Australian Government
Department of Industry, Innovation and Science

National Measurement Institute

Certificate of Approval
NMI 6/4C/238

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.

Shinko Denshi Vibra Model HJR-62KDSCE 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 July 2004.

This approval becomes subject to review on **1/10/21**, and then every 5 years thereafter.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern & variant 1 approved – certificate issued	10/10/05
1	Pattern & variant 1 reviewed & amended (address) – notification of change issued	21/01/11
2	Pattern & variant 1 **reviewed** & updated (power supply) – certificate issued	6/12/16

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI 6/4C/238' 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.

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

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

Mario Zamora

TECHNICAL SCHEDULE No 6/4C/238

1. Description of Pattern approved on 10/10/05

The Shinko Denshi Vibra model HJR-62KDSCE weighing instrument of high accuracy class (II) (Figure 1 and Table 1) of 62 kg maximum capacity.

Instruments have an auxiliary indicating device (a differentiated scale division (digit) which is shown in 'brackets' (Figure 1) in the display) with a value as shown in the 'd' column of Table 1 for the first 6200 g of the instrument capacity.

The instrument uses tuning fork sensor technology and has a vacuum fluorescent display (LCD). The display may be attached directly to the weighing unit or may be located up to 2m away from the weighing unit (Figure 1).

The instrument is approved for use over a temperature range of +5°C to +35°C, and is so marked.

The AC/DC mains adaptors supplied were a Wedderburn model 12VDC2A (12 V DC, 2 A), or a Powermaster model 42D12350P switch mode 12VDC 3.5 Amp power adaptor (to comply with MEPS requirements); the submittor should be consulted regarding the acceptability of alternative power supply units.

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

1.1 Zero and Tare

Instruments have an initial zero-setting device with a nominal range of not more than 20% of the maximum capacity of the instrument.

Instruments have a combined semi-automatic zero-setting and subtractive tare balancing device (operated by the 'Zero/Tare' key). Operation of this device zeroes the instrument if the load is within the zero-setting range (up to 4% of the maximum capacity of the instrument), otherwise the instrument is tared. The subtractive taring device operates up to the maximum capacity of the instrument.

A zero-tracking device may also operate to automatically correct to within ±0.5*d* (or ±0.25*e* when tared and net displayed) whenever the instrument comes to rest with the display indicating zero (including net zero).

1.2 Alternative Units

(i) Kilograms

Instruments may be operated displaying kilograms (kg) rather than grams (g). Parameters are as for grams operation. The markings will be provided in kilograms.

(ii) Other units

Use of units other than kilograms (kg) or grams (g) are not approved for trade use.

1.3 Management Functions

Instruments may be fitted with a number of additional functions which display values that are not weighing results (e.g. counting or percentage). The displays of such values are identified by symbols, e.g. 'pcs', '%'.

These functions and displays are not approved for trade use.

1.4 Display Check

A display check is initiated when the instruments are switched on.

1.5 Levelling

Instruments are provided with adjustable feet and a level indicator.

1.6 Internal Self-Calibration System

Instruments are fitted with an internal ‘calibration’ system. This comprises an internal calibration mass that may be applied to the instrument in an automatic adjustment cycle that is initiated manually by pressing a key. The instrument has facilities for advising an operator when this ‘calibration’ cycle should be utilised.

1.7 Descriptive Markings and Notices

The instrument model number is shown on the instrument nameplate.

Instruments are marked with the following data, together in one location, in the form shown at right:

Manufacturer’s mark, or name written in full	Shinko Denshi Co. Ltd
Name or mark of manufacturer’s agent	WEDDERBURN
Indication of accuracy class	(M)
Pattern approval number for the instrument	NMI 6/4C/238
Maximum capacity	*Max* ..... g *
Minimum capacity	*Min* ..... g *
Verification scale interval	*e* = ... g *
Actual scale interval	*d* = ... g *
Serial number of the instrument	.....
Special temperature limits	+5°C to +35°C

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

In addition, instruments shall carry a notice stating NOT TO BE USED FOR TRADING DIRECT WITH THE PUBLIC, or similar wording.

1.8 Verification Provision

Provision is made for the application of a verification mark.

1.9 Sealing Provision

Sealing of the calibration adjustment switch is provided by the use of a destructible adhesive label on the underside of the indicator; another label prevents access to the inside casing of the indicator. The weighing unit cover and the corner error adjustment cover in the basework are also sealed with destructible adhesive labels (Figures 2 and 3).

Where instruments are provided with an integral ‘self-calibration system’, sealing of the instrument does not prevent operation of this system. However the system uses data regarding the value of the internal mass, and alteration of that data is prevented.

2. Description of Variant 1 approved on 10/10/05

Certain other models of Shinko Denshi HJ series high accuracy class weighing instruments as described below and as listed in Table 1 (Figures 1 and 4).

- Without the internal self-calibration system described for the pattern (model HJ**R**-62KDSCE). The absence of 'R' in the model number indicates this.
- In certain other capacities as indicated by the numerals in the model number, namely of 17 or 33 kg maximum capacity.
- With a differentiated scale division (digit) as described for the pattern. The presence of 'D' in the model number indicates a differentiated digit through the first 6.2 kg of the instrument capacity range, e.g. (the pattern, model HJR-62K**D**SCE).
- With a differentiated digit with a limited range of 7kg but operated such that the differentiated digit will appear from the point at which the instrument is zeroed or tared (also known as "net zero"). This feature is represented by a 'T' in the model number, e.g. (model HJR-33K**T**SCE).
- Certain models as listed in Table 1 with a differentiated digit feature through the full instrument capacity range.
- Certain models as listed in Table 1 without a differentiated digit feature. Instruments have either the standard display as described for the pattern (model HJR-62KD**S**CE) or have a column-mounted display (Figure 4); the absence of 'S' in the model number indicates the column-mounted display

TEST PROCEDURE

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 the *National Trade Measurement Regulations 2009*.

Ensure that instruments are only being used within the special temperature limits stated elsewhere in this Technical Schedule.

For instruments with an internal self-calibration facility

Prior to verification/certification ensure that the instrument has been adjusted by the internal self-calibration system by pressing the 'CAL' key until 'Auto Cal' appears, and then allow the calibration procedure to proceed to completion (with no load on the tray).

TABLE 1

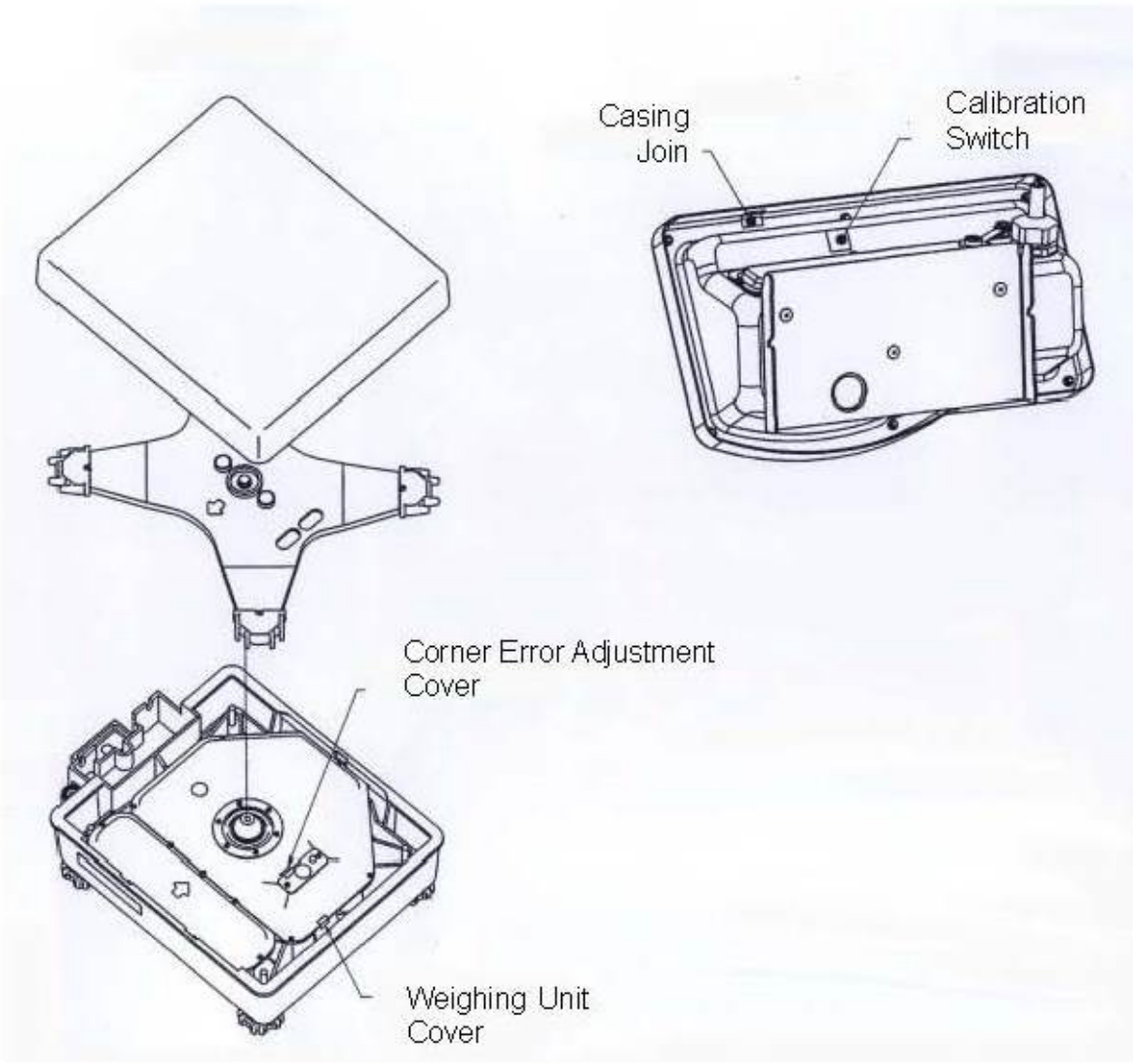
Model	Maximum Capacity (*Max*)	Minimum Capacity (*Min*)	Verification Scale Interval (*e*)	Scale Interval (*d*)	Internal Calibration Mass
		With A Differentiated Digit Feature Up To 6.2 kg			
HJ-62KDCE	62 kg	5 g	1 g	0.1 g	N
HJR-62KDCE	62 kg	5 g	1 g	0.1 g	Y
HJ-62KDSCE	62 kg	5 g	1 g	0.1 g	N
HJR-62KDSCE	62 kg	5 g	1 g	0.1 g	Y
		With A Differentiated Digit Feature Up To 7 kg After Tare Applied			
HJ-33KTCE	33 kg	5 g	1 g	0.1 g	N
HJR-33KTCE	33 kg	5 g	1 g	0.1 g	Y
HJ-33KTSCE	33 kg	5 g	1 g	0.1 g	N
HJR-33KTSCE	33 kg	5 g	1 g	0.1 g	Y
		With A Differentiated Digit Feature Up To Full Capacity			
HJ-17KCE	17 kg	5 g	1 g	0.1 g	N
HJ-22KCE	22 kg	5 g	1 g	0.1 g	N
HJ-33KCE	33 kg	5 g	1 g	0.1 g	N
HJR-17KCE	17 kg	5 g	1 g	0.1 g	Y
HJR-22KCE	22 kg	5 g	1 g	0.1 g	Y
HJR-33KCE	33 kg	5 g	1 g	0.1 g	Y
HJ-17KSCE	17 kg	5 g	1 g	0.1 g	N
HJ-22KSCE	22 kg	5 g	1 g	0.1 g	N
HJ-33KSCE	33 kg	5 g	1 g	0.1 g	N
HJR-17KSCE	17 kg	5 g	1 g	0.1 g	Y
HJR-22KSCE	22 kg	5 g	1 g	0.1 g	Y
HJR-33KSCE	33 kg	5 g	1 g	0.1 g	Y
		Without A Differentiated Digit Feature			
HJ-62KCE	62 kg	50 g	1 g	1 g	N
HJR-62KCE	62 kg	50 g	1 g	1 g	Y
HJ-62KSCE	62 kg	50 g	1 g	1 g	N
HJR-62KSCE	62 kg	50 g	1 g	1 g	Y

Approved Models of the HJ Series

FIGURE 6/4C/238 – 1

Shinko Denshi Vibra Model HJR-62KDSCE Weighing Instrument and Indicator
Showing Differentiated Digit Display

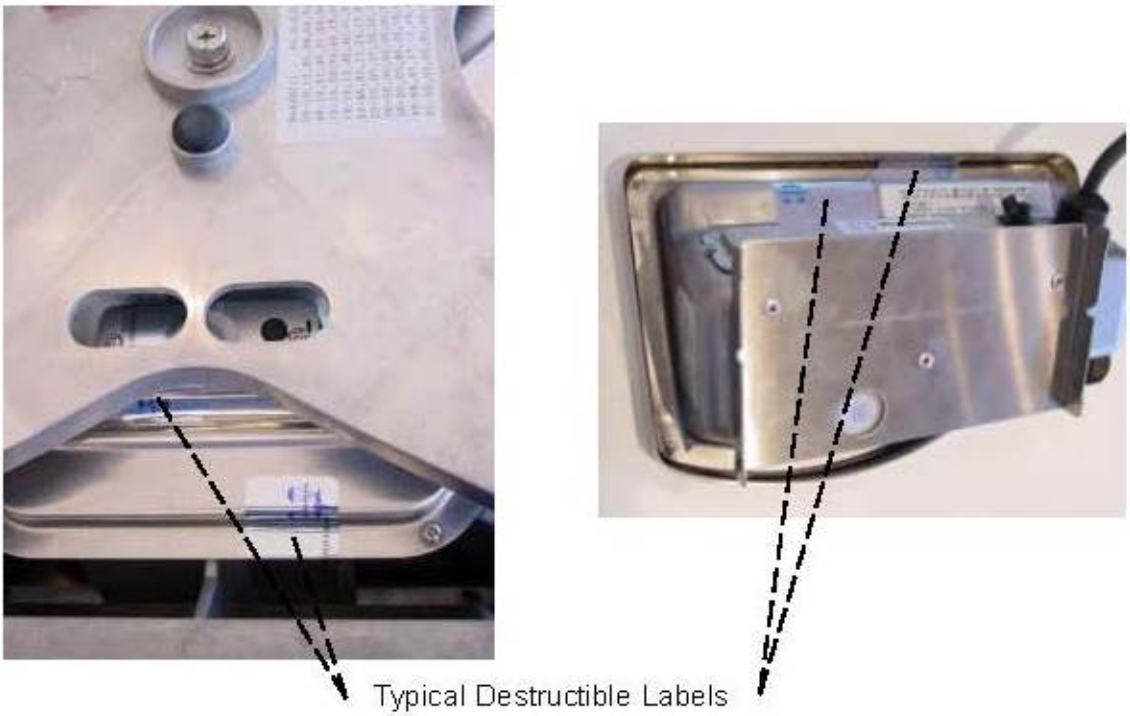
FIGURE 6/4C/238 – 2



Showing Sealing Locations

FIGURE 6/4C/238 – 3

Detailing Corner Error Adjustment Cover Label Location



Typical Destructible Labels

Showing Sealing on Basework (upper photo and at left) and Indicator (at right)

FIGURE 6/4C/238 – 4

Typical Instrument With Column-mounted Indicator

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