



**Australian Government**  
**National Measurement  
Institute**

Bradfield Road, West Lindfield NSW 2070

**Cancellation**  
**Supplementary Certificate of Approval**  
**No S399**

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  
Provenco Model Orion Control System for Fuel Dispensers for Motor Vehicles

submitted by      Provenco Retail Automation Ltd  
Level 3, IRD Building  
Cnr Ashley & Ferguson Streets  
Palmerston North 5315  
New Zealand.

has been cancelled in respect of new instruments as from 1 December 2008.

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.



## National Standards Commission

12 Lyonpark Road, North Ryde NSW

### Supplementary Certificate of Approval

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Level 3, IRD Building  
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Palmerston North  
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.

### CONDITIONS OF APPROVAL

This approval becomes subject to review on 1 March 2008, and then every 5 years thereafter.

Instruments purporting to comply with this approval shall be marked NSC No S399 and only by persons authorised by the submitter.

Instruments incorporating a component purporting to comply with this approval shall be marked NSC No S399 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 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 NSC P 106.

The Commission 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 26 February 2003

- A Provenco model Orion POS control system designed for attended operated self-service arrangement with compatible Commission-approved fuel dispensers for motor vehicles. May also be known as an Advantage model Orion system.

Technical Schedule No S399 describes the pattern.

### FILING ADVICE

The documentation for this approval comprises:

Supplementary Certificate of Approval No S399 dated 7 August 2003  
Technical Schedule No S399 dated 7 August 2003  
Figures 1 to 6 dated 7 August 2003

Signed by a person authorised under Regulation 60 of the National Measurement Regulations 1999 to exercise the powers and functions of the Commission under this Regulation.

A handwritten signature in black ink, appearing to be 'J. H. B.', is located in the bottom right corner of the page.

## TECHNICAL SCHEDULE No S399

**Pattern:** Provenco Model Orion Control System for Fuel Dispensers for Motor Vehicles

**Submittor:** Provenco Retail Automation Ltd  
Cnr Ashley & Ferguson Streets  
Palmerston North New Zealand

### 1. Description of Pattern

The pattern is a Provenco model Orion POS control system (Figure 1) designed for attended operated self-service arrangement with compatible (#) Commission-approved fuel dispensers for motor vehicles. May also be known as an Advantage model Orion control system.

(#) "Compatible" is defined to mean that no modifications/additions to hardware/software are required to the approved devices.

#### 1.1 Field of Operation

- Controls up to 32 compatible (#) Commission-approved fuel dispensers.
- Up to three communication protocol boards may be inserted into the Orion console, each capable of controlling up to 32 fuel dispensers, either Email, or Gilbarco, or PEC dispensers.
- Allows two transactions per meter/nozzle, i.e. current sale plus the previous sale stored in memory; a receipt printer is mandatory for stored transaction operation.
- Allows post-pay and pre-pay operations, in the latter case a receipt printer is mandatory.
- Approved for air-conditioned environment maintained in the range 5°C to 30°C.

#### 1.2 System Description

The Orion control console (Figure 1) with software version Beta 1.5.1 incorporates an operator's LCD visual display unit and a keyboard with alphanumeric and function keys. The console has eight communication ports, one port being utilised for an EPSON TM-T88II model M129B receipt printer (Figure 2) powered by an EPSON PS-170 model M122A 24 V DC power supply. Another port is utilised for an EPSON DM-D101 model M58D/X customer display (Figure 2) powered by a model CF-TMPSU 24 V DC power supply, which displays the pump number, grade of fuel, total price and volume of fuel delivered.

An optional computer mouse and standard computer keyboard may be connected to the Orion control console.

The control console is fitted with a Provenco model M2000 Pumpware master pump controller board (Figure 3), as well as up to three Email (Figure 4), Gilbarco (Figure 5) or PEC (Figure 6) communication protocol boards.

### 1.3 Function/features

The Orion control console provides the following metrological functions/controls:

- Dispenser (Pump) status display (Request for Authorisation, Delivery in Progress, Current Transaction, Stored Transactions, Pump Reserved for Pre-pay Delivery, Refund Owing, and Pump Price Change – with no icon present, dispenser is idle).
- Dispenser (Pump) Control Keys (All Authorised, All Stop or Selected Pump Stop, Memory Sale, Pump Sale).
- Sale functions.
- Price change facility.

### 1.4 Checking Facility

The checking facility indicates the presence of fuel dispenser connection, ticket printer connection and presence of paper. Note that a printer is mandatory for pre-pay facility and for storing transactions in memory.

### 1.5 Verification/Certification Provision

Provision is available for a verification/certification mark.

### 1.6 Descriptive Markings

The Orion system shall clearly display the following data:

Manufacturer's mark, or name written in full	.....
Model number	.....
Serial number of the instrument	.....
NSC approval number	S399
Operating temperature range	.....

## TEST PROCEDURE

Check the software version number by pressing the Menu button, then 7 on the numeric keypad to select Diagnostics and then press 1 to select version information.

Perform a delivery and check that the details displayed by the console and by the customer display agree with the delivery details for the corresponding fuel dispenser.

Check that a pre-pay delivery, or while the first delivery is stored in memory, a second delivery is only possible if a printer is connected. For the corresponding fuel dispenser, check that the current delivery and the stored delivery details are printed correctly.

FIGURE S399 – 1



Provenco Model Orion Control System

S399  
7 August 2003

FIGURE S399 – 2

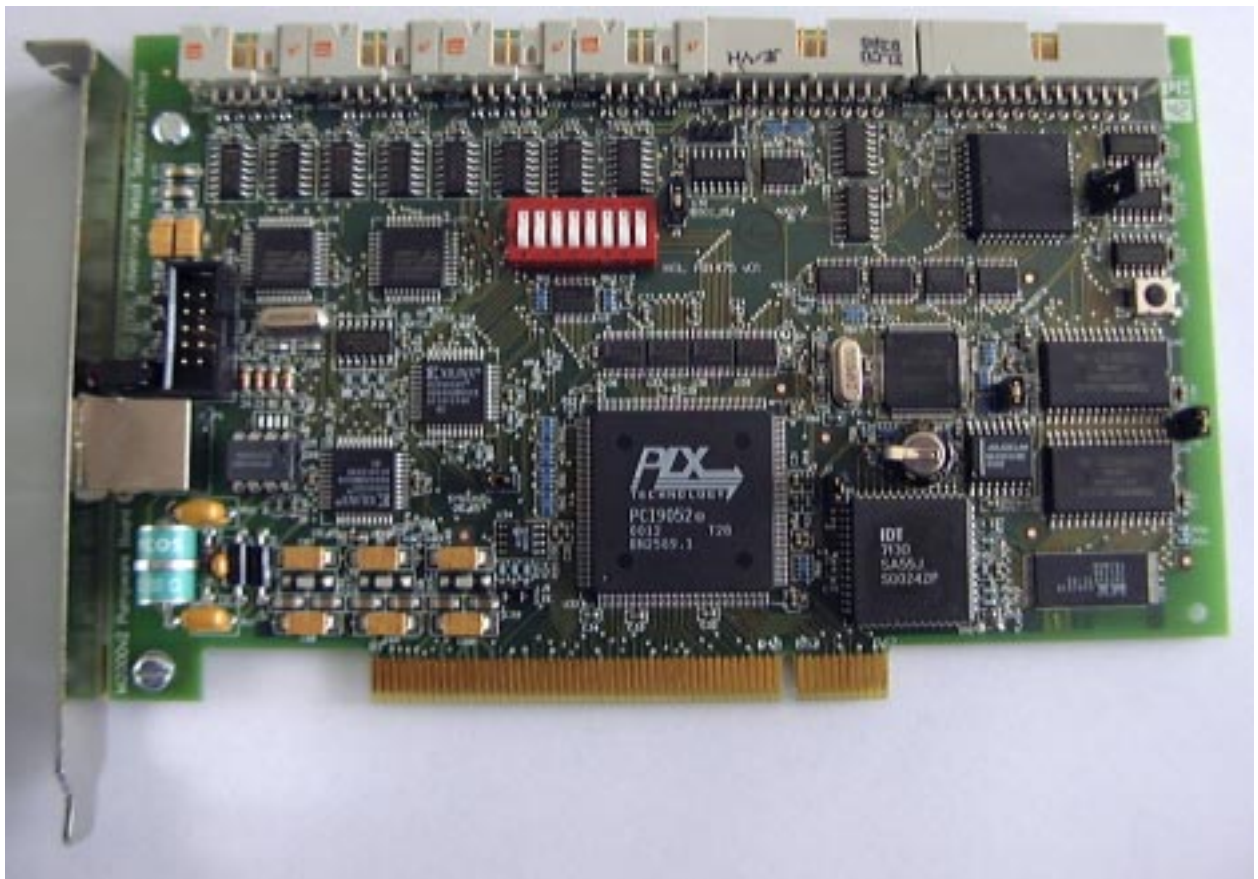


EPSON TM-T88II Model M129B Receipt Printer



EPSON DM-D101 Model M58D/X Customer Display

FIGURE S399 – 3

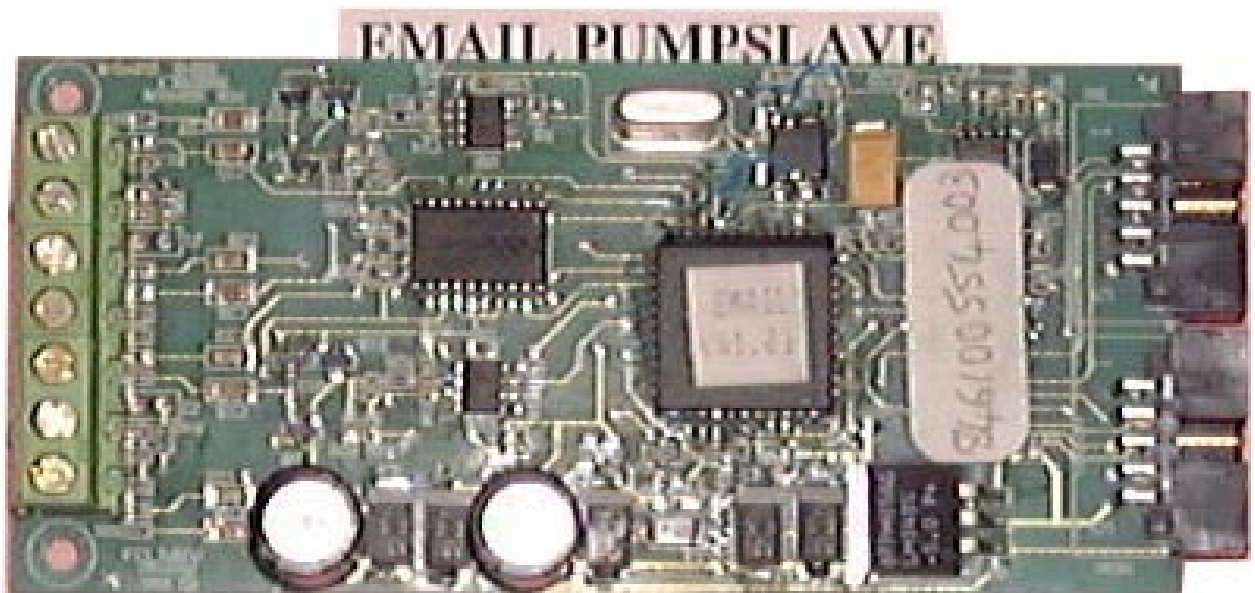


Provenco Model M2000 Pumpware Controller Board



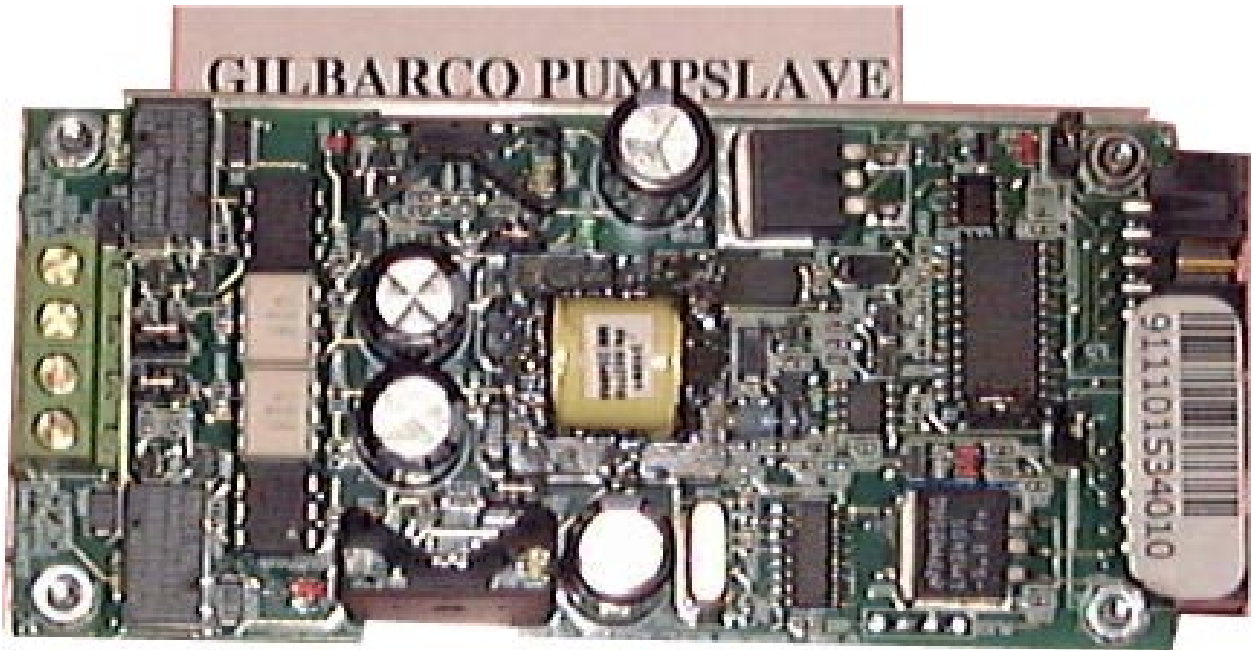
S399  
7 August 2003

FIGURE S399 – 4



Email Communication Protocol Board

FIGURE S399 – 5

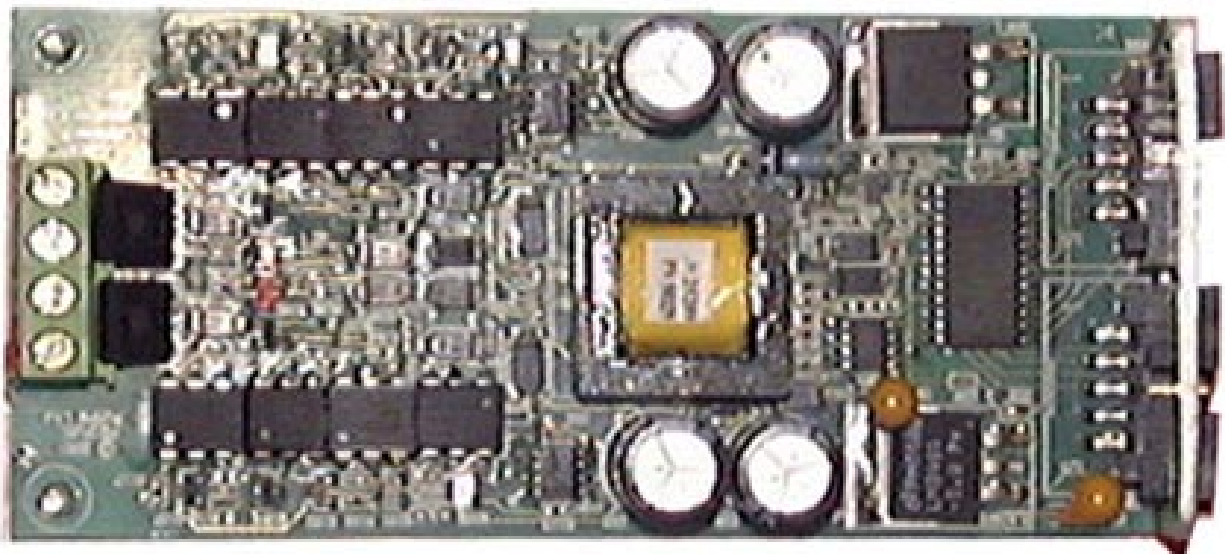


Gilbarco Communication Protocol Board

S399  
7 August 2003

FIGURE S399 – 6

**PEC PUMPSLAVE**



PEC Communication Protocol Board