



6/4D/230  
11/5/88

## NATIONAL STANDARDS COMMISSION

### NATIONAL MEASUREMENT (PATTERNS OF INSTRUMENTS) REGULATIONS

#### REGULATION 9

#### CERTIFICATE OF APPROVAL No 6/4D/230

This is to certify that an approval for use for trade has been granted in respect of the pattern and variants of the

Ishida Model Alpha Cosmic 150 Weighing Instrument

submitted by Heat and Control Pty Ltd (Greer Division)  
35/170 Forster Road  
Mount Waverley Vic 3149.

#### CONDITIONS OF APPROVAL

This approval is subject to review on or after 1/11/89.  
This approval expires in respect of new instruments on 1/11/90.

Instruments purporting to comply with this approval shall be marked NSC No 6/4D/230.

This approval may be withdrawn if instruments are constructed other than in accordance with the drawings and specifications lodged with the Commission.

Auxiliary devices used with this instrument shall comply with the requirements of General Supplementary Certificates Nos S1/0 and/or S2/0, as appropriate.

Signed

Executive Director

#### Descriptive Advice

Pattern: approved 15/10/84

- A self-indicating price-computing weighing instrument of 15 kg capacity with a verification scale interval of 0.005 kg.

Variants: approved 15/10/84

1. With inbuilt ticket printer and with the facility to be used for up to 8 simultaneous transactions.
2. With inbuilt label printer.
3. With price-look-up (PLU) facility.
4. Of 6 kg capacity with a verification scale interval of 0.002 kg.

Technical Schedule No 6/4D/230 describes the pattern and variants 1 to 4.

Certificate of Approval No 6/4D/230

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Variants: approved 3/9/86

5. As a prepackaging instrument and known as a model DP-4000.
6. As a prepackaging instrument and known as a model WPL-4000.

Variants: approved 11/11/87

7. As a dual-interval instrument of 15 kg maximum capacity and known as a model Alpha Cosmic 1000.
8. A number of Alpha Cosmic 1000 instruments connected in a network.

Technical Schedule No 6/4D/230 Variation No 1 describes variants 5 to 8.

Filing Advice

Certificate of Approval No 6/4D/230 dated 3/7/85 is superseded by this Certificate and may be destroyed. The documentation for this approval now comprises:

- Certificate of Approval No 6/4D/230 dated 11/5/88
- Technical Schedule No 6/4D/230 dated 3/7/85
- Technical Schedule No 6/4D/230 Variation No 1 dated 11/5/88
- Test Procedure No 6/4D/230 dated 3/7/85
- Test Procedure No 6/4D/230 Variation No 1 dated 11/5/88
- Figures 1 and 2 dated 3/7/85
- Figures 3 to 5 dated 11/5/88



# NATIONAL STANDARDS COMMISSION

## TECHNICAL SCHEDULE No 6/4D/230

Pattern: Ishida Model Alpha Cosmic 150 Weighing Instrument

Submittor: Greer Australia Pty Ltd  
22 Mary Parade  
Rydalmere NSW 2116

### 1. Description of Pattern

A self-indicating price-computing weighing instrument of 15 kg capacity with 0.005 kg scale intervals, unit price to \$999.99 and price to \$999.99 (similar to the instrument shown in Figure 1).

The instrument may be fitted with output socket/s for the connection of auxiliary and/or peripheral devices.

#### 1.1 Zero

Zero is automatically corrected to within  $\pm 0,25e$  whenever the instrument comes to rest within  $0,5e$  of zero. If the instrument comes to rest outside that range but within the zero reset range, zero may be reset by pressing the zero button. The zero light illuminates whenever zero is within  $0,25e$ .

#### 1.2 Display Check

A display check is initiated whenever the zero button is pressed.

#### 1.3 Tare

A semi-automatic taring device of up to 9.995 kg capacity may be fitted.

#### 1.4 Markings

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

Manufacturer's name or mark	
Serial number	
NSC approval number	NSC No 6/4D/230
Accuracy class	(III)
Maximum capacity	Max 15 kg *
Minimum capacity	Min 0.1 kg *
Verification scale interval	$e = d = 0,005$ kg *
Maximum subtractive tare	$T = -9,995$ kg

\* These markings are repeated close to each reading face if not already in that vicinity.

#### 1.5 Levelling

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

#### 1.6 Verification Provision

Provision is made for a verification mark to be applied.

## 2. Description of Variants

### 2.1 Variant 1

With an inbuilt ticket printer and with the facility to be used for up to 8 simultaneous transactions (Figure 1).

After each individual partially-completed transaction, the operator stores the details in one of up to 8 memories. On completion of the total transaction, the details of each individual transaction are recalled and automatically itemised and totalised on a ticket for the purchaser. A sample ticket is shown in Figure 2.

A number of these instruments may be networked together allowing transfer of transaction data. Any one of the instruments may then print the ticket, which must carry item descriptions for each item.

### 2.2 Variant 2

With inbuilt label printer.

A sample label is shown in Figure 3.

### 2.3 Variant 3

With price-look-up (PLU) facility of up to 440 items.

### 2.4 Variant 4

Of 6 kg capacity with 0.002 kg scale intervals, and tare to maximum capacity (Figure 1).

TEST PROCEDURE No 6/4D/230

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

1. 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 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 setting device should not exceed 4% of the maximum capacity (± 2% approximately). With zero balance indicated apply a load of, say, 2.5% of maximum capacity to the instrument and press the zero button; the instrument should not rezero.

3. Load Test

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

4. Range of Indication

- (a) The maximum mass indicated should not exceed the marked maximum capacity by more than 10e; above this indicated mass the indication should be blank or show non-numerical characters.
- (b) The minimum mass indicated should be zero; below this the indication should be blank or show non-numerical characters.

5. Taring

The tare function should be able to reset the mass indicator to zero within 0.25e at any load within its capacity. This may be checked as described for Zero Test. A tare should not be able to be acquired above the marked tare capacity.



## NATIONAL STANDARDS COMMISSION

### TECHNICAL SCHEDULE No 6/4D/230

#### VARIATION No 1

Pattern: Ishida Model Alpha Cosmic 150 Weighing Instrument.

Submitter: Heat and Control Pty Ltd (Greer Division)  
35/170 Forster Road  
Mount Waverley Victoria 3149.

#### 1. Description of Variants

##### 1.1 Variant 5

With the weighing unit, printer and indicator unit in separate housings and with additional management functions for use as a prepackaging instrument, and then known as a model DP-4000 (Figure 3).

The instrument may be fitted with a semi-automatic and/or a non-automatic taring device each of up to 9.995 kg capacity on 15 kg instruments or up to maximum capacity on 6 kg instruments.

The semi-automatic device permits setting of tare to within  $\pm 0.25e$  and the non-automatic device permits setting to within  $\pm 0.5e$ .

On instruments with more than one taring device an attempt to enter tare by the use of one device, with a tare having already been acquired by use of the other, shall have no effect or shall override or cancel the tare already entered.

Below zero the instrument displays mass preceded by a minus sign. The instrument must be marked NOT FOR RETAIL COUNTER USE or NOT FOR TRADING DIRECT WITH THE PUBLIC or similar wording.

##### 1.2 Variant 6

Similar to variant 5 (model DP-4000) but with the weighing unit incorporated into a conveyor assembly enabling packages to be automatically weighed and labelled, and then known as a model WPL-4000 (Figure 4).

The instrument may be used statically or dynamically (i.e. conveyor stopped or moving). The maximum capacity for dynamic use is 6 kg for both 6 kg and 15 kg instruments, and instruments shall be so marked.

The weighing unit is bolted into the conveyor framework. Adjacent to the level indicator, which is on the framework, is a notice advising that the instrument must be level when in use.

##### 1.3 Variant 7

A model Alpha Cosmic 1000 dual-interval weighing instrument (Figure 5) with a verification scale interval of 0.002 kg up to 6 kg and with a verification scale interval of 0.005 kg from 6 kg up to the maximum capacity of 15 kg.

The instrument is similar to the pattern, but is fitted with an additional alphanumeric display for commodity names, instrument status and operational prompts, and has a modified keyboard providing dedicated price-look-up (PLU) keys and/or operator keys and alphanumeric entry whilst programming.

The integral printer may be used for either labels or tickets (with or without adhesive backing).

1.3.1 Markings

Instruments are marked with the following data, together in one location:

Manufacturer's name or mark	
Serial number	
NSC approval number	NSC No 6/4D/230
Accuracy class	III
Low range	
Maximum capacity	Max           6 kg *
Verification scale interval	e = d = 0.002 kg *
High range	
Maximum capacity	Max           15 kg *
Verification scale interval	e = d = 0.005 kg *
Minimum capacity	Min           0.04 kg *
Maximum subtractive tare	T =       - 5.998 kg

\* Repeated close to each reading face.

1.4 Variant 8

A number of Alpha Cosmic 1000 instruments may be connected in a network, to share common PLU data, to transfer transaction data between instruments, and to retrieve management information.

Each individual instrument within the network has the facility for the transaction data to be entered into one of a number of operator memories, with a total ticket being produced at the end of a number of transactions.

In such a system it is essential that the purchaser be provided with a ticket, or tickets, indicating each item in the transaction and the total price for the transaction. The linking of these instruments in a network allows such transaction data to be transferred between instruments.

The network must include a model SC 9000 as the network controller (this is a "control box" - it is not a weighing instrument) through which PLU information may be altered and management data retrieved (and messages sent to operators). The SC 9000 may be interfaced with a computer for the same purposes.

Note: The weighing and price-computing functions of each weighing instrument in the network are independent, and the removal, repair or replacement of a particular weighing instrument does not necessitate reverification of any other weighing instrument in the network.



# NATIONAL STANDARDS COMMISSION

6/4D/230  
11/5/88

## TEST PROCEDURE No 6/4D/230

### VARIATION No 1

#### 1. Zero Range (Variants 5 and subsequent)

The maximum range of operation of the zero setting device should not exceed 4% of the maximum capacity. The device shall be capable of both negative and positive adjustments of at least one-quarter of the zero adjustment range. With zero balance indicated apply a load of, say, 3.5% of maximum capacity, turn the power off and then back on, and then press the zero button; the instrument should not rezero.

#### 2. Load Test (Dual-interval instruments)

Test loads are to be applied to the instrument in not less than 6 steps increasing to maximum capacity, followed by decreasing loads in not less than 6 steps to zero load. The loads should be selected such that there are 3 approximately equal steps in each range, but avoiding the changeover point of the ranges.





# NATIONAL STANDARDS COMMISSION

6/4D/23C  
20/10/88

## NOTIFICATION OF CHANGE

CERTIFICATE OF APPROVAL No 6/4D/230

CHANGE No 1

The following change is made to the approval documentation for the  
Ishida Model Alpha Cosmic 150 Weighing Instrument

submitted by Heat and Control Pty Ltd (Greer Division)  
Unit N, 10-16 South Street  
Rydalmere NSW 2116.

In Technical Schedule No 6/4D/230 Variation No 1 dated 11/5/88, amend  
clause 1.4 Variant 8 by altering the fourth paragraph to read, in part:

"The network may include a model SC 9000 as the network controller ..."

Signed

Executive Director



NATIONAL STANDARDS COMMISSION

6/4D/230  
2/1/89

NOTIFICATION OF CHANGE

CERTIFICATE OF APPROVAL No 6/4D/230

CHANGE No 2

The following changes are made to the approval documentation for the  
Ishida Model Alpha Cosmic 150 Weighing Instrument

submitted by Heat and Control Pty Ltd (Greer Division)  
Unit N, 10-16 South Street  
Rydalmere NSW 2116.

In Technical Schedule No 6/4D/230 Variation No 1 dated 11/5/88, amend  
clause 1.4 Variant 8 as follows:

- (a) Amend the first paragraph to read, in part;  
"..... between Instruments, and/OR to retrieve ....."
- (b) Amend the third paragraph by deleting the second sentence (i.e. "The  
linking ..... between Instruments").

Signed

Executive Director

## National Standards Commission



### NOTIFICATION OF CHANGE

### CERTIFICATE OF APPROVAL No 6/4D/230

### CHANGE No 3

The following changes are made to the approval documentation for the  
Ishida Model Alpha Cosmic 150 Weighing Instrument

submitted by Heat and Control Pty Ltd (Greer Division)  
Unit N, 10-16 South Street  
Rydalmere NSW 2116.

1. In all documentation for this approval, the submitter should be changed to:  
  
PCC Systems  
407 Creek Road  
Mt Gravatt QLD 4122.
2. In Certificate of Approval No 6/4D/230 dated 11/5/88, the Condition of Approval referring to the expiry of the approval should be amended to now read:  
  
"The approval of the pattern and variants 1 to 6 has expired in respect of new instruments; the approval of variants 7 and 8 (model Alpha Cosmic 1000) will expire on 31/12/94."

NOTE: The extension to the approval relates only to 32 Alpha Cosmic 1000 instruments; serial numbers 1090425, 3020687, 4022970 to 4022989 (20 units) and 4030090 to 4030099 (10 units).

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

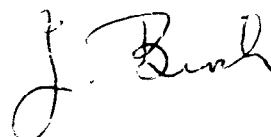


FIGURE 6/40/230 - 1



Ishida Alpha Cosmic

	KG	\$/KG	\$
<b>BACON RASHERS</b>			
0.305	6.99	2.13	
<b>HAM SOCCER BALL</b>			
0.305	9.99	3.05	
<b>DEVON</b>			
0.205	2.59	0.53	
<b>TOTAL</b>			
	3PCS	5.71	

**CHICKEN FILLETS**

USE BY	DATE PACKED	NET WT
	030585	0.442kg

PRICES/kg	1
\$	0.49

TOTAL PRICE

**THANK-YOU**



Sample Ticket

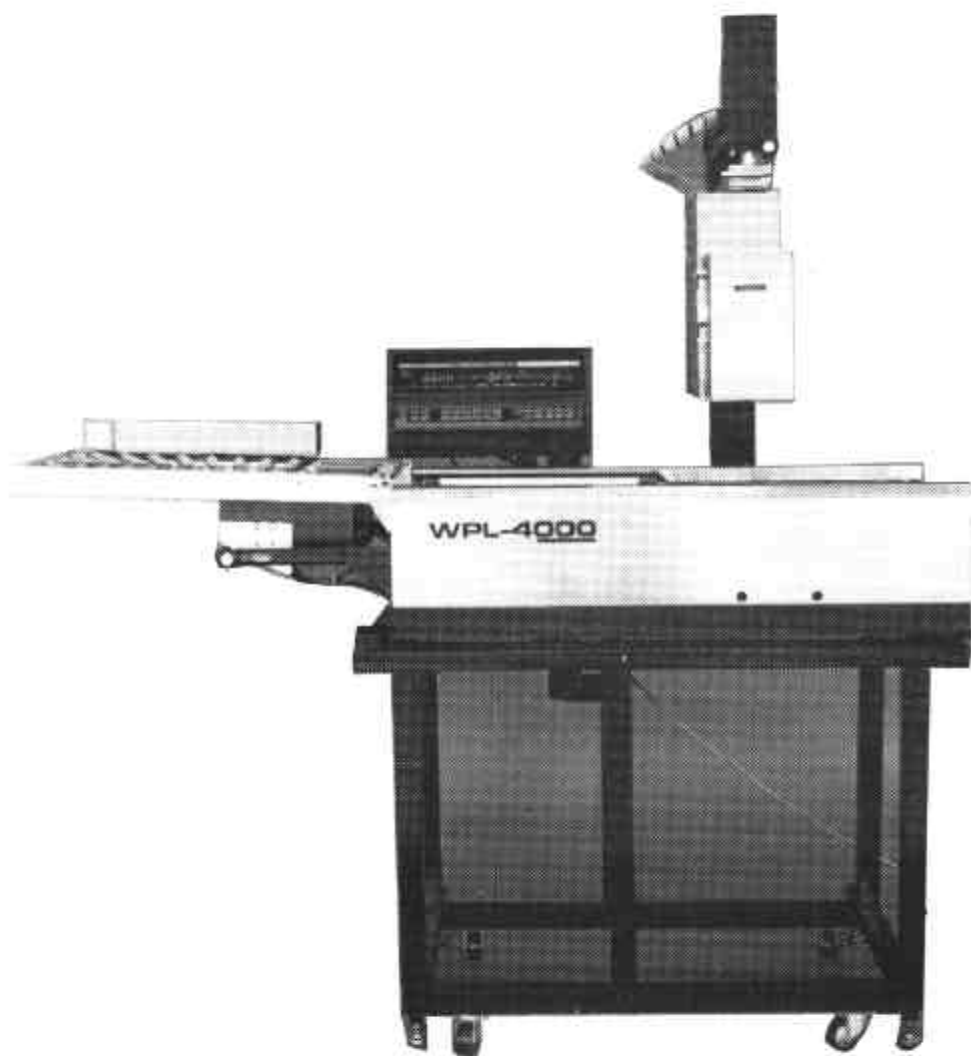
Sample Label

FIGURE 6/40/230 - 3



Ishida Model DP-4000

FIGURE 6/4D/230 - 4



Ishida Model WPL-4000

FIGURE 6/40/230 - 5



Ishida Model Alpha Cosmic 1000