Australian Government
Department of Industry, Innovation and Science

National Measurement Institute

Certificate of Approval

NMI 6/4D/383

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.

CAS Model CL 5500-6P Weighing Instrument

submitted by CAS Corporation
19 Ganap-Ri, Gwangjoek-Myeon
Yangju-Si, Gyeonggi-Do
Republic of Korea

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 to 3 approved – interim certificate issued	22/12/15
1	Pattern & variants 1 to 3 approved – certificate issued	23/06/16

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI 6/4D/383' 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.

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.

Auxiliary devices used with this instrument shall comply with the requirements of General Supplementary Certificate No S1/0B.

Special

Certain aspects of this instrument (in particular transaction record printing formats) are able to be configured by the user. Whilst NMI believes that acceptable formats can be achieved for typical basic sales modes, it is also possible for the instrument to be configured to produce unacceptable formats, and use of some formats may be inappropriate for different sales modes. It is the responsibility of the user to ensure that acceptable and appropriate formats are used in any particular situation.

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 6/4D/383

1. Description of Pattern approved on 22/12/15

A CAS model CL 5500-6P self-indicating multi-interval, class (III) non-automatic price-computing weighing instrument (Figure 1) 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.

Instruments are fitted with one column-mounted seven segment customer displays, and one operator display integral with the main body. There is also a dot matrix supplementary display next to customer display for additional information such as product look up (PLU) description. An integral label printer is fitted.

A semi-automatic subtractive tare device and/or a non-automatic keyboard-entered pre-set subtractive tare device, each of up to 2.999 kg capacity, may be fitted.

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

A separate display of pre-set tare value is provided (marked PT). For both pre-set tare and semi-automatic tare, the tare value is displayed as a negative mass value when the load receptor is empty.

A number of instruments may be connected in a network to share common PLU data, and to accumulate and retrieve management information.

In addition, the network may be interfaced with a computer for the collection of management data, or the downloading of PLU data.

The printed receipt and/or label should comply with NMI R76-1 and NMI S1/0B requirements, in particularly the format and the height of characters.

The platter size of the instrument is 380 mm × 250 mm.

The instrument operates from mains AC power (100-240 V AC, 50/60 Hz). The software version of the instrument is AU V2.xx.x or AU V3.xx.x.

(#) Refer to the Special Condition of Approval.

1.1 Zero

Zero is automatically corrected to within ±0.25e whenever power is applied and whenever the instrument comes to rest within 0.5e of 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.

1.2 Tare

A semi-automatic subtractive tare device and/or a non-automatic keyboard-entered pre-set subtractive tare device, each of up to 2.999 kg capacity, may be fitted.

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

A separate display of pre-set tare value is provided (marked PT). For both pre-set tare and semi-automatic tare, the tare value is displayed as a negative mass value when the load receptor is empty.

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 Networking

A number of instruments may be connected in a network to share common PLU data, and to accumulate and retrieve management information.

In addition, the network may be interfaced with a computer for the collection of management data, or the downloading of PLU data.

Note: The weighing and price computing functions of each weighing instrument in the network are independent, and the removal, repair or replacement of a particular weighing instrument does not necessitate re-verification of any other weighing instrument in the network.

1.6 Verification Provision

Provision is made for the application of a verification mark.

1.7 Sealing Provision

Provision is made for access to the 'calibration switch' (which is located below a cover plate underneath the platter and its support plate) to be sealed as shown in Figure 2. Sealing may be by either a lead and wire type seal or destructible adhesive label.

1.8 Descriptive Markings

Instruments carry the following markings:

Manufacturer's mark, or name written in full	CAS, Korea
Name or mark of manufacturer's agent	……..
Indication of accuracy class	(III)
Pattern approval mark for the instrument	NMI 6/4D/383
Maximum capacity	*Max*…… g or kg #1
Minimum capacity	*Min*……. g or kg #1
Verification scale interval	*e* = ……... g or kg #1
Maximum subtractive tare	*T* = - ….. 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*.

1.9 Printing Tickets and Labels

The Instrument has a printer for printing ticket or label. The instrument should prevent printing of label under minimum capacity when the instrument is used for prepack by weight purpose. The printing function of the instrument should comply with requirements of NMI R76-1 and NMI S1/0B, in particularly the print format and the height of characters which relating to measurement and metrological functions.

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

The pattern with different capacities is listed in the Table 1 below. Note: the metrological characteristics in **bold** font are the pattern.

TABLE 1

	CL5500-P					
Max. capacity (kg)	**3/6**	6	6/15	15	15/30	30
Min. capacity (g)	**20**	40	40	100	100	200
Verification interval, e (g)	**1 / 2**	2	2 / 5	5	5 / 10	10
Tare ≤ (kg)	**- 2.999**	- 6	- 5.998	- 15	- 14.995	- 30
E_{max} (kg)	**6**	6	15	15	30	30

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

Certain other models of the CL 5500 series as listed below:

(i) Model CL 5500-B (Figure 3) which has similar metrological characteristics and functions as the pattern and variant 1 except that the operator and customer displays are integral within the main body of the instrument.

(ii) Model CL 5500-R (Figure 4) which has similar metrological characteristics and functions as the pattern and variant 1 except different customer display.

(iii) Model CL 5500-H (Figure 5) which has similar metrological characteristics and functions as the pattern and variant 1, but it is a freely-suspended instrument.

(iv) Model CL 5500-S (Figure 6) which has similar metrological characteristics and functions as the pattern and variant 1 except there is an additional PLU keys set on the column display for self-service.

(v) Model CL 5500-D (Figure 7) which has similar metrological characteristics and functions as the pattern and variant 1 except the control panel, operator display and customer display are mounted on a column.

3.1 Sealing Provision

Provision is made for access to the ‘calibration switch’ to be sealed as shown in Figures 8a and 8b. Sealing may be by either a lead and wire type seal or destructible adhesive label.

4. Description of Variant 3 approved on 22/12/15

The pattern and variants may be fitted with certain alternative load receptors known as ‘large tray’ (440 × 275 mm, nominal) or ‘fish tray’ (430 × 289 mm, nominal) (Figures 9a and 9b).

TEST PROCEDURE No 6/4D/383

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*.

For multi-interval instruments with verification scale intervals of *e1*, *e2* …, apply *e1* for zero adjustment, and maximum permissible errors apply *e1*, *e2* …, as applicable for the load.

FIGURE 6/4D/383 – 1

CAS Model CL 5500-6P Weighing Instrument (Pattern)

FIGURE 6/4D/383 – 2

Showing Typical Sealing of the Model Cl 5500-6P (Pattern)

FIGURE 6/4D/383 – 3

CAS Model CL 5500-B Weighing Instrument (Variant 2)

FIGURE 6/4D/383 – 4

CAS Model CL 5500-R Weighing Instrument (Variant 2)

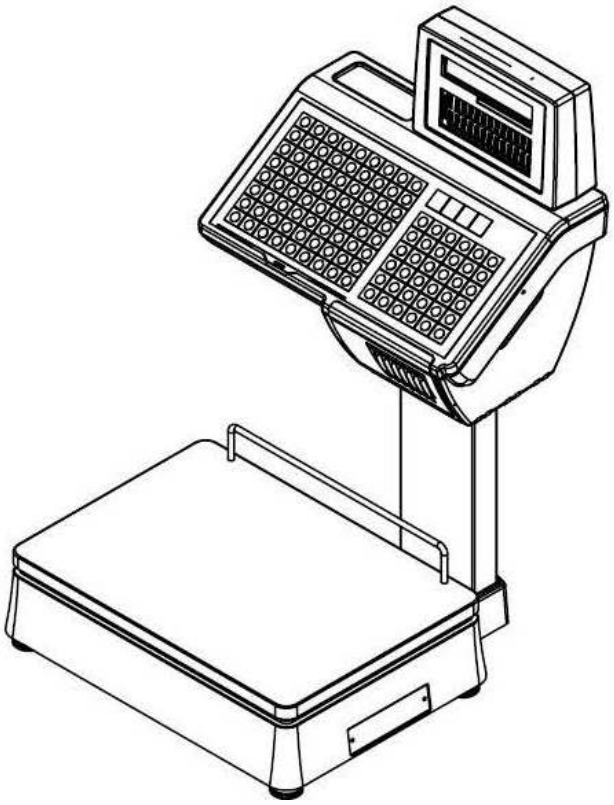
FIGURE 6/4D/383 – 5

CAS Model CL 5500-H Weighing Instrument (Variant 2)

FIGURE 6/4D/383 – 6

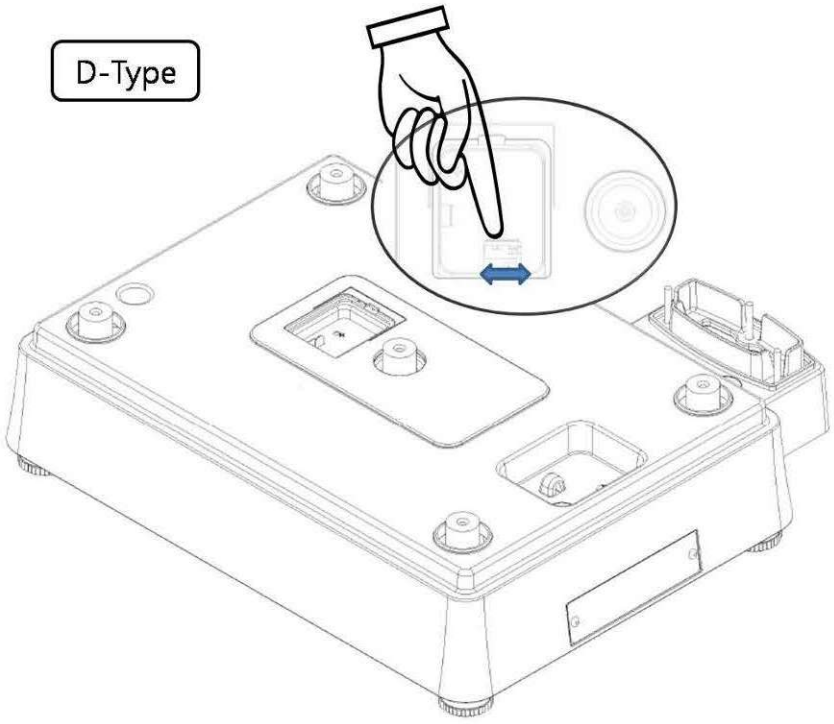
CAS Model CL 5500-S Weighing Instrument (Variant 2)

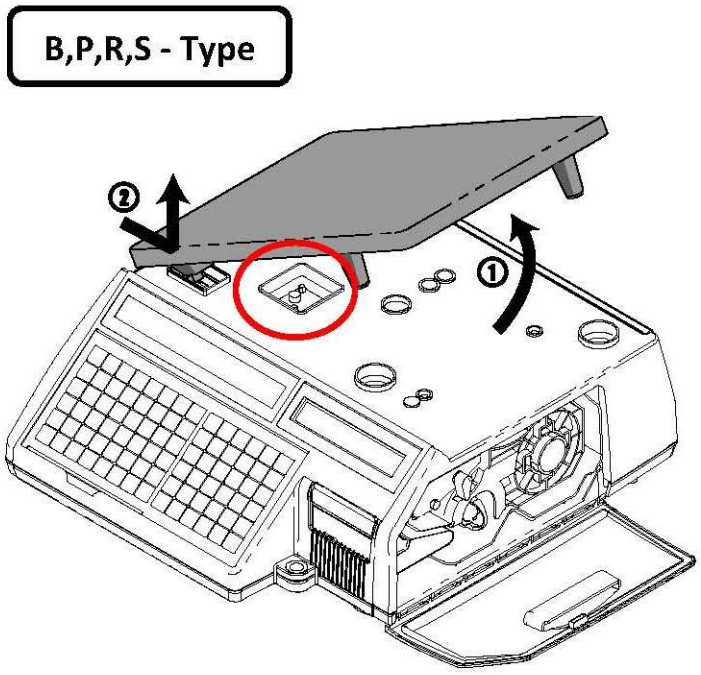
FIGURE 6/4D/383 – 7



CAS Model CL 5500-D Weighing Instrument (Variant 2)

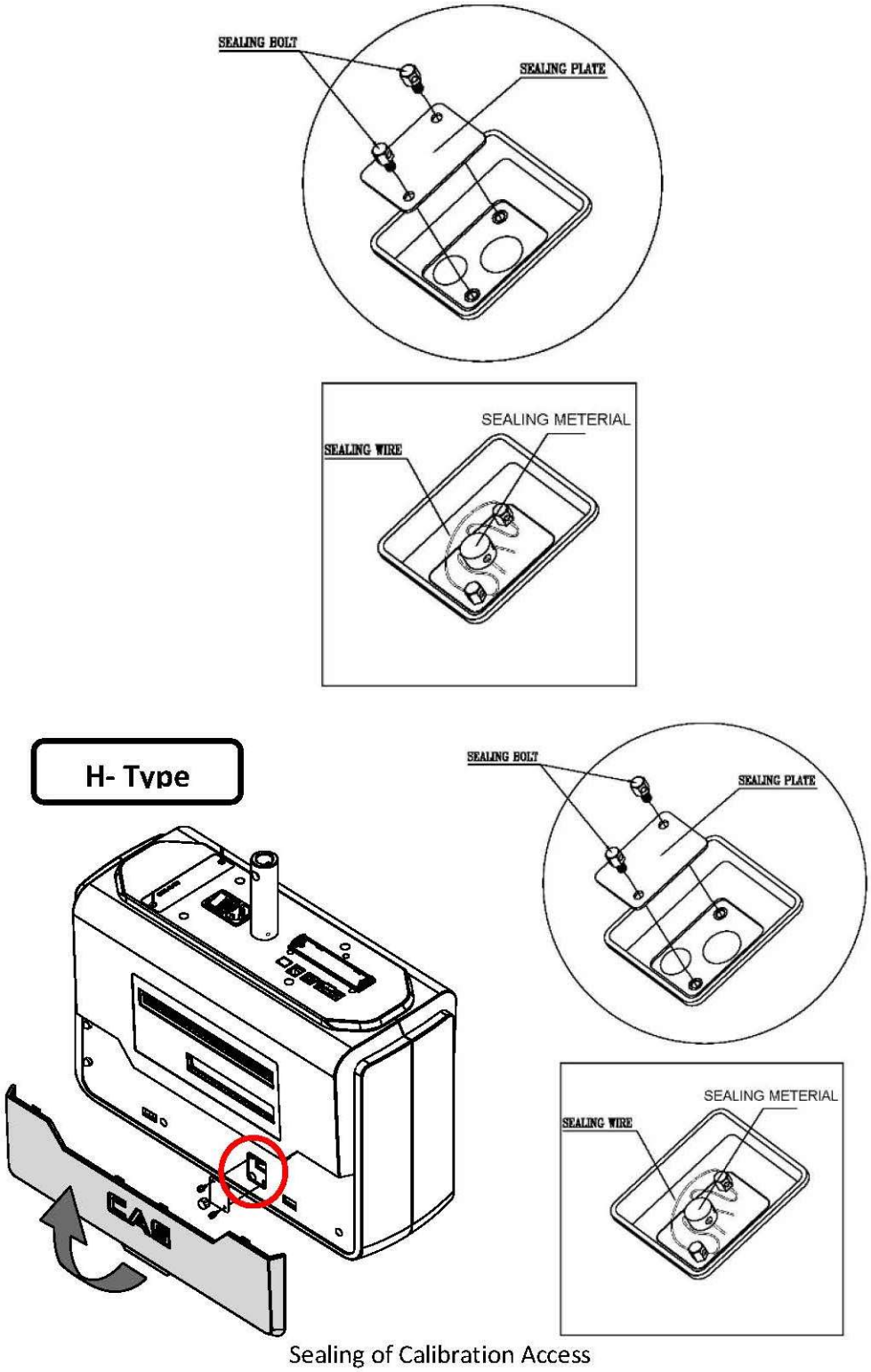
FIGURE 6/4D/383 – 8a





(a) Showing Typical Sealing of the Model CI 5500 Types B, P, R, S and D (Variant 2)

FIGURE 6/4D/383 – 8b



Sealing of Calibration Access

(b) Showing Typical Sealing of the Model CI 5500 Type H (Variant 2)

FIGURE 6/4D/383 – 9

(a) Alternative load receptor, known as ‘large tray’ (Variant 3)

(b) Alternative load receptor, known as ‘fish tray’ (Variant 3)

~ End of Document ~