

6/9C/240A
24 June 2003



National Standards Commission

12 Lyonpark Road, North Ryde NSW

Cancellation

Certificate of Approval No 6/9C/240A

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

A & D Mercury Model FW-600KA3 Weighing Instrument

submitted by A & D Mercury Pty Ltd
32 Dew Street
Thebarton SA 5031

has been cancelled in respect of new instruments as from 1 July 2003.

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.

A handwritten signature in black ink, appearing to be 'J. H. C.', written on a light-colored background.

National Standards Commission



Certificate of Approval

No 6/9C/240A

Issued under Regulation 9
of the
National Measurement (Patterns of Measuring Instruments) Regulations

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

A & D Mercury Model FW-600KA3 Weighing Instrument

submitted by A & D Mercury Pty Ltd
 32 Dew Street
 Thebarton SA 5031.

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 Certificate is issued upon completion of a review of NSC approval No 6/9C/240.

CONDITIONS OF APPROVAL

This approval becomes subject to review on 1 March 2002, and then every 5 years thereafter.

Instruments purporting to comply with this approval shall be marked NSC No 6/9C/240A and only by persons authorised by the submittor.

.../2

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

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 Commission 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 the Commission's Document 106.

The Commission reserves the right to examine any instrument or component of an instrument purporting to comply with this approval.

DESCRIPTIVE ADVICE

Pattern: approved 18 February 1997

- An A & D Mercury model FW-600KA3 self-indicating weighing instrument of 600 kg maximum capacity and approved for use with up to 3000 verification scale intervals.

Variants: approved 18 February 1997

1. With a load receptor of nominal sizes up to 1200 x 1800 mm.
2. Model FW-600KB3L basework with a compatible Commission-approved indicator.

Technical Schedule No 6/9C/240A describes the pattern and variants 1 & 2.

FILING ADVICE

The documentation for this approval comprises:

Certificate of Approval No 6/9C/240A dated 16 May 1997
Technical Schedule No 6/9C/240A dated 16 May 1997 (incl. Test
Procedure & Table 1)
Figures 1 to 3 dated 16 May 1997

Signed and sealed by a person authorised under Regulation 9 of the National Measurement (Patterns of Measuring Instruments) Regulations to exercise the powers and functions of the Commission under this Regulation.

National Standards Commission

TECHNICAL SCHEDULE No 6/9C/240A

Pattern: A & D Mercury Model FW-600KA3 Weighing Instrument.

Submitter: A & D Mercury Pty Ltd
32 Dew Street
Thebarton SA 5031.

1. Description of Pattern

An A & D Mercury model FW-600KA3 self-indicating weighing instrument (Figure 1) of 600 kg maximum capacity and approved for use with up to 3000 verification scale intervals.

1.1 Basework

The model KA3 basework (Figure 1) has the load receptor fully supported by two load cells.

The load receptor has maximum nominal dimensions of 1200 x 1200 mm.

1.2 Load Cells

Two A & D model LC4204-K300 load cells of 300kg capacity are used, mounted as shown in Figure 2.

1.3 Indicator

An A & D model FW digital indicator (Figure 3) is used.

The indicator, which may be remote from the basework, may be fitted with an output socket for the connection of an auxiliary or a peripheral device.

A display check is initiated whenever power is applied.

1.3.1 Zero

Zero is automatically corrected to within $\pm 0.25e$ whenever the instrument comes to rest within $0.5e$ of zero. If the instrument comes to rest outside that range but within the zero reset range, zero is reset by use of the zero button.

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

1.3.2 Tare

A semi-automatic subtractive taring device of up to the maximum capacity of the instrument may be fitted.

1.3.3 Set Point

Instruments may be fitted with a set point function, whereby HI and LO set points may be entered by means of the SET, HI/LO/S.SIZE and MODE (or UNIT) buttons.

1.4 Verification/Certification Provision

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

1.5 Sealing Provision

Provision is made for the calibration adjustments in the indicator to be sealed by means of sealing the calibration cover located inside the indicator.

1.6 Markings

An instrument shall carry the following markings, in the form shown at right:

Manufacturer's mark, or name written in full	
Indication of accuracy class	Ⓜ
Maximum capacity	Max kg *
Minimum capacity	Min kg *
Verification scale interval	e = kg *
Serial number of the instrument	
Pattern approval mark for the instrument	NSC No 6/9C/240A

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

2. Description of Variants

2.1 Variant 1

With a load receptor of nominal sizes up to 1200 x 1800 mm.

2.2 Variant 2

The A & D Mercury model FW-600KB3L basework connected to a compatible Commission-approved single-interval indicator provided that a satisfactory analysis report (using the calculations included in clauses 6.3 to 6.6 of General Certificate of Approval No 6B/0 dated 13 March 1992) is completed.

The limiting characteristics of the basework is given in Table 1.

TEST PROCEDURE

Instruments should be tested in accordance with any relevant tests specified in the Inspector's Handbook.

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:

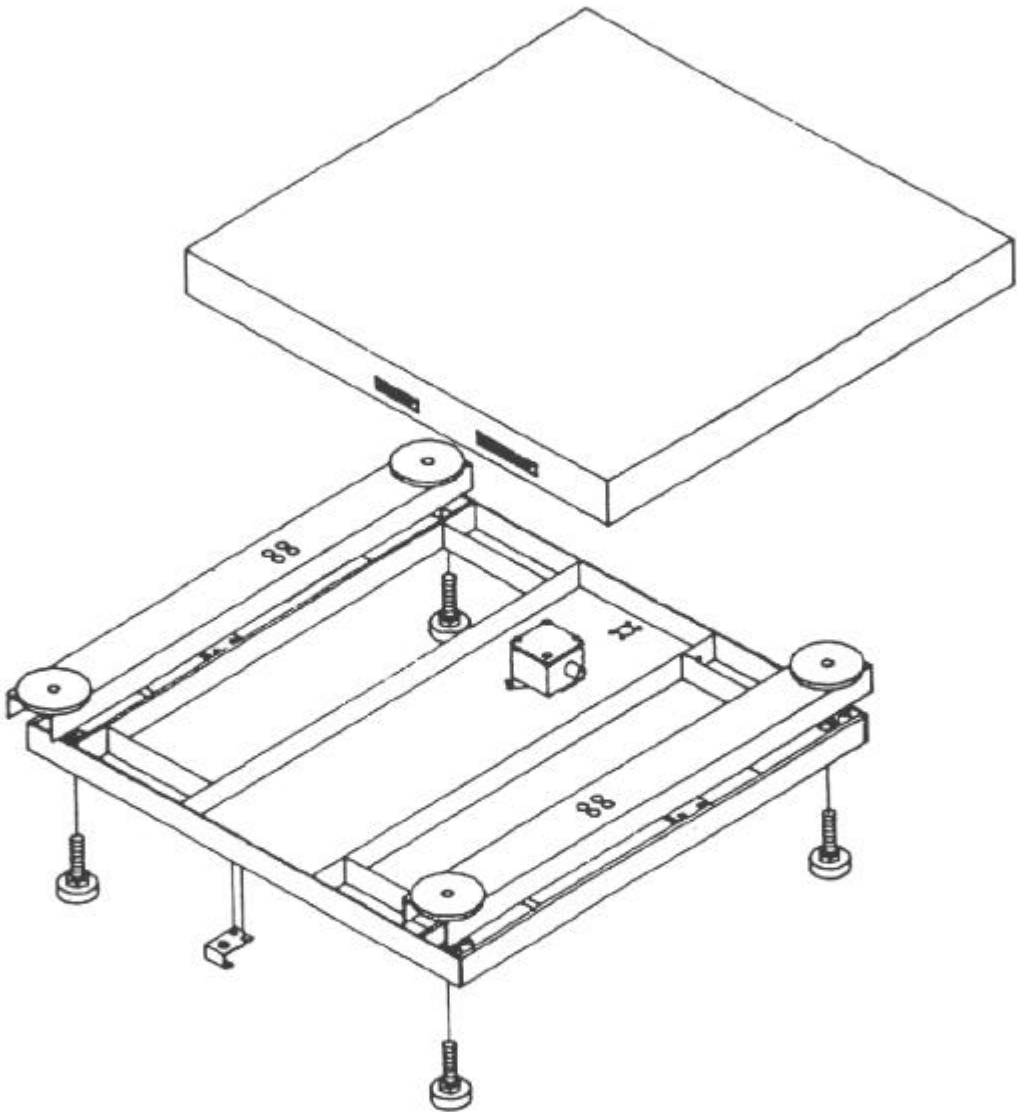
- $\pm 0.5e$ for loads $0 \leq m \leq 500$;
- $\pm 1.0e$ for loads $500 < m \leq 2\,000$; and
- $\pm 1.5e$ for loads $2\,000 < m \leq 10\,000$.

TABLE 1

Model: (*)	FW-600KB3L
Maximum capacity	600 kg
Maximum number of verification scale intervals	3000
Minimum value of verification scale interval	0.2 kg
Load cells:	
Number of load cells	2
Output rating (nominal)	1.5 mV/V
Input impedance (nominal)	400 Ω
Supply voltage (AC or DC)	12 V
Cable length (± 0.1 m)	5 m
Number of leads (plus shield)	4
Maximum load receptor (mm)	1200x1200

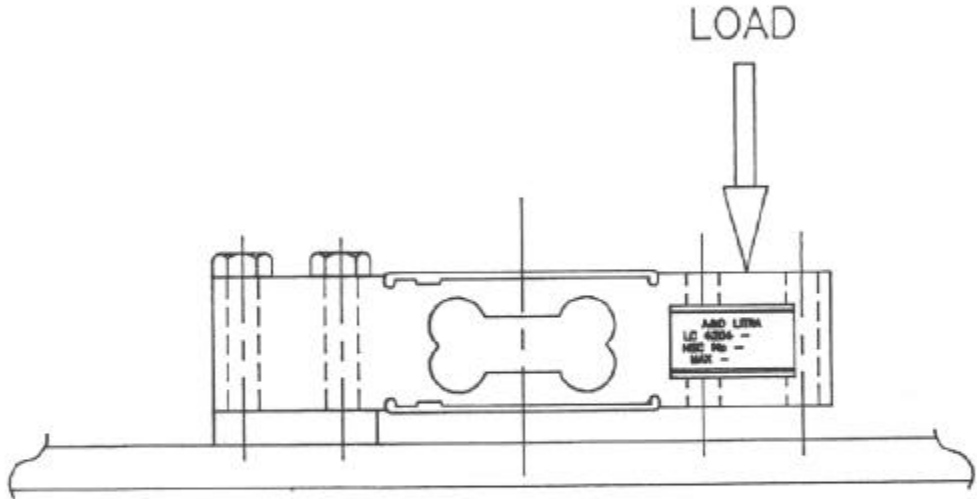
(*) The basework may also be known as a model HW-600KB3L.

FIGURE 6/9C/240A - 1



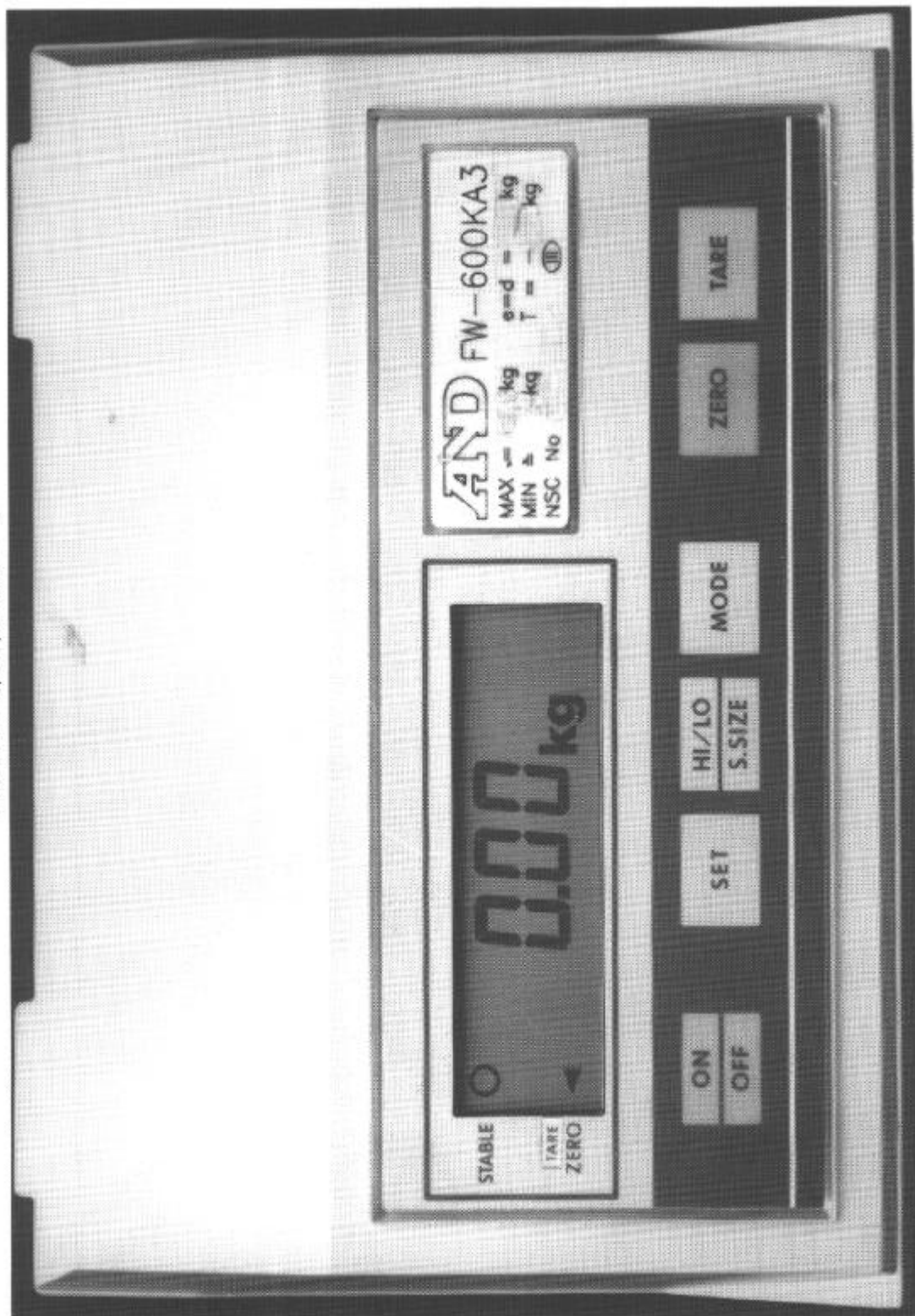
A & D Mercury Model KA3 Basework

FIGURE 6/9C/240A - 2



Showing Load Cell Mounting - Model KA3 Basework

FIGURE 6/9C/240A - 3



A & D Model FW Digital Indicator