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#### WEIGHTS & MEASURES (PATTERNS OF INSTRUMENTS) REGULATIONS

#### **REGULATION 9**

## CERTIFICATE OF APPROVAL No 6/4D/206

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

Avery Model 8680 Weighing Instrument

submitted by Avery Australia Ltd, 3–5 Birmingham Avenue, Villawood, New South Wales, 2163,

are suitable for use for trade.

The approval of the pattern and variants is subject to review on or after 1/7/86.

All instruments purporting to comply with this approval shall be marked NSC No 6/4D/206.

Relevant drawings and specifications are loged with the Commission.

#### Condition of Approval

- 1. Instruments where variant 4 is fitted, i.e. single sided display on a pillar displaying mass only (Figure 6), are only for use in a retail checkout application when connected to a printing device complying with Circular 149,\* in that:
  - 1.1 There is no interaction between the printing device and the scale which could cause an incorrect mass indication.
  - 1.2 The printing device correctly prints mass, unit-price and price. The limit of mass, unit-price and price may be set by the cash register and may be lower than the maximums specified in the Technical Schedule.
  - 1.3 The mass, unit-price and price are displayed on the ticket in a format specified in NSC Circular 149.

\*In all other cases a notice shall be fitted, NOT FOR RETAIL COUNTER USE.

Signed Executive Director

Executive Director

#### Descriptive Advice

#### Pattern:

approved 10/7/81

Self-indicating price-computing weighing instrument of 15 kg capacity by 0.005 kg scale intervals, with unit price in 1c increments to \$99.99/kg and price to \$999.99.

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#### Certificate of Approval No 6/4D/206

Variants: approved 10/7/81

- 1. With Avery model 8785 load cell of 25 kg capacity in place of the Avery model 8790 load cell used in the pattern.
- 2. With an output socket, and with or without a Commission-approved printer attached.

3. With indicators, receptor and keyboard in separate housings.

Technical Schedule No 6/4D/206 dated 28/7/81 describes the pattern and variants 1 to 3.

Variants: approved 16/7/82

- 4. The pattern or variants 1 or 2 without keyboard and indications, and with the mass indicator on a pillar.
- 5. With a keyboard comprising price-look-up buttons, and known as an Avery Commander.

6. With label printer models C421 RLD, C421 RLD(P), C421 S and C421 SK.

7. With label printer model C403 and marked NOT FOR RETAIL COUNTER USE.

Technical Schedule No 6/4D/206, Variation No 1 dated 4/8/82 describes variants 4 to 7.

### Filing Advice

Certificate of Approval No 6/4D/206 dated 28/7/81 is superseded by this Certificate and may be destroyed.

The documentation for this approval now comprises:

Certificate of Approval No 6/4D/206 dated 4/8/82 Technical Schedule No 6/4D/206 dated 28/7/81 (including Table 1) Technical Schedule No 6/4D/206, Variation No 1 dated 4/8/82 Test Procedure No 6/4D/206 dated 28/7/81 Figures 1, 3, 4 and 5 dated 28/7/81 Figure 2 dated 28/7/81 (replaced 6/10/81) Figures 6 to 16 dated 4/8/82.



#### TECHNICAL SCHEDULE No 6/4D/206

Pattern: Avery Model 8680 Weighing Instrument

Submittor: Avery Australia Ltd, 3-5 Birmingham Avenue, Villawood, New South Wales, 2163.

#### 1. Description of Pattern

The pattern is a self-indicating price-computing weighing instrument, fitted with an AVERY Model 8790 load cell of capacity 25 kg (Figures 1 and 2).

Range:

Maximum capacity	15 kg
Scale interval	0.005 kg
Unit price	\$99.99/kg in 1c increments
Price	\$999.99 in 1c increments.

#### 1.1 Zero

The instrument is automatically corrected to zero within 0.25e when the button marked ZERO is pressed. The indicator marked ZERO is illuminated whenever zero is within 0.25e.

#### 1.2 Automatic Zero Correction Device

This device automatically rezeroes the instrument within 0.25e whenever it comes to rest within 0.5e of zero.

#### 1.3 Display Check

When power is applied to the instrument all indicators will flash all 8's. This test is terminated by pressing the zero button unless the instrument is within 2e of zero, in which case it will automatically rezero after the all 8's sequence.

#### 1.4 Clear Button

Operation of the touch button marked CLEAR clears the unit price (refer paras 1.9.1 and 1.9.2).

#### 1.5 Tare

Operation of either of the buttons marked SCT or FT allows semi-automatic taring of a mass on the load receptor to within 0.25e. The tare is subtractive and of capacity 15 kg. The value of the tare entered will be indicated in the tare indicator and the indicator light marked SCT or that marked FT will illuminate depending on which tare button was used.

SCT indicates self-cancelling tare. When this is used the tare entered will automatically cancel upon removal of a weighed item with a mass greater than the tare value.

FT indicates fixed tare. When this is used an entered tare can be cancelled with the load receptor empty and the instrument at zero by pressing the touch button marked FT.

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#### 1.6 Marking

The instruments are marked with the following data:

Manufacturer's name Serial number NSC approval number Accuracy class Maximum capacity in the form: Minimum capacity in the form: Scale interval in the form: Maximum subtractive tare

NSC No 6/4D/206 III Max 15 kg\* Min 0.100 kg\* d<sub>d</sub> = e = 0.005 kg\* T = - 15 kg

#### 1.7 Levelling

The instrument is provided with a level indicator and adjustable feet. Adjacent to the level indicator is a notice advising that the instrument must be level when in **use**.

#### 1.8 Sealing

- (a) A sealing plug under the load receptor seals access to the calibration adjustments (Figure 3).
- (b) A verification stamping plug is provided adjacent to the level indicator.

#### 1.9 Price Fixing

The instrument, when installed, will be set in one of three Price Fixing modes as follows:

#### 1.9.1 Automatic Price Fixing

When a price is entered each digit is held, regardless of the time between entering digits, until the CLEAR button is pressed.

#### 1.9.2 Semi-Automatic Price Fixing

In this mode, if a time delay of greater than three seconds occurs between the entering of digits, the last digit entered will clear the price already set and become the first digit of the new price. This price is then fixed until the CLEAR button is pressed.

#### 1.9.3 Self-Cancelling Price Fixing

As in 1.9.2, with the additional feature that the price automatically returns to zero after a positive weighing has taken place.

#### 1.10 Push Buttons VC and Print

These buttons are normally inoperative. However, depending on the type of printer, the PRINT button may be activated when a printer is connected.

## 2. Description of Variants

#### 2.1 Variant 1

With an AVERY model 8785 load cell of 25 kg capacity replacing the AVERY model 8790 load cell.

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

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#### 2.2 Variant 2

With an output socket, and with or without a Commission-approved printer attached.

When a printer is attached, the serial number of the printer is sealed to the output socket.

When a printer is not attached, the output socket is sealed with a lead and wire seal.

#### 2.3 Variant 3

With the indicators, receptor and keyboard in separate housings. These may be grouped in any combination. Typical instruments are shown in Figures 4 and 5.

TEST PROCEDURE No 6/4D/206

#### 1. Accuracy requirements

The maximum permissible errors are:

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

#### 2. 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 the Commission's Test Procedure for the Elimination of Rounding Error for Weighing Instruments with Digital Indication (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 'eceptor will then be 10e and 11e respectively.

#### 3. Zero range

The maximum range of operation of the touch button zero device should not exceed 4% of the maximum capacity of the instrument ( $\pm$  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 press the zero push button; the instrument should not rezero.
- (b) Reduce the load to, say, 1.5% of maximum capacity and again press the zero touch button; the instrument should indicate zero balance.

#### 4. 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 10e should not change by more than 2e, and when, in the tilted oosition, the 10e load is removed and zero is allowed to automatically reset, or it .s manually reset, the instrument should satisfy the accuracy requirements given above.

#### 5. 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 test in accordance with the Commission's recommended testing procedure for the elimination of rounding errors, as in Document 104, is necessary. This may be carried out in conjunction with the above test.

#### 6. 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.

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(b) The minimum mass indicated should be zero; below this the indication should be blank.

# 7. Taring

The tare function should be able to reset the mass indictor to zero within 0.25e at any load within its capacity. This may be checked as described for ZERO test.

# TABLE 1

Indicated mass	Unit price	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	83.84	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 <b>.</b> 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 <b>.</b> 99	489.95
6.000	98,99	<b>593,94</b>
7.000	99,99	6 <b>99</b> ,93
8,000	99,99	799,92
9,000	99,99	899.91
10.000	99 <b>.</b> 99	<b>999.9</b> 0
11.000	50,00	550,00
12.000	50,00	600.00
13.000	50.00	650,00
14.000	50.00	700.00
15.000	50.00	750.00

Test Procedure - 15 kg Instrument with Unit Price to \$99.99/kg and Total Price to \$999.99.



# TECHNICAL SCHEDULE No 6/4D/206

# VARIATION No 1

Pattern: Avery Model 8680 Weighing Instrument

Submittor: Avery Australia Ltd, 3-5 Birmingham Avenue, Villawood, New South Wales, 2163.

#### 1. Description of Variants

1.1 Variant 4

#### 1.1.1

The pattern or variants 1 or 2, without keyboard and indications and with a single sided mass indicator on a pillar (Figures 6 and 7). This may also be achieved by the covering of the existing customer and vendor indicators and controls, (Figures 8 and 9) and adding a single sided mass indicator on a pillar.

#### 1.1.2 Zero

As for the pattern but with the ZERO button and indicator positioned on a pillar for the instrument shown in Figure 6.

#### 1.1.3 Marking

As for the pattern but without Tare, and with the indicator marked NOT FOR RETAIL COUNTER USE when the instrument with single sided mass display (Figure 6) is used as a stand-alone weighing instrument. There is no need for this marking when used in accordance with the Condition of Approval.

#### 1.2 Variant 5

Known as an Avery Commander, with an additional keyboard comprising 32 buttons, and a manager programming key, on the side of the instrument. This feature provides access to 32 dedicated price-look-up (PLU) locations and an additional 168 locations accessible via the 8680 keypad (Figure 10).

#### 1.3 Variant 6

With a model C421 label printer.

The printer is approved in four forms, as follows:

- . Model C421 RLD (Figure 11) printing a label as shown in Figure 12.
- . Model C421 RLD(P) similar to that shown in Figure 11 but to print price only. The label may have the word DOLLARS or the symbol \$ printed above or below the price, or the symbol \$ printed before the price.
- . Model C421 S (Figure 13) printing a label similar to that shown in Figure 14, with the addition of the date.
- . Model C421 SK (Figure 13) printing a label similar to that shown in Figure 14, with the addition of a commodity title.

4/8/82

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#### 1.3.1 Sealing

Either the printer serial number is sealed to the weighing instrument or the printer plug is sealed to the socket of the weighing instrument.

# 1.4 Variant 7

With label printer model C403 (Figure 15). When connected to the pattern or variants 1 to 5, all buttons and indications on the weighing unit, except those for mass, are covered (Figures 8 and 9). The labels produced are shown in Figure 16.

Unit price is entered via the keypad on the C403, as is a digital tare with a scale interval equal to that of the 8680. There is the facility for adding a date, for printing price only, and to print a commodity title.

#### 1.4.1 Marking

The weighing instrument connected to model C403 label printer is marked NOT FOR RETAIL COUNTER USE.

#### 1.4.2 Sealing

Either the printer serial number is sealed to the weighing instrument or the printer plug is sealed to the socket of the weighing instrument.



# NOTIFICATION OF CHANGE

CERTIFICATE OF APPROVAL No 6/4D/206

#### CHANGE No 1

The following changes are made to the description of the

Avery Model 8680 Weighing Instrument

given in Technical Schedule No 6/4D/206 dated 28/7/81:

- 1. Figure 2 is replaced by the attached Figure 2, which illustrates the instrument with nameplate.
- 2. The caption of Figure 3 is altered to read:

Model 8680 with Load Receptor removed, showing Sealing Plug.

Signed

Executive Director

6/10/81



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# NOTIFICATION OF CHANGE

#### CERTIFICATE OF APPROVAL No 6/4D/206

# CHANGE No 2

The following change is made to the description of the Avery Model 8680 Weighing Instrument

given in Technical Schedule No 6/4D/206 dated 28/7/81.

To paragraph 2.3 Variant 3 on page 3, add new sentence:

"Where this variant is used, the interconnecting cables are sealed as shown in Figure 7."

Signed

Executive Director











28/7/81



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C33/F14



III MARKET



THE R. W.



# FIGURE 6/40/206 - 12

NET WT PRICE/kg TOTAL PRICE

KB. 8680 NET WT PRICE/kg TOTAL PRICE 1.185ks \$ 56.78 \$ 67.28

Model C421 RLD Lobels

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Model C421 S Lobels

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FIGURE 6/4D/206 - 15



Model C403 Printer

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