



NATIONAL STANDARDS COMMISSION

WEIGHTS & MEASURES (PATTERNS OF INSTRUMENTS) REGULATIONS

REGULATION 9

GENERAL SUPPLEMENTARY CERTIFICATE OF APPROVAL No S1/0

This is to certify that an approval has been granted that patterns of

Auxiliary Indicating Devices (excluding Electronic Cash Registers)

described herein are suitable for use for trade provided they comply with the following descriptions and requirements.

The approval was granted on 12/1/83 and is subject to review on or after 1/2/88.

Signed

Executive Director

1. Scope of Approval

Auxiliary equipment is that equipment which is a slave of an approved measuring instrument, and duplicates the measurement or price data, but is the only source of information for the purchaser or vendor and is therefore in use for trade.

An auxiliary device derives measurement data directly from the measuring instrument or through data processing equipment.

More than one auxiliary device may be connected to a measuring instrument.

An auxiliary device may print or display data which is not subject to pattern approval or verification.

(see clause 7 for exclusions)

2. Conditions of Approval

2.1 There shall be no interaction between an auxiliary device and the measuring instrument which would cause an incorrect indication of the measured quantity (and price, if applicable).

2.2 Auxiliary equipment is connected to an output socket on the measuring instrument approved for that purpose in the Certificate of Approval of the measuring instrument.

3. Description of Pattern

The pattern is an auxiliary indicating device in the form of a ticket printer, computer printout or digital display.

3.1 Functions of Auxiliary Indicating Devices

An auxiliary device shall -

- (a) repeat exactly the indications of quantity displayed on the measuring instrument, or
- (b) where the price is computed and displayed by the measuring instrument, repeat exactly the quantity, unit price and price displayed on the measuring instrument, or

- (c) where the price is computed by the auxiliary device, repeat exactly the quantity displayed on the measuring instrument, and compute the price correctly, or
- (d) where a number of successive measurements are printed and totalised by an auxiliary printer, compute total quantity correctly, or
- (e) where one or more simultaneous measurements are added by an auxiliary printer or display, compute the total quantity correctly, or
- (f) where the net mass is determined by an auxiliary printer or display from gross and tare mass printings or displays, compute the net mass correctly.

3.2 Clarity of Indications

Indications and printings shall be clear and unambiguous, and printings shall be indelible.

3.3 Arrangement of Digits

Indications shall permit readings by simple juxtaposition of digits. The digits shall be horizontally aligned and orientated in the normal viewing position. The decimal marker on numbers less than unity shall be preceded by a zero digit.

3.4 Height of Digits

(a) Digital Displays

The height of digits on digital displays shall be not less than $3 \times L$ millimetres (where L is the minimum reading distance in metres) without being less than 5 mm.

(b) Tickets

The digits printed on a ticket to indicate the mass, unit price and price, shall be not less than 2.5 mm high. Words or symbols designating mass, unit price or price shall be not less than 2 mm high. Where the symbols are printed by the instrument in a limited character set symbols for units of measurement may be expressed in capitals in accordance with AS 1340.

(c) Labels

Letters, symbols and digits comprising statements of mass, unit price and price shall be not less than 3 mm high to satisfy the Uniform Model Weights and Measures (Prepacked Articles) Regulations 1977, which are reflected in Weights and Measures packaging legislation of the States and Territories.

Where a date is printed to comply with the date stamping requirements of a State or Territory, all digits and letters shall be horizontally aligned and not less than 3 mm high.

3.5 Denomination of Indications

Indications of quantity, unit price and price shall include the unit of measurement or its symbol in accordance with Document 110.

3.6 Format of Tickets and Labels

A ticket is a hand-held printed record; a label is a printed record intended to be affixed to a package.

For weighed items, if the mass and price are printed the unit price shall also be printed.

For products measured by volume the ticket shall include:

- . the quantity delivered; or
- . the quantity delivered and the price, or
- . the quantity delivered, the unit price and the price.

The decimal marker shall be printed by the printer and shall not be preprinted.

Where statements (numerical value and designation) of quantity, unit price and price are on one horizontal line there shall be a space of at least one digit between each statement.

The designations of quantity, unit price and price shall follow the same horizontal alignment as the numerals or shall all be located immediately above or below them.

If tare, gross, net or the total of a number of weighings are printed, they shall be designated, aligned and spaced as for quantity, unit price and price as detailed above.

Weighing instrument printers with the facility for providing the total price of a number of purchases shall list the mass, unit price and price of each weighed item (and the price of any unweighed items), together with the total price. Statements of mass, unit price and price on the ticket shall be horizontally aligned and in that order from left to right. If the price column on the ticket includes the price of unweighed items, the corresponding spaces under the unit price and mass columns shall be blank or be printed with words or non-numerical symbols; this applies also to the spaces corresponding to the total price. If the price of unweighed items is displayed by the weighing instrument, the displays of unit price and mass shall be blank or show words or non-numerical symbols.

Labels for prepacked articles shall be marked with the statements of mass, unit price and price. When no unit price is entered, the numerical values of unit price and price shall be blank or indicated by zero digits. Statements of mass shall be qualified by the words NET, NET WT, NET WEIGHT or NET MASS and no other.

3.7 Price-computing Requirements

If the auxiliary device provides the unit price and computes the price, the price scale intervals shall be not greater than:

- (a) For weighing instruments - 1 cent
- (b) For flowmeters - 1 cent for unit prices up to \$1.00/L
- 2 cents for unit prices over \$1.00/L up to \$2.00/L

provided that the price scale interval on the auxiliary device equals that on the flowmeter.

4. Verification Mark

An auxiliary device shall have provision for a verification mark, in the form of a stamping plug or a destructible adhesive label, which shall be located so that:

- (a) The mark can be easily affixed without affecting the metrological properties of the instrument.
- (b) The mark is visible without moving the instrument when it is in use.

If a stamping plug is used it shall consist of a lead plug securely set below the surface of an undercut hole, and so secured that it cannot be removed from the instrument without defacing the verification mark. The lead plug shall have a circular face of not less than 12 mm diameter or with a rectangular face of dimensions not less than 8 mm x 25 mm and shall be accessible by means of a 50 mm long stamping tool.

If a destructible adhesive label is used a space of not less than 25 mm diameter shall be provided for affixing the label. This space shall be flat, flush with the surrounding surface or raised, but not recessed into the surface.

5. Markings

An auxiliary device shall be clearly and permanently marked with the following data:

Manufacturers name or mark	
Serial number	
NSC approval number	NSC No S1/0

6. Test Procedure

During the verification test of the measuring instrument, operate the auxiliary equipment and check its performance as follows:

(a) For devices referred to in Clause 3.1(a) and (b) -

Check that, at each test quantity the measured quantity (and unit price and price, if applicable) are repeated exactly.

(b) For devices referred to in Clause 3.1(c) -

- . Weighing instruments: At each test load, check that the auxiliary device repeats the mass exactly, and that the price is correct to $\pm 0.5c$; the price should be checked at 5 unit prices between maximum unit price and 25% of maximum unit price.

- . Flowmeters: At the completion of each test delivery check that the auxiliary device repeats the volume exactly, and that the price has been computed within the following limits -

$\pm 0.5c$ for unit prices up to \$1.00/L
 $\pm 1.0c$ for unit prices over \$1.00/L up to \$2.00/L

(c) For devices referred to in Clause 3.1(d) and (e) -

Check that the totalised or added quantity exactly equals the sum of the individual measured quantities.

(d) For devices referred to in Clause 3.1(f) -

Check that the net mass exactly equals the difference between the gross and tare measurements.

(e) A printer shall not print below zero or over the capacity indicated by the measuring instrument.

(f) A digital display shall repeat the indication of the measuring instrument from below zero to capacity.

(g) Where an auxiliary display comprises multi-segment digits, check the operation of the manual or automatic segment test.

7. Exclusions from this Certificate

- 7.1 Devices which require specific Certificates of Approval:
- (a) Devices in a separate housing which control the measuring instrument (self-serve driveway flowmeter consoles, for example).
 - (b) Magnetic card or key-operated¹ driveway flowmeters.
- 7.2 Displays, printers or printouts which repeat the measurement or price data for the convenience of management or the operator and are not used for determining the value of the transaction are considered to be peripheral² and not in use for trade and are therefore not subject to pattern approval or verification.
- 7.3 Electronic cash registers - these are the subject of Certificate of Approval No S2/0.

¹ Key-operated totalisers which are in use for trade must comply with the Commission's Design Rules.

² Peripheral equipment shall be connected to an output socket on the measuring instrument approved for that purpose in the Certificate of Approval of the measuring instrument.



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NATIONAL STANDARDS COMMISSION

NOTIFICATION OF CHANGE

GENERAL SUPPLEMENTARY CERTIFICATE OF APPROVAL No S1/0

CHANGE No 1

CANCELLED

Pages 3, 4 and 5 of the Certificate dated 21 January 1983 are replaced by the attached pages in which paragraphs 4(b) and 6(f) are amended and paragraph 6(g) is added. Footnote No 1 and heading 7 on page 5 are also amended to clarify the original intent.

Signed

Acting Executive Director

27/5/83