



NATIONAL STANDARDS COMMISSION

WEIGHTS & MEASURES (PATTERNS OF INSTRUMENTS) REGULATIONS

REGULATION 9

CERTIFICATE OF APPROVAL No 6/4D/224

CANCELLED

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

Teraoka Model DS-155 Price-computing Weighing Instrument

0/1

submitted by J.W. Wedderburn and Sons Pty Ltd
90 Parramatta Road
Summer Hill, New South Wales, 2130

are suitable for use for trade.

The approval is subject to review on or after 1/9/88.

Instruments purporting to comply with this approval shall be marked NSC No 6/4D/224.

Relevant drawings and specifications are lodged with the Commission.

Signed

Executive Director

Descriptive Advice

Pattern: approved 11/8/83

. Teraoka model DS-155 price-computing weighing instrument of 15 kg capacity by 0.005 scale intervals.

Variants: approved 11/8/83

1. With a single-sided indicator mounted on a pillar.
2. With a single-sided display within the basework housing.

Technical Schedule No 6/4D/224 dated 1/9/83 describes the pattern and variants.

Filing Advice

The documentation for this approval comprises:

Certificate of Approval No 6/4D/224 dated 1/9/83
Technical Schedule No 6/4D/224 dated 1/9/83
Test Procedure No 6/4D/224 dated 1/9/83
Figures 1 and 2 dated 1/9/83.

1/9/83



NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 6/4D/224

Pattern: Teraoka Model DS-155 Price-computing Weighing Instrument

Submittor: J.W. Wedderburn and Sons Pty Ltd
90 Parramatta Road
Summer Hill, New South Wales, 2130.

1. Description of Pattern

The pattern is a self-indicating weighing instrument of 15 kg capacity by 0.005 kg scale intervals (Figure 1) with unit price to \$999.99/kg and price to \$9999.90, in 1c increments.

1.1 Zero

A light marked ZERO indicates when zero is set to within 0.25e.

1.1.1 Zero Setting

The instrument is automatically corrected to zero within 0.25e when the push-button marked ZERO is pressed.

1.1.2 Automatic Zero Correction

This device re-zeroes the instrument within 0.25e whenever the mass indicator indicates zero.

1.3 Display Check

When power is applied, all indicators will display 0 to 9 sequentially, then all 8's. The indicator is then zeroed using the ZERO button.

1.4 Markings

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

Manufacturer's name or mark	
Model number	
Serial number	
NSC approval number	NSC No 6/4D/224
Accuracy class	III
Maximum capacity	Max 15 kg*
Minimum capacity	Min 0.1 kg*
Verification scale interval	e = d = 0.005 kg*

1.5 Output Socket

Instruments may be fitted with an output socket for the connection of auxiliary or peripheral equipment.

1.6 Verification Provision

Provision is made for a verification mark to be applied.

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

2. Description of Variants2.1 Variant 1

With a single-sided display of mass mounted on a pillar replacing the double-sided display of the pattern. This instrument is NOT suitable for retail counter use and is marked accordingly. The instrument is similar to that shown in Figure 1.

2.2 Variant 2

With a single-sided display mounted on any side of the basework housing (Figure 2). This instrument is NOT suitable for retail counter use and is marked accordingly.

TEST PROCEDURE No 6/4D/224

All load applications should be in accordance with the Commission's recommended testing procedure for the elimination of rounding error, as set out in Document 104.

Accuracy Requirements

- ±0.5e for loads between 0 and 500e;
- ±1.0e for loads between 501e and 2000e; and
- ±1.5e for loads above 2000e.

1. Zero Test

- (a) Check using Document 104, that when the ZERO light is illuminated, zero is set within 0.25e.
- (b) As the automatic zero tracking 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 be 10e and 11e respectively.

2. Zero Range

The maximum range of operation of the zero device should not exceed 4% of the capacity of the instrument (± 2% approximately). Satisfactory setting may be checked by the following method:

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 balance 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. Range of Indication

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

5. Test Loads

Test loads are to be applied to the instrument increasing in not less than 5 approximately equal steps to maximum capacity, followed by decreasing loads of not less than 5 approximately equal steps to zero load.

The instrument should display these loads within the applicable tolerance as listed above.

6. 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.

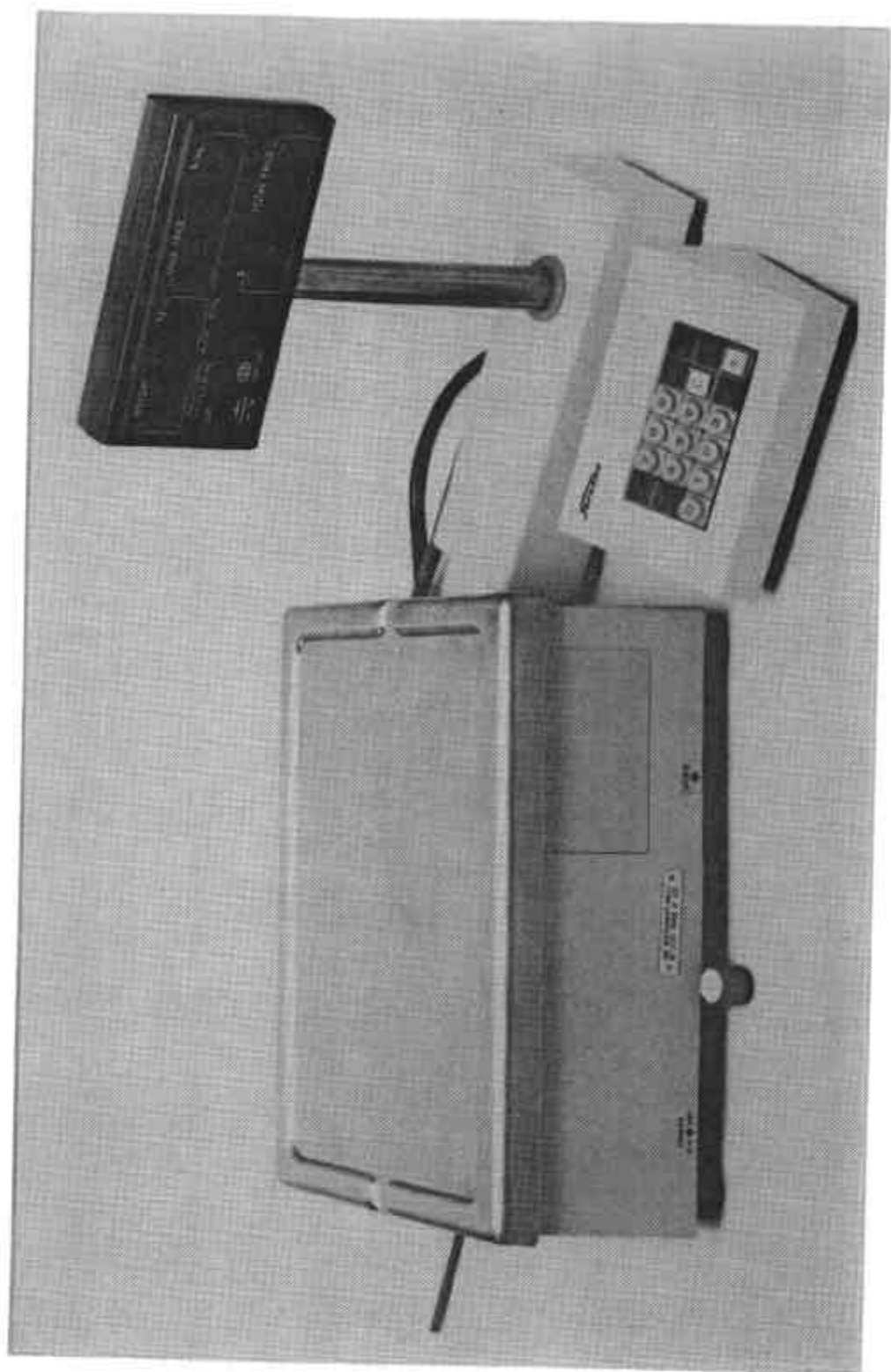
Note: This test does not establish correct mass indication; a separate load test in accordance with Document 104 is necessary. This may be carried out in conjunction with the above test.

TABLE 1

Indicated Mass kg	Unit Price \$/kg	Price \$
0.000	0.00	0.00
0.150	799.33	119.90
1.000	74.11	74.11
10.000	99.99	999.90
15.000	10.00	150.00

Price-computing Table

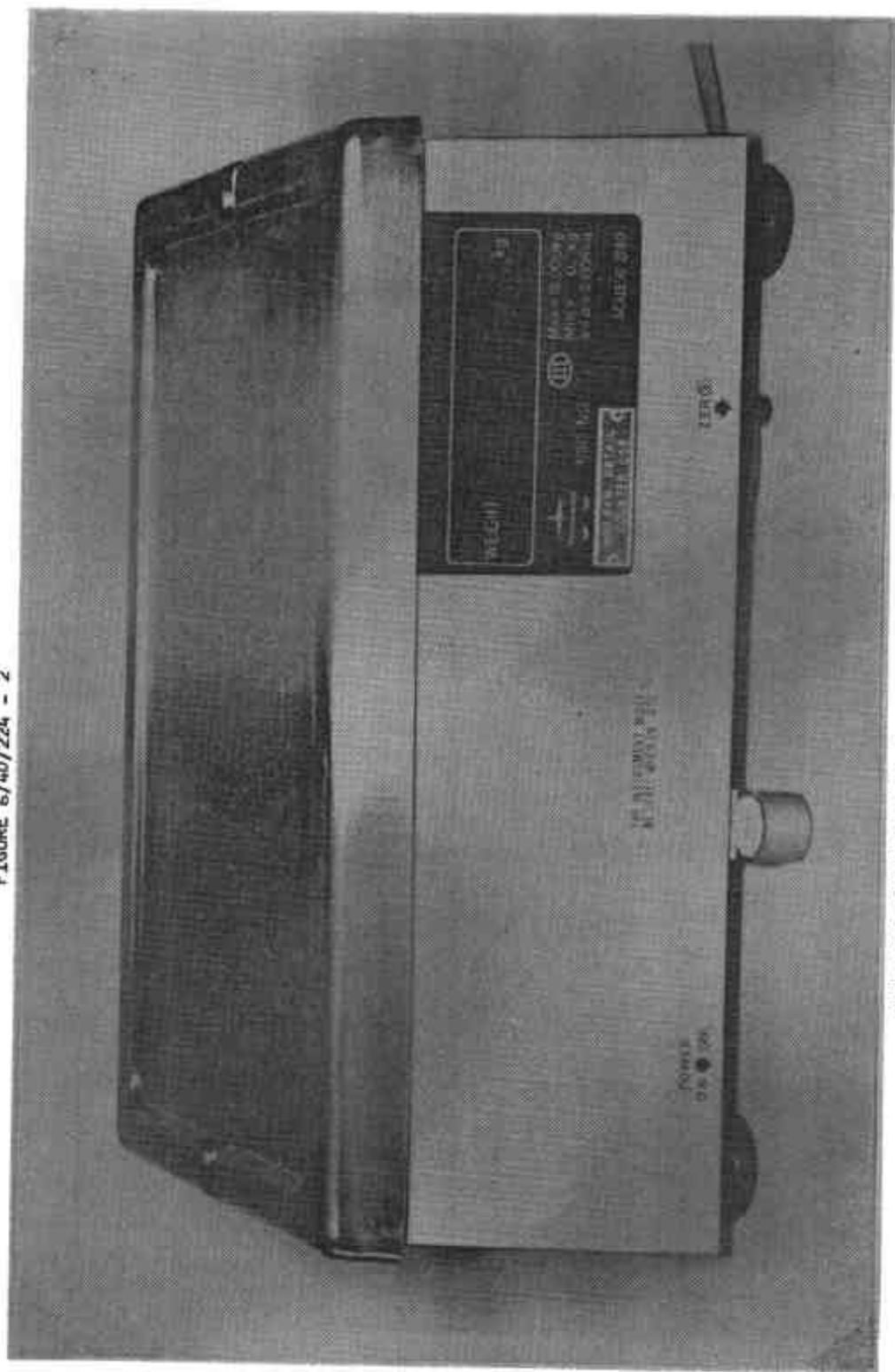
FIGURE 6/40/224 - 1



Model DS-155

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FIGURE 6/40/224 - 2



Model DS-155 With Indicator With In Housing

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