

Australian Government

National Measurement Institute

Bradfield Road, West Lindfield NSW 2070

# Notification of Change Supplementary Certificate of Approval No S236A Change No 3

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

The following changes are made to the approval documentation for the

Solution Technology Model ST1 Control System for Fuel Dispensers for Motor Vehicles

submitted by Fujitsu Australia Limited The Gauge, 825 Bourke Street Docklands VIC 3008.

A. In Supplementary Certificate of Approval No S236A dated 22 December 1995, the FILING ADVICE should be amended by adding the following:

"Notification of Change No 3 dated 16 July 2009"

- B. In Technical Schedule No S236A dated 8 July 1994, clause **1.1 The System** should be amended by changing the reference to the printer (and adding a footnote) as shown below:
  - "A Solution Technology or equivalent (\*) printer, for the purchaser's receipt;
  - (\*) "Equivalent" is defined to mean other proprietary equipment of the same or better specifications requiring no changes to software for satisfactory operation of the complete system including all checking facilities."
- NOTE: Approval S236A expired in respect of NEW instruments on 1 April 2000. No NEW instruments conforming to the pattern or variants may be submitted for verification or certification, however existing instruments may continue in use at the discretion of the relevant trade measurement authority.

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

## National Standards Commission



## Supplementary Certificate of Approval

## No S236A

Issued under Regulation 9 of the National Measurement (Patterns of Measuring Instruments) Regulations

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

Solution Technology Model ST1 Driveway Flowmeter Control System

submitted by

Solution Technology Pty Ltd 9 Woodbine Court Wantirna VIC 3152.

| 6 |   |   |
|---|---|---|
|   | _ | _ |
|   | _ | - |
|   |   | _ |

**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 is subject to review on or after 1 April 1999. This approval expires in respect of new instruments on 1 April 2000.

Instruments purporting to comply with this approval shall be marked NSC No S236A and only by persons authorised by the submittor.

Instruments incorporating a component purporting to comply with this approval shall be marked NSC No S236A in addition to the approval number of the instrument.

#### Supplementary Certificate of Approval No S236A Page 2

It is the submittor'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 106.

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

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

#### Special:

Requirements regarding verification/certification after replacement of components are set out in the Technical Schedule.

Instruments are only approved for installations incorporating the Commission-approved driveway flowmeters described in this approval, and may only be used for central unit price setting of driveway flowmeters which have been Commission-approved with that facility.

#### DESCRIPTIVE ADVICE

Pattern: approved 15 March 1994

A Solution Technology model ST1 control system for use in a Commission-approved flowmetering system using any driveway flowmeter fitted with an Email Eclipse MVR79 series electronic indicator.

Variants: approved 15 March 1994

- 1. With two model ST1 control systems connected in a network.
- 2. For use with certain Commission-approved Email or Gilbarco driveway = flowmeter indicators.

Technical Schedule No S236A describes the pattern and variants 1 and 2.

Variant: approved 12 September 1995

3. With up to four model ST1 control systems connected in a network.

Technical Schedule No S236A Variation No 1 describes variant 3.

Supplementary Certificate of Approval No S236A Page 3

FILING ADVICE

Supplementary Certificate of Approval No S236A dated 8 July 1994 is superseded by this Certificate and may be destroyed.

The documentation for this approval now comprises:

Supplementary Certificate of Approval No S236A dated 22 December 1995 Technical Schedule No S236A dated 8 July 1994 (incl. Test Procedure) Technical Schedule No S236A Variation No 1 dated 22 December 1995 Figures 1 to 4 dated 8 July 1994 Figure 5 dated 22 December 1995

Signed and sealed by a person authorised under Regulation 9 of the National Measurement (Patterns of Measuring Instruments) Regulations to exercise the powers and functions of the Commission under this Regulation.

F. Bunh





## **National Standards Commission**

TECHNICAL SCHEDULE No S236A

- Pattern: Solution Technology Model ST1 Driveway Flowmeter Control System.
- Submittor: Solution Technology Pty Ltd 9 Woodbine Court Wantirna VIC 3152.

#### 1. Description of Pattern

The pattern is a Solution Technology model ST1 control system for use in a Commission-approved flowmetering system using any driveway flowmeter fitted with an Email Eclipse MVR79 series electronic indicator.

#### 1.1 The System

The ST1 system (Figure 1) may be used with up to 16 driveway flowmeters in postpay mode only and comprises:

- A Solution Technology 9600 series controller (Figure 2);
- A Solution Technology model ST1 operator's console which consists of a touch panel visual display unit (VDU) and keypad (Figure 3);
- A Solution Technology printer, for the purchaser's receipt;
- A Solution Technology purchaser's indicator (Figure 4); and
- A non-interruptable power supply/conditioning unit.

A manager's VDU, for observation purposes only, a card reader which is used for managerial functions, a personal identification number (PIN) keypad and a bar code scanner may also be fitted.

The instrument may also be connected to a telecommunication line and/or to a personal computer.

The system facilities include:

- a point of sale facility including cash drawer;
- a facility for centrally setting the unit price of up to 8 grades of fuel which may also control forecourt unit price sign indicators;
- a postpay facility;
- a pump stop and all pumps emergency stop function; and
- a dual-memory facility.

#### 1.2 Controller

The 9600 series controller controls the various functions of the driveway flowmeters. It may be located remotely from the console and may also be known as a Site Integration Unit (SIU). The controller (SIU) may be as shown in Figure 2 or in alternative housings.

#### 1.3 Console

The model ST1 operator's console (Figure 3) communicates with the controller through a touch-panel visual display unit (VDU) and a keypad.

#### **1.3.1** Point of Sale Facility

The console incorporates point of sale (POS) terminal facilities and these shall not interact with the controller or the console in any way which would cause an incorrect indication of the measured volume or price.

#### 1.3.2 Dual-memory Facility

This facility allows two purchasers to operate simultaneously, i.e. a second transaction may be carried out while a previous transaction which has not yet been completed is retained in memory.

The first purchaser carries out a delivery of fuel and the transaction data is indicated on both the purchaser's and vendor's indicators. Once the first purchaser has hung-up the nozzle but before the first transaction has been completed, and after a period of about 5 seconds, a second purchaser can be authorised for the same flowmeter. The word STACK appears on the console screen and the details of the first transaction are stored in the controller memory and can be shown on both the vendor's and purchaser's display. The prompt 'M' is displayed to indicate a stored transaction.

The details of the first delivery will be displayed by selecting its flowmeter number. The second transaction is still displayed on the purchaser's display and is not automatically transferred to the memory. The status of the transaction is included on the vendor's display.

Only one transaction for each driveway flowmeter may be stored in memory at any time.

#### 1.3.3 Display Check

On power up, the controller automatically performs a system check, then displays a message on the VDU and causes the forecourt unit price indicator (if connected to the central unit price setting facility) to go through a display check routine.

#### 1.4 Sealing Provision

No sealing is required.

#### 1.5 Verification/Certification Provision

Provision is made on the controller (SIU) for a verification/certification mark to be applied.

The ST1 system shall be re-verified/certified if the controller (SIU) is replaced; however, other components of the system may be replaced without the system needing to be re-verified/certified.

Only Trade Measurement Authorities are authorised to verify and re-verify instruments; only a licensee appointed by a Trade Measurement Authority under a servicing licence, or an employee of the licensee, is authorised to certify instruments.

Components which may be replaced are stand alone items and are connected to the controller (SIU) by a single data plug. The components are:

Console/Visual Display Unit (\*) Purchaser Display (\*) Receipt Printer (\*) Power supply/conditioning unit Cash drawer Personal identification number (PIN) keypad Bar code scanner Personal computer

(\*) The replacement units for these components shall be of the same type and shall be supplied by the submittor. They are identified by the Solution Technology logo.

#### 1.6 Markings

The controller (SIU) is marked with the following data, together in one location:

Manufacturer's name or mark Model number Serial number NSC approval number Operating (air) temperature range

NSC No S236A 0°C - 40°C

#### 2. Description of Variants

#### 2.1 Variant 1

With two model ST1 control systems connected in a network to control up to 32 driveway flowmeters. Each controller has 16 flowmeters assigned to it, (nominally flowmeters 1 to 16 or 17 to 32) which it controls independently from the other 16 flowmeters. From the console a controller can also access any flowmeter to which it is not specifically assigned if the other control system is also switched on.

The networking enables the following operations controlled by one control system to be processed by the other, for all 32 flowmeters:

- . flowmeter authorisation, sales transactions, voiding;
- pump stop and emergency stop;
- flowmeter status display screen;
- central unit price setting which may also control forecourt unit price sign indicators (refer Special Conditions of Approval); and
- common management functions (e.g. shift details, total sales).

#### 2.2 Variant 2

For use with a Commission-approved flowmetering system using:

Email MPP (multi-product) series driveway flowmeters; or

Gilbarco model multi-product and/or Trimline and/or Electroline and/or Highline driveway flowmeters.



#### Page 5

#### TEST PROCEDURE

Instruments should be tested in accordance with any tests included in the approval documentation for the driveway flowmeter/s to which the pattern is connected, as appropriate, and in accordance with any relevant tests specified in the Inspector's Handbook.

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

#### 1. Postpay Mode (including dual-memory test)

- (i) At any driveway flowmeter, remove a nozzle from its hang-up position, authorise the flowmeter at the console, and then deliver sufficient fuel to cause the price and quantity indicators to move significantly off zero. Stop the pump motor by returning the nozzle to its hang-up; the details of the transaction will be displayed on the vendor's indicator.
- (ii) Remove the nozzle from its hang-up position and check that the driveway flowmeter indicator does not reset to zero.
- (iii) At the console check that the price and volume displayed are the same as the price and volume recorded from the driveway flowmeter.
- (iv) At the same flowmeter, perform another delivery as per (i) above; check that both transactions are displayed as per the operational details of the dual-memory facility given in the Technical Schedule.
- (v) Attempt to authorise a third delivery from the same flowmeter; this should not be possible.
- (vi) Complete the transactions. Check that both memories are now clear.
- (vii) Repeat steps (i) to (vi) for a number of driveway flowmeters.

#### 2. Networked System

For a networked system (variant 1) check the following:

- (i) When a driveway flowmeter is authorised from one console it cannot also be authorised from the other; and
- (ii) On completion of a delivery, it should not be possible to pay off the transaction on both consoles.



### **National Standards Commission**

TECHNICAL SCHEDULE No S286A

VARIATION No 1

Pattern: Solution Technology Model ST1 Driveway Flowmeter Control System.

Submittor: Solution Technology Pty Ltd 9 Woodbine Court Wantima VIC 3152.

#### 1. Description of Variant 3

With up to four model ST1 control systems connected in a network with up to 32 driveway flowmeters (Figure 5).

This network is a modification of the system described for variant 1 (in Technical Schedule No S236A dated 8 July 1994) with an additional two ST1 control systems which are point of sale terminals only, i.e. they do not control the flowmeters.



**Australian Government** 

National Measurement Institute

Bradfield Road, West Lindfield NSW 2070

# Notification of Change Supplementary Certificate of Approval No S236A Change No 1

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

The following changes are made to the approval documentation for the

Solution Technology Model ST1 Control System for Fuel Dispensers for Motor Vehicles

submitted by Solution Technology 9 Woodbine Court WANTIRNA VIC 3152.

 A. In Supplementary Certificate of Approval No S236A dated 22 December 1995 and in Technical Schedule No S236A dated 8 July 1994 and in Technical Schedule No S236A Variation No 1 dated 22 December 1995, all references to the name and address of the submittor should be amended to read:

> "Fujitsu Australia Limited 1 Southbank Boulevard Southbank VIC 3062."

- B. In Supplementary Certificate of Approval No S236A dated 22 December 1995;
  - (i) the DESCRIPTIVE ADVICE should be amended by adding the following to the description of variant 2:

"... or any other compatible approved fuel dispensers."

(ii) the FILING ADVICE should be amended by adding the following:

"Notification of Change No 1 dated 7 May 2008"

C.

### Notification of Change No 1 to S236A

In Technical Schedule No S236A dated 8 July 1994, clause **2.2 Variant 2** should be amended by adding the following:

"... or any other compatible (#) approved fuel dispensers.

- (#) '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."
- NOTE: Approval S236A expired in respect of NEW instruments on 1 April 2000. No NEW instruments conforming to the pattern or variants may be submitted for verification or certification, however existing instruments may continue in use at the discretion of the relevant trade measurement authority.

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



Australian Government

National Measurement Institute

Bradfield Road, West Lindfield NSW 2070

# Notification of Change Supplementary Certificate of Approval No S236A Change No 2

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

The following changes are made to the approval documentation for the

Solution Technology Model ST1 Control System for Fuel Dispensers for Motor Vehicles

- submitted by Fujitsu Australia Limited 1 Southbank Boulevard Southbank VIC 3062.
- Α. Certificate In Supplementary of Approval No S236A dated 22 December 1995 and in Technical Schedule No S236A dated 8 July 1994 Technical Schedule No S236A Variation and in No 1 dated 22 December 1995, all references to the address of the submittor should be amended to read:

"The Gauge, 825 Bourke Street Docklands VIC 3008."

B. In Supplementary Certificate of Approval No S236A dated 22 December 1995, the FILING ADVICE should be amended by adding the following:

"Notification of Change No 2 dated 27 October 2008"

NOTE: Approval S236A expired in respect of NEW instruments on 1 April 2000. No NEW instruments conforming to the pattern or variants may be submitted for verification or certification, however existing instruments may continue in use at the discretion of the relevant trade measurement authority.

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



Typical Solution Technology ST1 Control Systems



FIGURE S236A - 2



Solution Technology Model ST1 Operator's Console



FIGURE S236A - 4

### FIGURE S236A - 5



----

----

**Typical Variant 3 Network**