



Australian Government
Department of Industry,
Science and Resources

**National
Measurement
Institute**

36 Bradfield Road, West Lindfield NSW 2070

**Supplementary Certificate of Approval
NMI S688**

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.

Gap Solutions Model EZI-POS Point of Sale (POS) System

submitted by GaP Solutions Pty Ltd
26 Woodlands Terrace
Edwardstown SA 5039

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 M 7, *Pattern Approval Specifications for Point of Sale Systems*, dated June 2012 and 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 provisionally approved – interim certificate issued	24/02/15
1	Pattern approved – interim certificate issued	16/07/15
2	Pattern approved – certificate issued	17/03/16
3	Variant 1 provisionally approved – interim certificate issued	16/05/16
4	Variant 1 approved – certificate issued	28/11/16
5	Variant 2 approved – certificate issued	15/08/18
6	Variant 3 approved – certificate issued	14/09/23

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI S688' and only by persons authorised by the submitter.

Instruments purporting to comply with this approval and currently marked 'NMI PS688' may be re-marked 'NMI S688' but only by persons authorised by the submitter.

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.

Special

Certain aspects of this instrument (in particular transaction record printing formats) are able to be configured by the user. Whilst NMI believes that acceptable formats can be achieved for typical basic sales modes, it is also possible for the instrument to be configured to produce unacceptable formats, and use of some formats may be inappropriate for different sales modes. It is the responsibility of the user to ensure that acceptable and appropriate formats are used in any particular situation.

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



Darryl Hines
Manager
Policy and Regulatory Services

TECHNICAL SCHEDULE No S688

1. Description of Pattern **provisionally approved on 24/02/15** **approved on 16/07/15**

A Gap Solutions model EZI-POS point of sale (POS) system to provide certain additional facilities for transactions when interfaced to compatible (#) NMI-approved measuring instruments granted with reference to document NMI M7.

1.1 Key Features

- The system provides point of sale arrangements for a Datalogic model Magellan 8404 self-indicating non-automatic weighing instrument (approval NMI 6/4C/252) or other compatible (#) NMI-approved measuring instruments.
 - The system receives measurement data from the output interface of the approved measuring instrument and computes prices using a product look up (PLU) facility.
 - The system computes total price for multiple items including non-measured items and is approved for use for transactions direct to the public.
 - Manually entered measurement data shall be indicated as such on a printed transaction record.
 - The system is able to apply a preset tare value up to the maximum capacity of the approved measuring instrument. Preset tare values may be stored (e.g. within a PLU facility).
 - The POS controllers may be connected in a network to share common PLU data, for totalisation, and to accumulate and retrieve management information.
- (#) '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.

1.2 System Description

The Gap Solutions model EZI-POS point of sale (POS) system (Figure 1) comprises:

(i) POS Controller

The Gap Solutions model EZI-POS POS controller comprises an Advanpos model WP-7530 or equivalent (*) PC-based device that operates a Microsoft Windows-based operating system running EZI-POS version 1.x.x.x software. The software version number is displayed via the MENU – SETUP-ABOUT keystrokes.

(ii) Electronic Indications

Indications shall satisfy the requirements of document NMI M7, *Pattern Approval Specifications for Point of Sale Systems*.

The Advanpos model WP-7530 POS controller has an integral touch sensitive display to provide an indication for the operator (Figure 2).

- (*) '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.

An Advanpos model LM-1530-GW computer monitor or equivalent (*) is connected to the controller and provides an indication for the customer (Figure 3).

Information additional to that required by document NMI M7, including totalisation details and product images, may also be indicated.

(iii) Printing Devices

Transaction records shall satisfy the requirements of document NMI M7, *Pattern Approval Specifications for Point of Sale Systems*.

An Epson model TM-88V M244A printer or equivalent (*) is connected to provide a transaction record printing facility. A typical record is shown in Figure 4.

(*) '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.

(iv) Additional System Facilities

In addition, the system may include other facilities including point of sale cash drawers, magnetic card and/or barcode reader and electronic funds transfer (EFT), etc. The facilities shall not interact with the system in a way that would cause an incorrect indication of the measured quantity or price.

1.3 Verification Provision

Provision is made for the application of a verification mark.

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 S688

2. Description of Variant 1 **provisionally approved on 16/05/16** **approved on 28/11/16**

The EZI-POS point of sale (POS) system to provide an attended self-service facility for compatible (#) approved fuel dispensers for motor vehicles granted with reference to document NMI R117 (Figure 5).

The fuel dispensers are controlled by the Postec model Forman 4 control system as described in the documentation of approval NMI S398.

2.1 Field of Operation

- The system is approved for a climate-controlled environment between 5°C and 30°C.
 - The system can provide a self-serve arrangement for compatible (#) 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 system is approved for mixed mode operation, i.e. authorisation of dispensers via unattended method or via an attendant-operated self-serve console
 - Additional POS consoles may be interfaced for multi-attended self-serve operation.
 - The nominal supply voltage is 240 V AC.
- (#) '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.

2.2 System Description

The EZI-POS point of sale (POS) system comprises:

(i) POS Console

The POS console comprises a Toshiba model TCxWave or equivalent (*) PC-based device using a Microsoft Windows operating system running EZI-POS version 1.x.x.x software. The software version number is displayed via the MENU – SETUP-ABOUT keystrokes.

(ii) Electronic Indications

The Toshiba model TCxWave POS console has an integral touch sensitive display to provide an indication for the operator (Figure 6).

An Oteksys model M365NC computer monitor or equivalent (*) is connected to the console and provides an indication for the customer (Figure 7).

(iii) Printing Devices

An IBM model 4610-1NR receipt printer or equivalent (*) is connected to the POS console.

- (*) '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.

(iv) Forecourt Controller

A Postec PCC4 controller and PIPI as described in the documentation of approval NSC 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.

At least one PIPI is connected to the Postec PCC4 controller to allow the recall of the stored transactions under power failure condition. The button on the PIPI display allows manual recall of the required measurement information.

(v) Additional System Facilities

In addition, the system may include other facilities including point of sale cash drawers, a magnetic card or barcode reader and electronic funds transfer (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.

2.3 Checking Facilities

(i) Printer

The system monitors the condition of the receipt printer and a visual warning is displayed on the operator's screen.

(ii) PIPI Display

Memory authorisation must be disabled if the PIPI is disconnected from the PCC4 controller

(iii) Communication

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

2.4 Descriptive Markings

The POS console of this variant is marked in a clear and permanent manner, in one location, with the following information:

Manufacturer's name or mark
Model number
Serial number
Pattern approval number	NMI S688
Year of manufacture
Environmental class	5°C to 30°C

3. Description of Variant 2

approved on 15/08/18

The EZI-POS point of sale (POS) system described in Variant 1 with forecourt controller of the system now using an Integration Technologies model Enabler flowmeter controller as described in the documentation of approval NMI S518 (Figure 9).

3.1 System Description

The EZI-POS point of sale (POS) system comprises the system as described in variant 1 with the following variations

(i) Forecourt Controller

An Integration Technologies Enabler controller as described in the documentation of approval NMI S518, provide interface and data acquisition between the fuel dispensers and POS console and allow the recall of the stored transactions under power failure condition.

(ii) Uninterruptible power supply

An EATON model 5S700 (Figure 10) uninterruptible power supply or equivalent (*) is connected to the POS console and the Enabler controller.

(iii) Customer Display

An OTEK model M365 (Figure 11) computer monitor or equivalent (*) is connected to the POS console and provides an indication for the customer (Figure 3).

(*) '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.

3.2 Checking Facilities

(i) Uninterruptible Power Supply (UPS)

The system monitors the condition of the UPS and if an error or power failure is detected a warning is displayed on the operator's screen. The ability to authorise deliveries will be prevented until the detected error condition is resolved.

(ii) Customer Display

The system monitors the condition of the customer display and if an error is detected or the display is disconnected, a warning is displayed on the operators screen. The ability to authorise deliveries will be prevented until the detected error condition is resolved.

4. Description of Variant 3

approved on 14/09/23

The EZI-POS point of sale (POS) system described in Variant 1 with forecourt controller of the system now using DOMs model PSS 5000 controller as described in the documentation of approval NMI S748 (Figure 12).

The DOMs Model PSS5000 Controller as described in the documentation of approval NMI S748, provide interface and data acquisition between the fuel dispensers and POS console and allow the recall of the stored transactions under power failure condition

TEST PROCEDURE No S688

A. For the pattern (weighing POS systems)

The POS system shall be tested in addition to any tests specified in the approval documentation for the measuring instrument/s to which the POS system is connected, as appropriate

The POS system shall be tested in the normal operational mode of the instrument and device, not in 'training mode' or any other management mode.

Maximum Permissible Error

The maximum permissible error for price computation is ± 0.5 cent.

TESTS

1. Check the software version number/s.
2. Check that the POS system faithfully reproduces the measurement data in the same units and scale interval as the connected approved measuring instrument, e.g. test by using a PLU without a stored tare.
3. Check that the system performs correct price computation, and computes and indicates a correct unrounded subtotal. For cash payment methods, check that any rounding calculation is correct.
4. Perform a measurement with a preset tare applied and confirm that the POS system correctly calculates and indicates a net measurement result.
5. Manually enter some pre-determined measurement data and ensure that the printed transaction record clearly indicates the transaction as such.
6. For network systems check to ensure that the measurement data printed on the transaction record is correctly reproduced.
7. Ensure that electronic indications and printed information are in accordance with document NMI M7.

B. For variant 1 and 2 (fuel self-service systems)

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.

Maximum Permissible Errors

The maximum permissible errors are specified in Schedule 1 of the *National Trade Measurement Regulations 2009*.

Points 2-7 are required at commissioning, thereafter they may be conducted at the discretion of the inspecting officer.

1. Check the EZI-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 are displayed on the PIPI by pressing the button on the display

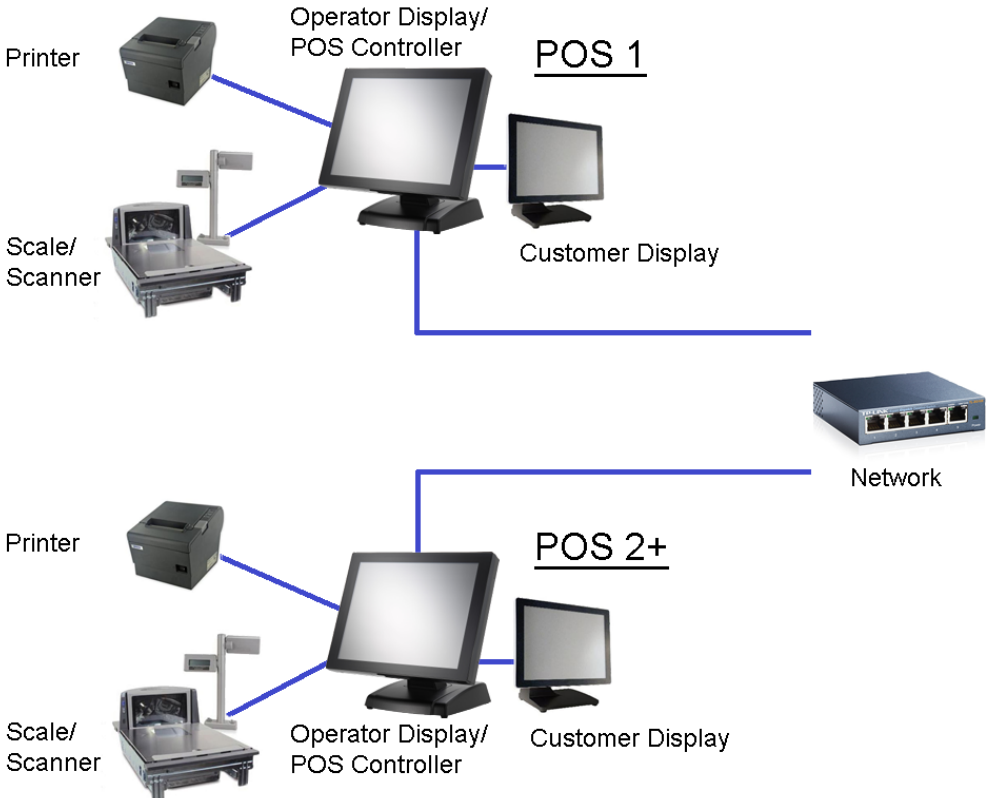
For Variant 1:

6. Check that when the PIPI is disconnected from 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.

For Variant 2:

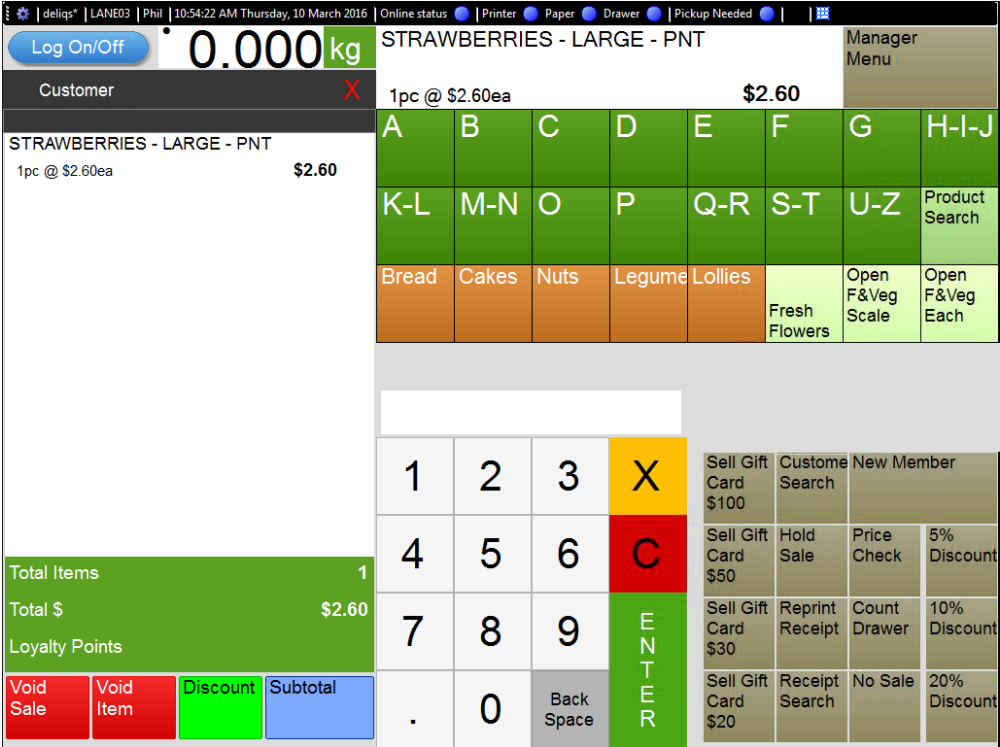
7. Check that when the Customer display is disconnected from the Console (simulation of fault), the fuel dispenser cannot be authorised for a second delivery unless the transaction for the first delivery has been completed.
8. A pre-paid delivery is only possible for fuel dispensers with pre-set facility. For a pre-paid delivery check that the amount displayed on the fuel dispenser equals the pre-paid amount

FIGURE S688 – 1



Gap Solutions Model EZI-POS Point of Sale (POS) System (Pattern)

FIGURE S688 – 2



Typical Operator Display (Pattern)

FIGURE S688 – 3



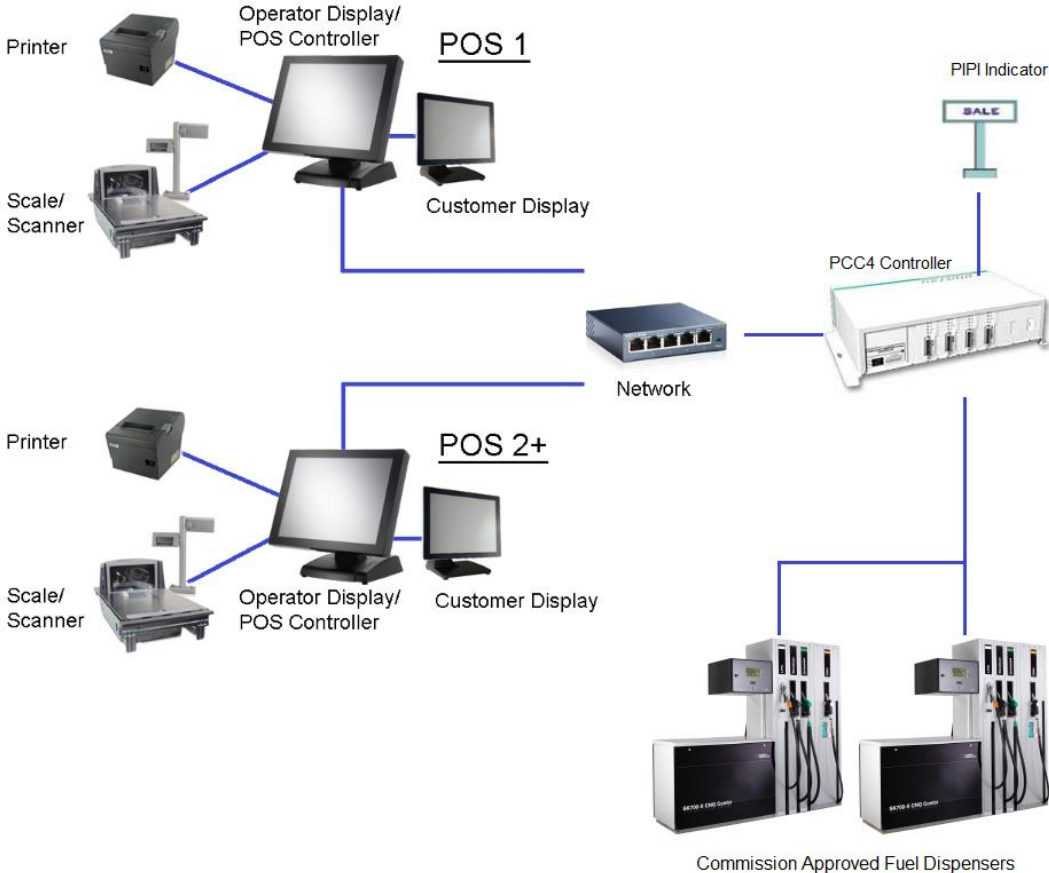
Typical Customer Display (Pattern)

FIGURE S688 – 4



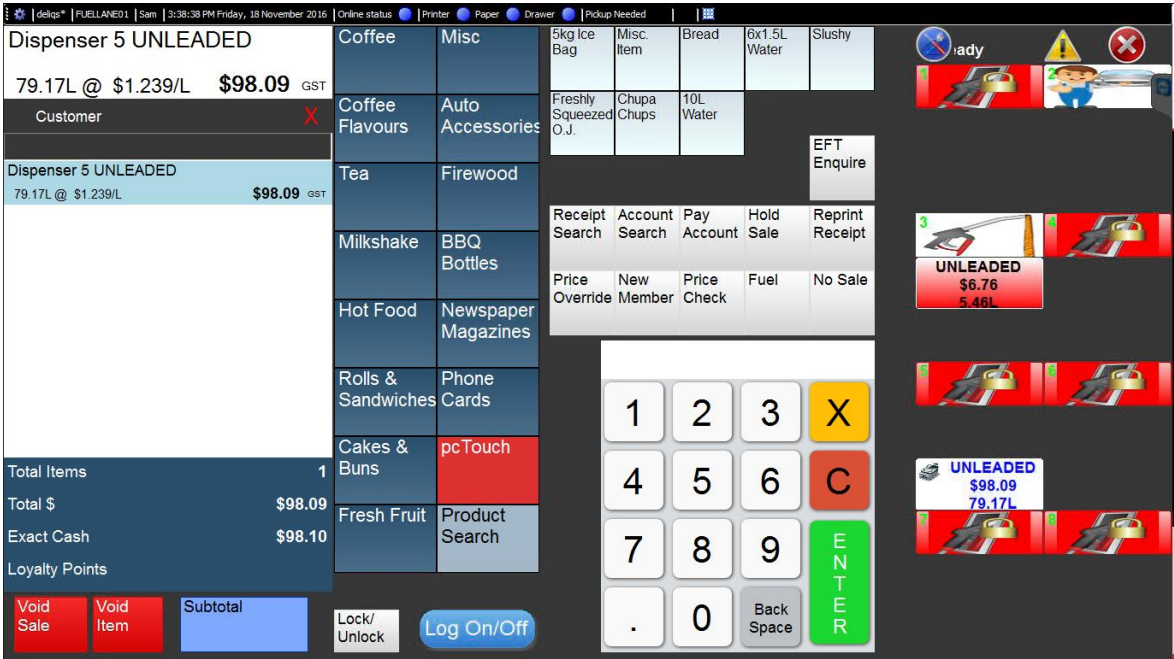
A Typical Receipt (Pattern)

Figure S688 – 5



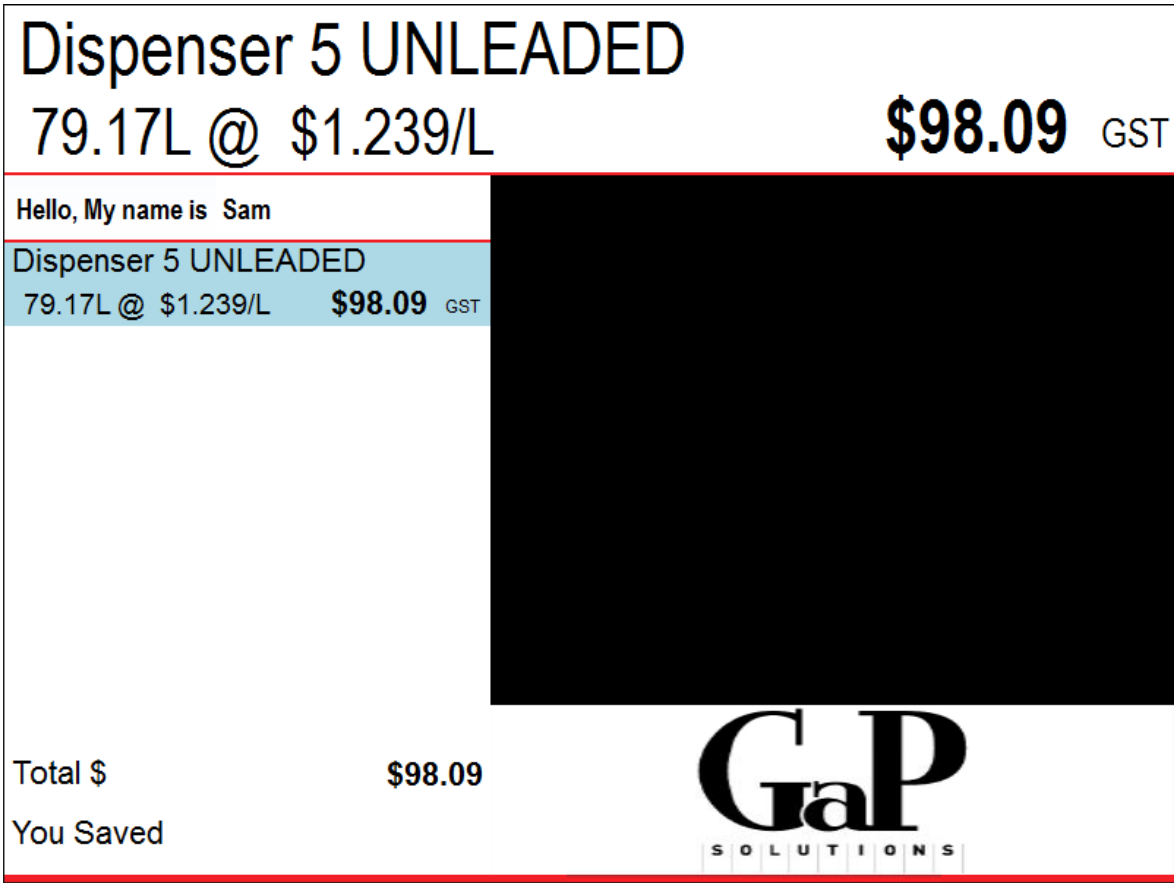
Gap Solutions Model EZI-POS (POS) Self-Service System for Fuel Dispensers (Variant 1)

FIGURE S688 – 6



Typical Operator Display (Variant 1)

FIGURE S688 – 7



Typical Customer Display (Variant 1)

FIGURE S688 – 8

GaP Solutions Pty. Ltd.
www.gapsolutions.com.au
Duplicate
Tax Invoice #0010232360003

18-11-16 03:44:05 pm
Served by Sam

Dispenser 5 UNLEADED \$98.09
79.17L @ \$1.239/L inc GST
=====

Item Count: 1

Total \$98.09
(Includes GST:) \$8.92
Cash Tendered \$100.00
Change \$1.90
Rounding \$0.01

'*' indicates items with GST
'M' indicates manually entered weight



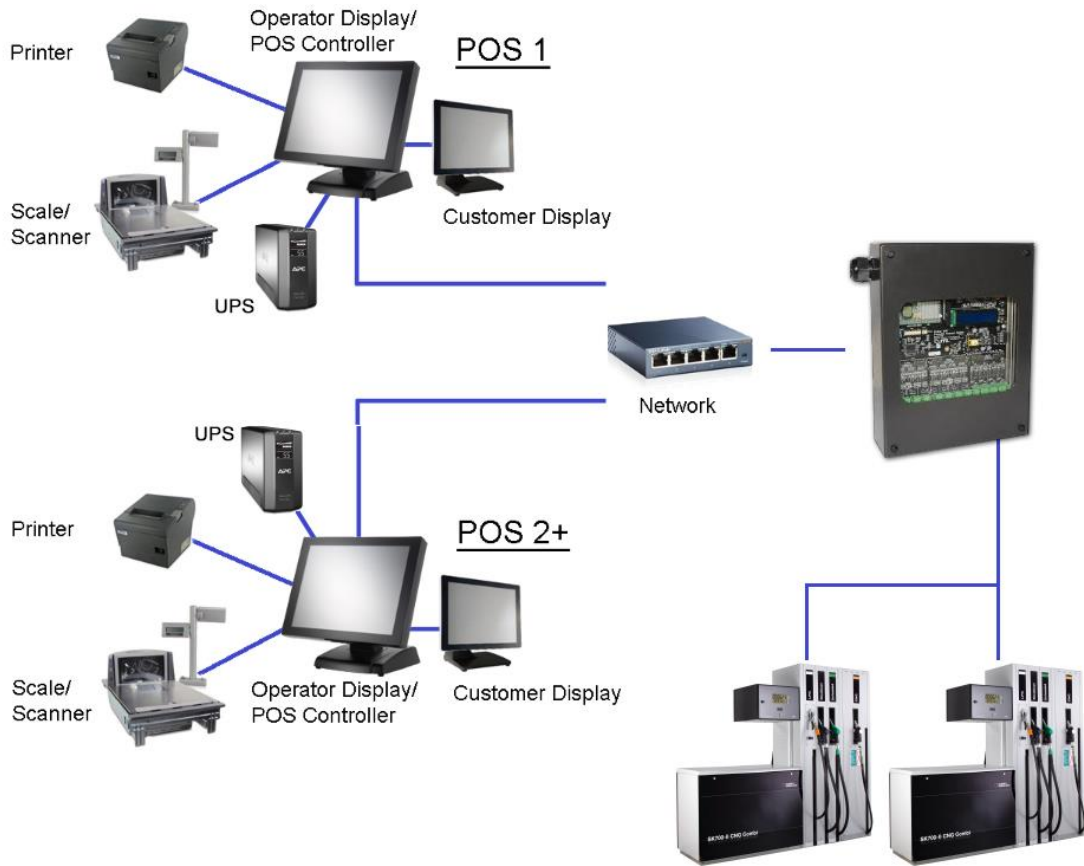
Points this transaction 0

Please retain your receipt for proof of purchase

POS System supplied by GaP Solutions Pty. Ltd.

A Typical Receipt (Variant 1)

FIGURE S688 – 9



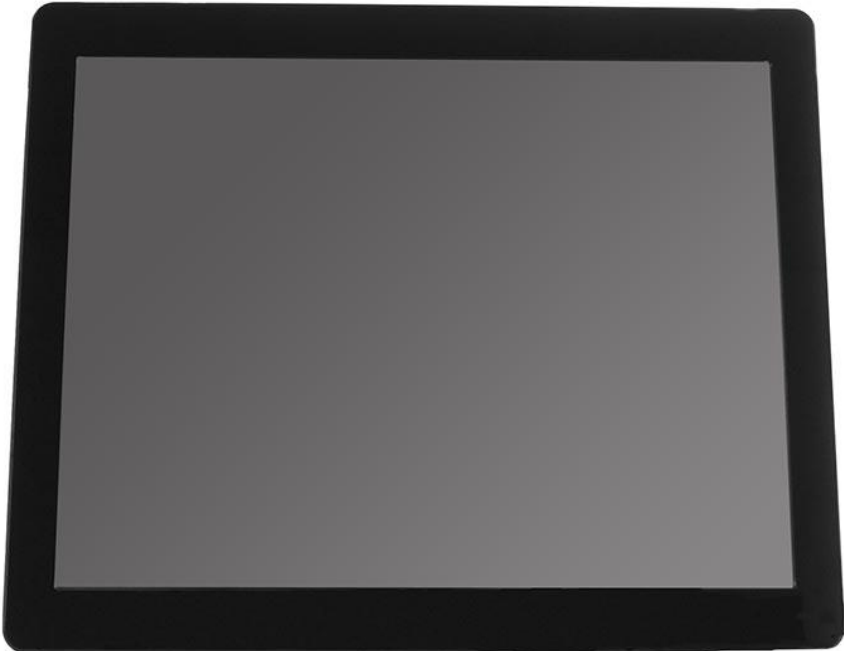
Gap Solutions Model EZI-POS (POS) Self-Service System for Fuel Dispensers
(Variant 2)

FIGURE S688 – 10



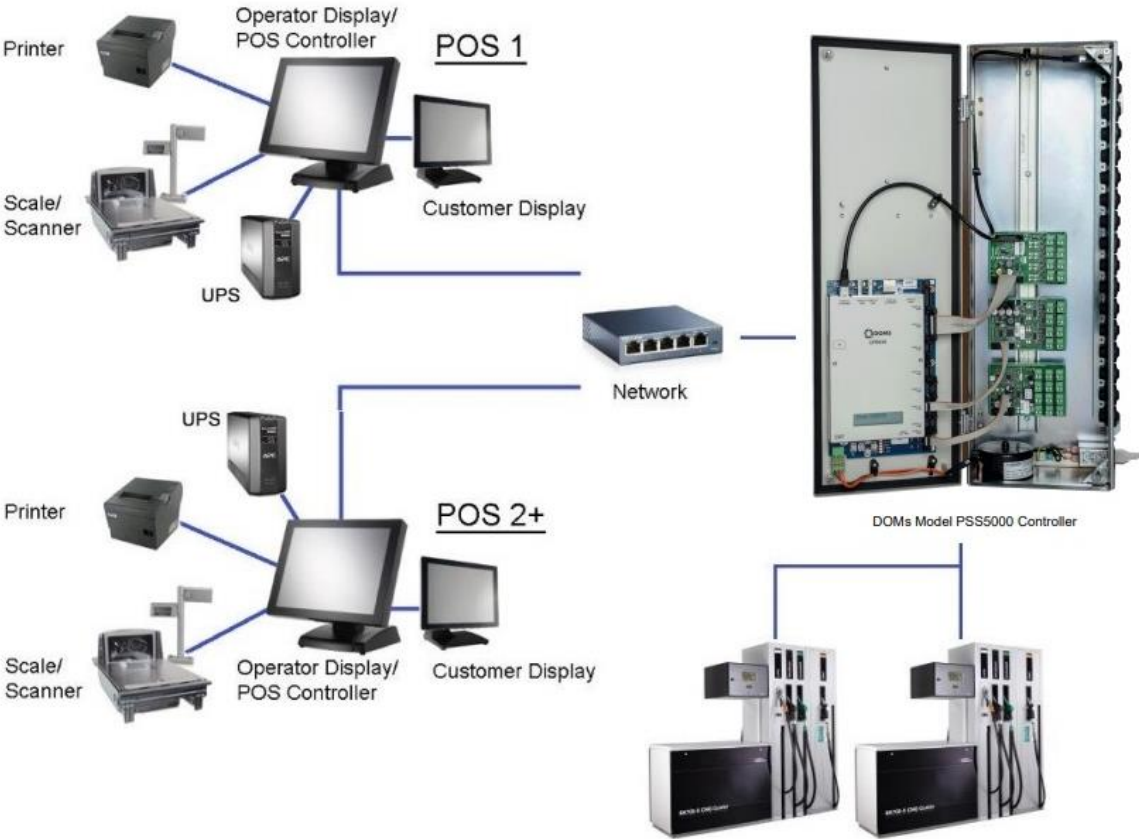
EATON Model 5S700 UPS (Variant 2)

FIGURE S688 – 11



OTEK model M365 Customer Display (Variant 2)

FIGURE S688 – 12



Gap Solutions Model EZI-POS (POS) Self-Service System for Fuel Dispensers (Variant 3)

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