Australian Government
National Measurement Institute

Bradfield Road, West Lindfield NSW 2070

Certificate of Approval

No 6/4D/331

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

Teraoka Model DPS-4600 Weighing Instrument

submitted by W W Wedderburn Pty Ltd
90 Parramatta Road
SUMMER HILL NSW 2130.

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 October 201**6**, and then every 5 years thereafter.

Instruments purporting to comply with this approval shall be marked NMI 6/4D/331 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.

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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.

This approval shall NOT be used in conjunction with General Certificate No 6B/0.

DESCRIPTIVE ADVICE

Pattern: approved 27 September 2006

- A Teraoka model DPS-4600 multi-interval self-indicating price-computing weighing instrument with a maximum capacity of 15 kg.

Variants: approved 27 September 2006

1. Certain other models of the DPS-4600 series.
2. Multi-interval instruments of certain other capacities.
3. Certain single interval instruments of various capacities.
4. Certain models of the AW-4600 series of weigh/wrap/labellers.

Technical Schedule No 6/4D/331 describes the pattern and variants 1 to 4.

Variant: approved 3 June 2008

5. Model AW-4600 type CPR weigh/wrap/labeller.

Technical Schedule No 6/4D/331 Variation No 1 describes variant 5.

Variant: approved 17 March 2011

6. Model AW-4600 type ATe with ‘Eco mode’ feature.

Technical Schedule No 6/4D/331 Variation No 2 describes variant 6.

FILING ADVICE

Certificate of Approval No 6/4D/331 dated 4 June 2008 is superseded by this Certificate, and may be destroyed. The documentation for this approval now comprises:

Certificate of Approval No 6/4D/331 dated 18 March 2011
Technical Schedule No 6/4D/331 dated 22 November 2006 (incl. Test Procedure)
Technical Schedule No 6/4D/331 Variation No 1 dated 4 June 2008
Technical Schedule No 6/4D/331 Variation No 2 dated 18 March 2011 (incl. Note)
Figures 1 to 8 dated 22 November 2006

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 6/4D/331

Pattern: Teraoka Model DPS-4600 Weighing Instrument

Submittor: W W Wedderburn Pty Ltd
90 Parramatta Road
SUMMER HILL NSW 2130

1. Description of Pattern

A Teraoka model DPS-4600 multi-interval self-indicating price-computing weighing instrument (Figure 1) with a verification scale interval of 0.002 kg up to 6 kg and with a verification scale interval of 0.005 kg from 6 kg up to 15 kg.

Instruments are fitted with a colour liquid crystal display (LCD) panel, and with either one or two printers (in which case it may be known as DPS-4600 type 'Single'or 'Twin' accordingly).

Instruments have unit price to $9999.99/kg, price to $9999.99, and a product look up (PLU) facility.

Instruments use a Teraoka S-YC series basework, with a maximum platform size of 342 x 285 mm, and are fitted with a K series load cell.

The instrument operates from mains AC power (240 V AC, 50 Hz).

1.1 Zero

Zero is automatically corrected to within $\pm$ 0.25e_1 whenever power is applied and whenever the instrument comes to rest within 0.5e_1 of zero.

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

1.2 Tare

A semi-automatic and/or non-automatic keyboard-entered pre-set subtractive tare device, each of up to 5.998 kg maximum capacity, may be fitted.

Pre-set tare values may be associated with product look up (PLU) items.

1.3 Levelling

The instrument is provided with adjustable feet and adjacent to the level indicator is a notice advising that the instrument must be level when in use.

1.4 Display Check

A display check is initiated whenever power is applied.

1.5 Verification/Certification Provision

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

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1.6 Sealing Provision

A calibration switch is located on the A/D board which is located inside the basework. Provision is made for the calibration adjustments to be sealed by placing two destructible labels on the underside of the basework, one over a casing retaining screw and the other over the calibration switch (Figure 2).

1.7 Descriptive Markings

Instruments carry the following markings:

Manufacturer's mark, or name written in full	Teraoka
Name or mark of manufacturer's agent	WEDDERBURN
Indication of accuracy class	(III)
Pattern approval mark for the instrument	NMI 6/4D/331
Maximum capacity	*Max* ...../..... kg #
Minimum capacity	*Min* ..... kg #
Verification scale interval	*e* = .../..... kg #
Maximum subtractive tare	*T* = - …. g or kg
Serial number of the instrument	…….

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

Instruments are marked 'NOT FOR TRADING DIRECT WITH THE PUBLIC' (or similar wording).

2. Description of Variants

2.1 Variant 1

Certain other models of the DPS 4600 series as listed below:

(i) Model DPS-4600 Basic which is similar to the pattern, except that it has a black and white liquid crystal display (LCD) panel and only one integral printer; and

(ii) Model DPS-4600M which is similar to the pattern, except that it is in a 'modular' form (Figure 3).

2.2 Variant 2

The pattern or variants as multi-interval instruments of certain capacities as listed below:

(i) A multi-interval instrument with a verification scale interval of 0.001 kg up to 3 kg and with a verification scale interval of 0.002 kg from 3 kg up to 6 kg, and with a maximum semi-automatic and pre-set tare capacity of 2.999 kg; and

(ii) A multi-interval instrument with a verification scale interval of 0.005 kg up to 15 kg and with a verification scale interval of 0.01 kg from 15 kg up to 30 kg, and with a maximum semi-automatic and pre-set tare capacity of 14.995 kg.

2.3 Variant 3

The pattern or variants as single interval instruments of certain capacities as listed below:

(i) of 6 kg maximum capacity with a verification scale interval of 0.002 kg, and with a maximum tare capacity of 6 kg;

(ii) of 15 kg maximum capacity with a verification scale interval of 0.005 kg, and with a maximum tare capacity of 15 kg; and

(iii) of 30 kg maximum capacity with a verification scale interval of 0.01 kg, and with a maximum tare capacity of 30 kg.

2.4 Variant 4

The pattern or variants with the basework incorporated in an automated weigh/wrap/labeller, and then known as certain models of the AW-4600 series as listed below. The maximum weight of packages that can be wrapped may be less than the maximum weighing capacity.

Instruments use an N series load cell, with the exception of the model AW-4600 Type Pi (see (v) below).

Note: The instruments may use indicator/printer arrangements as shown in the Figures referenced below, or 'Basic' or modular indicator/printer arrangements similar to those described in variant 1.

Instruments are approved for static weighing only, with various maximum wrapping rates.

(i) Model AW-4600 Type AT (Figure 4).

A calibration switch is located on the A/D board which is located inside a housing within the instrument (beneath a cover at the front of the instrument as shown in Figure 4). Sealing is achieved by use of means such as destructible adhesive labels (or lead and wire type seals) to seal access beneath this cover.

(ii) Model AW-4600 Type N (Figure 5); this model may also be known simply as the model AW-4600 (i.e. without the type N suffix).

Sealing arrangements are similar to the model AW-4600 Type AT (Figure 4).

(iii) Model AW-4600 Type CP (Figure 6).

A calibration switch is located on the A/D board which is located inside a housing within the instrument (beneath a cover at the front of the instrument - there may also be a cover which provides access from below, see Figure 6). Sealing is achieved by use of means such as destructible adhesive labels (or lead and wire type seals) to seal access to the calibration switch, e.g. by sealing the covers mentioned above.

(iv) Model AW-4600 Type FX (Figure 7).

A calibration switch is located on the A/D board which is located inside a housing within the instrument (beneath a cover at left of the instrument, see Figure 7). Sealing is achieved by use of means such as destructible adhesive labels (or lead and wire type seals) to seal access beneath this cover.

(v) Model AW-4600 Type Pi (Figure 8).

The instrument uses a Teraoka S-YC series basework with K series load cell as described for the pattern.

Sealing of the S-YC series basework is carried out as described in 1.6 Sealing Provision for the pattern. This basework can be accessed via a user-accessible door at the centre front of the instrument.

TEST PROCEDURE

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

Maximum Permissible Errors at Verification/Certification

For single range instruments, the maximum permissible errors for increasing and decreasing loads on initial verification/certification for loads, m, expressed in verification scale intervals, e, are:

± 0.5e for loads $0 \leq m \leq 500$;
± 1.0e for loads $500 < m \leq 2\,000$; and
± 1.5e for loads $2\,000 < m \leq 10\,000$.

For multi-interval instruments with verification scale intervals of e_1, e_2 …, apply e_1 for zero adjustment, and maximum permissible errors apply e_1, e_2 …, as applicable for the load.

TECHNICAL SCHEDULE No 6/4D/331

VARIATION No 1

Pattern: Teraoka Model DPS-4600 Weighing Instrument

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1. Description of Variant 5

The Teraoka model AW-4600CPR which has the same features and capabilities as the model AW-4600 Type CP (aka AW-4600CP) of variant 4 (Figure 6) except that packages are discharged through the rear of the instrument instead of the front.

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VARIATION No 2

Pattern: Teraoka Model DPS-4600 Weighing Instrument

Submittor: W W Wedderburn Pty Ltd
90 Parramatta Road
SUMMER HILL NSW 2130

1. Description of Variant 6

The Teraoka model AW-4600 type AT described in variant 4, now fitted with an 'Eco mode' power saving feature, in which case the instrument is known as the model AW-4600 type ATe.

NOTE

The date at which this approval becomes due for review has been amended following completion of a review.

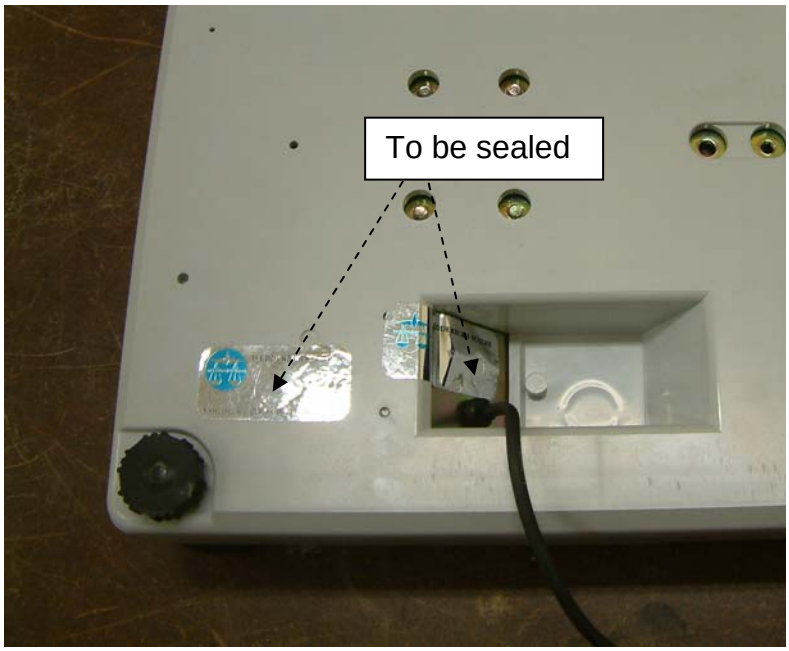
FIGURE 6/4D/331 – 1

(a) DPS 4600 Type Single

(b) DPS 4600 Type Single indicator/printer unit.

Teraoka Model DPS-4600 Weighing Instrument

FIGURE 6/4D/331 – 2



Teraoka Model DPS-4600 Sealing Arrangement

FIGURE 6/4D/331 – 3

Teraoka Model DPS-4600 M (‘modular’)

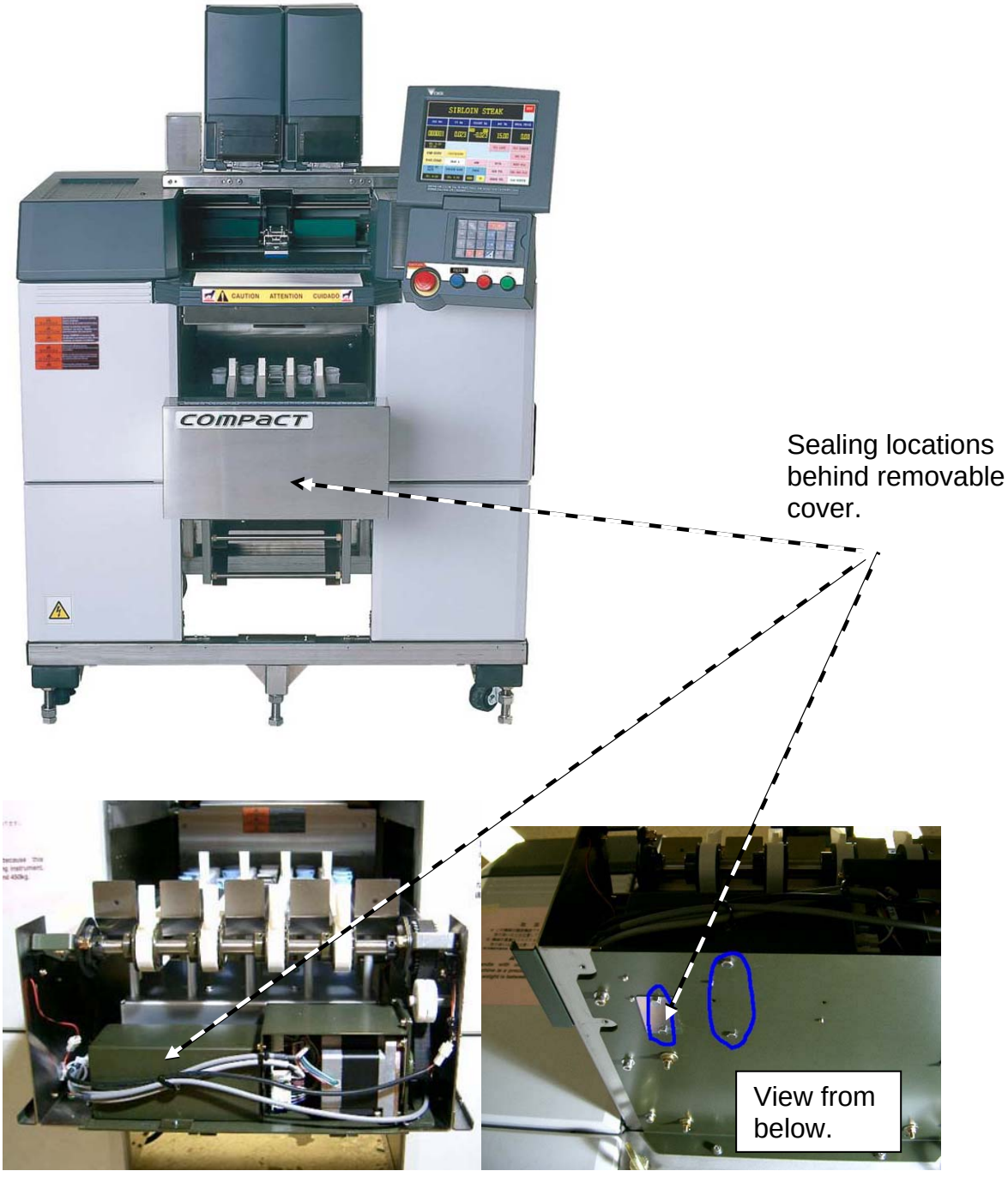
FIGURE 6/4D/331 – 4

Teraoka Model AW-4600 Type AT (including sealing arrangement)

FIGURE 6/4D/331 – 5

Teraoka Model AW-4600 Type N
(sealing arrangement as for AW-4600 AT in Figure 4)

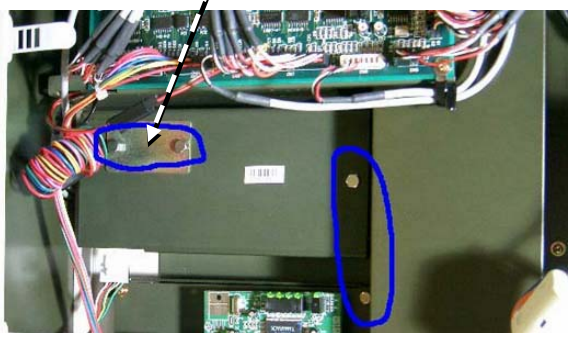
FIGURE 6/4D/331 – 6



Teraoka Model AW-4600 Type CP

FIGURE 6/4D/331 – 7

Seal cover,
or location
behind cover.



Teraoka Model AW-4600 Type FX

FIGURE 6/4D/331 – 8

Teraoka Model AW-4600 Type Pi