

6/4C/85
10 December 2001



National Standards Commission

12 Lyonpark Road, North Ryde NSW

Cancellation Certificate of Approval

No 6/4C/85

Issued 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

A & D Model AP-30 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 January 2002.

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.



National Standards Commission



Certificate of Approval

No 6/4C/85

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 Model AP-30 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.

CONDITIONS OF APPROVAL

This approval is subject to review on or after 1 February 1999.
This approval expires in respect of new instruments on 1 February 2000.

Instruments purporting to comply with this approval shall be marked NSC No 6/4C/85 and only by persons authorised by the submitter.

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

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.

Special:

Instruments shall only be used within the approved temperature range of 5°C to 35°C.

DESCRIPTIVE ADVICE

Pattern: approved 14 January 1994

- An A & D model AP-30 multi-range self-indicating weighing instrument of 30 kg maximum capacity.

Technical Schedule No 6/4C/85 describes the pattern.

Variants: approved 9 December 1994

1. A model AP-15 weighing instrument of 15 kg maximum capacity.
2. A model DR-30 weighing instrument of 30 kg maximum capacity.

Technical Schedule No 6/4C/85 Variation No 1 describes variants 1 and 2.

FILING ADVICE

Certificate of Approval No 6/4C/85 dated 14 April 1994 is superseded by this Certificate and may be destroyed. The documentation for this approval now comprises:

Certificate of Approval No 6/4C/85 dated 31 January 1995
Technical Schedule No 6/4C/85 dated 14 April 1994 (incl. Test Procedure)
Technical Schedule No 6/4C/85 Variation No 1 dated 31 January 1995
Figures 1 and 2 dated 14 April 1994

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 6/4C/85

Pattern: AND Model AP-30 Weighing Instrument.

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

1. Description of Pattern

An AND model AP-30 multi-range self-indicating weighing instrument (Figures 1 and 2) with a verification scale interval (e_1) of 0.001 kg up to 2 kg and with a verification scale interval (e_2) of 0.01 kg from 2 kg up to the maximum capacity of 30 kg.

The instrument automatically changes to the higher range when the load on the receptor is greater than 2 kg; after changing to that range, the verification scale interval remains as e_2 (0.01 kg) until the instrument returns to zero load.

Instruments are fitted with an AND model FS-30KAP load cell of 30 kg capacity.

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 instrument has an initial zero-setting device with a nominal range of up to 13.5% of the maximum capacity of the instrument.

1.2 Display Check

A display check is initiated whenever power is applied.

1.3 Levelling

The instrument is provided with adjustable feet and a level indicator.

1.4 Verification/Certification Provision

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

1.5 Sealing Provision

Provision is made at the rear of the indicator for the calibration switch to be sealed.

1.6 Markings

Instruments are marked with the following data, together in one location:

Manufacturer's name or mark
Serial number
NSC approval number
Accuracy class
Maximum capacity
Minimum capacity
Verification scale interval
Special temperature limits

NSC No 6/4C/85
III
Max / kg *
Min kg *
e = / kg *
5°C / 35°C

* Repeated adjacent to each reading face.

TEST PROCEDURE

Instruments should be tested in conjunction 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, expressed in terms of verification scale interval (e), with the instrument adjusted to zero within $\pm 0.25e$ at no load, are:

- $\pm 0.5e$ for loads from 0 to $500e$;
- $\pm 1.0e$ for loads over $500e$ up to $2000e$; and
- $\pm 1.5e$ for loads over $2000e$.

For multi-range 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. (Refer Clause 1. Description of Pattern.)



National Standards Commission

TECHNICAL SCHEDULE No 6/4C/85

VARIATION No 1

Pattern: A & D Model AP-30 Weighing Instrument.

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

1. Description of Variants

1.1 Variant 1

An A & D model AP-15 multi-range self-indicating weighing instrument with a verification scale interval (e_1) of 0.001 kg up to 2 kg and with a verification scale interval (e_2) of 0.01 kg from 2 kg up to the maximum capacity of 15 kg.

Instruments shall be marked in accordance with clause 1.6 **Markings** in Technical Schedule No 6/4C/85 dated 14 April 1994, including the Special Temperature Limits '5°C / 35°C'.

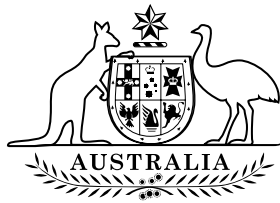
1.2 Variant 2

An A & D model DR-30 multi-range self-indicating weighing instrument with a verification scale interval (e_1) of 0.001 kg up to 2 kg and with a verification scale interval (e_2) of 0.01 kg from 2 kg up to the maximum capacity of 30 kg.

This instrument is similar to the pattern but has a single display.

Instruments shall be marked in accordance with clause 1.6 **Markings** in Technical Schedule No 6/4C/85 dated 14 April 1994, including the Special Temperature Limits '5°C / 35°C'.

In addition, instruments shall be marked **NOT FOR RETAIL COUNTER USE**, or similar wording.



National Standards Commission

Notification of Change

Certificate of Approval No 6/4C/85

Change No 1

The following change is made to the approval documentation for the

A & D Model AP-30 Weighing Instrument

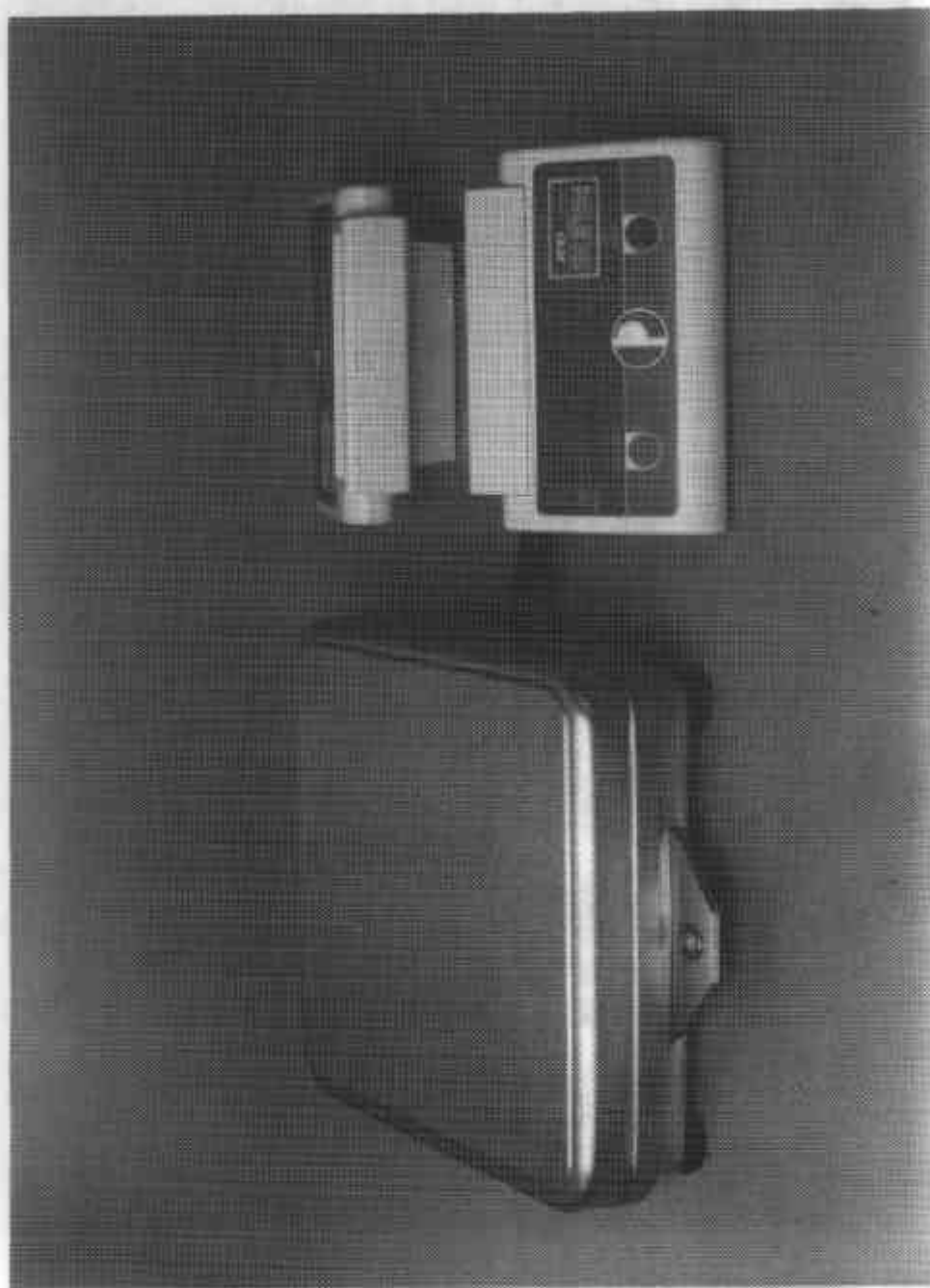
submitted by A & D Mercury Pty Ltd
32 Dew Street
Thebarton SA 5031.

In Certificate of Approval No 6/4C/85 dated 31 January 1995, the Condition of Approval referring to the expiry of the approval should be deleted.

Signed and sealed by a person authorised under Regulation 63 of the National Measurement Regulations 1999 to exercise the powers and functions of the Commission under this Regulation.

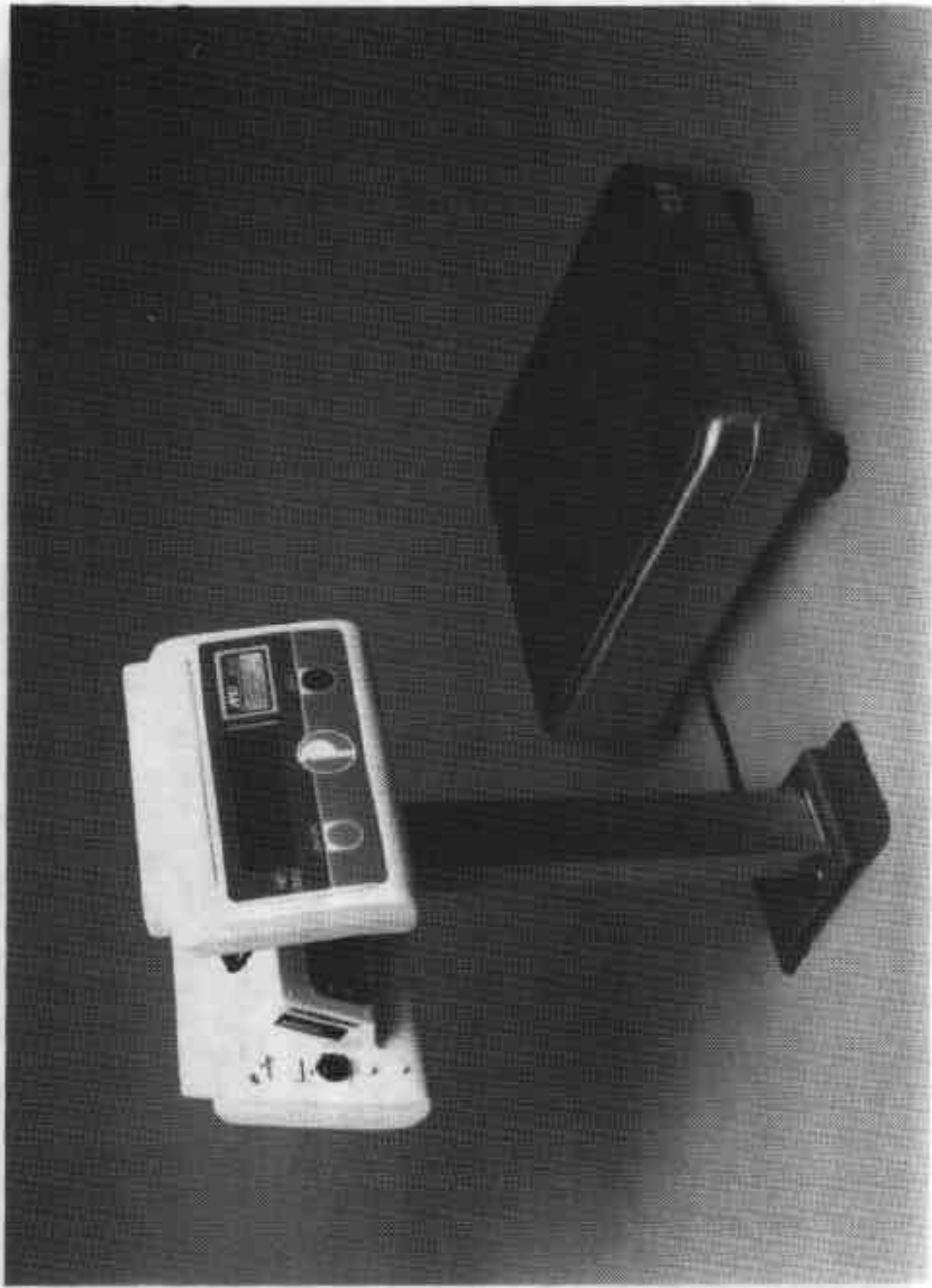
A handwritten signature in black ink, consisting of a large, stylized initial 'S' followed by several loops and a long horizontal stroke extending to the right.

FIGURE 6/4C/85 - 1



AND Model AP-30 Weighing Instrument

FIGURE 6/4C/85 - 2



Model AP-30 With Column-mounted Indicator