



NATIONAL STANDARDS COMMISSION

WEIGHTS & MEASURES (PATTERNS OF INSTRUMENTS) REGULATIONS

REGULATION 9

CERTIFICATE OF APPROVAL No 6/4D/212

This is to certify that an approval has been granted by the Commission that the pattern of the

Sumitomo Ishida Cosmic Weighing and Label Printing Instrument

submitted by Sumitomo Australia Limited
8-18 Bent Street
SYDNEY, N.S.W., 2000,

is suitable for use for trade.

The approval of the pattern is subject to review on or after 1/8/82.

All instruments purporting to comply with this approval shall be marked NSC No 6/4D/212.

Relevant drawings and specifications are lodged with the Commission.

Signed

Executive Director

Descriptive Advice

Pattern: approved 14/7/82

Sumitomo Ishida Cosmic self-indicating price-computing weighing and label printing instrument of 9.995 kg capacity by 0.005 kg scale intervals, with unit price in 1c increments to \$99.99/kg and price to \$999.40.

Technical Schedule No 6/4D/212 dated 4/8/82 describes the pattern.

Filing Advice

The documentation for this approval consists of:

Certificate of Approval No 6/4D/212 dated 4/8/82
Technical Schedule No 6/4D/212 dated 4/8/82
Test Procedure No 6/4D/212 dated 4/8/82 (including Table 1)
Figures 1 to 5 dated 4/8/82

4/8/82



NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 6/4D/212

Pattern: Sumitomo Ishida Cosmic Weighing and Label Printing Instrument

Submitter: Sumitomo Australia Limited
8-18 Bent Street
SYDNEY, N.S.W., 2000.

1. Description of Pattern

1.1 General

The pattern is a self-indicating price-computing and label printing weighing instrument (Figures 1 and 2).

Maximum capacity	9.995 kg
Scale interval	0.005 kg
Unit price	\$99.99/kg in 1c increments
Price	\$999.40 in 1c increments

1.2 Zero

Zero is automatically corrected to within 0.25e whenever the instrument comes to rest within 0.5e of zero. If the instrument comes to rest outside of that range but within the zero reset range, zero may be reset by pressing the button marked ZERO.

1.3 Display Check

All 8's are indicated when the button marked SC (segment check) is pressed.

1.4 Tare

There is a semi-automatic push button tare which is additive and of capacity 0.995 kg.

1.5 Levelling

A level indicator and four adjustable feet are provided. A notice adjacent to the level indicator aperture on the front panel of the printer cover advises that the instrument must be level when in use.

1.6 Marking

The nameplate is marked with the following data, together in one location:

Manufacturer's name or mark	
Serial number	
NSC approval number	NSC No 6/4D/212
Accuracy class in the form	(III)
Maximum capacity in the form	Max 9.995 kg*
Minimum capacity in the form	Min 0.1 kg*
Scale interval in the form	d = e = 0.005 kg*
Maximum additive tare in the form	T = +0.995 kg

*These markings are repeated in the vicinity of each reading face.

1.7 Sealing

- (a) A sealing plug and clamp (Figure 3) are situated on both sides of the cabinet.
- (b) The sealing plug acts as a stamping plug.

1.8 Label

A typical label is shown in Figure 4.

TEST PROCEDURE No 6/4D/212

All loads should be applied in accordance with the method recommended in the Commission's Test Procedure for the Elimination of Rounding Error for Weighing Instruments with Digital Indication (Document 104).

Accuracy Requirements

The maximum permissible errors are:

- ± 0.5e for loads between 0 and 500e inclusive;
- ± 1e for loads between 501 and 2000e; and
- ± 1.5e for loads above 2000e.

1. Zero Test

As the automatic device resets zero when the weighing mechanism is in equilibrium within 0.5e of zero, zero should be checked as described in Document 104, with a load equal to, say, 10e on the load receptor. The indications with 0.25e and 0.75e additional mass on the load receptor will then be 10e and 11e respectively.

2. Zero Range

Check that the range of the zero adjustment is not more than 4% of the maximum capacity (±2% approximately). Satisfactory setting may be checked by the following method.

- (a) With zero balance indicated, apply a load of, say, 2.5% of maximum capacity to the instrument; it should not be possible to obtain zero by means of the zero adjustment;
- (b) reduce the load to, say, 1.5%; it should then be possible to obtain zero by means of the zero adjustment.

3. Level Sensitivity

As the automatic zero device may prevent the zero from changing when the instrument is tilted at zero load, the effect of tilt should be initially checked with a small load on the instrument, say, 10e.

When the instrument is tilted so that the bubble in the level indicator moves 2 mm, the indication of 10e should not change by more than 2e, and when, in the tilted position, the 10e load is removed and zero is allowed to automatically reset, or it is manually reset, the instrument should satisfy the accuracy requirements given above.

4. Price-Computing Accuracy

The indications of mass, unit price and price listed in Table 1 will indicate that the price-computing and mass circuits are functioning correctly. The figures should be indicated exactly as in the table, as rounding is effected within the computer.

Note: This test does not establish correct mass indication; a separate load test in accordance with Document 104 is necessary. This may be carried out in conjunction with the above test.

5. Range of Indication

- (a) The maximum mass indicated should not exceed the marked maximum capacity (Max) by more than 10e; above this indicated mass the indication should be blank.
- (b) The minimum mass indicated should be zero; below this the indication should be blank.

6. Tare Test

- (a) Attempt to tare a mass above the tare capacity - this should not be possible.
- (b) Tare a mass equivalent to the maximum tare capacity, the tare light and zero light should illuminate to indicate that the tare has been acquired within 0.25e.
- (c) With the tared mass on the load receptor, perform a load test. The instrument should display the mass within the applicable tolerance as listed in Accuracy Requirements.

TABLE 1

Indicated weight	Unit price	Total price
kg	\$/kg	\$
0.000	0.00	0.00
0.100	99.99	10.00
0.105	98.98	10.39
0.110	97.97	10.78
0.120	96.95	11.63
0.130	95.95	12.47
0.140	94.94	13.29
0.150	83.94	12.58
0.160	72.73	11.64
0.170	61.61	10.47
0.180	50.51	9.09
0.190	49.49	9.40
0.200	39.39	7.88
0.300	29.29	8.79
0.400	19.29	7.72
0.500	9.00	4.50
0.600	55.16	33.10
0.700	39.02	27.31
0.800	58.99	47.19
0.900	70.99	63.89
1.000	75.99	75.99
2.000	80.99	161.98
3.000	85.39	256.17
4.000	96.99	387.96
5.000	97.99	489.95
6.000	98.99	593.94
7.000	99.99	699.93
8.000	99.99	799.92
9.000	99.99	899.91
9.995	99.99	999.40

Test Procedure - 9.995 kg Instrument with Unit Price
to \$99.99/kg and Total Price to \$999.40



NATIONAL STANDARDS COMMISSION

NOTIFICATION OF CHANGE

CERTIFICATE OF APPROVAL No 6/4D/212

CHANGE No 1

The following changes are made to the description of the Sumitomo Ishida Cosmic Weighing And Label Printing Instrument.

(A) In Certificate No 6/4D/212 dated 4/8/82;

The date of review should be changed to read 1/8/87.

(B) In Test Procedure No 6/4D/212 dated 4/8/82;

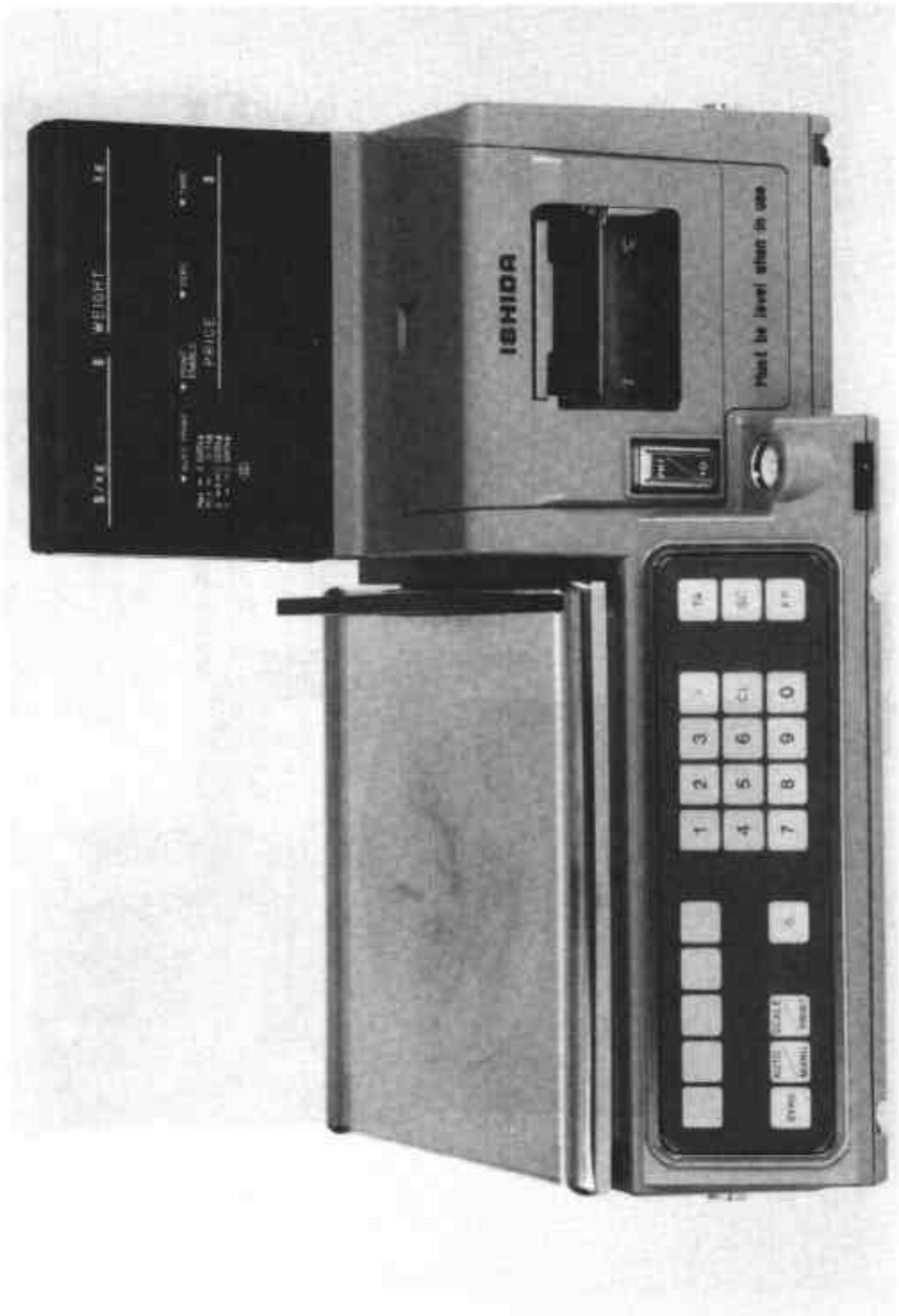
In Table 1 on page 3, the figure of 83.94 (on the eighth line of the unit price column) should be changed to read 83.84.

Signed

Executive Director

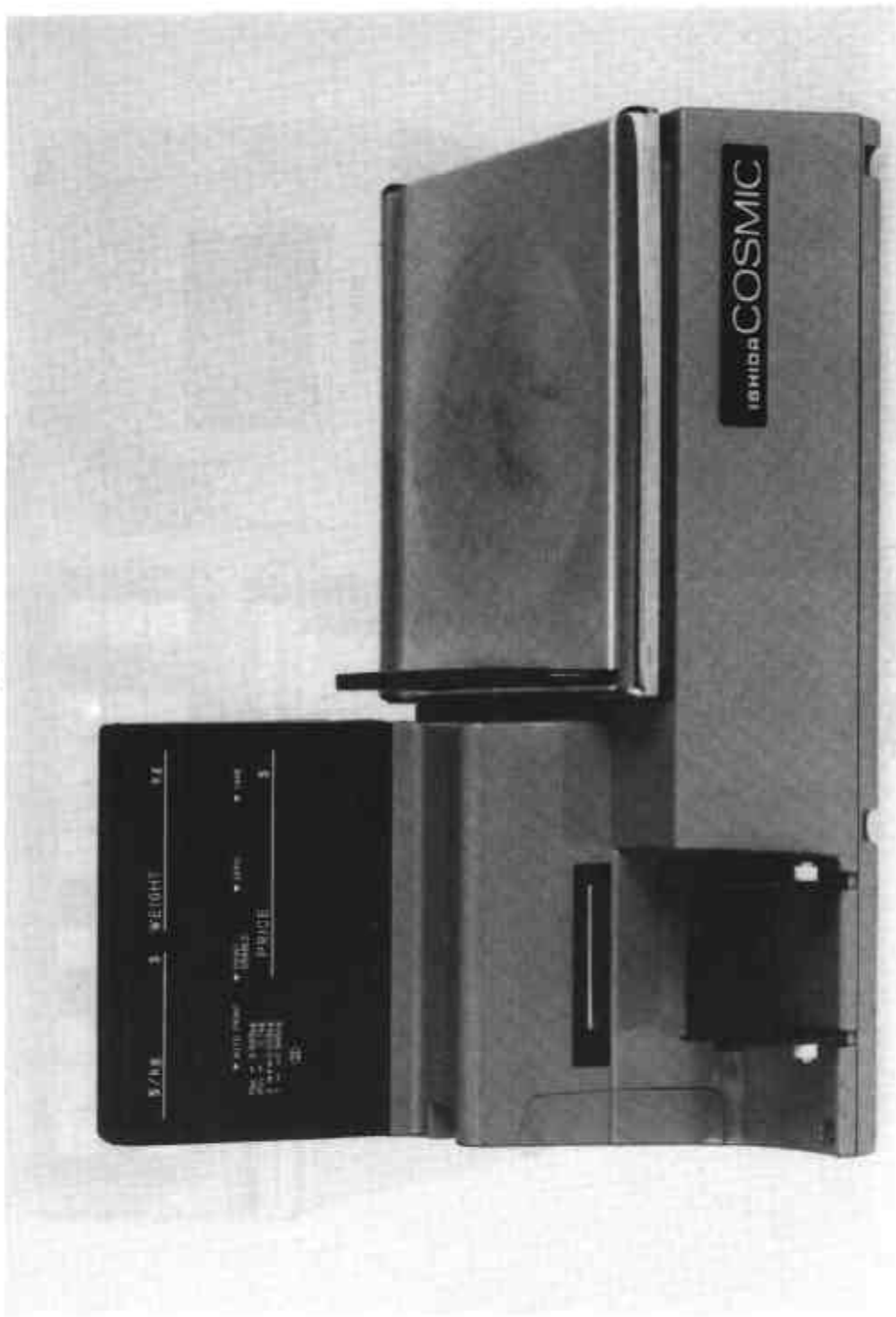
18/4/83

FIGURE 6/4D/212 - 1



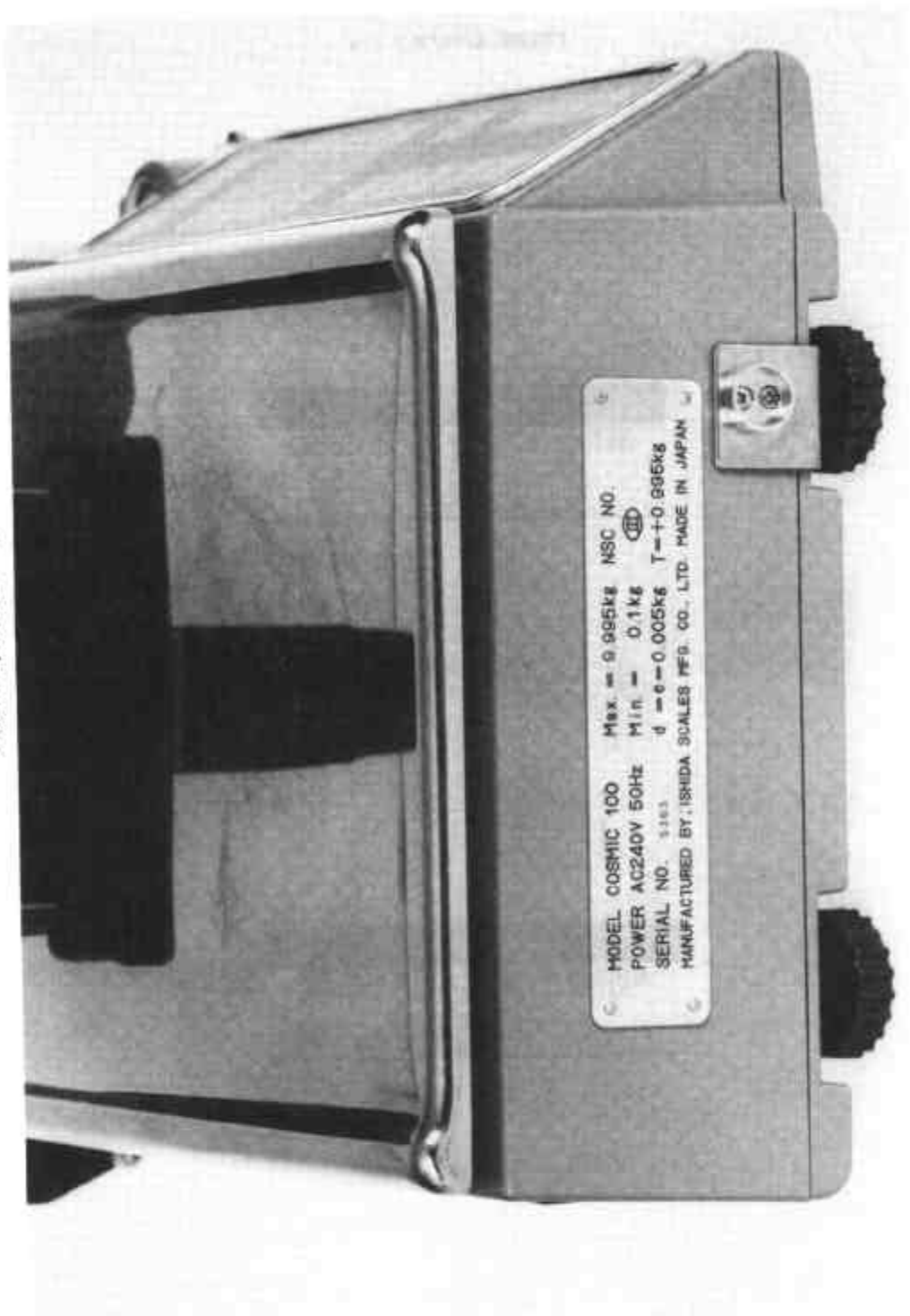
Ishida Cosmic - Vendor's View

FIGURE 6/4D/212 - 2



Ishida Cosmic - Customers' View (

FIGURE 6/40/212 - 3



Ishida Cosmic - Sealing And Markings

THANK YOU

NET(kg) | \$/kg | PRICE (\$)

DATE PACKED

THANK YOU

NET(kg) | \$/kg | PRICE (\$)

2,455 99,99 245,48

30-6-82 DATE PACKED