Australian Government
National Measurement Institute
Bradfield Road, West Lindfield NSW 2070

Supplementary Certificate of Approval

NMI S371A

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.

Pumpmate Model 4NPP Controller for Fuel Dispensers for Motor Vehicles

submitted by Protek Electronics Pty Ltd
(formerly submitted by Metric Australia Pty Ltd)
Unit 3, 14 Jersey Street
Jolimont WA 6014

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 becomes subject to review on **1/08/16**, and then every 5 years thereafter.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern approved – certificate issued	7/07/06
1	Pattern reviewed & updated – certificate issued	16/02/12

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with approval number ‘NMI S371A’ and only by persons authorised by the submittor.

Instruments incorporating a component purporting to comply with this approval shall be marked ‘NMI S371A’ in addition to the approval number of the instrument.

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 Certificates No S1/0/A or No S1/0B.

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

TECHNICAL SCHEDULE No S371A

1. Description of Pattern approved on 7/07/06

A Pumpmate model 4NPP controller (Figures 1 and 2) with software version 8:261 used in unattended post-payment mode when interfaced to a PEC 1000 series fuel dispenser or any other compatible approved fuel dispenser incorporating a compatible approved calculator/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

- Ambient temperature range -10°C to 55°C (class N)
- Supply voltage 240 V AC
- For use by registered clients
- For use with flowmeters approved for accuracy class 0.3 (or higher)

1.2 Design/Features

The instrument is usually mounted directly on, or adjacent to, the fuel dispensers it controls (Figure 1). The instrument can control up to four single pump fuel dispensers utilising a single product for each user card. The instrument's features include:

(i) A card-reader.

(ii) A numeric keypad.

(iii) A 20 character × 2 line alphanumeric liquid-crystal display (LCD).

(iv) A function for centrally setting the unit price from 10.0 to 999.9 c/L for up to 7 grades of fuel.

(v) A facility to display and store in a non-volatile memory the non-resettable total litres for each card up to a maximum of 2400 cards, in increments of 1 L up to a maximum value of 99999 litres.

(vi) A management facility for viewing all transaction data which may also be printed if an optional compatible printer or computer is interfaced.

1.3 Checking Facilities

When the battery backup is disconnected or uncharged the indication will display "BATTERY FAULT" and deliveries will be prevented from starting.

1.4 Typical Sequence of Operation

(i) Swipe the card through the card-reader; the non-resettable totals will be displayed.

(ii) Press the ENT key followed by the fuel dispenser number; the prompt 'Pump # ready for use' will be displayed. ('#' refers to the number of the dispenser selected.)

(iii) Lift nozzle and start the delivery.

(iv) When the delivery is completed, the amount delivered will be incremented to the non-resettable totals and can be viewed by swiping the card through the card-reader.

1.5 Verification Provision

Provision is made for the application of a verification mark.

1.6 Markings

Instruments are marked with the following data, together in one location:

Manufacturer's name or mark	Protek Electronics Pty Ltd
Model number	4NPP
Serial number	……..
Pattern approval mark	NMI S371A
Year of manufacture	……..
Environmental class	Class N

TEST PROCEDURE No S371A

Instruments should be tested in accordance with any tests included in the approval documentation for the flowmetering system/s in which the pattern is included, as appropriate, and in accordance with any relevant tests specified in the National Instrument Test Procedures.

Maximum Permissible Errors

The maximum permissible errors applicable are those applicable to the fuel dispenser to which the instrument approved herein is fitted, as stated in the approval documentation for the fuel dispenser and in Schedule 1 of the *National Trade Measurement Regulations 2009*.

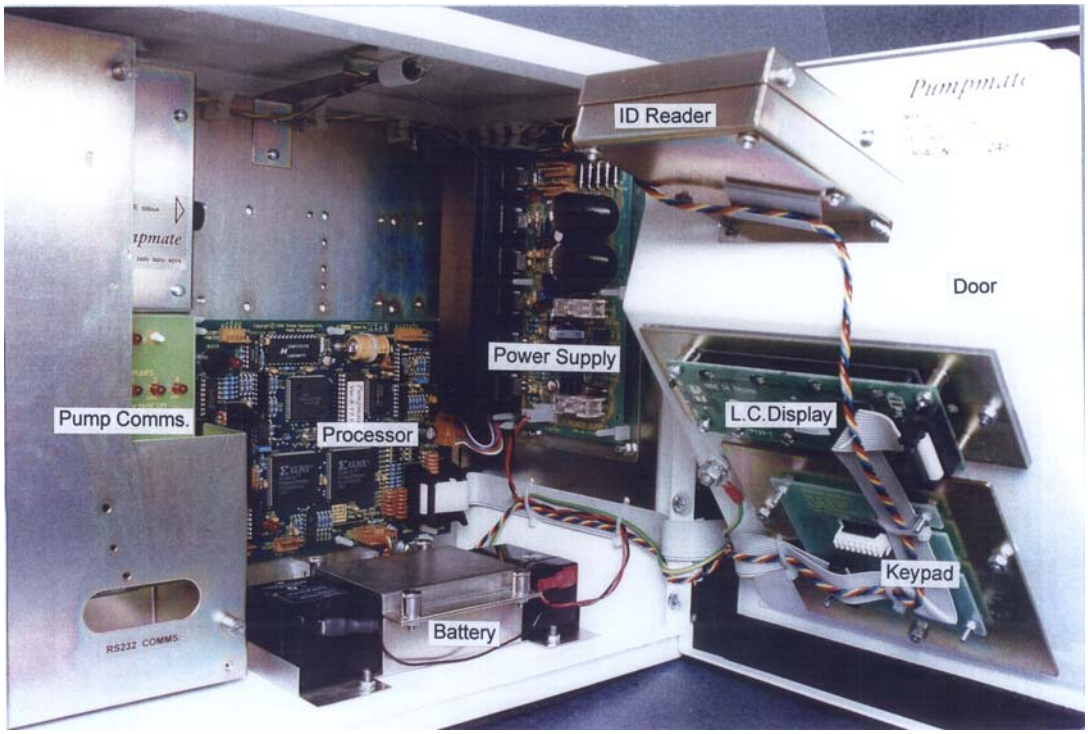
Tests

Authorise the fuel dispenser and make at least two deliveries of approximately 25 litres (or 5 times the minimum measured quantity) and ensure that for each delivery the instrument totalises the amount delivered to within +1 litre.

To view the software version number perform the following procedure:

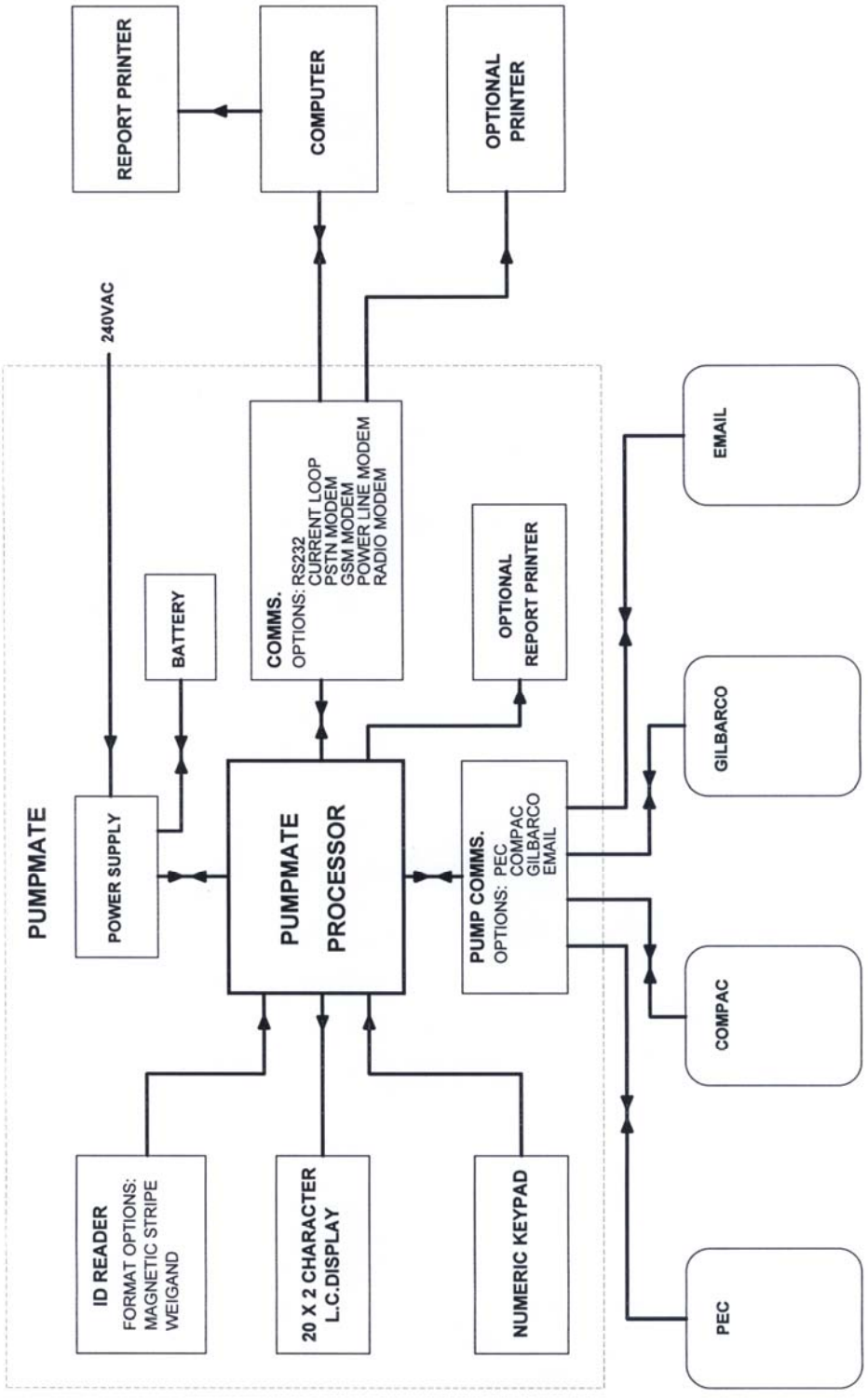
1. Use either the 'Installation', 'Manager' or 'Office' card, and then access 'Menu 971'.
2. The 20 × 2 display will show the CPU serial number followed by the software version number.
3. Press 'AC' twice to exit.

FIGURE S371A – 1



Pumpmate Model 4NPP Controller

FIGURE S371A – 2



Typical System Overview

~ End of Document ~