



Australian Government  
Department of Industry,  
Innovation and Science

## National Measurement Institute

### Certificate of Approval

### NMI 6/4C/300

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.

Teraoka Model Digi DS-502 Weighing Instrument

submitted by W W Wedderburn Pty Ltd  
101 Williamson Road  
Ingleburn NSW 2565

**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 October 2015.

This approval becomes subject to review on 1/01/21, and then every 5 years thereafter.

#### DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern & variants 1 & 2 approved – interim certificate issued	22/12/15
1	Pattern & variants 1 & 2 approved – certificate issued	23/05/16

## CONDITIONS OF APPROVAL

### General

Instruments purporting to comply with this approval shall be marked with approval number 'NMI 6/4C/300' and only by persons authorised by the submitter.

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.

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



**Dr A Rawlinson**

## TECHNICAL SCHEDULE No 6/4C/300

### 1. Description of Pattern

approved on 22/12/15

A Teraoka model Digi DS-502 class  $\text{III}$  non-automatic self-indicating ~~price-computing~~ multi-interval weighing instrument (Figure 1a and Table 1) with a verification scale interval ( $e_1$ ) of 0.002 kg up to 6 kg and a verification scale interval ( $e_2$ ) of 0.005 kg from 6 kg up to the maximum capacity of 15 kg.

The instrument may be provided with a single LCD display for the operator, or may also be provided with a customer display integrated into the body of the instrument (Figure 1b). Instruments shall be marked 'NOT FOR TRADING DIRECT WITH THE PUBLIC' (or similar wording) unless two displays are present.

Power for the Digi DS-502 instrument may be supplied by either:

- an AC/DC mains adaptor; or/and
- 4 x C size dry battery.

Note: The AC/DC mains adaptor supplied for the instrument was ENG model 3A-066WP09 switch-mode power supply (output 9 V DC, 0.67 A) – the submitter should be consulted regarding the acceptability of alternative power supply units.

#### 1.1 Zero

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.

A zero-tracking device may be fitted.

#### 1.2 Tare

A semi-automatic subtractive tare device of up to 5.998 kg may be fitted.

#### 1.3 Display Check

A display check is initiated whenever power is applied.

#### 1.4 Levelling

The instrument is provided with adjustable feet and adjacent to the level indicator is a notice stating 'Instrument must be level when in use' or similar wording.

#### 1.5 Sealing Provision

Provision is made for the calibration to be sealed by setting a switch on the main board within the instrument to an OFF position, and then preventing access within the instrument housing (Figure 2).

It is possible to determine that the switch status is in the 'OFF' position as follows:

- Hold down the 'RE-ZERO' key, and press the 'ON/OFF' key three times in weighing mode.

- If the switch is in the 'OFF' position, the instrument will display 'S - off'. In this case the instrument may be verified.
- Otherwise the instrument will display 'S - on' in which case the instrument should not be verified until the switch has been correctly located in the 'LOCK' position.

Sealing to prevent access within the instrument housing may be achieved by using a cover plate and 'lead and wire' type seal with drilled screws or using a destructible label placed over the cover plate underneath the instrument as shown in Figure 2.

## 1.6 Verification Provision

Provision is made for the application of a verification mark.

## 1.7 Software

The software is designated ur 1.xx (where xx refers to the identification of non-legally relevant software).

The software id may be accessed by holding down the 'RE-ZERO' key and then pressing the 'ON/OFF' key three times.

## 1.8 Descriptive Markings and Notices

(a) 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	Ⓜ
Pattern approval mark for the instrument	NMI 6/4C/300
Maximum capacity	<i>Max</i> ...../..... g or kg #1
Minimum capacity	<i>Min</i> ..... g or kg #1
Verification scale interval	<i>e</i> = ...../..... g or kg #1
Maximum subtractive tare	<i>T</i> = - ..... g or kg #2
Serial number of the instrument	.....

#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*.

(b) In addition, instruments shall carry a notice stating NOT FOR TRADING DIRECT WITH THE PUBLIC, or similar wording unless two displays are present.

**2. Description of Variant 1** **approved on 22/12/15**

The pattern as multi-interval instruments of certain other capacities as listed in Table 1 below (the pattern is shown in **bold**).

TABLE 1 – approved multi-interval instruments

Maximum Capacity ( $Max_1 / Max_2$ )	Verification Scale Interval ( $e_1 / e_2$ )	Maximum Subtractive Tare Capacity ( $T = - \dots$ )
1.5 / 3 kg	0.5 / 1g	1.4995 kg
3 / 6 kg	1 / 2 g	2.999 kg
<b>6 / 15 kg</b>	<b>2 / 5 g</b>	<b>5.998 kg</b>
15 / 30 kg	5 / 10 g	14.995 kg

**3. Description of Variant 2** **approved on 22/12/15**

The pattern as single interval instruments of certain capacities as listed in Table 2 below.

TABLE 2– approved single interval instruments

Maximum Capacity ( $Max$ )	Verification Scale Interval ( $e$ )	Maximum Subtractive Tare Capacity ( $T = - \dots$ )
1.5 kg	0.5 g	1.5 kg
3 kg	0.5 g	3 kg
3 kg	1 g	3 kg
6 kg	1 g	6 kg
6 kg	2 g	6 kg
15 kg	2 g	15 kg
15 kg	5 g	15 kg
30 kg	5 g	30 kg
30 kg	10 g	30 kg

TEST PROCEDURE No 6/4C/300

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*.

FIGURE 6/4C/300 – 1

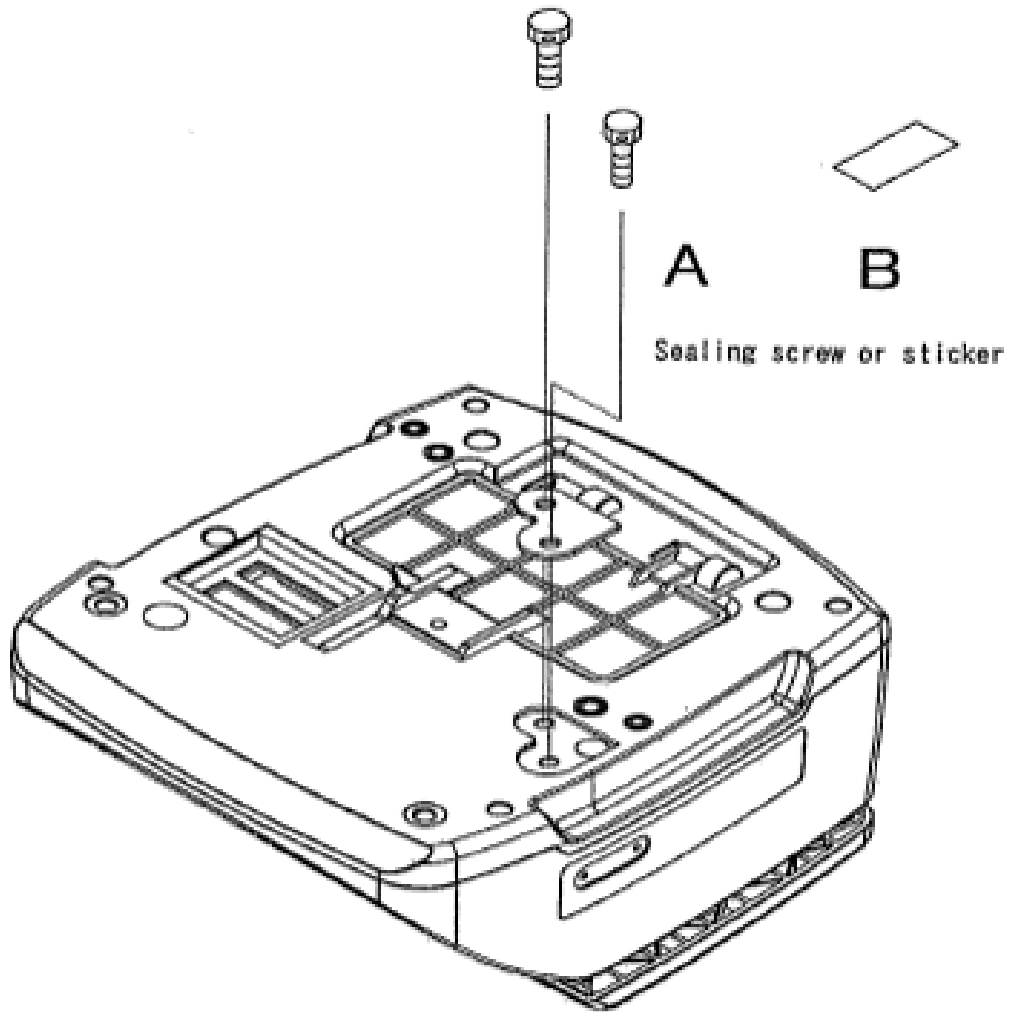


(a) Teraoka Model Digi DS-502 Weighing Instrument (Operator side)



(b) Teraoka Model Digi DS-502 Weighing Instrument (Customer side)

FIGURE 6/4C/300 – 2



Showing Typical Sealing

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