



Australian Government
National Measurement
Institute

Bradfield Road, West Lindfield NSW 2070

Cancellation
Supplementary Certificate of Approval
No S438

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

Technology Business Systems Model On Q Control System for Fuel
Dispensers for Motor Vehicles

submitted by Technology Business Systems
677 The Boulevard
Eaglemont VIC 3084

has been cancelled in respect of new instruments as from 1 December 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, likely representing the Chief Metrologist.



Australian Government
**National Measurement
Institute**

12 Lyonpark Road, North Ryde NSW 2113

Supplementary Certificate of Approval
No S438

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

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

Technology Business Systems Model On Q Control System for Fuel Dispensers for
Motor Vehicles

submitted by Technology Business Systems
677 The Boulevard
Eaglemont VIC 3084.

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 June 2009, and then every 5 years thereafter.

Instruments purporting to comply with this approval shall be marked with approval number 'NSC S438' and only by persons authorised by the submitter.

Instruments incorporating a component purporting to comply with this approval shall be marked 'NSC S438' 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 National Measurement Institute (NMI) 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 document NMI P 106.

The National Measurement Institute reserves the right to examine any instrument or component 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 3 May 2004

- A Technology Business Systems model On Q control system for use with compatible Commission-approved fuel dispensers for motor vehicles.

Technical Schedule No S438 describes the pattern.

FILING ADVICE

The documentation for this approval comprises:

Supplementary Certificate of Approval No S438 dated 3 August 2004
Technical Schedule No S438 dated 3 August 2004
Figures 1 to 3 dated 3 August 2004

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, appearing to be 'J. G. T.', is located in the bottom right corner of the page.

TECHNICAL SCHEDULE No S438

Pattern: Technology Business Systems Model On Q Control System for Fuel Dispensers for Motor Vehicles

Submittor: Technology Business Systems
677 The Boulevard
Eaglemont VIC 3084

1. Description of Pattern

The pattern is a Technology Business Systems model On Q point of sale (POS) 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 On Q point of sale 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 model On Q 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 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 model On Q POS system (Figure 2) comprises an IBM compatible computer, with On Q software version 5.0.008# or 5.1.02# (*) running under a Microsoft Windows 2000 or compatible operating system, as the operator control console.

(*) Minor revision versions are denoted by #. Minor revisions shall not impact on the metrological control functions of the software. Both the 5.0.008 and 5.1.02 version series contain base functionality while the 5.0.008 series has reduced POS functions from those of the 5.1.02 series.

- (ii) A Postec PCC4 controller (Figure 3) and a Postec Intelligent Purchaser Indicator (PIPI) as described in the documentation of NSC approval No S398, provide interface and data acquisition between the fuel dispensers and control console and allow the recall of the stored transactions under power failure condition. The Postec units interface with the On Q POS console via an RS232 connection.

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:
- Tipro programmable keyboard;
 - Barcode scanner;
 - An uninterruptible power supply; and
 - A CBM 1000 customer receipt printer – Note that the printer is mandatory for pre-payment transactions. Sample tickets are shown in Figure 3.

1.3 Checking Facilities

- (i) Printer

The system monitors the condition of the receipt printer and provides a visual warning of an 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). Memory authorisation must be disabled if the PIPI is disconnected from the PCC4 controller as per S398.

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

1.4 Verification/Certification Provision

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

1.5 Markings

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

Manufacturer's name or mark
Model number
Serial number
NSC approval number	S438
Environmental class	Class A

TEST PROCEDURE

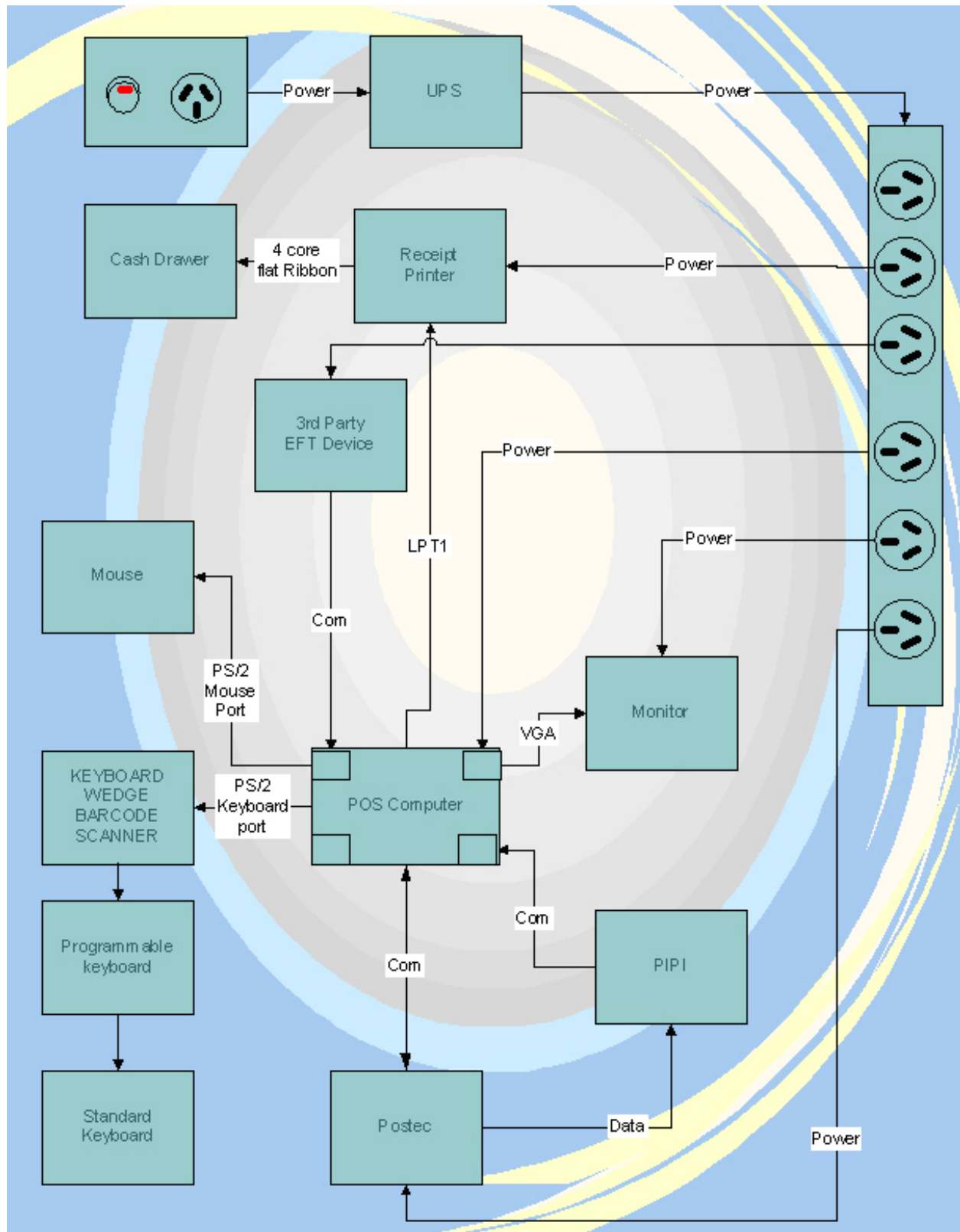
Instruments shall be tested in conjunction with any test specified in the approval documentation for the instrument to which the pattern is connected, as appropriate, and accordance with any relevant tests specified in the Uniform Test Procedures.

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 On Q software version number by highlighting entry 'A. Point of Sale' from the main menu and pressing function key 'F2'.
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. 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.
7. For systems with fuel dispensers incorporating a pre-set facility, check that the printed receipt contains the correct format and data as per the typical sample/s in Figure 3.

FIGURE S438 – 1



Technology Business Systems Model On Q Control System
for Fuel Dispensers for Motor Vehicles

S438
3 August 2004

FIGURE S438 – 2



Major Components of a Technology Business Systems Model On Q Control System

FIGURE S438 – 3

DEMO DEMONSTRATION & TRAINING SITE
TAX INVOICE
===== OFFICIAL RECEIPT =====
ACN: 111 222 333
Clerk:1 15/04/04 12:11:05 Trn 49
Shift:2, 30/03/04
Item Description Qty Amount

1 *Hose 1 Pump 1
100.0c/L x 10.00L
SUPER \$ 10.00

Total Incl. GST \$ 10.00
Cash \$ 10.00

Sale includes GST of \$ 0.91
* Indicates GST Inclusive Item(s)
No refunds given unless receipt shown.
Thank you. Please call again.

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DEMO DEMONSTRATION & TRAINING SITE
TAX INVOICE
===== OFFICIAL RECEIPT =====
ACN: 111 222 333
Clerk:1 15/04/04 12:30:28 Trn 54
Shift:2, 30/03/04
Item Description Qty Amount

Following Item is prepaid:
1 *Hose 0 Pump 1
100.0c/L x 10.00L
SUPER \$ 10.00

Total Incl. GST \$ 10.00
Cash \$ 10.00

Sale includes GST of \$ 0.91
* Indicates GST Inclusive Item(s)
No refunds given unless receipt shown.
Thank you. Please call again.

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DEMO DEMONSTRATION & TRAINING SITE
TAX INVOICE
===== OFFICIAL RECEIPT =====
ACN: 111 222 333
Clerk:1 15/04/04 12:11:12 Trn 49
Shift:2, 30/03/04
** REPRINT *** REPRINT *** REPRINT **
Item Description Qty Amount

1 *Hose 1 Pump 1
100.0c/L x 10.00L
SUPER \$ 10.00

Total Incl. GST \$ 10.00
Cash \$ 10.00

Sale includes GST of \$ 0.91
* Indicates GST Inclusive Item(s)
No refunds given unless receipt shown.
Thank you. Please call again.

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DEMO DEMONSTRATION & TRAINING SITE
TAX INVOICE
===== OFFICIAL RECEIPT =====
ACN: 111 222 333
Clerk:1 15/04/04 12:31:59 Trn 55
Shift:2, 30/03/04
Item Description Qty Amount

Following Item is a refund:
1 *Hose 1 Pump 1
100.0c/L x 3.50L
SUPER \$(3.50)

Total Incl. GST \$(3.50)
Cash \$(3.50)

Sale includes GST of \$(0.32)
* Indicates GST Inclusive Item(s)
No refunds given unless receipt shown.
Thank you. Please call again.

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