Australian Government
Department of Industry, Science, Energy and Resources

National Measurement Institute

36 Bradfield Road, West Lindfield NSW 2070

Certificate of Approval

NMI 6/9C/244B

Issued by the Chief Metrologist under Regulation 60
of the
National Measurement Regulations 1999

This is to certify that an approval for use for trade has been granted in respect of the instruments herein described.

Atrax Model C24B Weighing Instrument

submitted by Atrax Group NZ Limited
390A Church Street
Penrose Auckland
NEW ZEALAND.

NOTE: This Certificate relates to the suitability of the pattern of the instrument for use for trade only in respect of its metrological characteristics. This Certificate does not constitute or imply any guarantee of compliance by the manufacturer or any other person with any requirements regarding safety.

This approval has been granted with reference to document NMI R 76, *Non-automatic weighing instruments, Parts 1 and 2*, dated July 2004.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern & variants 1 to 4 approved – certificate issued	9/09/04
1	Variants 5 & 6 approved – interim certificate issued	26/05/08
2	Variants 5 & 6 approved – certificate issued	3/06/08
3	Pattern & variants 1 to 6 reviewed – variant 3 amended – variant 7 approved – certificate issued	30/07/10
4	Variants 8 & 9 approved – certificate issued	2/02/11
5	Variant 10 approved – certificate issued	24/06/11
6	Pattern & variants 1 to 10 updated – variant 11 approved – certificate issued	27/04/12
7	Pattern & variants 1 to 11 **reviewed** – certificate issued	8/02/17
8	Variant 12 approved – certificate issued	04/09/20

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI 6/9C/244B' and only by persons authorised by the submittor.

It is the submittor's responsibility to ensure that all instruments marked with this approval number are constructed as described in the documentation lodged with the National Measurement Institute (NMI) and with the relevant Certificate of Approval and Technical Schedule. Failure to comply with this Condition may attract penalties under Section 19B of the National Measurement Act and may result in cancellation or withdrawal of the approval, in accordance with document NMI P 106.

Auxiliary devices used with this instrument shall comply with the requirements of General Supplementary Certificates No S1/0/A or No S1/0B.

This approval shall NOT be used in conjunction with General Certificate No 6B/0.

Signed by a person authorised by the Chief Metrologist to exercise their powers under Regulation 60 of the *National Measurement Regulations 1999*.

Darryl Hines
Manager
Policy and Regulatory
Services

TECHNICAL SCHEDULE No 6/9C/244B

1. Description of Pattern approved on 9/9/04

An Atrax model C24B self-indicating medium accuracy class (III) platform weighing instrument of 150 kg maximum capacity and approved for use with a verification scale interval of 0.1 kg.

Instruments are approved for use over a temperature range of 10°C to +40°C and must be so marked.

1.1 Basework

The model C24B basework (Figure 1) has four load cells directly supporting the load receptor.

The load receptor has a maximum nominal size of 920 × 1800 mm.

A conveyor belt assembly may be mounted on the load receptor, however instruments are approved for static weighing only.

1.2 Load Cells

Four Sensortronic model 65023-250kg-3107M-** (#) load cells of 250 kg capacity (Figure 2) are used and are mounted as shown in Figure 1.

(#) ** represents the cable length.

1.3 Indicator

The Atrax model ABS-950 indicating system (Figure 3) uses an Atrax model OP-950 (operator) indicator to which an Atrax model PP-950 (passenger) display is attached.

The OP-950 unit (Figure 4) contains the main system board and is connected to the basework; it displays the item weight, a total weight, and the number of items (bags) contributing to the total.

The PP-950 unit (Figure 5) also displays the item weight, a total weight, and the number of items (bags) contributing to the total.

The AC/DC mains adaptor supplied was an Atrax model PS-950 power supply (output 7.5 V DC, 1.2 A) – the submittor should be consulted regarding the acceptability of alternative power supply units.

The system may have additional management functions and output sockets (output interfacing capability) for the connection of auxiliary and/or peripheral devices (including for example alarms and conveyor controls). Data output from the system may only be used for trade purposes where it complies with General Supplementary Certificates No S1/0/A or No S1/0B.

1.3.1 Zero

Zero is automatically corrected to within ±0.25e whenever power is applied and whenever the instrument comes to rest within 0.5e of zero.

The instrument has a semi-automatic zero-setting device with a nominal range of not more than 4% of the maximum capacity of the instrument.

1.4 Operation

The OP-950 unit has provision for semi-automatic zero setting (->0<-key).

A totalising facility allows successive weighings to be summed by use of the M+ key, (or subtracted by use of the M- key). Pressing the C key resets the total and bag count to zero.

Other keys of the OP-950 unit may be configured to perform operations such as control of the conveyor belt, or printing of weighing results.

It is also possible for a second totalising facility (e.g. for a group of passengers) to be displayed on a temporary basis.

Note: Operation with units other than kilograms is not approved for trade use.

1.5 Display Check

A display check is initiated when the instrument is switched on.

1.6 Levelling

Where instruments are liable to be tilted (i.e. they are not installed in a permanently fixed location) they are provided with adjustable feet and a level indicator. Adjacent to the level indicator is a notice advising that the instrument must be level when in use.

1.7 Descriptive Markings and Notices

Instruments are marked with the following data, together in one location, in the form shown at right:

Manufacturer's mark, or name written in full	Atrax Group NZ Limited
Name or mark of manufacturer's agent	……..
Indication of accuracy class	(III) or (IIII)
Pattern approval number for the instrument	NMI 6/9C/244B
Maximum capacity	*Max* ..... kg #1
Minimum capacity	*Min* ..... kg #1
Verification scale interval	*e* = ... kg #1
Serial number of the instrument	…… #2
Special temperature limits	10°C to +40°C

#1 These markings are also shown near the display of the result if they are not already located there.

#2 The serial number may be shown as part of the display sequence when the instrument is switched on.

1.8 Sealing Provision

Provision is made for the calibration adjustments in the indicator to be sealed. This is achieved by ensuring that the two switches below the cover at the bottom left ***at the rear*** of the OP-950 unit are in the 'off' position (Figure 6) and then sealing access to these switches by use of a destructible adhesive label or a lead and wire type seal.

1.9 Verification Provision

Provision is made for the application of a verification mark.

2. Description of Variant 1 approved on 9/09/04

As medium accuracy class (III) instruments of certain capacities, namely:

- Of 150 kg maximum capacity, with a minimum capacity of 4 kg, and with a verification scale interval of 0.2 kg; or
- Of 100 kg maximum capacity, with a minimum capacity of 2 kg, and with a verification scale interval of 0.1 kg.

Instruments are approved medium accuracy class (III), and are so marked.

3. Description of Variant 2 approved on 9/09/04

As ordinary accuracy class (III) instruments of certain capacities, namely:

- Of 150 kg maximum capacity, with a minimum capacity of 2 kg, and with a verification scale interval of 0.2 kg; or
- Of 100 kg maximum capacity, with a minimum capacity of 1 kg, and with a verification scale interval of 0.1 kg.

Instruments are approved ordinary accuracy class (III), and are so marked.

4. Description of Variant 3 approved on 9/09/04

With Atrax model C24B baseworks as described below:

- Similar to the basework of the pattern but with the load receptor having a maximum nominal size of 780 × 2000 mm or 1500 × 2000 mm or 1000 × 2400 mm.
- Similar to the basework of the pattern but inverted so that swivel feet which are fitted to the load cells now support the conveyor, and the load cell mounting is reversed (Figure 7). The basework may be fitted with wheels.

NOTE: Instruments with wheels are intended to be mounted on fixed rails with the wheels only provided for ease of access for servicing. The instruments are used in a fixed location and the requirements of clause **1.6 Levelling** do not apply.

5. Description of Variant 4 approved on 9/09/04

With a second ('slave') OP-950 operator indicator. This slave operator panel repeats the display of the first OP-950 indicator ('master') and in addition provides remote operation of the semi-automatic zero setting function (->0<- key). The intention of this arrangement is for a situation in which a single weighing platform is shared between two airport check-in counters (with the master indicator on one counter, and the slave indicator on the other).

Whilst the slave OP-950 operates as a slave of the first in respect of its measurement function, its other functions, namely totalisation, number of items (bags) and management functions such as alarms, operate separately.

As the calibration adjustments of the measuring function are carried out within the master OP-950, it is not necessary for the slave operator panel to be sealed.

The slave OP-950 is identical to the master unit except for a software setting that selects a slave mode. A passenger display PP-950 may be connected to both the master and slave unit. Figure 8 shows such an arrangement.

6. Description of Variant 5 approved on 26/05/08

With the model C24B baseworks described for the pattern and variant 3 now constructed using folded channel or using square or rectangular rolled hollow section (RHS), and known as model SB-950 baseworks (Figure 9).

7. Description of Variant 6 approved on 26/05/08

With the model OP-960 (operator) indicator which has the same functionality and external appearance as the model OP-950 unit described for the pattern.

The model PP-960 (passenger) display may replace the model PP-950 unit described for the pattern.

The AC/DC mains adaptor is an Atrax model PS-950/960 power supply (output 7.5 V DC, 1.2 A) – the submittor should be consulted regarding the acceptability of alternative power supply units.

8. Description of Variant 7 approved on 30/07/10

The pattern and variants now using four Atrax (or Youngzhou Anyload) model 563YH load cells of 500 kg capacity (Figure 10) and having a maximum capacity of 150 kg with a verification scale interval of 0.2 kg.

9. Description of Variant 8 approved on 2/02/11

The pattern or variants as ordinary accuracy class (III) instruments of certain capacities, namely:

- Of 150 kg maximum capacity, with a minimum capacity of 5 kg, and with a verification scale interval of 0.5 kg;
- Of 100 kg maximum capacity, with a minimum capacity of 5 kg, and with a verification scale interval of 0.5 kg; or
- Of 100 kg maximum capacity, with a minimum capacity of 2 kg, and with a verification scale interval of 0.2 kg.

Instruments are approved ordinary accuracy class (III), and are so marked.

10. Description of Variant 9 approved on 2/02/11

As medium accuracy class (III) instruments of certain capacities, namely:

- Of 100 kg maximum capacity, with a minimum capacity of 4 kg, and with a verification scale interval of 0.2 kg.

Instruments are approved medium accuracy class (III), and are so marked.

11. Description of Variant 10 approved on 24/06/11

With the model OP-960+ (operator) indicator which has the same functionality and external appearance as the model OP-960 unit described for variant 6 but now has an upgraded (higher resolution) LCD (liquid crystal display).

The model PP-960+ (passenger) display may replace the model PP-950 unit (described for the pattern) or the model PP-960 unit (refer variant 6).

The AC/DC mains adaptor is an Atrax model PS-950/960 power supply (output 7.5 V DC, 1.2 A) – the submittor should be consulted regarding the acceptability of alternative power supply units.

12. Description of Variant 11 approved on 27/04/12

The pattern and variants with the model OP-960+ (operator) indicator (Variant 10) now using four Anyload (aka Youngzhou Anyload aka Atrax) model 563YH C4 load cells of 500 kg capacity (Figure 11) and having a maximum capacity of 150 kg with a verification scale interval of 0.1 kg.

Instruments are approved medium accuracy class (III), and are so marked.

13. Description of Variant 12 approved on 04/09/20

The model PP-960-S (passenger) display (Figure 12) may replace the model PP-950 unit (described for the pattern) or the model PP-960 unit (refer variant 6) or the model PP-960+ unit (refer variant 10).

The instrument may be provided with a remote button (passenger) in a self 'bag-drop' check-in system for remote operation of the semi-automatic zero setting function.

TEST PROCEDURE No 6/9C/244B

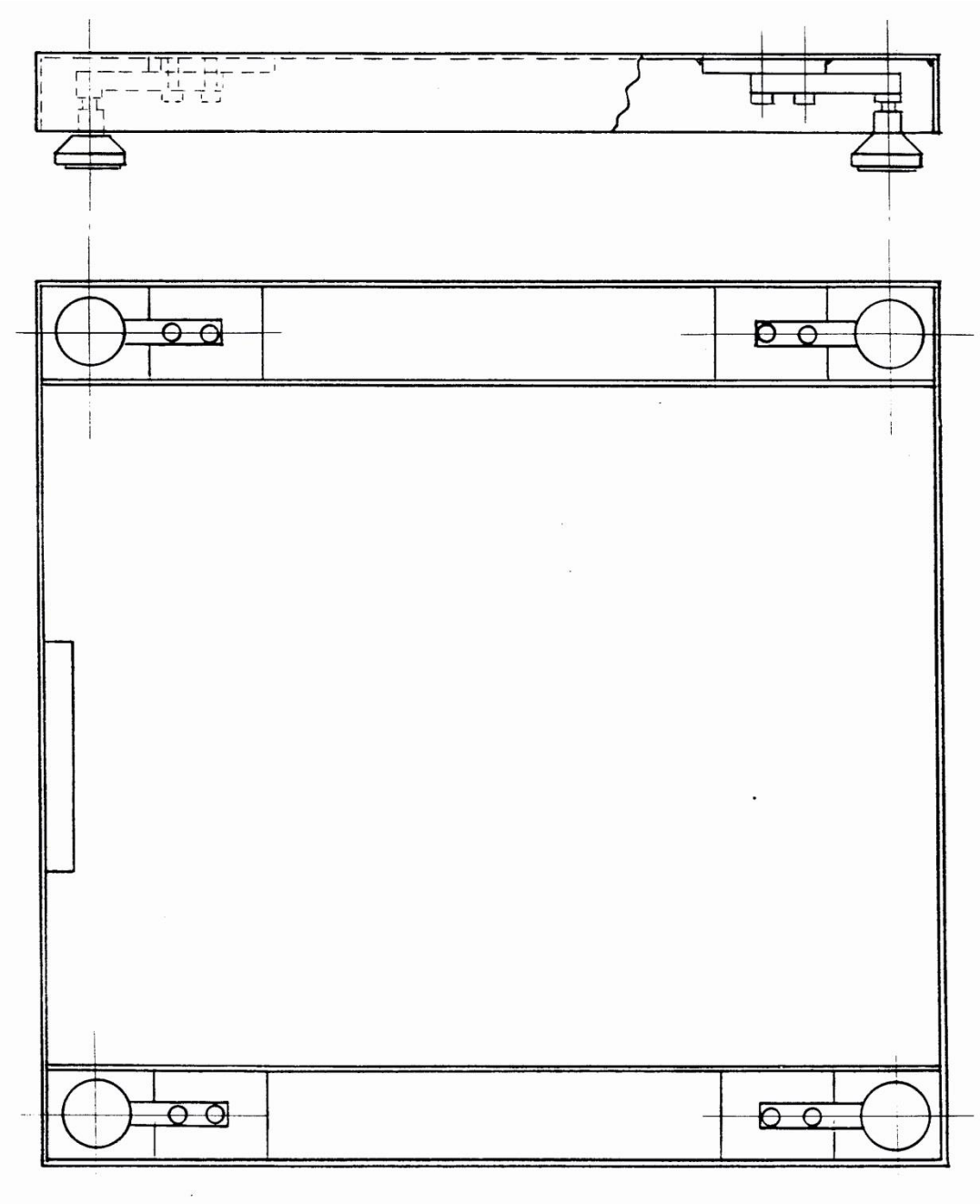
Instruments shall be tested in accordance with any relevant tests specified in the National Instrument Test Procedures.

Maximum Permissible Errors

The maximum permissible errors are specified in Schedule 1 of the *National Trade Measurement Regulations 2009*.

Ensure that instruments are only being used within the special temperature limits stated elsewhere in this Technical Schedule.

FIGURE 6/9C/244B – 1

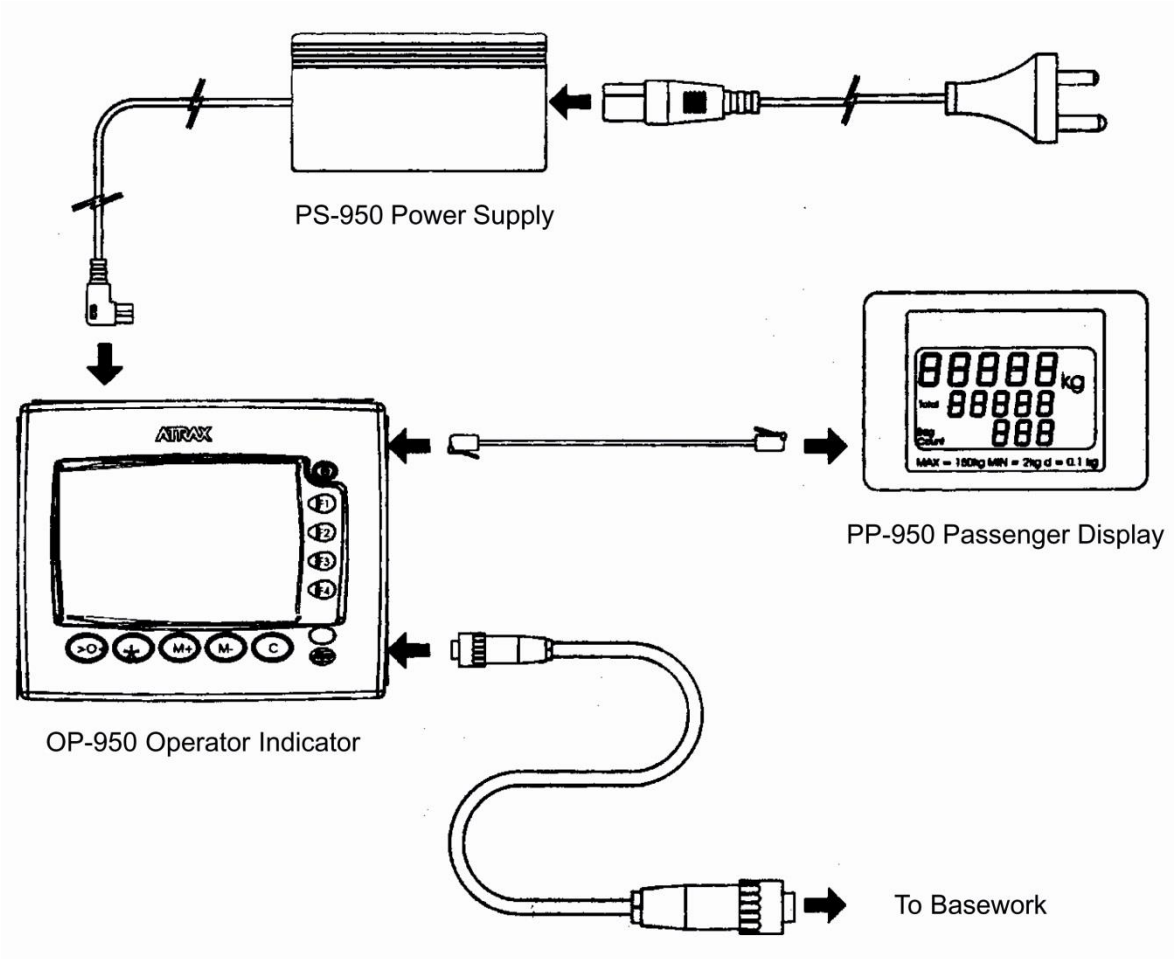


Atrax Model C24B Weighing Instrument

FIGURE 6/9C/244B – 2

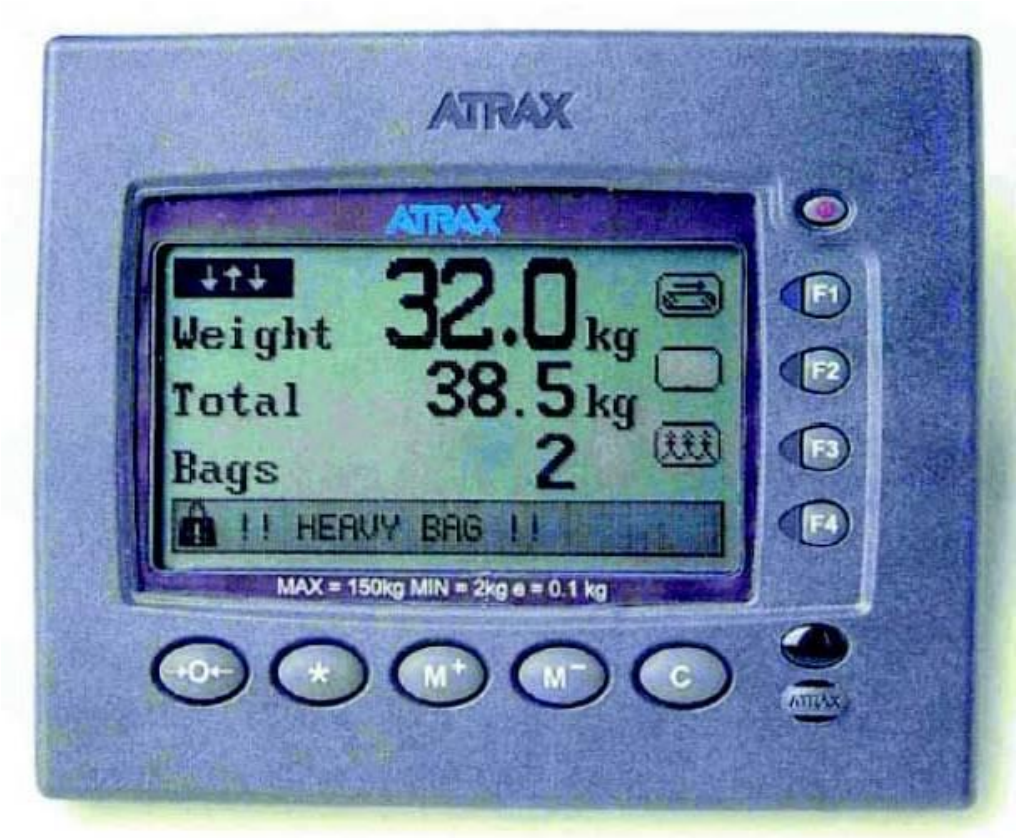
Sensortronic Model 65023-250kg-3107M** Load Cell

FIGURE 6/9C/244B – 3



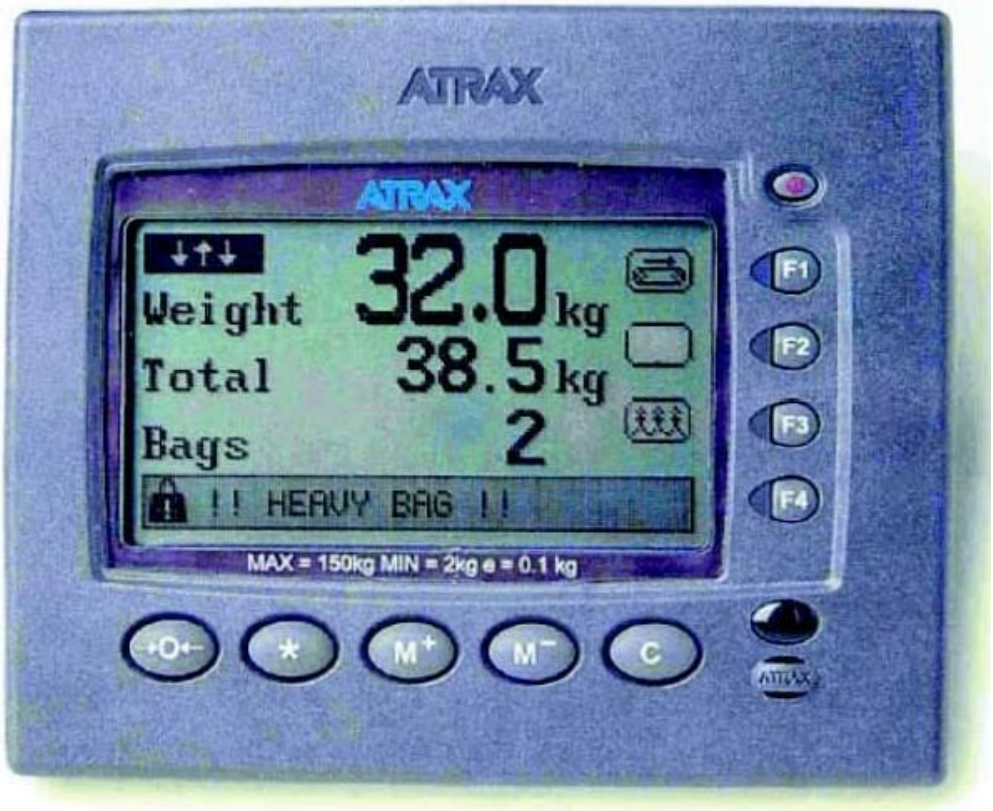
Model ABS-950 Indicating System

FIGURE 6/9C/244B – 4



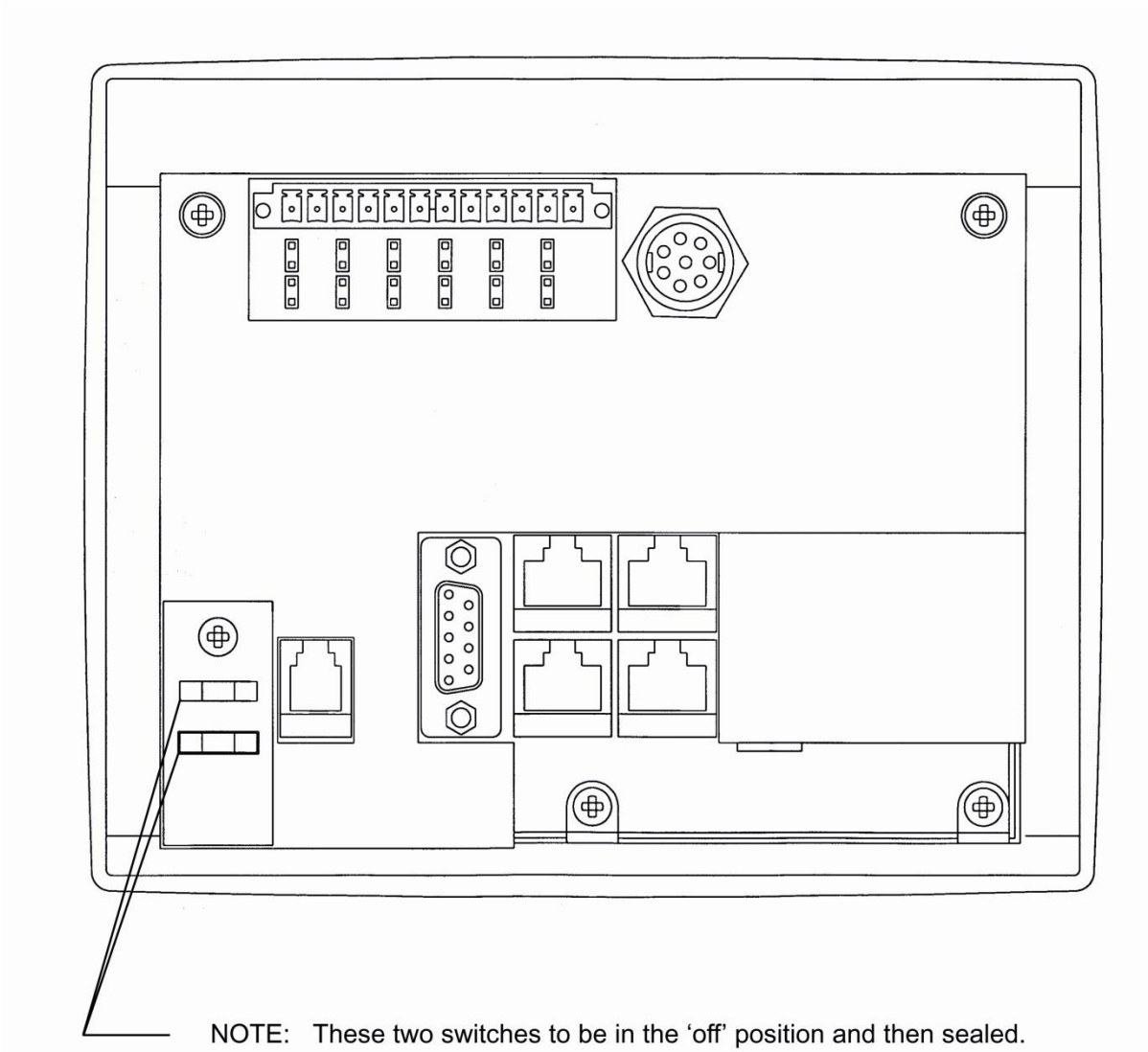
Model OP-950 Operator Indicator

FIGURE 6/9C/244B – 5



Model PP-950 Passenger Display Unit

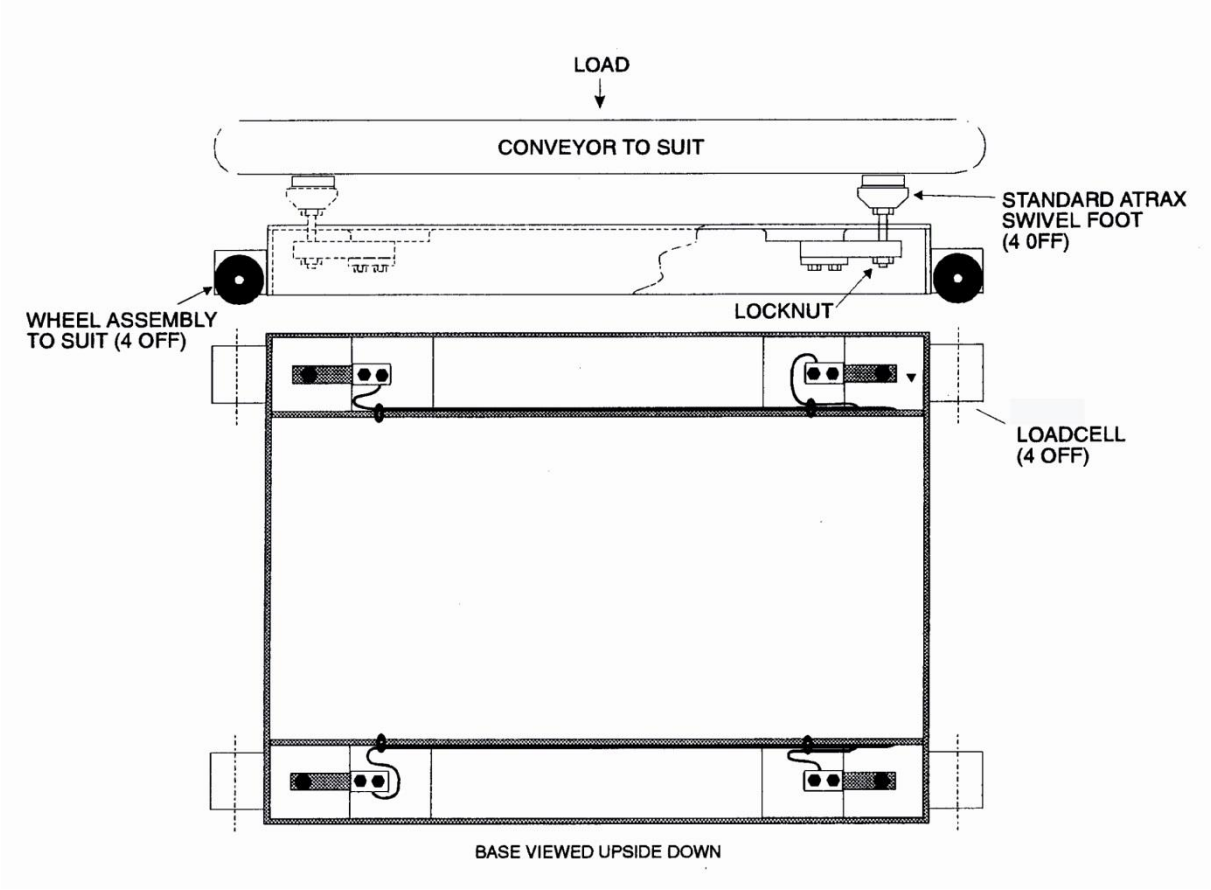
FIGURE 6/9C/244B – 6



REAR VIEW OF MODEL OP-950

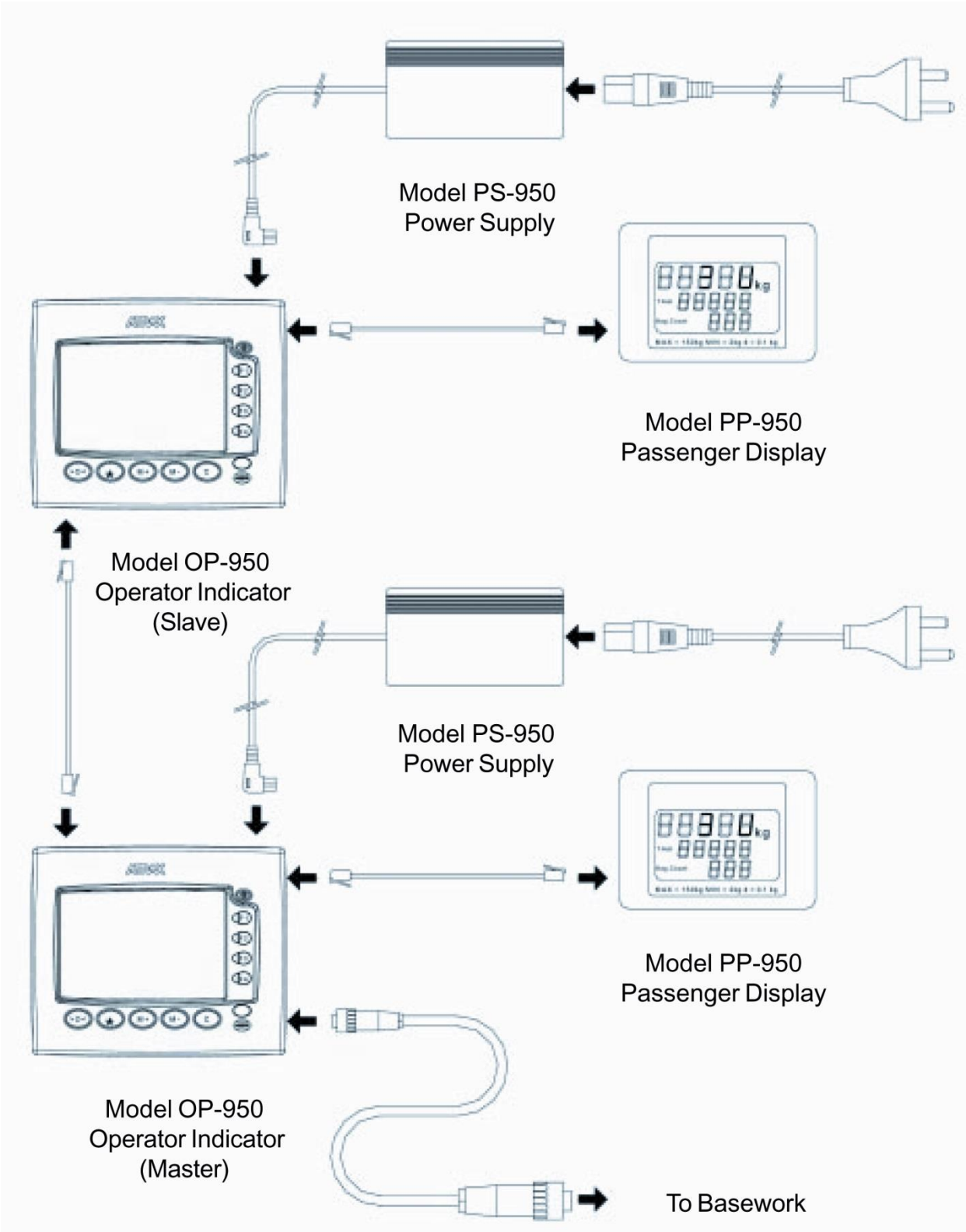
Sealing of OP-950 Operator Indicator

FIGURE 6/9C/244B – 7



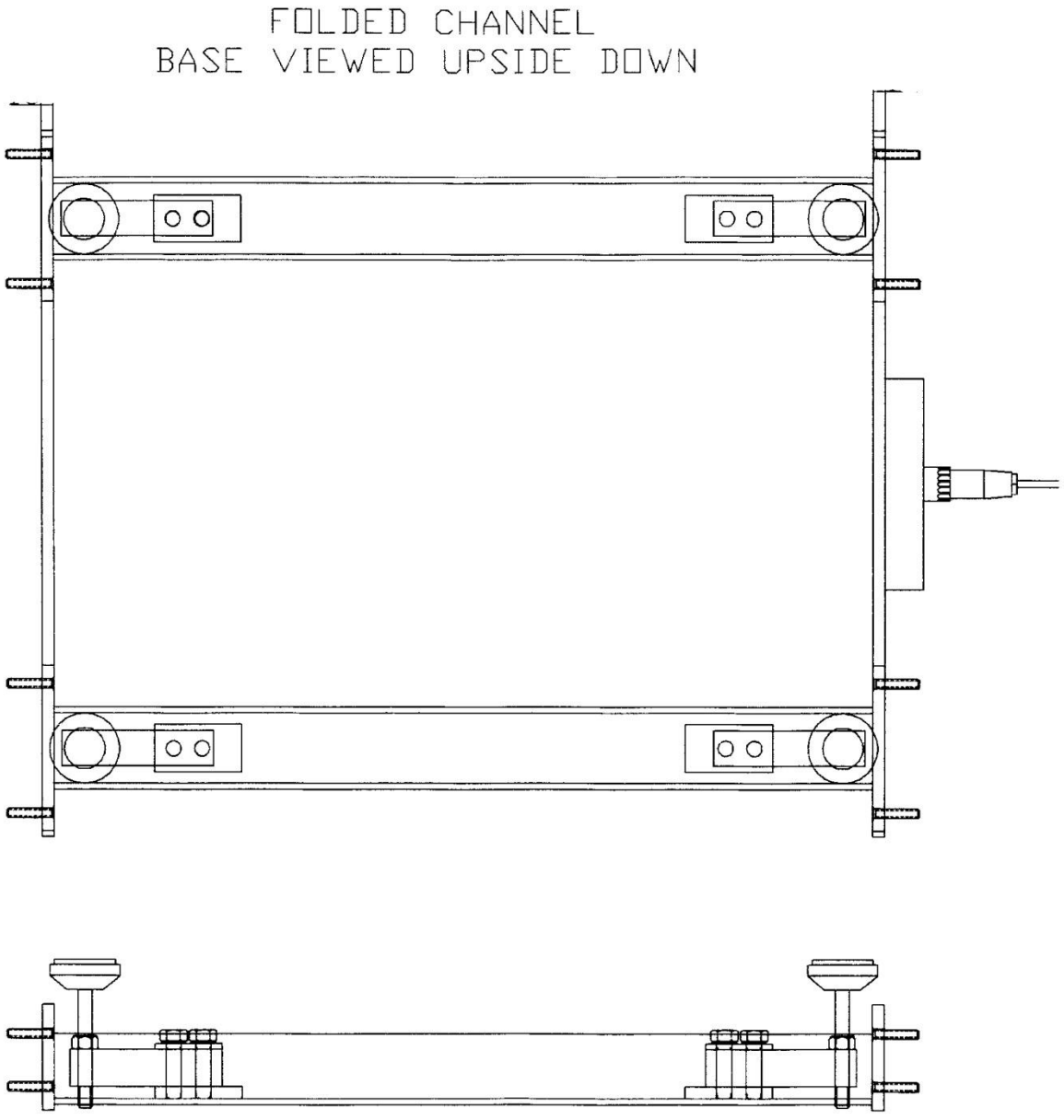
An Alternative Model C24B Basework – Variant 3

FIGURE 6/9C/244B – 8



Typical Dual Operator Indicator System – Variant 4

FIGURE 6/9C/244B – 9



Atrax Model SB-950 Basework – Folded Channel Version

FIGURE 6/9C/244B – 10

Atrax (aka Youngzhou Anyload) Model 563YH Load Cell

FIGURE 6/9C/244B – 11

Anyload (aka Youngzhou Anyload aka Atrax) Model 563YH C4 Load Cell

FIGURE 6/9C/244B – 12

Model PP-960-S Passenger Display Unit

~ End of Document ~