Australian Government
National Measurement Institute

Bradfield Road, West Lindfield NSW 2070

Supplementary Certificate of Approval

No S524

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

NUWEIGH Model JAC-259 Digital Indicator

submitted by Newcastle Weighing Services Pty Ltd
104-114 Hannel Street
Wickham NSW 2293.

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 R 76, *Non-automatic Weighing Instruments, Parts 1 and 2*, dated July 2004.

CONDITIONS OF APPROVAL

This approval becomes subject to review on 1 August 2014, and then every 5 years thereafter.

Instruments purporting to comply with this approval shall be marked with approval number ‘NMI S524’ and only by persons authorised by the submittor.

Instruments incorporating a component purporting to comply with this approval shall be marked ‘NMI S524’ 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.

…./2

The National Measurement Institute 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.

The values of the performance criteria (maximum number of scale intervals etc.) applicable to an instrument incorporating the pattern approved herein shall be within the limits specified herein and in any approval documentation for the other components.

DESCRIPTIVE ADVICE

Pattern: approved 1 June 2009

- A NUWEIGH model JAC-259 digital indicator.

Technical Schedule No S524 describes the pattern.

Variant: approved 7 May 2010

1. With an alternative power supply method.

Technical Schedule No S524 Variation No 1 describes variant 1.

FILING ADVICE

Supplementary Certificate of Approval No S524 dated 21 July 2009 is superseded by this Certificate, and may be destroyed. The documentation for this approval now comprises:

Supplementary Certificate of Approval No S524 dated 10 May 2010
Technical Schedule No S524 dated 21 July 2009 (incl. Table 1 and Test Procedure)
Notification of Change No 1 dated 25 February 2010
Technical Schedule No S524 Variation No 1 dated 10 May 2010
Figures 1 and 2 dated 21 July 2009

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 S524

Pattern: NUWEIGH Model JAC-259 Digital Indicator

Submittor: Newcastle Weighing Services Pty Ltd
104-114 Hannel Street
Wickham NSW 2293

1. Description of Pattern

A NUWEIGH model JAC-259 digital mass indicator (Figure 1 and Table 1) which may be configured to form part of:

- A weighing instrument with a single weighing range of up to 10 000 verification scale intervals; or
- A multi-interval weighing instrument with up to three partial weighing ranges (each with its own verification scale interval) in which case it is approved for use with up to 10 000 verification scale intervals per partial weighing range.
- A multiple range weighing instrument with up to two weighing ranges, in which case it is approved for use with up to 10 000 verification scale intervals per weighing range. The changeover between weighing ranges is automatic.

The instrument has a liquid crystal display including provision for display of the weight value and also a bar style analog display (the latter is approved for trade use).

Instruments may be fitted with output sockets (output interfacing capability) for the connection of auxiliary and/or peripheral devices.

This approval does not include the use of the indicator as an automatic weighing instrument, unless specifically mentioned in a certificate of approval for such an instrument.

TABLE 1 – Specifications

Maximum number of verification scale intervals	10 000 or 10 000 per range
Minimum sensitivity	0.85 µV / scale interval
Excitation voltage	5 V DC
Maximum excitation current	57.5 mA

1.1 Zero

A zero-tracking device may be fitted.

The initial zero-setting device has a nominal range of not more than 20% of the maximum capacity of the instrument.

The instrument has a semi-automatic zero-setting device with a nominal range of not more than 4% of the maximum capacity of the instrument.

1.2 Tare

A semi-automatic subtractive tare device of up to the maximum capacity of the instrument may be fitted. A pre-set subtractive tare device of up to the maximum capacity of the instrument (up to Max_1 for multi-interval or multiple range instruments) may be fitted.

…./2

1.3 Display Check

A display check is initiated whenever power is applied. Only the digital display is approved for trade purpose. The bar style analog display is not approved for trade use.

1.4 Linearisation Facility

Instruments are fitted with a linearisation correction facility having up to nine correction points.

1.5 Power Supply

Instruments are powered by a 6 volt / 4.5 Ah rechargeable battery and a DC 9 volt AC adaptor.

Note: The AC/DC mains adaptor supplied was a Power Tech Plus model MP-3420 power supply (set to output 9 V DC, 1.5 A) – the submittor should be consulted regarding the acceptability of alternative power supply units.

1.6 Additional Features

The indicator also has certain additional functions, e.g. percentage weighing, "Hi/Lo" weighing, target weighing. The additional functions are not approved for trade use. This approval does not include the use of the indicator as an automatic weighing instrument, unless specifically mentioned in a certificate of approval for such an instrument.

1.7 Descriptive Markings and Notices

Instruments carry the following markings:

Manufacturer's mark, or name written in full	Newcastle Weighing Services	
Indication of accuracy class	Ⓘ	
Maximum capacity (for each range)	*Max* ..... kg	#1
Minimum capacity (for each range)	*Min* ..... kg	#1
Verification scale interval (for each range)	*e* = ... kg	#1
Maximum subtractive tare	*T* = - ..... kg	#2
Serial number of the instrument	…….....	
Pattern approval mark for the indicator	NMI S524	
Pattern approval mark for other components	.....	#3

#1 These markings are also shown near the display of the result if they are not already located there.

#2 This marking is required if *T* is not equal to *Max*.

#3 May be located separately from the other markings.

In addition, instruments not greater than 100 kg capacity carry a notice stating NOT TO BE USED FOR TRADING DIRECT WITH THE PUBLIC, or similar wording.

Notes:

(i) For multiple range instruments the markings shall be as above, with the exception that the maximum capacity, minimum capacity and verification scale interval for each range shall be marked, with an indication of the range to which they apply, corresponding to that shown on the instrument display (e.g. 'Range 1')

Range	1	2
Max	…. kg	…. kg
Min	…. kg	…. kg
e =	…. kg	….kg

(ii) For multi-interval instruments the markings shall be as above, with the exception of the following (examples are for instruments with two partial ranges):

Maximum capacity	*Max* ...../..... kg *
Verification scale interval	e = .../..... kg *

1.8 Verification/Certification Provision

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

1.9 Sealing Provision

The weight calibration parameter is protected when the calibration switch on the main board is in the 'lock' position. To determine whether or not the weight calibration parameter is in the protected mode, switch on the power of the instrument and observe the display after instrument initial checking. If the display shows "01 CSP", then the instrument is in calibration mode, and the weight calibration parameter is NOT protected – the instrument should not be verified/ certified in this state as sealing will not prevent adjustment of calibration.

If the weight calibration parameter is protected, calibration adjustments may be sealed by use of lead and wire (or similar) seals, connecting the pair of sealing screws at each side of the instrument, to prevent access to the calibration switch within the instrument housing (Figure 2 shows the sealing on one side of the instrument).

TEST PROCEDURE

Instruments should be tested in accordance with any relevant tests specified in the Uniform Test Procedures.

Maximum Permissible Errors

The maximum permissible errors are specified in Schedule 12 of the *National Measurement Regulations 1999*.

TECHNICAL SCHEDULE No S524

VARIATION No 1

Pattern: NUWEIGH Model JAC-259 Digital Indicator

Submittor: Newcastle Weighing Services Pty Ltd
104-114 Hannel Street
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1. Description of Variant 1

Instruments may be powered directly from mains power (230 V AC nominal).

Instruments may also incorporate a 6 volt rechargeable battery.

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Notification of Change
Supplementary Certificate of Approval No S524
Change No 1

Issued by the Chief Metrologist under Regulation 60
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The following changes are made to the approval documentation for the

NUWEIGH Model JAC-259 Digital Indicator

submitted by Newcastle Weighing Services Pty Ltd
104-114 Hannel Street
Wickham NSW 2293.

A. In Supplementary Certificate of Approval S524 dated 21 July 2009, the FILING ADVICE should be amended by adding the following:

"Notification of Change No 1 dated 25 February 2010"

B. In Technical Schedule No S524 dated 21 July 2009, clause **1. Description of Pattern**, the 3rd last paragraph should be amended to read, in part:

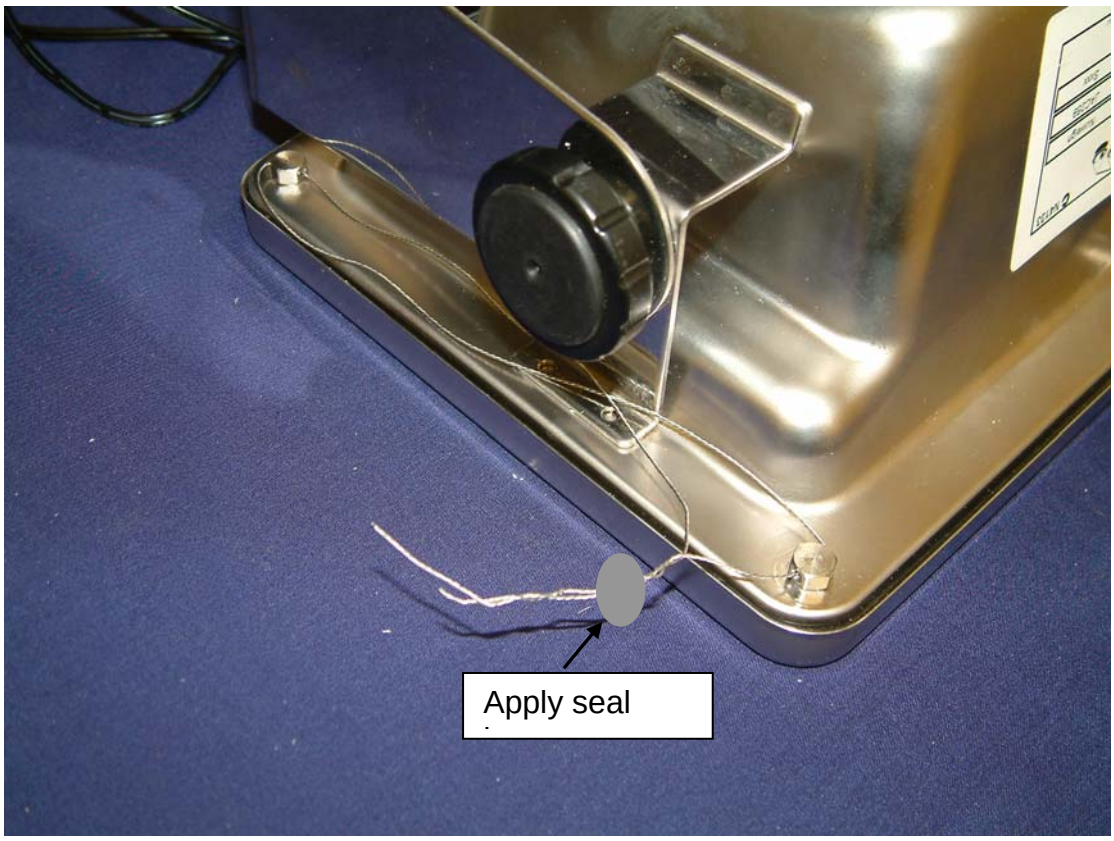
"… bar style analog display (the latter is **NOT** approved for trade use)."

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

FIGURE S524 – 1

NUWEIGH Model JAC-259 Digital Indicator

FIGURE S524 – 2



Sealing Provision (repeat at each side of the instrument)