NATIONAL STANDARDS COMMISSION

WEIGHTS & MEASURES (PATTERNS OF INSTRUMENTS) REGULATIONS

REGULATION 9

SUPPLEMENTARY CERTIFICATE OF APPROVAL No S138

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

Wedderburn Model UMC 4000 Digital Indicator

submitted by J W Wedderburn & Sons Pty Ltd
90 Parramatta Road
SUMMER HILL, NSW, 2130,

are suitable for use for trade, when used to replace the indicator in a Commission-approved weighing instrument.

The approval is subject to review on or after 1/10/87.

Instruments purporting to comply with this approval shall be marked NSC No S138 in addition to the approval number of the pattern to which they are connected.

Relevant drawings and specifications are lodged with the Commission.

Conditions of Approval

1. An instrument fitted with a model UMC 4000 indicator shall have a maximum number of 3500 scale intervals.

2. The number of scale intervals applicable to any weighing instrument in which this indicator is used, shall be no greater than the number of verification scale intervals approved for the indicator, the basework, or the load cell(s), whichever is the smallest.

Signed

Executive Director

Descriptive Advice

Pattern: approved 10/9/82

. Wedderburn model UMC 4000 digital indicator.

Variant: approved 10/9/82

1. With output sockets for the connection of peripheral equipment.

Technical Schedule No S138 dated 5/10/82 describes the pattern and variant 1.

Variants: approved 2/6/83

2. In an alternative housing.

3. With a GROSS/NET function.

Technical Schedule No S138 Variation No 1 dated 27/6/83 describes variants 2 and 3.

Filing Advice

Certificate of Approval No S138 dated 5/10/82 is superseded by this Certificate and may be destroyed.

The documentation for this approval now comprises:

Certificate of Approval No S138 dated 27/6/83
Technical Schedule No S138 dated 5/10/82
Technical Schedule No S138 Variation No 1 dated 27/6/83
Test Procedure No S138 dated 5/10/82
Figures 1 and 2 dated 5/10/82
Figure 3 dated 27/6/83.

National Standards Commission

Cancellation Certificate of Approval

No S138

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

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

Wedderburn Model UMC 4000 Digital Indicator

submitted by W W Wedderburn Pty Ltd
90 Parramatta Road
Summer Hill NSW 2130

will be cancelled in respect of new instruments as from 31 December 1990, with the exception of 8 instruments whose serial numbers are listed below:

A0823, A0833, A3611, B7361, B7369, 123456, 5219, and 7360.

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

NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No S138

Pattern: Wedderburn Model UMC 4000 Digital Indicator

Submittor: J.W. Wedderburn & Sons Pty Ltd
90 Parramatta Road
SUMMER HILL, NSW, 2130.

1. Description of Pattern

Wedderburn model UMC 4000 digital mass indicator (Figure 1) displaying up to 3500 scale intervals.

1.1 Markings

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

Manufacturer's name or mark	
NSC Approval numbers	Indicator NSC No S138 Headwork NSC No.....¶ Basework NSC No ..... Load cell(s) NSC No ..
Accuracy class	(III)
Maximum capacity in the form	Max .....*
Minimum capacity in the form	Min .....*
Maximum subtractive tare in the form	T = - .....
Verification scale interval in the form	e = d = ...*
Indicator serial number	
Load cell serial number(s) - refer para. 1.6(b)	

1.2 Zero

Zero within 0.25e, indicated by the CENTRE ZERO light being illuminated, may be obtained either semi-automatically by using the tool-operated ZERO control, or automatically by means of the automatic zero tracking device whenever the instrument comes to rest within 0.5e of zero.

1.3 Display Check

All segments and indicating lights are illuminated whenever power is applied or the CHECK button is pressed.

1.4 Tare

Use of the subtractive tare push button marked TARE, allows a mass on the receptor of up to maximum capacity to be tared to within 0.25e, and is indicated by the TARE light illuminating. When the mass is removed, the tare value prefixed by a minus sign is displayed.

¶This approval number should only be included where the headwork is retained as part of the modified instrument.

*These markings are repeated in the vicinity of all reading faces, if not already there.

1.5 Tare Recall Button

Use of this button during a weighing, momentarily displays the value that has been tared.

1.6 Sealing

(a) By a lead and wire seal, with the wire passing through one of the retaining screws on the front panel and the housing (Figure 1).

(b) The load cell serial number(s) may be on metal tags sealed to the indicator housing, or marked on the nameplate.

2. Description of Variant 1

With output sockets for connection to peripheral equipment.

The sockets should be sealed when peripheral equipment is NOT fitted.

TEST PROCEDURE No S138

The following tests should be carried out in conjunction with any test procedures in the Technical Schedule of the instrument to which this indicator is connected.

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

The maximum permissible errors are:

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

1. 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, and adjust the ZERO control; the instrument should not rezero.

(b) Reduce the load to, say, 1.5%, and again adjust the ZERO control; the instrument should indicate zero balance.

2. Zero Test

(a) Check by means of Document 104, that when the CENTRE ZERO light is lit, zero is set within 0.25e.

(b) As the automatic zero tracking device resets zero when the weighing mechanism is in equilibrium within 0.5 scale interval of zero, zero should be checked, with a load equal to, say, 10 scale intervals 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.

3. Range of Indication

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

(b) Below zero the indication may blank or the mass will be indicated, prefixed by a minus sign.

4. Taring

(a) Attempt to tare a mass above maximum capacity as determined in 3(a). On removal of the mass no tare should have been entered, and the indicator should display all zeroes.

(b) The tare function should reset the mass indicator to zero within 0.25e at any load within its tare capacity. This may be checked as described under 2(a) - Zero Test.

5. Test Loads

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

6. Multiple Indicators

Where the existing headwork is retained and used in conjunction with the pattern, the variation between indications or printings for the same load shall not be greater than the absolute value of the maximum permissible error for that load on the device with the largest verification scale interval.

NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No S138

VARIATION No 1

Pattern: Wedderburn Model UMC 4000 Digital Indicator

Submittor: J W Wedderburn & Sons Pty Ltd
90 Parramatta Road
SUMMER HILL, NSW, 2130.

1. Description of Variants

1.1 Variant 2

The model UMC 4000 in an alternative housing as shown in Figure 3.

1.2 Variant 3

With a GROSS/NET function added to permit the display of gross mass when a tare has been selected.

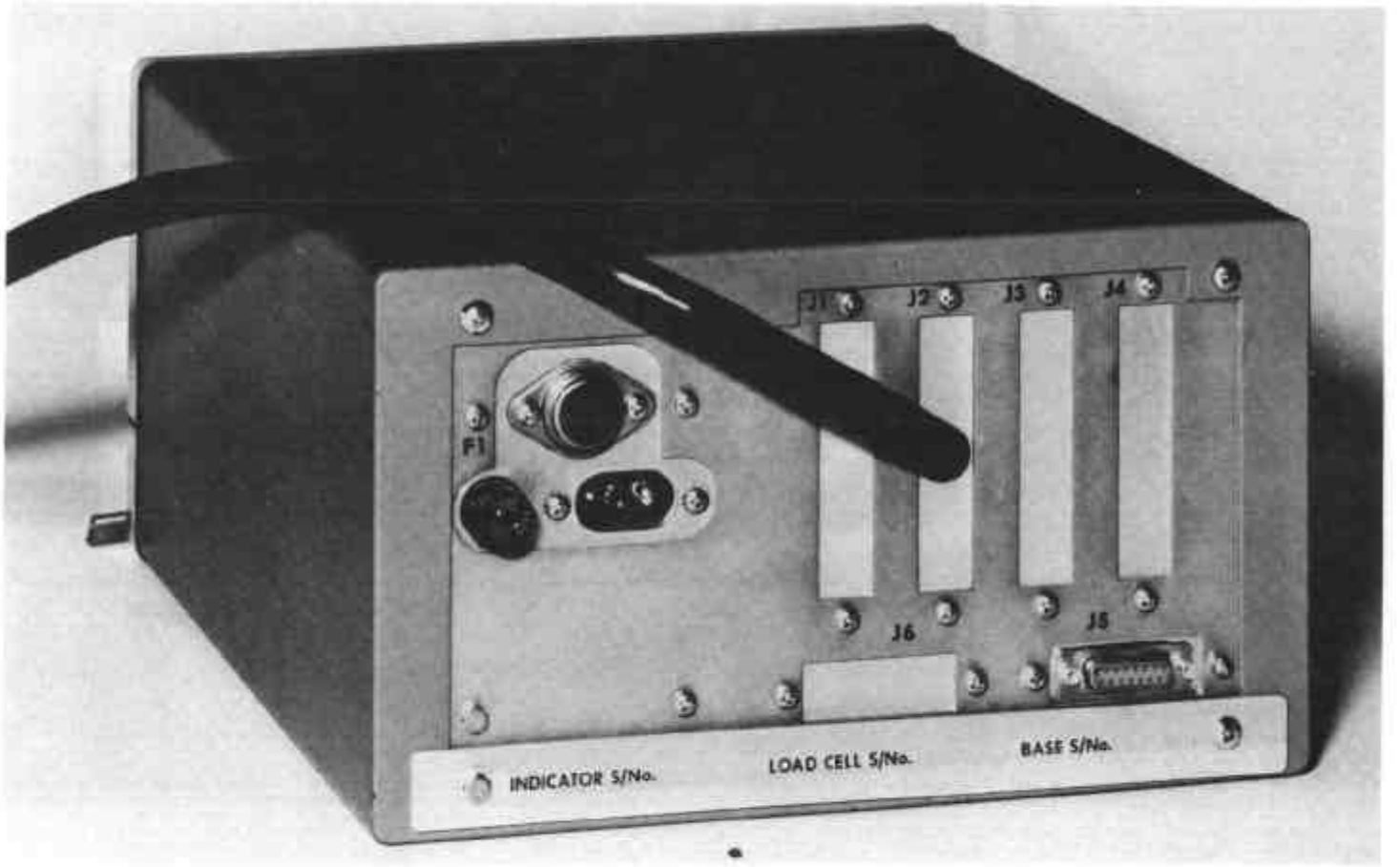
27/6/83

FIGURE S138 - 1

Wedderburn Model UMC 4000 Indicator Including Sealing

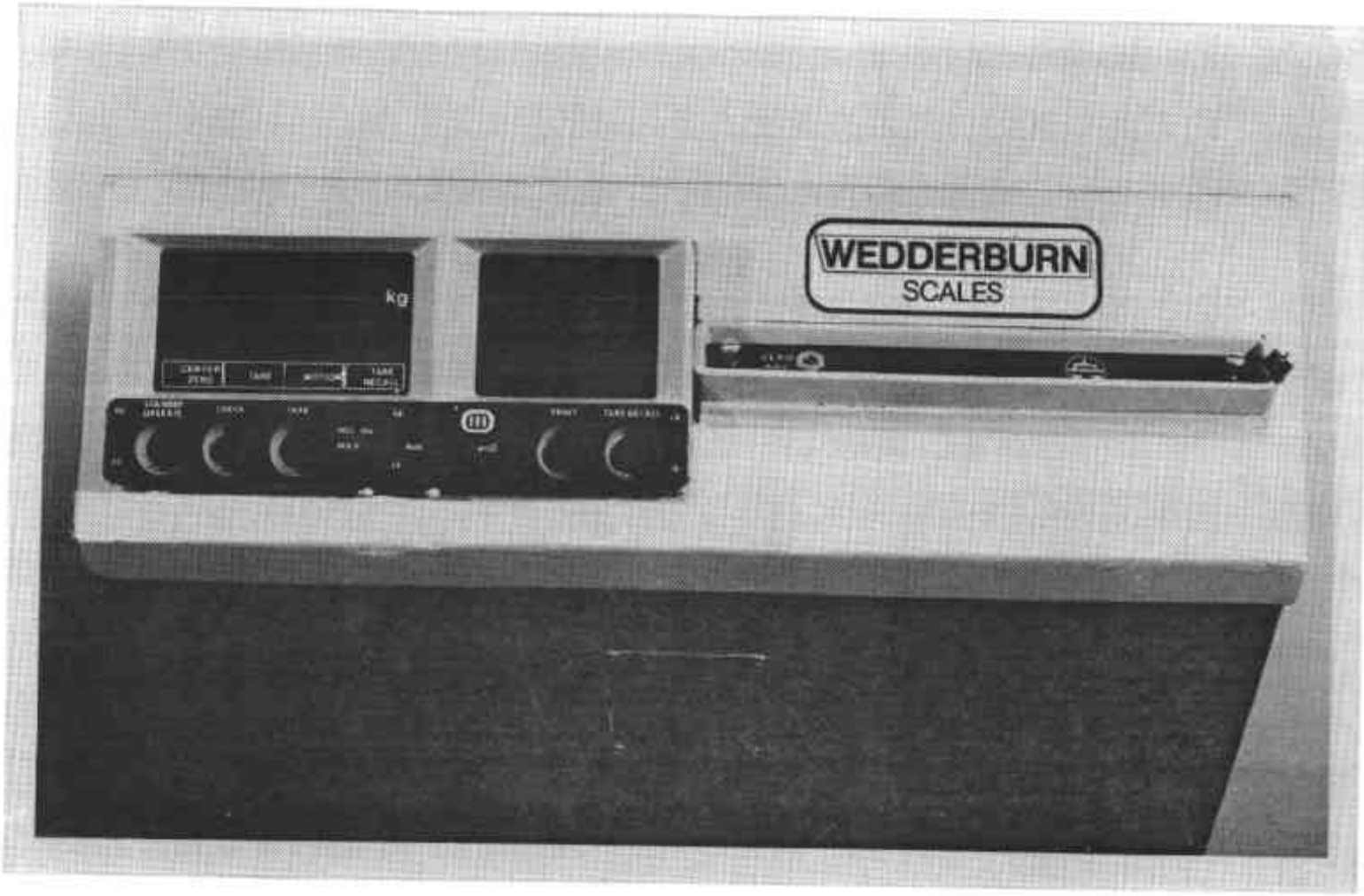
FIGURE S138 - 2

5/10/82



JMC 4000 Indicator - Rear View Showing Sealing

FIGURE 5138 - 3



Model UMC 4000 In An Alternative Housing