Australian Government
Department of Industry, Science and Resources

National Measurement Institute

36 Bradfield Road, West Lindfield NSW 2070

Supplementary Certificate of Approval

NMI S886

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 instruments herein described.

Glassbox model POS-SUM Point of Sale (POS) Control System for Fuel Dispensers for Motor Vehicles

submitted by Glassbox NZ Ltd
11/21 Railside Place
Dinsdale Hamilton 3210 New Zealand

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.

This approval has been granted with reference to document NMI R 117, *Measuring Systems for Liquids Other than Water*, dated June 2011.

This approval is subject to review at the decision of the Chief Metrologist in accordance with the conditions specified in the document NMI P 106.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern approved – certificate issued	12/06/26

CONDITIONS OF APPROVAL

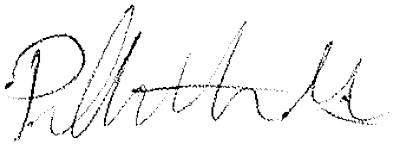
General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI S886' and only by persons authorised by the submittor.

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 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.

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

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



Phillip Mitchell
A/g Manager
Policy and Regulatory Services

TECHNICAL SCHEDULE No S886

1. Description of Pattern approved 12/06/26

A Glassbox model POS-SUM point of sale control system to provide an attended self-service facility for compatible (#) NMI approved fuel dispensers for motor vehicles. The fuel dispensers are controlled by the POS-SUM point of sale system through the Invenco controller (as described in approval NMI S821).

1.1 Key Features

- The system is approved for environmental class A, a climate-controlled environment between 5 °C and 30 °C.
- The system can provide a self-serve arrangement for compatible (#) NMI-approved fuel dispensers.
- The system allows only post-payment delivery.
- 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

The Glassbox model POS-SUM point of sale (POS) system (Figure 1) comprises:

(i) Point of Sale (POS) Console

The point of sale console comprises an Element model POS455(G35) or equivalent (*) PC-based device using a Microsoft Windows operating system running Glassbox POS-SUM software version 1.9.xxx.x. The software version number is displayed on the top of the operator's screen (Figure 2).

(ii) Electronic Indications

The Element model POS455(G35) POS controller has an integral touch sensitive display to provide an indication for the operator (Figure 3).

A VFD model PD220V-I 2 line display or equivalent (*) is connected to the console and provides an indication for the customer (Figure 4).

(#) 'Compatible' is defined to mean that no additions/changes to the hardware/software specified in this approval are required for satisfactory operation of the system.

(*) 'Equivalent' is defined to mean other proprietary equipment of the same or better specifications requiring no changes to the software specified in this approval for satisfactory operation of the system.

(iii) Printing Devices

An Epson model TM-T82IV receipt printer or equivalent (*) is connected to the POS console. A typical record is shown in Figure 5.

(iv) Fuel Dispenser controller

An Invenco model C1-100 controller as described in approval NMI S821, provides an interface and data acquisition between the fuel dispensers and the Point of Sale console.

(v) Back office Server (BOS)

A back-office server comprising a Nano-N3022 Industrial PC or equivalent (*) PC-based device running Microsoft Windows operating system acts as a server for transaction data and store management functions.

(vi) Additional System Facilities

In addition, the model POS-SUM point of sale control system may include point of sale facilities including cash drawers, a magnetic card or barcode reader and EFT facility. The facilities shall not interact with the console in a way that would cause an incorrect indication of the measured volume or price.

1.3 Checking Facilities

(i) Receipt Printer

The system monitors the condition of the receipt printer and if an error is detected, a visual warning is displayed on the operator screen. The ability to authorise further transactions will be prevented until any detected error condition of the printer is resolved.

(ii) Customer Display

The system monitors the condition of the customer display and if an error is detected, a visual warning is displayed on the operator screen. The ability to authorise further transactions will be prevented until any detected error condition of the customer display is resolved.

(iii) Uninterruptible Power Supply (UPS)

The Point of Sale console monitors the condition of the UPS and if an error condition is detected the controller will prevent the ability to authorise a stored transaction

1.4 Descriptive Markings

The POS controller is marked in a clear and permanent manner, in one location, with the following information:

Submittor's name or mark	……..
Serial number or other unique identifier	……..
Pattern approval number	NMI S886

(*) '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.

1.5 Verification Provision

Provision is made for the application of a verification mark.

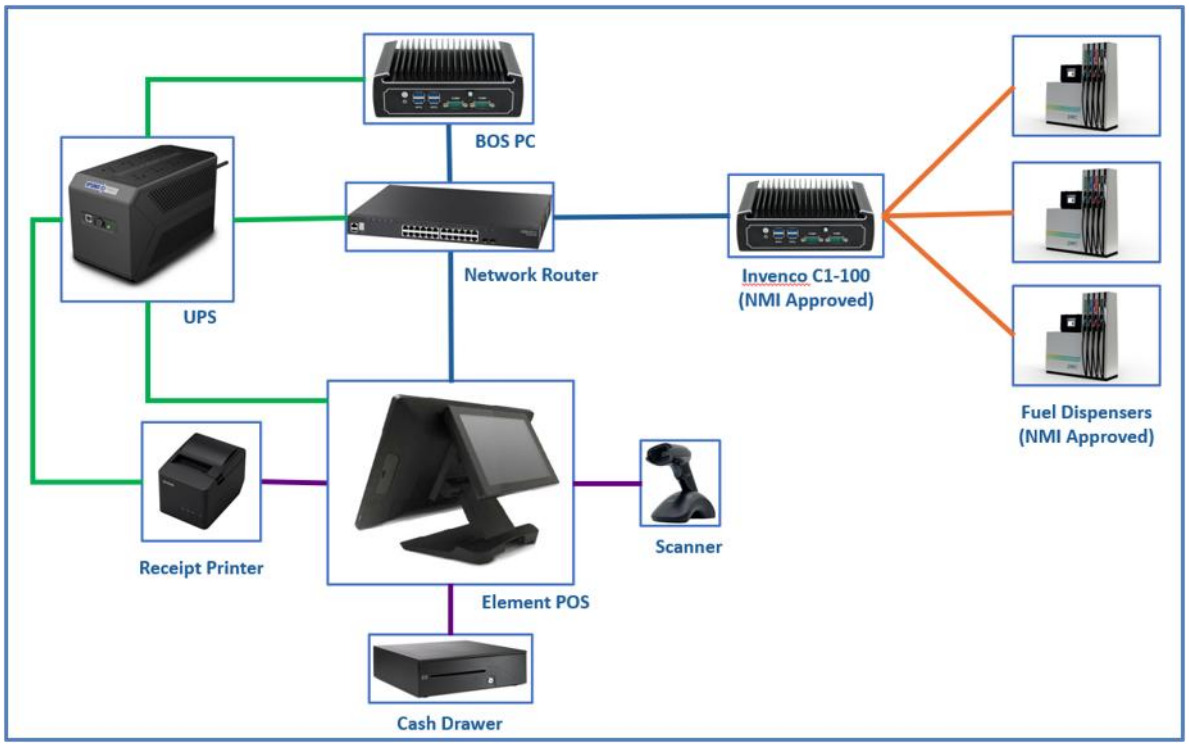
TEST PROCEDURE No S886

Instruments shall be tested in conjunction with any tests specified in the approval documentation for the instruments to which the pattern is connected, as appropriate, and in accordance with the national Instrument Test Procedures.

Points 2-8 are required at commissioning, thereafter they may be conducted at the discretion of the inspecting officer.

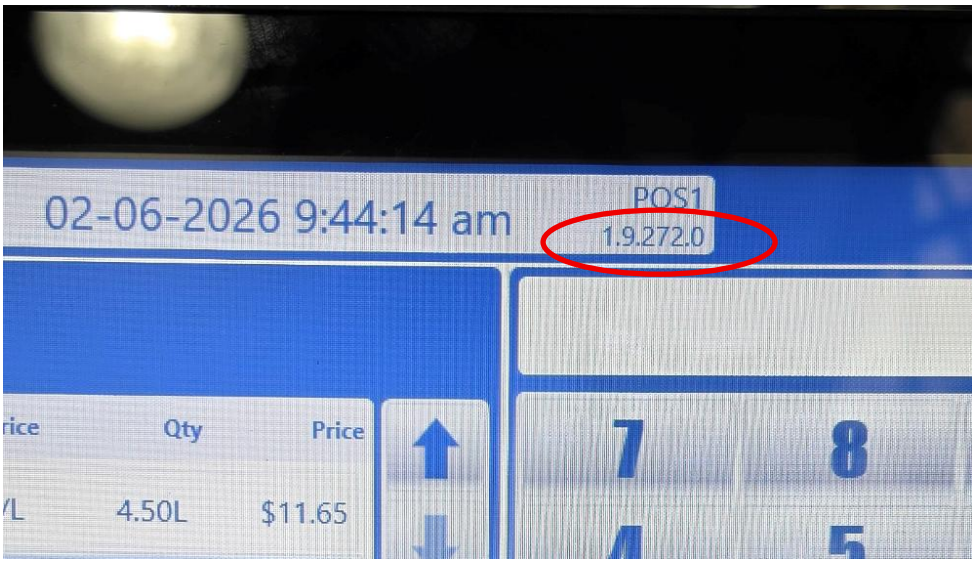
1. Check the POS-SUM POS software version number.
2. Check that the unit price change for the grade of fuel is implemented to the allocated fuel dispensers when they are available for authorisation.
3. Check that the system identifies, displays and prints the correct data for the corresponding number allocated to the fuel dispenser.
4. Authorise a delivery and check that the delivery details on the fuel dispenser agree with the receipt obtained.
5. Authorise a stored delivery and check that the delivery details of the first delivery to be stored in memory and displayed on the operator screen and customer screen.
6. Check that when the printer is unavailable or out of paper, the warning message is displayed on the POS console. Ensure that the ability to authorise a stored delivery is not possible.
7. Check that when the Customer Display is disconnected from the Point-of-Sale Console (simulation of fault), the fuel dispenser cannot be authorised for a second delivery unless the transaction for the first delivery has been completed.
8. Check that when the Uninterruptible Power Supply is disconnected from the Point-of-Sale Console (simulation of fault), the fuel dispenser cannot be authorised for a second delivery unless the transaction for the first delivery has been completed.

FIGURE S886 – 1



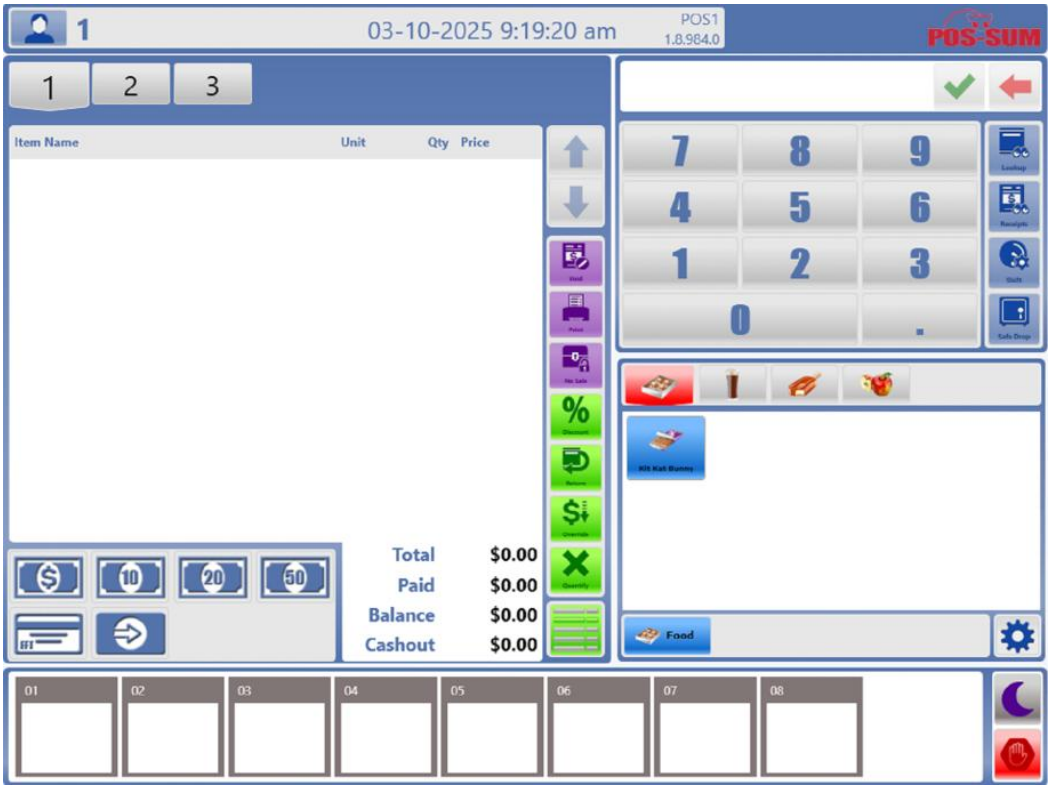
Point of Sale (POS) System

FIGURE S886 – 2



Software Version 1.9.xxx.x

FIGURE S886 – 3



Typical Operator Display

FIGURE S886 – 4

Typical Customer Display

FIGURE S886 – 5

NMI Testing
36 Bradfield Road West Lindfield
NSW Sydney 2070
PH.
POS1
** TAX INVOICE **
Transaction No. 47
ABN NO. 100 000 000
3/06/2026 2:51 pm

ITEM	QTY	TOTAL
01 Unleaded 2.55L @ $2.590/L		$6.60
Total		$6.60
Tax included in total		$0.60
EFT		$6.60

Thank you for shopping with us
HAVE A NICE DAY

Z34BD3D87X1ULTSPMJBJ

A Typical Receipt

~ End of Document ~