



Australian Government
**National Measurement
Institute**

Bradfield Road, West Lindfield NSW 2070

Cancellation
Certificate of Approval
No 6/4D/299

Issued by the Chief Metrologist under Regulation 60
of the
National Measurement Regulations 1999

This is to certify that the approval for use for trade granted in respect of the

Teraoka Shanghai Model Digi DS-682 Weighing Instrument

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

has been cancelled in respect of new instruments as from 1 July 2012.

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

A handwritten signature in black ink, consisting of stylized cursive letters, positioned to the right of the signature text.



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Certificate of Approval

No 6/4D/299

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 Shanghai Model Digi DS-682 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 August 2011, and then every 5 years thereafter.

Instruments purporting to comply with this approval shall be marked with approval number 'NSC 6/4D/299' and only by persons authorised by the submittor.

It is the submitter'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.

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.

DESCRIPTIVE ADVICE

Pattern: approved 23 July 2001

- A Teraoka Shanghai model Digi DS-682 non-automatic self-indicating multi-interval price-computing weighing instrument of 15 kg maximum capacity.

Variants: approved 23 July 2001

1. The model DS-682 in certain other capacities.
2. The model DS-682 H which has a hanging load receptor.
3. The model DS-671 single interval mass only weighing instrument in certain capacities.
4. The model DS-671 H which has a hanging load receptor.

Technical Schedule No 6/4D/299 describes the pattern and variants 1 to 4.

Variant: approved 15 February 2002

5. The model DS-671 and model DS-671 H with a maximum capacity of 3 kg.

Technical Schedule No 6/4D/299 Variation No 1 describes variant 5.

Variant: approved 30 October 2002

6. With one or two displays.

Technical Schedule No 6/4D/299 Variation No 2 describes variant 6.

Variant: approved 6 April 2004

7. The model DS-532.

Technical Schedule No 6/4D/299 Variation No 3 describes variant 7.

Variant: approved 18 December 2008

8. The models DS-671 Mk II or DS-671H Mk II.

Technical Schedule No 6/4D/299 Variation No 4 describes variant 8.

FILING ADVICE

Certificate of Approval No 6/4D/299 dated 18 May 2004 is superseded by this Certificate, and may be destroyed. The documentation for this approval now comprises:

Certificate of Approval No 6/4D/299 dated 20 January 2009
Technical Schedule No 6/4D/299 dated 15 October 2001 (incl. Test Procedure)
Technical Schedule No 6/4D/299 Variation No 1 dated 8 March 2002
Technical Schedule No 6/4D/299 Variation No 2 dated 27 November 2002
Technical Schedule No 6/4D/299 Variation No 3 dated 18 May 2004
Technical Schedule No 6/4D/299 Variation No 4 dated 20 January 2009
(incl. Notification of Change)
Notification of Change No 1 dated 2 April 2002
Notification of Change No 2 dated 1 February 2007
Figures 1 to 3 dated 15 October 2001
Figure 4 dated 18 May 2004

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

A handwritten signature in black ink, appearing to be 'J. H. T.', located to the right of the signature text.

TECHNICAL SCHEDULE No 6/4D/299

Pattern: Teraoka Shanghai Model Digi DS-682 Weighing Instrument.

Submittor: W W Wedderburn Pty Ltd
90 Parramatta Road
Summer Hill NSW 2130.

1. Description of Pattern

A Teraoka Shanghai model Digi DS-682 self-indicating multi-interval price-computing weighing instrument with a verification scale interval (e_1) of 0.002 kg up to 6 kg and with a verification scale interval (e_2) of 0.005 kg from 6 kg up to the maximum capacity of 15 kg. Instruments have unit price to \$999.99/kg and price to \$9999.99.

Instruments are fitted with the load receptor of 300 x 400 mm as shown in Figure 1 or with a narrower receptor.

Instruments are powered by a Wedderburn model 9VDC500 mains adaptor or may be battery-powered.

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 of the pattern 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 5.998 kg maximum capacity may be fitted.

1.3 Markings

Instruments carry the following markings:

Manufacturer's mark, or name written in full	Teraoka Shanghai
Name or mark of manufacturer's agent	Wedderburn
Model number
Indication of accuracy class	Ⓜ
Pattern approval mark	NSC No 6/4D/299
Maximum capacity	Max/..... kg *
Minimum capacity	Min kg *
Verification scale interval	$e = \dots\dots/ \dots\dots$ kg *
Maximum subtractive tare	$T = - \dots\dots$ kg
Serial number of the instrument

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

1.4 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.

1.5 Display Check

A display check is initiated whenever power is applied.

1.6 Verification/Certification Provision

Provision is made for a verification/certification mark to be applied.

1.7 Sealing Provision

Provision is made for the calibration adjustments on the underside of the instrument to be sealed by means of a destructible label over the sealing plates and screws provided (Figure 2).

2. Description of Variants

2.1 Variant 1

The model DS-682 multi-interval price-computing weighing instrument in certain other capacities as listed below:

- With a verification scale interval (e_1) of 0.001 kg up to 3 kg and with a verification scale interval (e_2) of 0.002 kg from 3 kg up to the maximum capacity of 6 kg.
The tare device, if fitted, has a maximum capacity of 2.999 kg.
- With a verification scale interval (e_1) of 0.005 kg up to 15 kg and with a verification scale interval (e_2) of 0.01 kg from 15 kg up to the maximum capacity of 30 kg.
The tare device, if fitted, has a maximum capacity of 9.995 kg.

2.2 Variant 2

The model DS-682 H multi-interval price-computing weighing instrument as described for the pattern and variant 1 but with a hanging load receptor. The receptor may be of a different size to that shown in Figure 3.

2.3 Variant 3

The model DS-671 single interval mass only weighing instrument in certain other capacities as listed below:

- Of 6 kg maximum capacity with a verification scale interval of 0.002 kg.
The tare device, if fitted, has a maximum capacity of 2.998 kg.
- Of 15 kg maximum capacity with a verification scale interval of 0.005 kg.
The tare device, if fitted, has a maximum capacity of 7.495 kg.
- Of 30 kg maximum capacity with a verification scale interval of 0.01 kg.
The tare device, if fitted, has a maximum capacity of 14.99 kg.

2.4 Variant 4

The model DS-671 H single interval mass only weighing instrument as described for the variant 3 but with a hanging load receptor

TEST PROCEDURE

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

Maximum Permissible Errors at Verification/Certification

The maximum permissible errors for increasing and decreasing loads on initial verification/certification for loads, m , expressed in verification scale intervals, e , are:

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

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

TECHNICAL SCHEDULE No 6/4D/299

VARIATION No 1

Pattern: Teraoka Shanghai Model Digi DS-682 Weighing Instrument.

Submittor: W W Wedderburn Pty Ltd
90 Parramatta Road
Summer Hill NSW 2130.

1. Description of Variant 5

The Teraoka Shanghai model Digi DS-671 and model Digi DS-671 H self-indicating single interval mass only weighing instruments with a maximum capacity of 3 kg and a verification scale interval of 0.001 kg.

The tare device, if fitted, has a maximum capacity of 1.499 kg.

TECHNICAL SCHEDULE No 6/4D/299

VARIATION No 2

Pattern: Teraoka Shanghai Model Digi DS-682 Weighing Instrument.

Submittor: W W Wedderburn Pty Ltd
90 Parramatta Road
Summer Hill NSW 2130.

1. Description of Variant 6

Any model instrument of this approval fitted with either one or two displays.

Instruments fitted with a single display only are marked 'NOT FOR TRADING DIRECT WITH THE PUBLIC' (or similar wording).

TECHNICAL SCHEDULE No 6/4D/299

VARIATION No 3

Pattern: Teraoka Shanghai Model Digi DS-682 Weighing Instrument

Submittor: W W Wedderburn Pty Ltd
90 Parramatta Road
Summer Hill NSW 2130

1. Description of Variant 7

A Teraoka Shanghai model Digi DS-532 (Figure 4) which is similar to the model DS-682 but which has the electronics in a separate enclosure (which may be column-mounted) and a separate model S-WP basework.

The instrument may be battery-powered (using six C-size batteries), or may be mains powered (240V AC nominal), or may be powered by a mains adaptor (Wedderburn model 9VDC500 – the submittor should be consulted regarding the acceptability of alternative power supply units).

The model SW-P baseworks include a membrane between the load cradle and the top cover intended to make the basework water resistant.

The model DS-532 is approved as multi-interval instruments in capacities as listed below:

- with a verification scale interval (e_1) of 0.001 kg up to 3 kg and with a verification scale interval (e_2) of 0.002 kg from 3 kg up to the maximum capacity of 6 kg;
- with a verification scale interval (e_1) of 0.002 kg up to 6 kg and with a verification scale interval (e_2) of 0.005 kg from 6 kg up to the maximum capacity of 15 kg; and
- with a verification scale interval (e_1) of 0.005 kg up to 15 kg and with a verification scale interval (e_2) of 0.01 kg from 15 kg up to the maximum capacity of 30 kg.

The model DS-532 is also approved as single interval instruments in capacities as listed below:

- of 6 kg maximum capacity with a verification scale interval of 0.002 kg;
- of 15 kg maximum capacity with a verification scale interval of 0.005 kg; and
- of 30 kg maximum capacity with a verification scale interval of 0.01 kg.

TECHNICAL SCHEDULE No 6/4D/299

VARIATION No 4

Pattern: Teraoka Shanghai Model Digi DS-682 Weighing Instrument

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

1. Description of Variant 8

The models DS-671 Mk II or DS-671H Mk II which in most respects are the same in appearance and functionality as the models DS-671 or DS-671H (variants 3, 4, or 5).

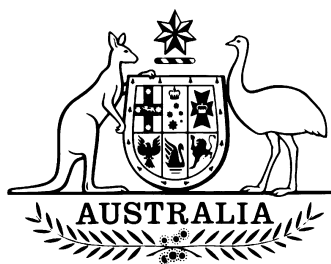
However the models DS-671 Mk II and DS-671H Mk II incorporate differing circuit boards, and the semi-automatic tare device, if fitted, may have a maximum capacity up to the maximum capacity of the instrument. Note that the maximum subtractive tare capacity markings are not required where the tare capacity is the same as the maximum capacity of the instrument.

NOTIFICATION OF CHANGE

In Technical Schedule No 6/4D/299 dated 15 October 2001, clause **1. Description of Pattern** should be amended by adding the following after the last paragraph:

“Note: The submittor should be consulted regarding the acceptability of alternative power supply/charger units.”

6/4D/299
2 April 2002



National Standards Commission

12 Lyonpark Road, North Ryde NSW

Notification of Change

Certificate of Approval No 6/4D/299

Change No 1

The following change is made to the approval documentation for the


Teraoka Shanghai Model Digi DS-682 Weighing Instrument

submitted by W W Wedderburn Pty Ltd
90 Parramatta Road
Summer Hill NSW 2130.

In Technical Schedule No 6/4D/299 dated;15 October 2001, clause **2.3 Variant 3** should be amended by adding the following:

“Instruments may be fitted with a single display only, in which case instruments are marked ‘NOT FOR TRADING DIRECT WITH THE PUBLIC’ (or similar wording).”

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.





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Notification of Change
Certificate of Approval No 6/4D/299
Change No 2

Issued by the Chief Metrologist under Regulation 60
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The following changes are made to the approval documentation for the
Teraoka Shanghai Model Digi DS-682 Weighing Instrument
submitted by W W Wedderburn Pty Ltd
90 Parramatta Road
Summer Hill NSW 2130.

In Certificate of Approval No 6/4D/299 dated 18 May 2004;

1. The Condition of Approval referring to the review of the approval should be amended to read:
"This approval becomes subject to review on 1 August 2011, and then every 5 years thereafter."
2. The FILING ADVICE should be amended by adding the following:
"Notification of Change No 1 dated 2 April 2002
Notification of Change No 2 dated 1 February 2007"

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

A handwritten signature in black ink, appearing to be 'J. G. T.', is written over the signature line.

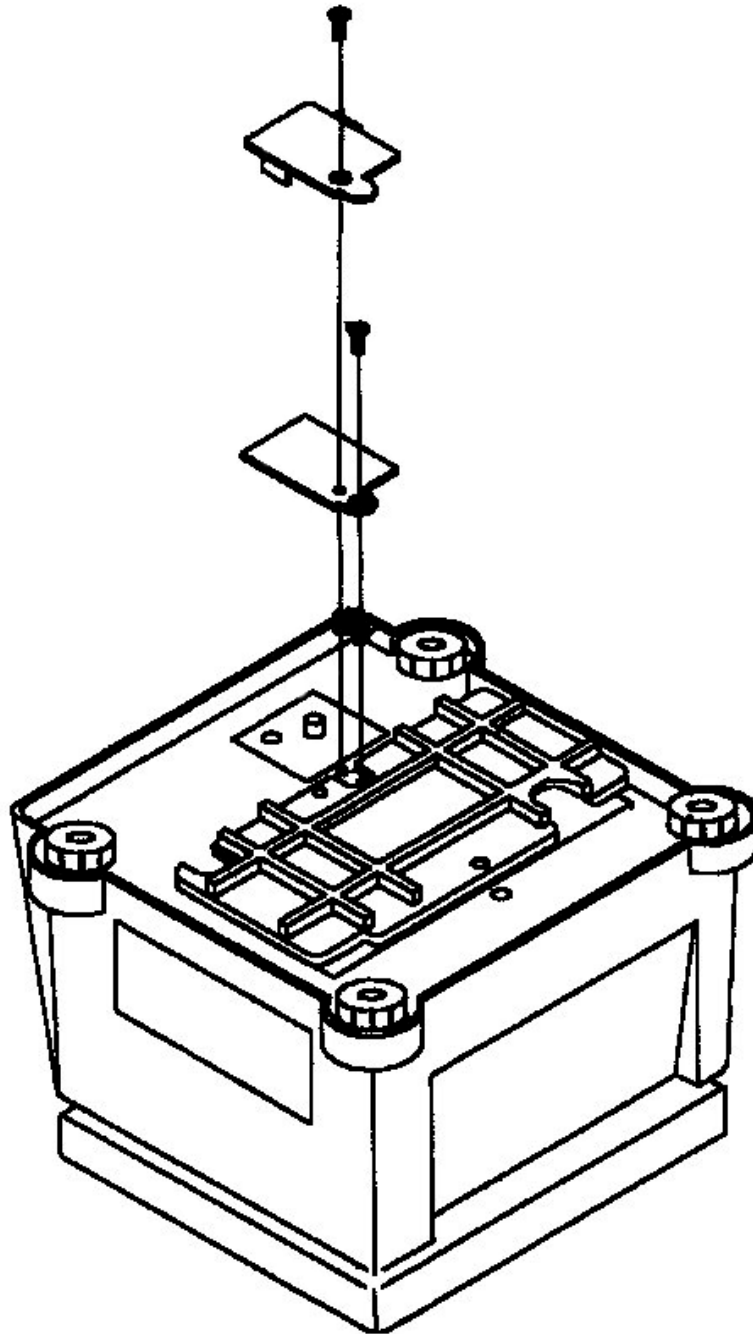
FIGURE 6/4D/299 - 1



Teraoka Shanghai Model Digi DS-682 Weighing Instrument

6/4D/299
15 October 2001

FIGURE 6/4D/299 - 2



Showing Sealing

FIGURE 6/4D/299 - 3



Teraoka Shanghai Model Digi DS-682H Weighing Instrument

FIGURE 6/4D/299 – 4



Teraoka Shanghai Model Digi DS-532 Weighing Instrument