

4/9/1  
24 June 2003



## National Standards Commission

12 Lyonpark Road, North Ryde NSW

### Cancellation

### Certificate of Approval No 4/9/1

This is to certify that the approval for use for trade granted in respect of the  
National Water Vendors Model NWV-1 Water Dispensing Instrument

submitted by National Water Vendors Pty Ltd  
formerly of Unit 3, 22 Lawrence Drive  
Nerang QLD 4211

now of 9/61 Maleme Street  
Tauranga  
NEW ZEALAND

has been cancelled in respect of new instruments as from 1 July 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. T.', written on a light-colored background.



# National Standards Commission

## Certificate of Approval

**No 4/9/1**

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

National Water Vendors Model NWW-1 Water Dispensing Instrument

submitted by National Water Vendors Pty Ltd  
now of  
Unit 3, 22 Lawrence Drive  
Nerang QLD 4211.

**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 2002, and then every 5 years thereafter.

Instruments purporting to comply with this approval shall be marked NSC No 4/9/1 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 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.

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 10 February 1997

- A National Water Vendors model NWV-1 water dispensing instrument.

Technical Schedule No 4/9/1 describes the pattern.

**Variant:** approved 6 April 1999

1. Model NWV-2 with a modified hydraulic system, including a sump.

Technical Schedule No 4/9/1 Variation No 1 describes variant 1.

#### FILING ADVICE

Certificate of Approval No 4/9/1 dated 2 June 1997 is superseded by this Certificate, and may be destroyed. The documentation for this approval now comprises:

Certificate of Approval No 4/9/1 dated 11 May 1999  
Technical Schedule No 4/9/1 dated 2 June 1997 (incl. Test Procedure)  
Technical Schedule No 4/9/1 Variation No 1 dated 11 May 1999  
Figures 1 and 2 dated 2 June 1997  
Figure 3 dated 11 May 1999

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.



## National Standards Commission

### TECHNICAL SCHEDULE No 4/9/1

**Pattern:** National Water Vendors Model NWV-1 Water Dispensing Instrument.

**Submittor:** National Water Vendors  
5 Tom Latimer Ct  
Worongary QLD 4213.

#### 1. Description of Pattern

A National Water Vendors model NWV-1 coin-operated water dispensing instrument approved to deliver purified drinking water in quantities of 4, 6, 15 and 19 litres (Figure 1).

#### The System (Figure 2)

Metrologically, the system consists of the following components:

- A purchaser's control panel incorporating 4 separate push-button-operated switches. Each button is assigned 1 of 4 predetermined quantities, viz. 4, 6, 15 or 19 litres. The quantity and price assigned to each button is shown adjacent to that button.

The control panel also incorporates a 4 digit LED numeric display which shows the amount of cash inserted, a multi coin acceptor with a coin return chute, a "Sold Out" indicating light, and a notice indicating compatible coins which can be inserted.

- A vending bottle well incorporating the delivery nozzle for the delivery of water into the purchaser's container.
- A National Water Vendors model ROCO III electronic controller which provides all the control and sensing functions necessary for the production and dispensing of purified water.
- A Microcoin S4 controller board which controls the delivery (vend) size by counting internally generated time. The S4 controller is situated in the coin mechanism control box inside the cabinet, and is provided with an interface plug for connection of the Micromate Programmer for programming and calibration.

- A Shurflo time-operated diaphragm delivery pump of 12.0L/min capacity. A post carbon filter and UV steriliser are fitted between the delivery pump and the delivery nozzle.
- A supply tank of 240 litres capacity fitted with 2 liquid level sensing probes which monitor the water level in the supply tank. If there is less than 19 litres in the supply tank, the liquid level sensing probes transmit this information to the electronic controller and a delivery of any quantity is prevented. When this occurs the “Sold Out” light is illuminated.

## **1.2 Operation**

A full quantity of purified water is measured when the corresponding button on the purchaser’s control panel is pressed. A delivery once started cannot be stopped by the operator and all buttons corresponding to all quantities are rendered inoperative through this cycle. A further delivery cannot be started until the cycle is complete.

A delivery cycle is initiated by inserting the appropriate coins for the quantity required and pressing the selected quantity button on the purchaser’s control panel. The amount of cash inserted is shown on the 4 digit LED numeric display. If a coin inserted is not accepted it is returned through the coin return chute, which will also occur if insufficient supply is detected in the supply tank; in this case the “Sold Out” light will be illuminated.

Once the selected quantity button is pressed, the time-operated diaphragm delivery pump is activated for a pre-determined time period by the electronic controller, transferring the quantity required from the supply tank into the purchaser’s container. The pre-determined time period is set during the calibration process.

Calibration of the instrument is performed using a Micromate Programmer which is a programming and diagnostic tool provided by the submitter, if required, for verification/certification.

## **1.3 Verification /Certification Provision**

Provision is made for the application of a verification/certification mark.

## **1.4 Sealing Provision**

Provision is made for sealing the calibration adjustments by means of cable ties and destructible labels applied diagonally across opposing corner screws of the cover on the coin mechanism control box.

## 1.5 Markings

Instruments are marked with the following information, together in a prominent position:

Manufacturer's name or mark	
Serial number of the instrument	
NSC approval number	NSC No 4/9/1
Quantities for which the instrument is verified	4, 6, 15 and 19 L

In addition, the quantities dispensed, expressed in L, and the price, expressed in \$, are displayed adjacent to the relevant push-button on the purchaser's control panel.

## TEST PROCEDURE

Instruments should be tested in conjunction with any tests specified in the Inspector's Handbook.

### **Maximum Permissible Error at Verification/Certification**

The maximum permissible error applied during a verification/certification test is  $\pm 1.5\%$  of the quantity measured.

### **Delivery Completion Test**

Whilst a delivery is being made, press the same operating button a second time; no further delivery should take place until the initial delivery is completed

### **Low-level Cut-out Test**

Partially empty the supply tank so that no more than 18 litres of water is remaining and attempt a delivery. Observe that the "Sold Out" LED is illuminated and ensure that delivery of any quantity is not possible.

TECHNICAL SCHEDULE No 4/9/1  
VARIATION No 1

**Pattern:** National Water Vendors Model NWV-1 Water Dispensing Instrument.

**Submittor:** National Water Vendors Pty Ltd  
Unit 3, 22 Lawrence Drive  
Nerang QLD 4211.

**1. Description of Variant 1**

Model NWV-2 with a modified hydraulic system (Figure 3) incorporating a sump ('dispense tank') designed to provide a constant head of water, and a solenoid-operated valve, to start and stop the preset delivery.

The four available preset buttons can be programmed for dispensing any preset quantity between (and including) 0.5 and 20 litres.

The programming and calibration module (Micromate Programmer) is now in a separate enclosure, which has provision for sealing.



# National Standards Commission

## Notification of Change

### Certificate of Approval No 4/9/1

### Change No 1

The following changes are made to the approval documentation for the

National Water Vendors Model NWW-1 Water Dispensing Instrument

submitted by National Water Vendors  
5 Tom Latimer Cl  
Worongary QLD 4213.

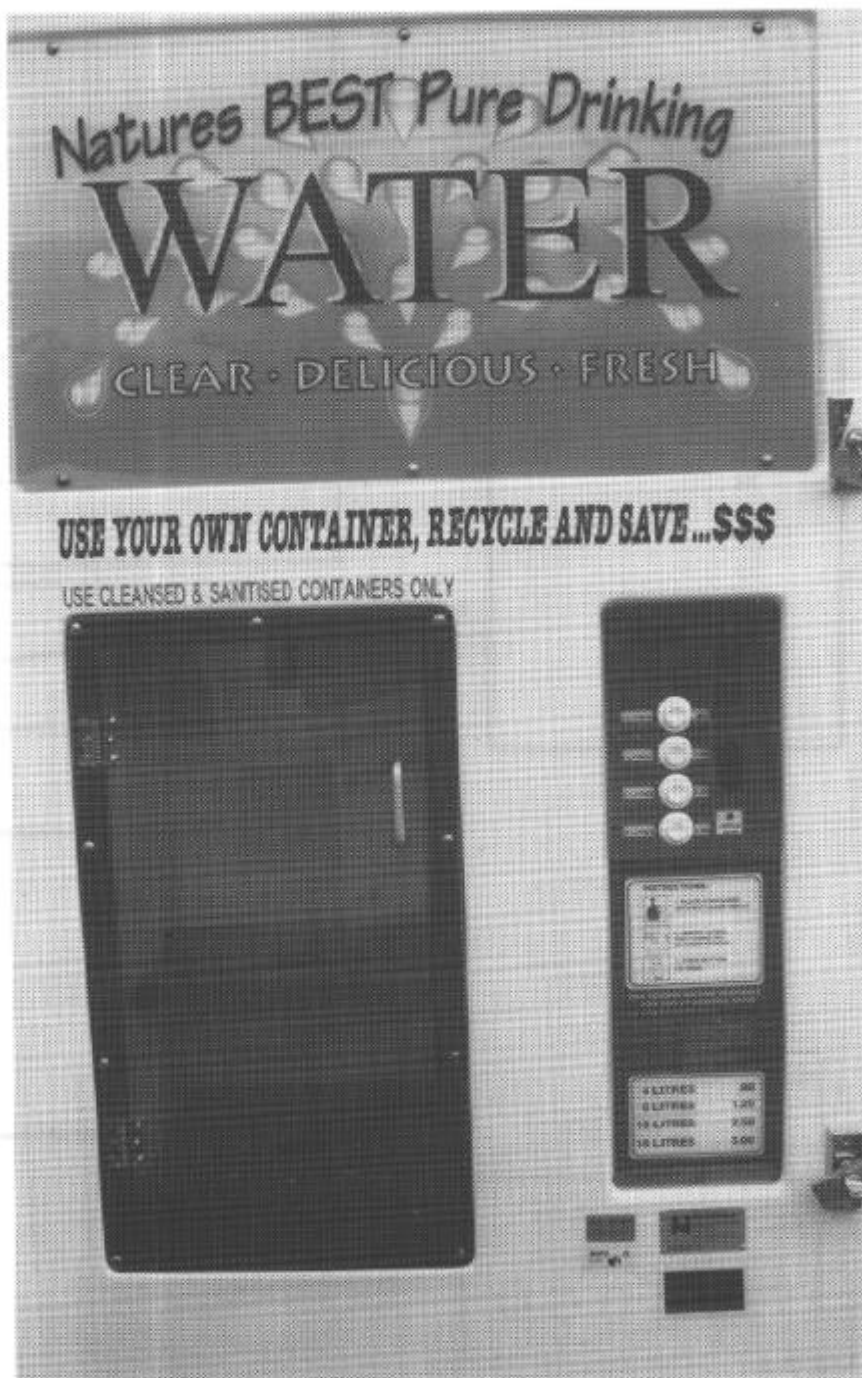
In Technical Schedule No 4/9/1 dated 2 June 1997:

1. Clause **1. Description of Pattern** should be amended to read, in part;  
“... in predetermined quantities between 1 and 19 litres.”
2. The heading “**The System**” should be amended by adding the prefix “**1.1**”.
3. Clause **1.1 The System** should be amended by changing the first bullet point to read, in part;  
“... predetermined quantities e.g. 4, 6, 15 or 19 litres.”
4. Clause **1.5 Markings** should be amended to read, in part;  
“Quantities between 1 L and 19 L  
for which the instrument is verified ..... L”

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.

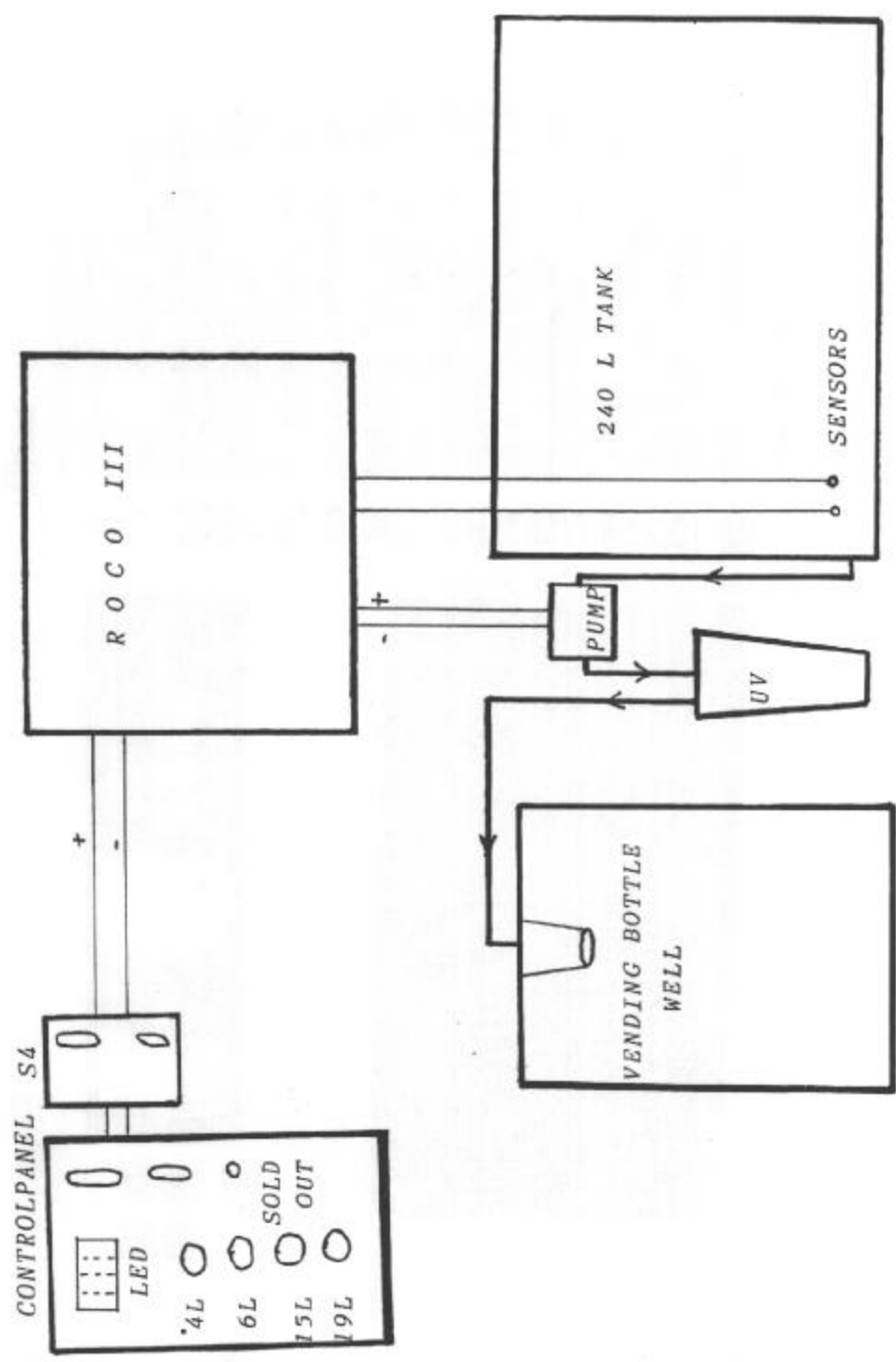


FIGURE 4/9/1 - 1



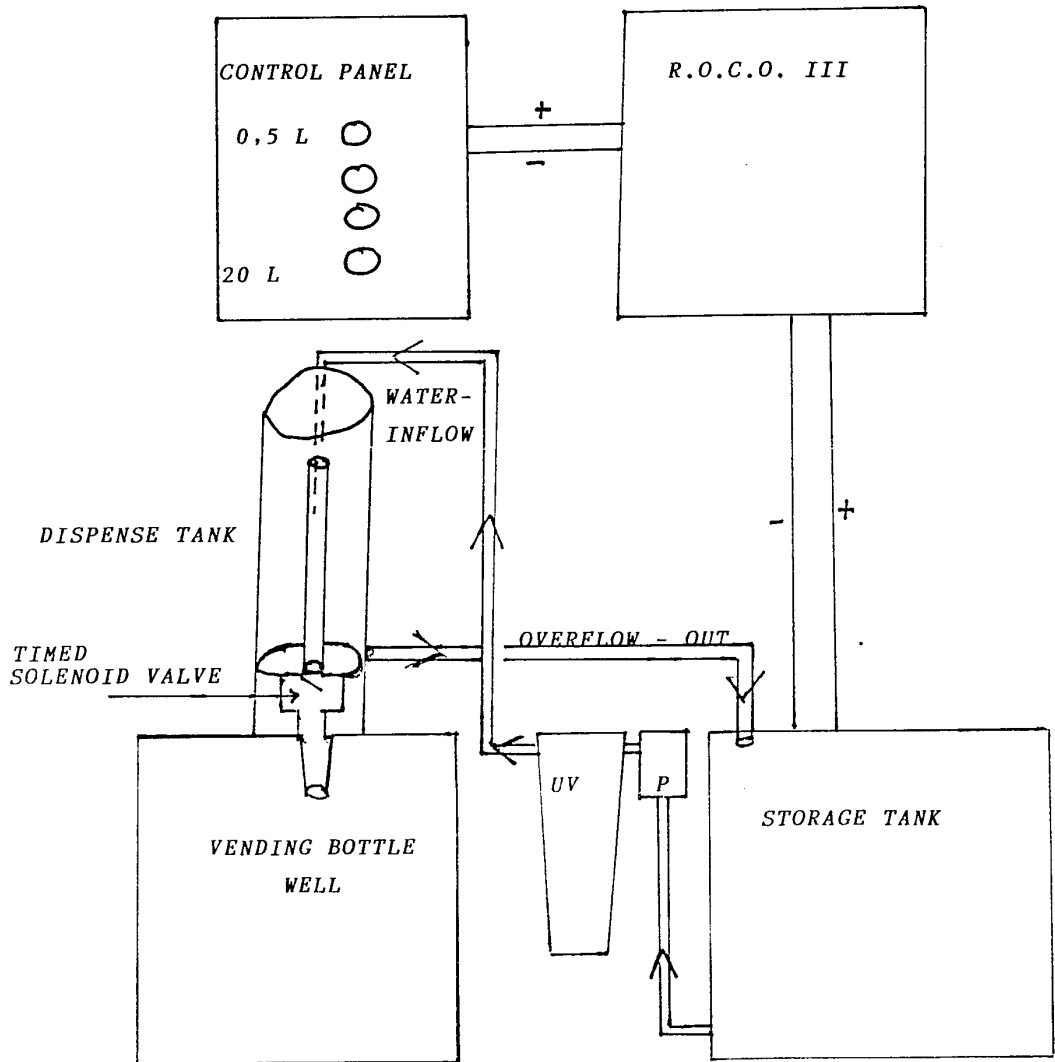
National Water Vendors Model NWV-1 Water Dispensing Instrument

FIGURE 4/9/1 - 2



Model NWV-1 Water Dispensing System

FIGURE 4/9/1 - 3



Model NWV-2 Water Dispensing Instrument