00 |
|--------|-------------|---------|

The amount shown is the prepaid value
of a fuel delivery on the specified pump
THIS IS NOT A TAX INVOICE!!

25-02-2004 15:55

Sample Tickets