NATIONAL STANDARDS COMMISSION

WEIGHTS AND MEASURES (PATTERNS OF INSTRUMENTS) REGULATIONS

REGULATION 9

CERTIFICATE OF APPROVAL No 6/4D/201 CANCELLED

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

0/1

Bizerba Model CD 8000 Weighing Instrument

submitted by Bizerba Scales Australia Pty Ltd
53-55 Ramsden Street
Clifton Hill, Victoria, 3068

are suitable for use for trade.

The approval is subject to review on or after 30/8/85.

Instruments purporting to comply with this approval shall be marked NSC No 6/4D/201.

The approval may be withdrawn if instruments are used other than in accordance with the drawings and specifications lodged with the Commission.

Signed

Executive Director

Descriptive Advice

Pattern: approved 2/9/80

. Of 15 kg capacity by 0.005 kg scale intervals, with price-computing in 1c increments to $999.99/kg and price to $9999.90.

Variant: approved 2/9/80

1. With computing console and weighing platform in separate housings.

Technical Schedule No 6/4D/201 describes the pattern and variant 1.

Variants: approved 15/5/81

2. Without unit price memory recall.

3. With tare expressed in grams.

Technical Schedule No 6/4D/201 Variation No 1 describes variants 2 and 3.

Variants: approved 1/10/81

4. Of 6 kg capacity by 0.002 kg scale intervals, with price-computing in 1c increments to $999.99/kg and price to $5999.94.

5. Of 3 kg capacity by 0.001 kg scale intervals, with price-computing in 1c increments to $999.99/kg and price to $2999.97.

6. With an output socket for a printer.

7. With minus indication for mass below zero.

8. With digital tare.

Technical Schedule No 6/4D/201 Variation No 2 describes variants 4 to 8.

Variant: approved 29/10/81

9. With SWEDOT printers models 1200 and 1300.

Technical Schedule No 6/4D/201 Variation No 3 describes variant 9.

Variant: approved 23/3/82

10. With a tare light in lieu of the tare mass indicator on all capacities of Bizerba model CD 8000.

Technical Schedule No 6/4D/201 Variation No 4 describes variant 10.

Variant: approved 24/9/82

11. With an output socket for the connection of peripheral equipment.

Technical Schedule No 6/4D/201 Variation No 5 describes variant 11.

Variant: approved 17/12/82

12. With a price-look-up (PLU) keyboard and display panel.

Technical Schedule No 6/4D/201 Variation No 6 describes variant 12.

Variant: approved 13/4/83

13. With an integral thermal printer.

Technical Schedule No 6/4D/201 Variation No 7 describes variant 13.

Variant: approved 2/6/83

14. With semi-automatic tare of up to 9.995 kg capacity.

Technical Schedule No 6/4D/201 Variation No 8 describes variant 14.

Variant: approved 15/3/84

15. Of 30 kg capacity by 0.010 kg scale intervals.

Technical Schedule No 6/4D/201 Variation No 9 describes variant 15.

Filing Advice

Certificate of Approval No 6/4D/201 dated 27/6/83 is superseded by this Certificate and may be destroyed. The documentation for this approval now comprises:

Certificate of Approval No 6/4D/201 dated 10/4/84
Technical Schedule No 6/4D/201 dated 15/9/80 (including Table 1 and Test Procedures)
Technical Schedule No 6/4D/201 Variation No 1 dated 5/6/81
Technical Schedule No 6/4D/201 Variation No 2 dated 2/11/81 (including Tables 2 and 3)
Technical Schedule No 6/4D/201 Variation No 3 dated 16/11/81
Technical Schedule No 6/4D/201 Variation No 4 dated 19/4/82
Technical Schedule No 6/4D/201 Variation No 5 dated 15/10/82
Technical Schedule No 6/4D/201 Variation No 6 dated 20/1/83
Technical Schedule No 6/4D/201 Variation No 7 dated 2/5/83
Technical Schedule No 6/4D/201 Variation No 8 dated 27/6/83
Technical Schedule No 6/4D/201 Variation No 9 dated 10/4/84
Test Procedure No 6/4D/201 Variation No 2 dated 2/11/81
Test Procedure No 6/4D/201 Variation No 3 dated 16/11/81
Figures 1 to 5 dated 15/9/80
Figures 6 and 7 dated 5/6/81
Figures 8 and 9 dated 2/11/81
Figure 10 dated 19/4/82
Figures 11 to 13 dated 16/11/81
Figure 14 dated 21/1/83
Figure 15 dated 20/1/83
Figure 16 dated 2/5/83
Figure 17 dated 10/4/84.

NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 6/4D/201

Pattern: Bizerba Model CD 8000 Weighing Instrument

Submittor: Globus-Bizerba Pty Ltd,
122 Edinburgh Road,
Marrickville, New South Wales, 2204

1. Description of Pattern

The pattern is a self-indicating price-computing weighing instrument (Figures 1, 2 and 3).

Range:	Capacity:	15 kg
	Scale Interval:	0,005 kg
	Tare:	-0,995 kg
	Unit Price:	$999,99 in 1 c increments
	Price:	$9999,90 in 1 c increments

1.1 Tare

(a) A semi-automatic subtractive taring device allows a mass on the load receptor of up to 0,995 kg to be tared to within $\pm$0,25 e.

(b) A tare mass indicator displays the tare entered.

1.2 Zero

The instrument is automatically corrected to zero to within $\pm$0,25 e when the power switch is turned on.

1.3 Automatic zero correction device

This device re-zeroes the instrument within $\pm$0,25 e whenever the mass indicator indicates zero.

1.4 Check Button

Pressing the button marked P will cause all indicators to blank and then displays numbers 1 to 9 sequentially.

1.5 Markings

All instruments are marked with the following data:

Manufacturer's name	
Serial Number	
NSC approval number	NSC No .....
Accuracy class	(III)
Maximum capacity	Max .....*
Minimum capacity	Min .....*
Verification scale interval	d_d = e = ...*
Maximum subtractive tare	T^d = -.....

1.6 Sealing

The calibration adjustments are sealed with lead and wire seal **(Figure 4)**.

1.7 Levelling

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

2. Description of Variant

1. With the computing console and weighing platform in separate housings (Figure 5).

3. Test Procedures

1. Accuracy Requirements

The maximum permissible errors are:

$\pm$0,5 e for loads between zero and 500 e inclusive;

$\pm$1 e for loads between 501 e and 2000 e inclusive, and

$\pm$1,5 e for loads above 2000 e.

2. Zero test

As the automatic device resets zero when the weighing mechanism is in equilibrium within 0,5 scale interval 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, 10 scale intervals on the load receptor. The indications with 0,25 e and 0,75 e additional mass on the load receptor should then be 10 e and 11 e respectively.

*These markings are repeated in the vicinity of each mass indicator.

3. Zero range

The maximum range of operation of the zero/power switch, 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, 0,36 kg to the instrument and operate the power switch; the instrument should not rezero.

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, 10 e.

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

5. Price-computing accuracy

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

Note: This test does not establish correct mass indications; 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 maximum capacity (max); above this, the indicator should be blank.

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

TABLE 1

Ind. Weight	Price/kg	Total Price
0,100	0	0
0,100	999,99	100,00
0,105	498,99	52,39
0,110	997,99	109,78
0,120	696,99	83,64
0,130	595,99	77,48
0,140	764,50	107,03
0,150	993,99	149,10
0,160	882,31	141,17
0,170	991,99	168,64
0,180	990,96	178,37
0,190	389,88	74,08
0,200	179,77	35,95
0,300	269,66	80,90
0,400	959,55	383,82
0,500	949,44	474,72
0,600	939,33	563,60
0,700	929,22	650,45
0,800	919,11	735,29
0,900	9,14	8,23
1,000	910,57	910,57
2,000	870,03	**1740,06**
3,000	784,67	2354,01
4,000	950,52	3802,08
5,000	884,96	4424,80
6,000	906,99	5441,94
7,000	899,64	6297,48
8,000	949,53	7596,24
9,000	988,72	8898,48
10,000	999,99	9999,90
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

NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 6/4D/201

VARIATION No 1

Pattern: Bizerba Model CD 8000 Weighing Instrument

Submittor: Bizerba Scales Australia Pty Ltd,
150 Edinburgh Road,
Marrickville, New South Wales, 2204.

1. Description of Variants

1.1 Variant 2

Without the unit price memory recall button marked R and the key switch (Figure 6).

1.2 Variant 3

With tare in grams (Figures 6 and 7).

NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 6/4D/201

VARIATION No 2

Pattern: Bizerba Model CD 8000 Weighing Instrument

Submittor: Bizerba Scales Australia Pty Ltd,
53-55 Ramsden Street,
Clifton Hill, Victoria, 3068.

1. Description of Variants

1.1 Variant 4

Of capacity 6 kg by 0.002 kg scale intervals, with unit price computing in 1c increments to $999.99/kg and price to $5999.94, and with maximum subtractive tare capacity of 0.998 kg.

The instrument may or may not have unit price memory recall. Without unit price recall there is no key switch, and the instrument is similar to that illustrated in Figures 6 and 7, with the appropriate markings for 6 kg capacity.

With unit price recall the instrument is similar to that illustrated in Figures 1 and 2 with the appropriate markings for 6 kg capacity; the button marked 'R' may be replaced by a button with 'F_R' marked below it.

1.2 Variant 5

Of capacity 3 kg by 0.001 kg scale intervals, with unit price computing in 1c increments to $999.99/kg and price to $2999.97, and with maximum subtractive tare capacity of 0.999 kg.

This instrument may or may not have unit price memory recall. Without unit price recall there is no key switch and the instrument is similar to that illustrated in Figures 6 and 7, with the appropriate markings for 3 kg capacity.

With unit price recall the instrument is similar to that illustrated in Figures 1 and 2 with the appropriate markings for 3 kg capacity; the button marked 'R' may be replaced by a button with 'F_R' marked below it.

1.3 Variant 6

With output socket for Commission-approved printers. Where printers are connected, the interconnecting plug is sealed to the weighing instrument, or the serial number of the printer is marked on the weighing instrument (Figure 8). Where a printer is not connected, the output socket is sealed as illustrated in Figure 4, or by a similar method.

1.4 Variant 7

With minus mass indication below zero, in which case the instrument is marked NOT FOR RETAIL COUNTER USE, and is restricted to use as a prepackaging instrument.

1.5 Variant 8

With digital tare, in which case the instrument is marked NOT FOR RETAIL COUNTER USE, and is restricted to use as a prepackaging instrument. (Figure 9).

A digital tare is entered by keying in the value of digital tare using the keyboard and then pressing the button marked T_2.

TEST PROCEDURE No 6/4D/201

VARIATION NO 2

The test procedures to be followed are those given in Technical Schedule No 6/4D/201 dated 15/9/80, with the following changes:

Variant 4

For Test 5, Price-Computing Accuracy, use Table 2.

Variant 5

For Test 5, Price-Computing Accuracy, use Table 3.

Variant 8

Add the following test:

7. Digital tare

(a) Attempt to enter a digital tare in other than a whole number of scale intervals up to the marked maximum tare value. This should not be possible.

(b) Attempt to enter a tare above the marked tare capacity. This should not be possible.

(c) Enter any digital tare. The indication should blank when a gross mass between maximum capacity and maximum capacity plus 10e is placed on the load receptor.

TABLE 2

Indicated Mass	Unit Price	Price
kg	$/kg	$
0.000	000.00	0000.00
0.010	999.99	0010.00
0.022	799.99	0017.60
0.030	488.88	0014.67
0.044	599.99	0026.40
0.050	550.00	0027.50
0.066	399.99	0026.40
0.070	299.99	0021.00
0.088	199.99	0017.60
0.090	200.00	0018.00
0.100	977.77	0097.78
0.200	966.66	0193.33
0.300	955.55	0286.67
0.400	944.44	0377.78
0.500	933.33	0466.67
0.600	922.22	0553.33
0.700	911.11	0637.78
0.800	990.90	0792.72
0.900	950.90	0855.81
1.000	944.77	0944.77
2.000	654.32	1308.64
3.000	765.43	2296.29
4.000	876.54	3506.16
5.000	986.35	4931.75
6.000	999.99	5999.94

Test Procedure - 6 kg Instrument by 0.002 kg scale intervals with unit price to $999.99/kg and total price to $5999.94.

TABLE 3

Indicated Mass kg	Unit Price $/kg	Price $
0.000	000.00	000.00
0.010	999.99	0010.00
0.010	990.00	0009.90
0.022	799.99	0017.60
0.030	488.88	0014.67
0.044	599.99	0026.40
0.050	551.00	0027.55
0.050	220.00	0011.00
0.066	399.99	0026.40
0.070	806.00	0056.42
0.088	199.99	0017.60
0.090	212.66	0019.14
0.100	977.77	0097.78
0.200	966.66	0193.33
0.300	955.55	0286.67
0.400	944.44	0377.78
0.500	933.33	0466.67
0.600	922.22	0553.33
0.700	911.11	0637.78
0.800	990.90	0792.72
0.900	950.90	0855.81
1.000	944.77	0944.77
2.000	654.33	1308.66
3.000	765.43	2296.29

Test Procedure - 3 kg Instrument by 0.001 kg scale intervals with unit price to $999.99/kg and total price to $2999.97

NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 6/4D/201

VARIATION No 3

Pattern: Bizerba Model CD 8000 Weighing Instrument

Submittor: Bizerba Scales Australia Pty Ltd,
53-55 Ramsden Street,
Clifton Hill, Victoria, 3068.

1. Description of Variant 9

1.1

With SWEDOT printers Models 1200 and 1300, as shown in Figures 11 and 12. The labels for the SWEDOT 1200 are shown in Figure 13; the labels for the SWEDOT 1300 make no provision for date. The printers may be used with Bizerba Model CD 8000 of any approved capacity, in either prepackaging or retail counter instrument form. When connected to retail counter instruments, the printers are prevented from printing below the marked minimum capacity.

1.2 Sealing

The instrument is sealed in accordance with variant 6 of Technical Schedule No 6/4D/201 Variation No 2 dated 2/11/81.

TEST PROCEDURE No 6/4D/201

VARIATION No 3

Add the following test for variant 9:

6. *Range of Indication*

Where a printer is connected to an instrument in use as a retail counter machine it must not be able to print below the marked minimum capacity of the instrument.

NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 6/4D/201

VARIATION No 4

Pattern: Bizerba Model CD 8000 Weighing Instrument

Submittor: Bizerba Scales Australia Pty Ltd,
53-55 Ramsden Street,
Clifton Hill, Victoria, 3068.

1. Description of Variant 10

With a tare light in lieu of the tare mass indicator on all capacities of Bizerba model CD 8000 (Figure 10).

19/4/82

NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 6/4D/201

VARIATION No 5

Pattern: Bizerba Model CD 8000 Weighing Instrument

Submittor: Bizerba Scales Australia Pty Ltd,
53-55 Ramsden Street,
Clifton Hill, Victoria, 3068.

1. Description of Variant 11

With an output socket for the connection of peripheral equipment.

15/10/82

NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 6/4D/201

VARIATION No 6

Pattern: Bizerba Model CD 8000 Weighing Instrument

Submittor: Bizerba Scales Australia Pty Ltd
53-55 Ramsden Street
Clifton Hill, Victoria, 3068.

1. Description of Variant 12

The pattern or variants 1 to 11 with a price-look-up (PLU) keyboard and display panel (Figure 15), for use as a prepackaging or retail instrument.

The instrument is also provided with a thumbwheel switch located under a screw-on cover on the side of the instrument (see Figure 15). This three-position switch controls the operating mode.

Position 1: Self-serve mode. In this mode the instrument keyboard may be covered by a clip-on cover, and the PLU keyboard used.

Position 2: Manual start mode for label printing.

Position 3: Automatic start mode for label printing.

NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 6/4D/201

VARIATION No 7

Pattern: Bizerba Model CD 8000 Weighing Instrument

Submittor: Bizerba Scales Australia Pty Ltd
53-55 Ramsden Street
Clifton Hill, Victoria, 3068.

1. Description of Variant 13

The pattern and variants with an integral thermal printer (Figure 16).

There is no additional sealing required.

2/5/83

NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 6/4D/201

VARIATION No 8

Pattern: Bizerba Model CD 8000 Weighing Instrument

Submittor: Bizerba Scales Australia Pty Ltd
53-55 Ramsden Street
Clifton Hill, Victoria, 3068.

1. Description of Variant 14

The pattern or variants with semi-automatic tare of up to 9.995 kg capacity. Instruments are fitted with either a tare light or a tare mass indicator.

27/6/83

NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 6/4D/201

VARIATION No 9

Pattern: Bizerba Model CD 8000 Weighing Instrument

Submittor: Bizerba Scales Australia Pty Ltd
53-55 Ramsden Street
Clifton Hill, Victoria, 3068.

1. Description of Variant 15

Of 30 kg capacity by 0.010 kg scale intervals, with price-computing in 1c increments to $99.99/kg and price to $2999.70. A typical instrument is shown in Figure 17.

RS

NATIONAL STANDARDS COMMISSION

NOTIFICATION OF CHANGE

CERTIFICATE OF APPROVAL No 6/4D/201

CHANGE No 1

The following changes are made to the description of the

Bizerba Model CD 8000 Weighing Instrument

given in Certificate of Approval No 6/4D/201 and its Technical Schedule, both dated 15/9/80:

1. Certificate

1.1 Alter $999,99 to read $999,99/kg in description of pattern.

2. Technical Schedule

2.1 Alter last line of page 1 to read

..... then displays numbers 9 to 1 sequentially.

2.2 Replace page 3 with attached page 3, in which the second paragraph of clause 3. Zero Range is rewritten.

Signed

H. Selig

Executive Director

12/6/81

3. Zero range

The maximum range of operation of the zero/power switch 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, 0,36 kg to the instrument and operate the power switch; the instrument should not rezero, but should display the fault number 17 in the mass indicator to indicate that an attempt to zero the instrument has been made with a mass above the zero range on it.

The number 18 is displayed if an attempt is made to zero the instrument when it is in excess of the zero range in a negative direction.

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, 10 e.

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

5. Price-computing accuracy

The indication of mass, unit price and price as listed in Table 1 will indicate that the price-computing and mass circuits are functioning correctly. The exact figures should be indicated 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 maximum capacity (max); above this, the indicator should be blank.

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

NATIONAL STANDARDS COMMISSION

NOTIFICATION OF CHANGE

CERTIFICATE OF APPROVAL No 6/4D/201

CHANGE No 2

The following changes are made to the description of the

Bizerba Model CD 8000 Weighing Instrument

given in Technical Schedule No 6/4D/201, Variation No 3 dated 16/11/81.

1. Under Description of Variant 9, paragraph 1.1, delete second sentence and insert the following:

   "The labels for the SWEDOT models 1200 and 1300 printers with provision for date are shown in Figure 13; the labels for the SWEDOT model 1300 without provision for date are shown in Figure 14."

   Note: Figure 14 is attached.

2. Alter caption of Figure 6/4D/201 - 13 to read:

   Sample Labels (actual size)

   SWEDOT Models 1200 And 1300 With Provision For Date

Signed

Executive Director

1/1/83

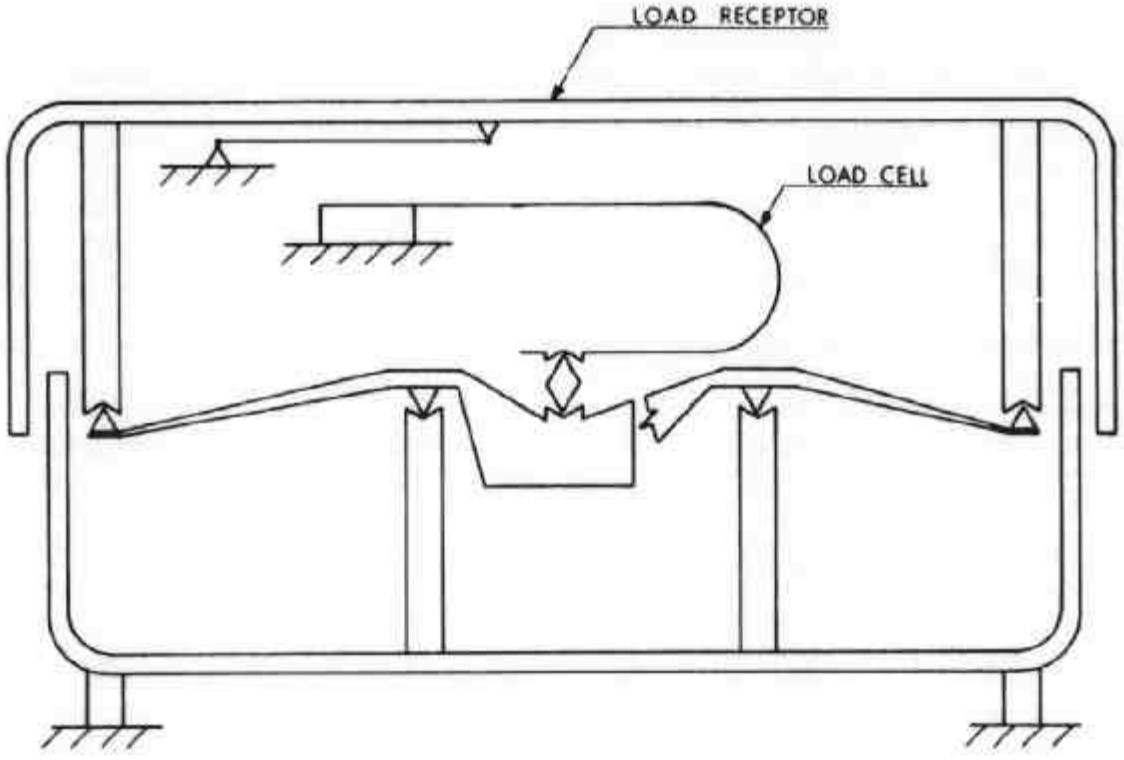
FIGURE 6/4D/201 - 1

Model CD 8000, Vendor's Indicator and Keyboard

FIGURE 6/4D/201 - 2

Purchaser's Indicator

FIGURE 6/4D/201 - 3



Lever Diagram - Schematic Representation

FIGURE 6/4D/201 - 4

Side View showing Sealing and Stamping Plug

FIGURE 6/4D/201 - 5

Model CD 8000 - with Separate Receptor

FIGURE 6/4D/201 - 6

Model CD 8000 without Unit-Price Recall and with Tare in grams

5/6/81

FIGURE 6/4D/201 - 7

e in grams - Purchaser's Side

FIGURE 6/40/201 - 8

View Showing Printer Serial Number

FIGURE 6/4D/201 - 9

Instrument with Digitol Tare

FIGURE 6/40/201 - 10

Model CD 8000 With Tare Light - Variant 10

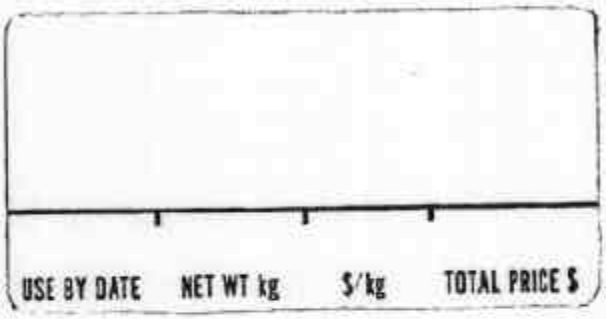
FIGURE 6/4D/201 - 11

SWEDOT Printer Model 1200

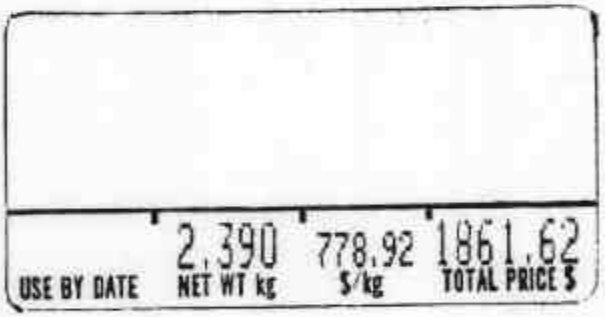
FIGURE 6/4D/201 - 12

SWEDOT Printer Model 1300

16/11/81



(a) Before printing

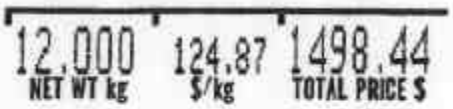


(b) After printing

Sample Labels (actual size)
SWEDOT 1200

(a) Before Printing

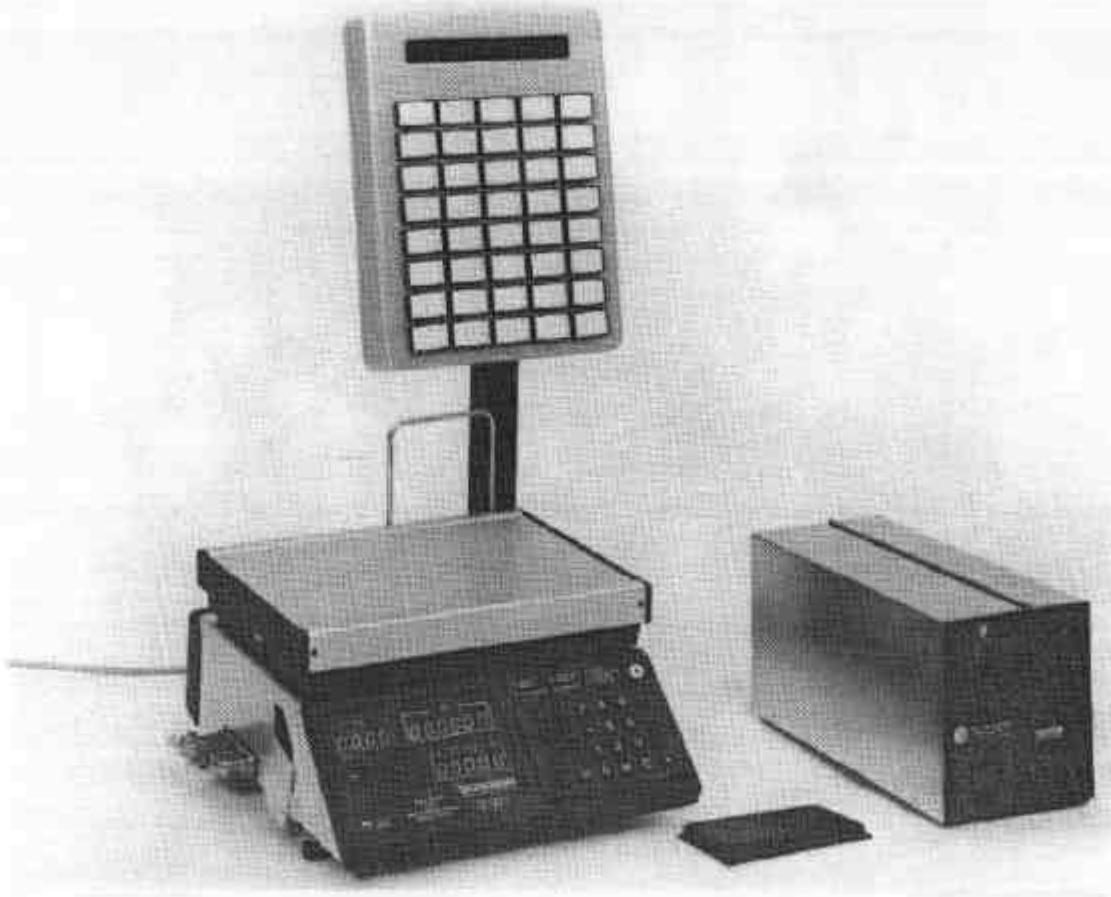
(b) After Printing



Sample Labels (actual size)

SWEDOT Model 1300 Without Provision For Date

FIGURE 6/4D/201 - 15



Bizerba CD8000 With PLU Keyboard And Display

FIGURE 6/40/201 - 16

Bizerba CD8000 Series With Integral Printer

FIGURE 6/4D/201 - 17

A Typical CD 8000 Instrument