



Australian Government

National Measurement
Institute

Bradfield Road, West Lindfield NSW 2070

Certificate of Approval

No 5/6S/13

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.

Bulk Beverage Systems Model BBS-LG-6 Remote-storage Spirit Dispenser

submitted by Bulk Beverage Systems
20 Hollings Crescent
Heathcote NSW 2733

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 M2, *Pattern Approval Specifications for Beverage Dispensers*, dated June 2004.

This approval becomes subject to review on **1/07/16**, and then every 5 years thereafter.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern & variants 1 to 3 approved – interim certificate issued	23/06/06
1	Pattern & variants 1 to 3 approved – certificate issued	16/10/06
2	Pattern amended (pressure) – notification of change issued	22/02/07
3	Pattern amended (Test Procedure) – notification of change issued	18/07/07
4	Pattern & variants 1 to 3 reviewed & updated – variant 4 approved – certificate issued	30/04/13

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI 5/6S/13' 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 Certificates No S1/0/A or 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*.

A handwritten signature in black ink, appearing to read 'Dr A Rawlinson', with a horizontal line underneath.

Dr A Rawlinson

TECHNICAL SCHEDULE No 5/6S/13

1. Description of Pattern

approved on 23/06/06

The Bulk Beverage Systems model BBS-LG-6 remote-storage spirit dispenser approved to deliver brandy (including cognac and armagnac), gin, rum, vodka or whisky (whiskey) in quantities of 30 mL. The pattern uses a handheld dispensing gun and operates with version BSS rev 0.4 software.

1.1 Field of Operation

The field of operation of the measuring system:

- Maximum operating air temperature 40°C
- Minimum operating air temperature 5°C
- Mains voltage range 204 to 264 V AC
- Operating pressure range 300 to 500 kPa

1.2 System Description

The system (Figures 1 and 2) consists of the following:

- (a) A model BBS-LW1 handheld dispensing gun with up to six 6 buttons to select the spirit to be dispensed (Figure 2a). Each button has a green LED which illuminates when the button is activated.
- (b) A PCB model MS-PTE-006, 2 line 24 character liquid crystal display indicator (Figure 2b) located in a position clearly visible to the customer. The indicator shows the pour size, the type of spirit being dispensed and the units of measurement.
- (c) A controller box (Figure 3) comprised of the following components:
 - (i) Controller PCB model MS-PTE-001 which controls all the operations of this dispenser.
 - (ii) Six measuring pumps.
 - (iii) Power supply.
 - (iv) A Parker model MKHONBG49A pressure valve.
 - (v) An alcohol sensor PCB model MS-PTE-002 located in the partition of the controller box; the sensor will shut-down the system when an alcohol leak is detected.
 - (vi) An indication panel (Figure 3b) having a number of LED's to indicate status conditions including low or empty supply tanks, gas leaks, and low pressure. A barrel keyswitch activates POWER ON/OFF.
- (d) The controller box obtains its information from the low level sensing box PCB model MS-PTE-003 and shuts off the system when the spirit level in the supply tank is low.
- (e) The controller box may be fitted with an external computer connector (Figure 3c) which allows the transfer of information to a bar management system.

- (f) Each bulk supply tank is fitted with a SICK model CQ28-10NPP-KW1 low-level cut-off sensor.
- (g) With up to 6 Flojet model N5000-515 or G5600 pressure-operated beverage pumps for use with non-pressurised bulk spirit supply tanks.
- (h) A Norgren model 04 0156 00 electronic pressure switch to ensure that the pressure to the Flojet supply pumps are maintained constant.

1.4 Operation

A prescribed quantity of spirit is delivered when a button on the dispensing gun is pressed. A delivery once started cannot be stopped by the operator and all buttons on the dispensing gun are rendered inoperative throughout this cycle. A further delivery cannot be started until the timing electronics are reset.

1.5 Markings and Notices

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

Manufacturer's mark or name written in full
Model designation
Serial number of the instrument
Pattern approval mark for the instrument	NMI 5/6S/13
Year of manufacture

The purchasers' indicator displays the pour size, type of spirit being dispensed and the units of measurement.

1.6 Verification Provision

Provision is made for the application of a verification mark.

1.7 Sealing Provision

Provision is made for access to the calibration adjustments and the low-level sensors to be sealed by means of destructible labels in a way that any movement will deface the seals.

2. Description of Variant 1 approved on 23/06/06

With a model Strip Module dispensing tower (Figure 4) instead of the handheld dispensing gun.

3. Description of Variant 2 approved on 23/06/06

With any or all of the buttons on the dispensing gun or dispensing tower programmed to dispense 15 mL deliveries.

4. Description of Variant 3 approved on 23/06/06

For use with bourbon as an additional spirit.

5. Description of Variant 4 approved on 30/04/13

With an alternative dispensing gun with sealed domed pushbutton switches (Figure 5).

TEST PROCEDURE No 5/6S/13

Instruments shall be tested in accordance with any relevant tests specified in the National Instrument Test Procedures.

The instrument shall not be adjusted to anything other than as close as practical to zero error, even when these values are within the maximum permissible errors.

Maximum Permissible Errors

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

Tests

1. Multiple Delivery Test

Whilst a delivery is in progress, it should not be possible to commence a new delivery until the initial delivery is completed.

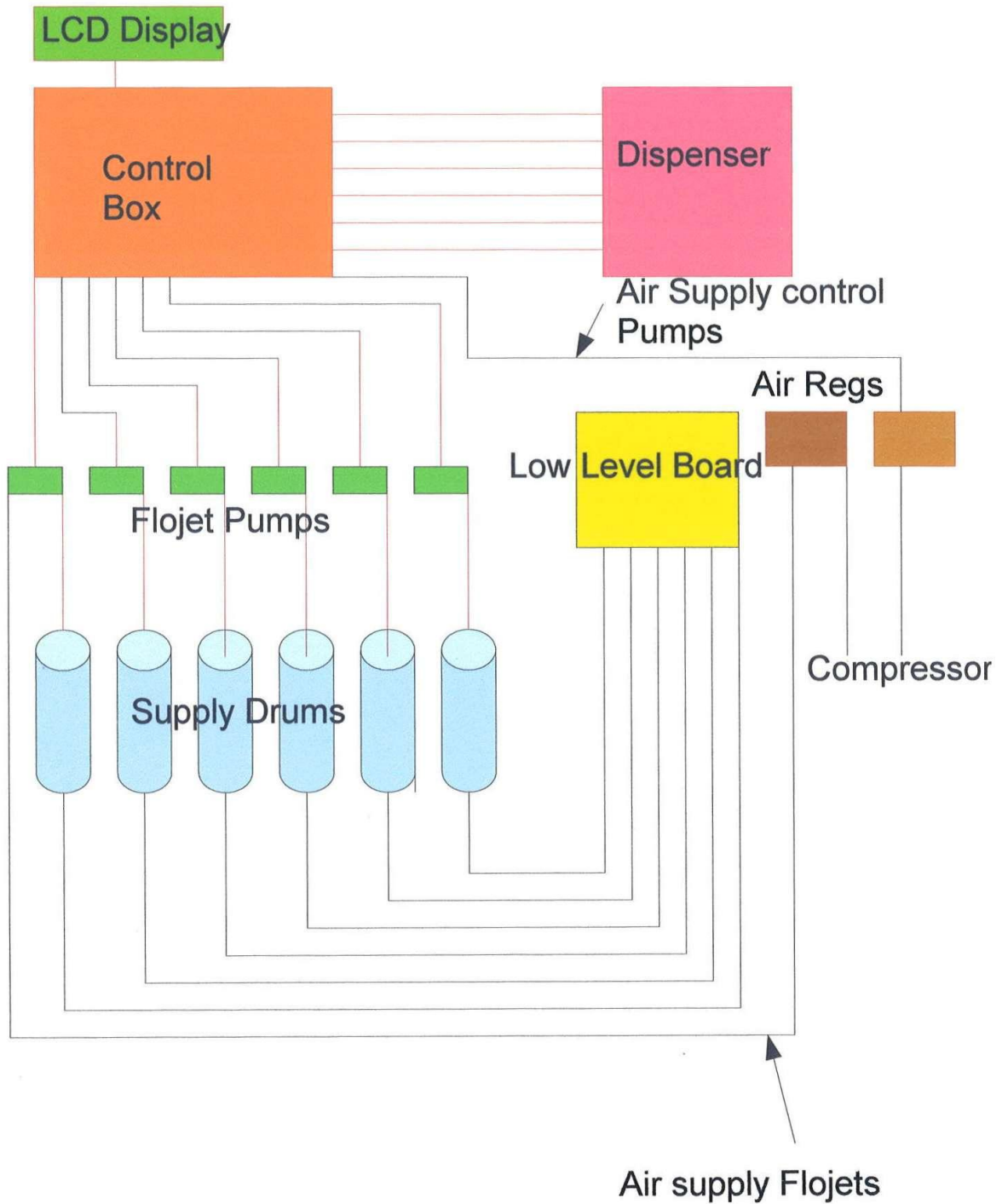
2. Low-level Cut-out Test

At the supply tank; empty its contents until the liquor level is below the low-level cut-off sensor; the system should be inoperative until the liquor level is above the sensor.

3. Pressure Test

Reduce the pressure of the dispenser to below 380 kPa; it should not be possible to make deliveries. Increase the pressure to about 400 kPa and the dispenser should now be ready to deliver.

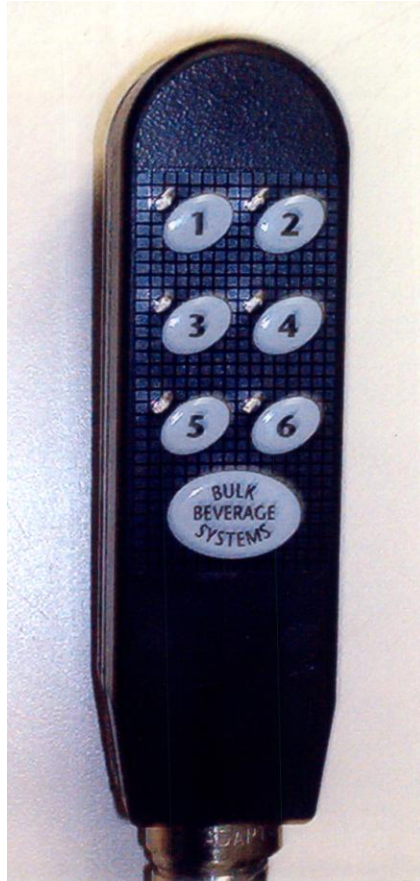
FIGURE 5/6S/13 – 1



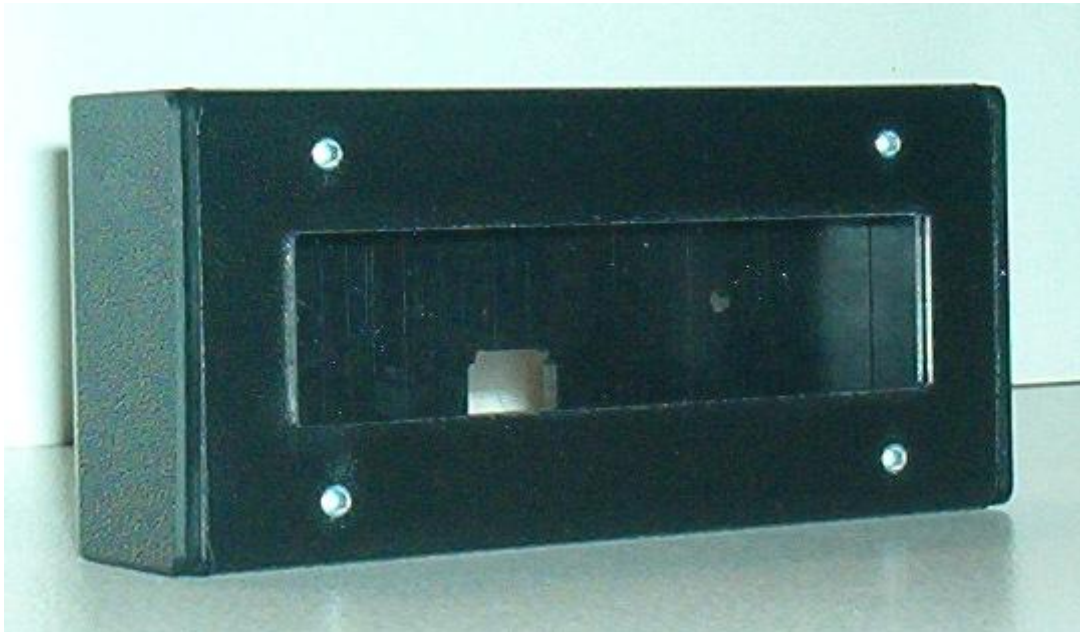
System Layout

Bulk Beverage Systems Model BBS-LG-6 Remote-storage Spirit Dispenser

FIGURE 5/6S/13 – 2

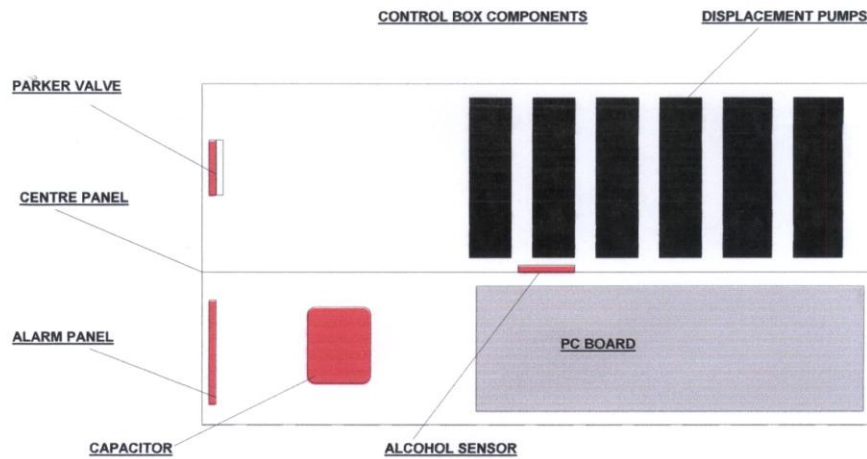


(a) A model BBS-LW1 handheld dispensing gun



(b) Customer display

FIGURE 5/6S/13 – 3



(a) Control box components



(b) Control box front view with status LEDs



(c) Control box rear view with computer connectors

FIGURE 5/6S/13 – 4



(a) Operator side



(b) Customer side including display

A Model Strip Module Dispensing Tower – Variant 1

FIGURE 5/6S/13 – 5



Alternative Dispensing Gun – Variant 4

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