Australian Government
Department of Industry, Innovation and Science

National Measurement Institute

Cancellation
Certificate of Approval
NMI 6/14G/4

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

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

Digi Model Digi HI-3600E Automatic Catchweighing Instrument

submitted by W W Wedderburn Pty Ltd
101 Williamson Road
Ingleburn NSW 2656

has been cancelled in respect of new instruments as from 1 April 2016.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern & variant 1 approved – interim certificate issued	19/09/99
1	Pattern & variants 1 & 2 approved – certificate issued	12/11/99
2	Variants 3 & 4 approved – interim certificate issued	7/04/00
3	Variant 5 approved – interim certificate issued	19/06/00
4	Variants 3 to 5 approved – certificate issued	1/08/00
5	Pattern & variants 1 to 5 reviewed – notification of change issued	25/02/05
6	Variant 6 approved – certificate issued	2/06/07
7	Pattern & variants 1 to 6 amended (address) & reviewed – notification of change issued	13/05/11
8	Pattern & variants 1 to 6 cancelled – cancellation certificate issued	18/03/16

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

Dr A Rawlinson

Australian Government
National Measurement Institute

Bradfield Road, West Lindfield NSW 2070

Certificate of Approval

No 6/14G/4

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

Digi Model HI-3600E Automatic Catchweighing Instrument

submitted by W W Wedderburn Pty Ltd
90 Parramatta Road
SUMMER HILL NSW 2130.

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 51, *Automatic Catchweighing Instruments*, dated July 2004.

CONDITIONS OF APPROVAL

This approval becomes subject to review on 1 September 2010, and then every 5 years thereafter.

Instruments purporting to comply with this approval shall be marked with approval number 'NSC 6/14G/4' and only by persons authorised by the submittor.

…./2

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.

The National Measurement Institute reserves the right to examine any instrument or component of an instrument purporting to comply with this approval.

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

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

DESCRIPTIVE ADVICE

Pattern: approved 19 August 1999

- A Digi model HI-3600E class Y(a) automatic catchweighing instrument of 4 kg maximum capacity.

Variants: approved 19 August 1999

1. Model LI-3600E multi-interval instrument of 4 kg maximum capacity.

Variant: approved 5 November 1999

2. Model HI-3600E multi-interval instrument of 2 kg maximum capacity.

Technical Schedule No 6/14G/4 describes the pattern and variants 1 & 2.

Variants: approved 7 April 2000

3. Model WI-3600E single interval instrument of 7 kg maximum capacity.
4. Model WI-3600E multi-interval instrument of 4 kg maximum capacity.

Variant: approved 19 June 2000

5. Certain models of the MI-3600E series of instruments.

Technical Schedule No 6/14G/4 Variation No 1 describes variants 3 to 5.

Variants: approved 1 June 2007

6. Models HI-3600TF, WI-3600TF, MI-3600TF and LI-3600TF.

Technical Schedule No 6/14G/4 Variation No 2 describes variant 6.

FILING ADVICE

Certificate of Approval No 6/14G/4 dated 1 August 2000 is superseded by this Certificate, and may be destroyed. The documentation for this approval now comprises:

Certificate of Approval No 6/14G/4 dated 2 June 2007
Technical Schedule No 6/14G/4 dated 12 November 1999 (incl. Test Procedure)
Technical Schedule No 6/14G/4 Variation No 1 dated 1 August 2000 (incl. Table 1)
Technical Schedule No 6/14G/4 Variation No 2 dated 2 June 2007
Figures 1 to 3 dated 12 November 1999
Figures 4 and 5 dated 1 August 2000
Figures 6 to 8 dated 2 June 2007

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

TECHNICAL SCHEDULE No 6/14G/4

Pattern: Digi Model HI-3600E Automatic Catchweighing Instrument.

Submittor: W W Wedderburn Pty Ltd
90 Parramatta Road
Summer Hill NSW 2130.

1. Description of Pattern

A Digi model HI-3600E catchweigher (Figure 1) which is approved for use to weigh objects while in motion.

1.1 Details

The instrument is a multi-interval Class Y(a) automatic catchweighing instrument, with a verification scale interval (e_1) of 0.002 kg up to 2 kg, and with a verification scale interval (e_2) of 0.005 kg from 2 kg up to the maximum capacity of 4 kg. Instruments have a minimum capacity of 0.040 kg.

The instrument operates dynamically with the package continuously moving on the platform. The conveyor belt has three pre-set speed settings to cater for different products. The maximum belt speed is 0.83 m/s.

Note: The instrument has facilities for operation in various modes. This Certificate does not provide approval for use for trade of modes other than the 'catchweighing' mode (in which the label produced prints the actual weight of the item).

1.1.1 Zero

The initial zero-setting device has a nominal range of not more than 20% of the maximum capacity of the instrument.

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.

The zero-tracking device automatically corrects zero to within $\pm 0.25\, e_1$ whenever the instrument comes to rest within $\pm 0.5 e_1$ of zero.

1.1.2 Tare

A semi-automatic and/or a pre-set subtractive taring device, each of up to 0.998 kg maximum capacity, may be fitted. Pre-set tare values may also be stored in association with PLU items.

..../2

1.2 Operation

A number of different parameters, such as ticket format, conveyor speed and unit price are programmed into the instrument using the terminal and are stored as “Commodity Numbers”. When a commodity number is entered and run, the conveyors start up and the instrument is ready to weigh. An object to be weighed is placed or rolled onto the infeed conveyor and is then pulled along onto the weighing receptor conveyor and weighed in motion. After weighing, the object is pulled onto the outfeed conveyor where a ticket is printed then applied to the object.

1.3 Weighing System

The Digi model HI-3600E weighing system has a belt conveyor-type load receptor having maximum nominal dimensions of 470 x 325 mm.

The pattern comprises (Figure 1):

(a) a terminal/indicator;

(b) a weighing unit and conveyor system; and

(c) a printing unit which comprises a thermal printer, a roll of labels and a compressed air driven unit used to apply the label to the weighed object.

1.4 Terminal/indicator

The terminal/indicator is fitted with an LCD touch screen display/keyboard used to control the system and store data such as system parameters (e.g. conveyor speed and ticket format). It displays the weight (in kg).

Instruments have unit price to $9999.99/kg, price to $9999.90, and a price-look-up (PLU) facility.

Interfacing the instrument with auxiliary and/or peripheral devices is done via a number of ports located on the underside of the terminal/indicator.

1.5 Weighing Unit and Conveyor System

The weighing unit contains a load cell and electronics which supply and measure voltages to and from the load cell. A Teraoka Seiko type W load cell of 12 kg maximum capacity is used as shown in Figure 2.

The conveyor system comprises separate infeed, weighing receptor and outfeed conveyors and an associated electric motor and drive arrangement for each conveyor. Two optical sensors are provided, one each located along the infeed and weighing receptor conveyors.

1.6 Verification/Certification Provision

Provision is made for the application of a verification/certification mark.

1.7 Sealing Provision

Provision is made for the calibration adjustments to be sealed by means of destructible labels on the top rear cover of the indicator, one over the calibration adjustment cover and two others (on opposite sides) over the join of the top rear cover and the indicator housing.

1.8 Markings

Instruments carry the following markings:

Manufacturer's mark, or name written in full	Digi Europe Ltd
Importer's mark, or name written in full	Wedderburn
Model designation	.....
Serial number	.....
Year of manufacture	.....
Accuracy class	Y(a)
Pattern approval mark	NSC No 6/14G/4
Maximum capacity	*Max* ….
Minimum capacity	*Min* ….
Verification scale interval	*e =* ….
Maximum subtractive tare	*T =* - ...
Maximum conveyor speed	…. m/s

2. Description of Variants

2.1 Variant 1

A model LI-3600E multi-interval Class Y(a) automatic catchweighing instrument (Figure 3) with a verification scale interval (e_1) of 0.002 kg up to 2 kg, and with a verification scale interval (e_2) of 0.005 kg from 2 kg up to the maximum capacity of 4 kg which is approved for use to weigh objects statically with the package stopping on the platform during weighing.

The load receptor has maximum nominal dimensions of 470 x 440 mm.

2.2 Variant 2

A model HI-3600E multi-interval Class Y(a) automatic catchweighing instrument with a verification scale interval (e_1) of 0.001 kg up to 1 kg, and with a verification scale interval (e_2) of 0.002 kg from 1 kg up to the maximum capacity of 2 kg which is approved for use to weigh objects dynamically with the package continuously moving on the platform. Instruments have a minimum capacity of 0.020 kg.

A semi-automatic and/or a pre-set subtractive taring device, each of up to 0.999 kg maximum capacity, may be fitted.

A Teraoka Seiko type W load cell of 6 kg maximum capacity is used

The load receptor has maximum nominal dimensions of 470 x 325 mm.

TEST PROCEDURE

Non-automatic Operation

The maximum permissible errors for increasing and decreasing loads on initial verification/certification for loads, m, expressed in verification scale intervals, e, are:

±0.5e for loads 0 ≤ *m* ≤ 500;
±1.0e for loads 500 < *m* ≤ 2 000; and
±1.5e for loads 2 000 < *m* ≤ 10 000.

For multi-interval instruments with verification scale intervals of e_1, e_2, ..., apply e_1 for zero adjustment, and for maximum permissible errors apply e_1, e_2, ..., as applicable for the load.

- With the conveyor switched off, carry out a load test and an eccentricity test.

Automatic Operation

The maximum permissible errors for class Y(a) automatic catchweighing instrument for increasing and decreasing loads on initial verification/certification for loads, m, expressed in verification scale intervals, e, are:

±1.5e for loads 0 ≤ m ≤ 500;
±2e for loads 500 < m ≤ 2 000; and
±2.5e for loads 2 000 < m ≤ 10 000.

For multi-interval instruments with verification scale intervals of e_1, e_2, ..., apply e_1 for zero adjustment, and for maximum permissible errors apply e_1, e_2, ..., as applicable for the load.

- For multi-interval instruments, prepare four test objects, having test load values as follows:

  (a) test load values close to minimum capacity and to maximum capacity; and

  (b) test load values at two critical points between minimum and maximum capacities, such as just below range changes or just below error limit changes.

  With the conveyors running, apply each mass separately at least ten times. The masses of the test objects shall be measured on a verified, non-automatic weighing instrument with an uncertainty equal to or better than 0.5(e_1, e_2) as applicable.

- The tests shall be conducted at the maximum conveyor speed marked on the instrument.

- Vary the position of the test objects across the receptor.

TESTS - Use the following tests to determine compliance with the maximum permissible errors - n is a whole number and e equals e_1, e_2, ... as applicable for the load.

TEST 1 — Maximum permissible error = ±1.5e

Test load = ne

Readings:		
	A: (n - 2)e	reject
	B: (n + 2)e	reject
	A < Readings < B	accept

TEST 2 — Maximum permissible error = ±2e

Test load = (n + 0.5)e

Readings:		
	A: (n - 2)e	reject
	B: (n + 3)e	reject
	A < Readings < B	accept

TEST 3 — Maximum permissible error = ±2.5e

Test load = ne

Readings:		
	A: (n - 3)e	reject
	B: (n + 3)e	reject
	A < Readings < B	accept

TECHNICAL SCHEDULE No 6/14G/4

VARIATION No 1

Pattern: Digi Model HI-3600E Automatic Catchweighing Instrument.

Submittor: W W Wedderburn Pty Ltd
90 Parramatta Road
Summer Hill NSW 2130.

1. Description of Variants

1.1 Variant 3

A Digi model WI-3600E single-interval Class Y(a) automatic catchweighing instrument (Figure 4), with a verification scale interval of 0.010 kg and a maximum capacity of 7 kg which is approved for use to weigh objects dynamically with the package continuously moving on the platform. Instruments have a minimum capacity of 0.200 kg.

The conveyor of the weigh platform has a single belt speed of 0.5 m/s.

A semi-automatic and/or a pre-set subtractive taring device, each of up to 0.990 kg maximum capacity, may be fitted.

A Teraoka Seiko type W load cell of 15 kg maximum capacity is used.

The load receptor has maximum nominal dimensions of 470 x 440 mm.

1.2 Variant 4

A model WI-3600E multi-interval Class Y(a) automatic catchweighing instrument (Figure 4) with a verification scale interval (e_1) of 0.002 kg up to 2 kg, and with a verification scale interval (e_2) of 0.005 kg from 2 kg up to the maximum capacity of 4 kg which is approved for use to weigh objects dynamically with the package continuously moving on the platform. Instruments have a minimum capacity of 0.040 kg.

The conveyor of the weigh platform has a single belt speed of 0.5 m/s.

A semi-automatic and/or a pre-set subtractive taring device, each of up to 0.998 kg maximum capacity, may be fitted.

A Teraoka Seiko type W load cell of 12 kg maximum capacity is used

The load receptor has maximum nominal dimensions of 470 x 440 mm.

..../2

1.3 Variant 5

Certain models of the MI-3600E series of single (*) and multi-interval (#) Class Y(a) automatic catchweighing instruments (Figure 5) as listed in Table 1. Instruments may operate dynamically with the package continuously moving on the platform, or the package may stop on the platform during weighing if the instrument determines that this is necessary to maintain accuracy.

TABLE 1

Maximum Capacity	Verification Scale Interval/s	Minimum Capacity	Tare Capacity	Load Cell Capacity	Load Receptor
kg	kg	kg	kg	kg	mm x mm
(#) 2/4	0.002/0.005	0.040	1.998	12	325 x 395
(*) 10	0.010	0.2	4.990	15	325 x 395
(*) 15	0.010	0.2	7.990	30	617 x 760
(*) 30	0.020	0.4	14.980	60	617 x 760

Approved Models of the MI-3600E Series

TECHNICAL SCHEDULE No 6/14G/4

VARIATION No 2

Pattern: Digi Model HI-3600E Automatic Catchweighing Instrument

Submittor: W W Wedderburn Pty Ltd
90 Parramatta Road
SUMMER HILL NSW 2130

1. Description of Variants

1.1 Variant 6

The Digi models HI-3600TF, WI-3600TF, MI-3600TF and LI-3600TF class Y(a) automatic catchweighing instruments which are similar to the models HI-3600E, WI-3600E, MI-3600E and LI-3600E respectively (pattern and variants), however the '…TF' models utilise a tubular frame construction. In addition some approved parameters differ and some additional versions are approved in accordance with Table 1.

The instruments use a Teraoka Seiko type W load cell of maximum capacities as shown in Table 1.

TABLE 1

	Max. capacity	Verification scale interval/s	Min. capacity	Tare capacity	Load cell capacity	Load receptor size
	kg	g	kg	kg	kg	mm x mm
HI-3600TF	(#) 1 / 2	1 / 2	0.100	0.999	6	470 x 285 or 650 x 285
	(#) 2 / 4	2 / 5	0.100	0.998	12	470 x 285 or 650 x 285
WI-3600TF	(#) 2 / 4	2 / 5	0.100	0.998	12	470 x 400
	(*) 7	10g	0.100	0.990	15	470 x 400
LI-3600TF	(#) 2 / 4	2 / 5	0.040	0.998	12	470 x 285
MI-3600TF	(#) 2 / 4	2 / 5	0.040	0.998	12	470 x285
	(*) 10	5	0.100	0.995	15	470 x285

Approved Models

Instruments may be single (*) or multi-interval (#).

…./2

HI-3600TF – The instrument operates dynamically (package in motion on the weighing receptor). The instrument has a maximum belt speed of 0.83 m/s. See Figure 6.

WI-3600TF – The instrument operates dynamically (package in motion on the weighing receptor). The instrument has a maximum belt speed of 0.5 m/s. See Figure 7.

LI-3600TF – The instrument operates statically (package stops on the platform during weighing). See Figure 8 (a).

MI-3600TF – The instrument may operate dynamically or may operate statically if the instrument determines that this is necessary to maintain accuracy. See Figure 8 (b).

Provision is made for the calibration adjustments to be sealed by means of destructible adhesive labels on the rear cover of the indicator, and on the door of the electronics cabinet of the instrument (see Figure 7).

6/14G/4
25 February 2005

Australian Government

National Measurement Institute

12 Lyonpark Road, North Ryde NSW 2113

Notification of Change
Certificate of Approval No 6/14G/4
Change No 1

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

The following change is made to the approval documentation for the

Digi Model HI-3600E Automatic Catchweighing Instrument

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

In Certificate of Approval No 6/14G/4 dated 1 August 2000, the Condition of Approval referring to the review of the approval should be amended to read:

> "This approval becomes subject to review on 1 September 2010, and then every 5 years thereafter."

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

Australian Government
National Measurement Institute
Bradfield Road, West Lindfield NSW 2070

Notification of Change
Certificate of Approval No 6/14G/4
Change No 2

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

The following changes are made to the approval documentation for the

Digi Model HI-3600E Automatic Catchweighing Instrument

submitted by W W Wedderburn Pty Ltd
now of 101 Williamson Road
Ingleburn NSW 2565.

A. In Certificate of Approval No 6/14G/4 dated 2 June 2007;

1. The Condition of Approval referring to the review of the approval should be amended to read:

> "This approval becomes subject to review on 1 September **2015**, and then every 5 years thereafter."

Note: The review date was previously amended by Notification of Change No 1 dated 25 February 2005.

2. The FILING ADVICE should be amended by adding the following:

> "Notification of Change No 1 dated 25 February 2005
> Notification of Change No 2 dated 13 May 2011"

B. In Certificate of Approval No 6/14G/4 and its Technical Schedule Variation No 2 both dated 2 June 2007, and in the Technical Schedule Variation No 1 dated 1 August 2000, and in the Technical Schedule dated 12 November 1999, and in Notification of Change No 1 dated 25 February 2005, all references to the address of the submittor should be amended to read:

> "101 Williamson Road
> Ingleburn NSW 2565"

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C. In Technical Schedule No 6/14G/4 dated 12 November 1999, the TEST PROCEDURE should be replaced by the following:

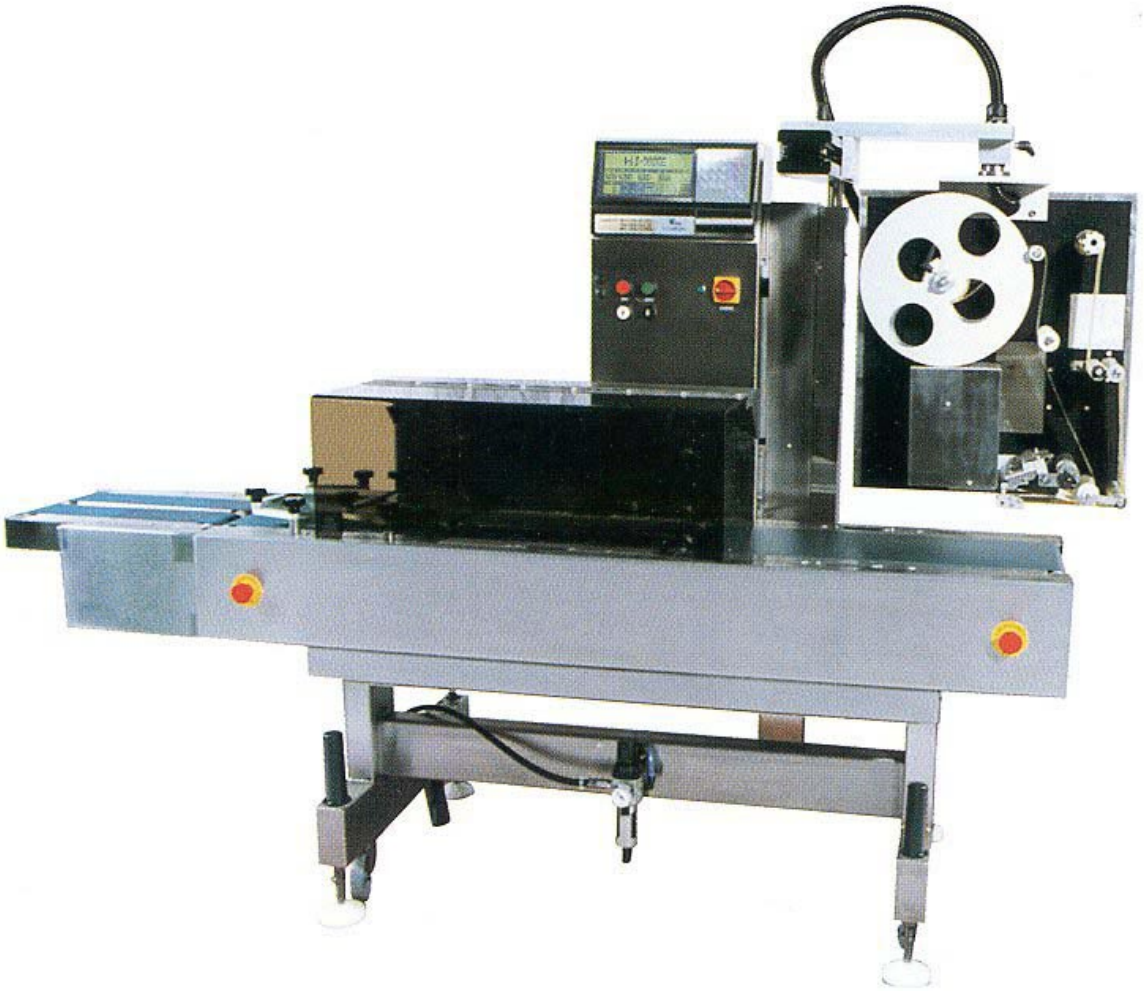
"Instruments shall be tested in accordance with any relevant tests specified in the national inspection test procedures.

Maximum Permissible Errors

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

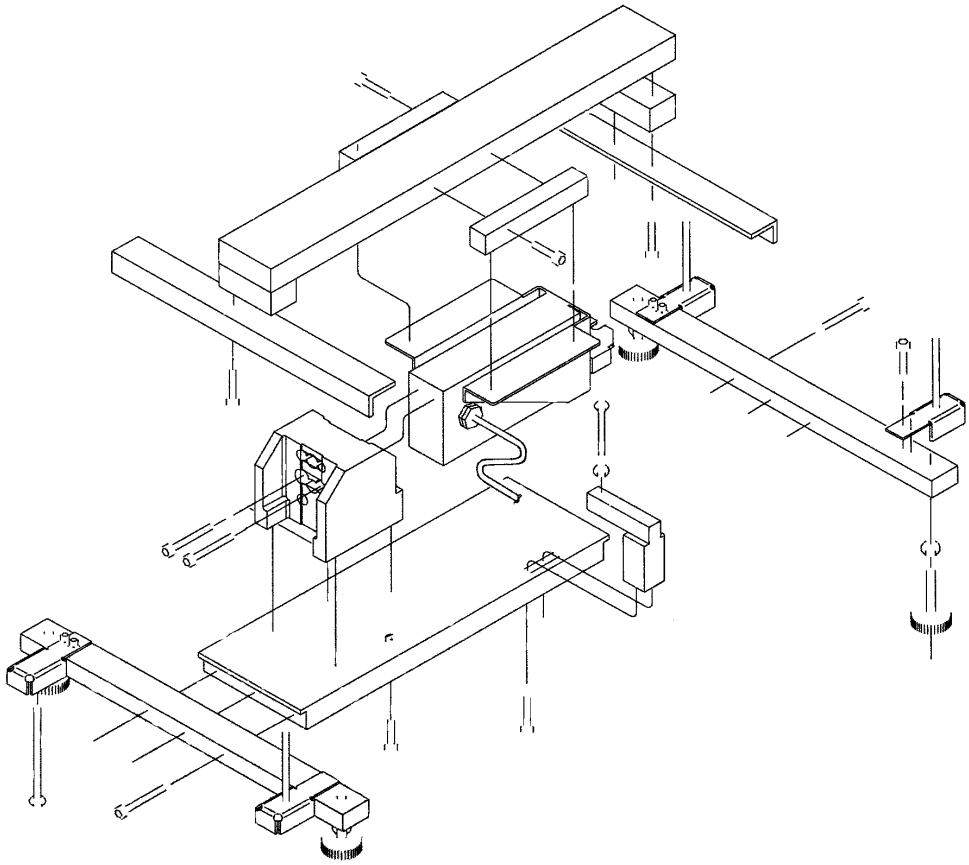
Signed by a person authorised by the Chief Metrologist to exercise his powers under Regulation 60 of the *National Measurement Regulations 1999*.

FIGURE 6/14G/4 - 1



Digi Model HI-3600E Automatic Catchweighing Instrument

FIGURE 6/14G/4 - 2



Showing Load Cell Mounting

FIGURE 6/14G/4 - 3

Digi Model LI-3600E Automatic Catchweighing Instrument

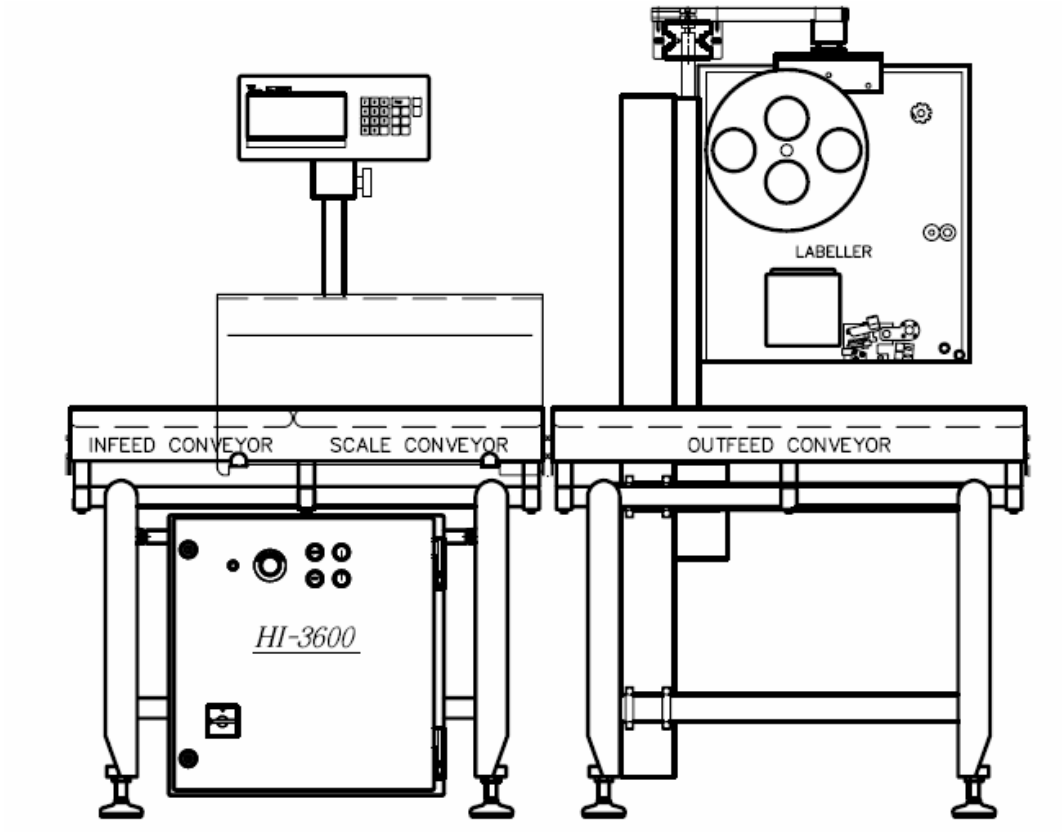
FIGURE 6/14G/4 - 4

Digi Model WI-3600E Catchweighing Instrument

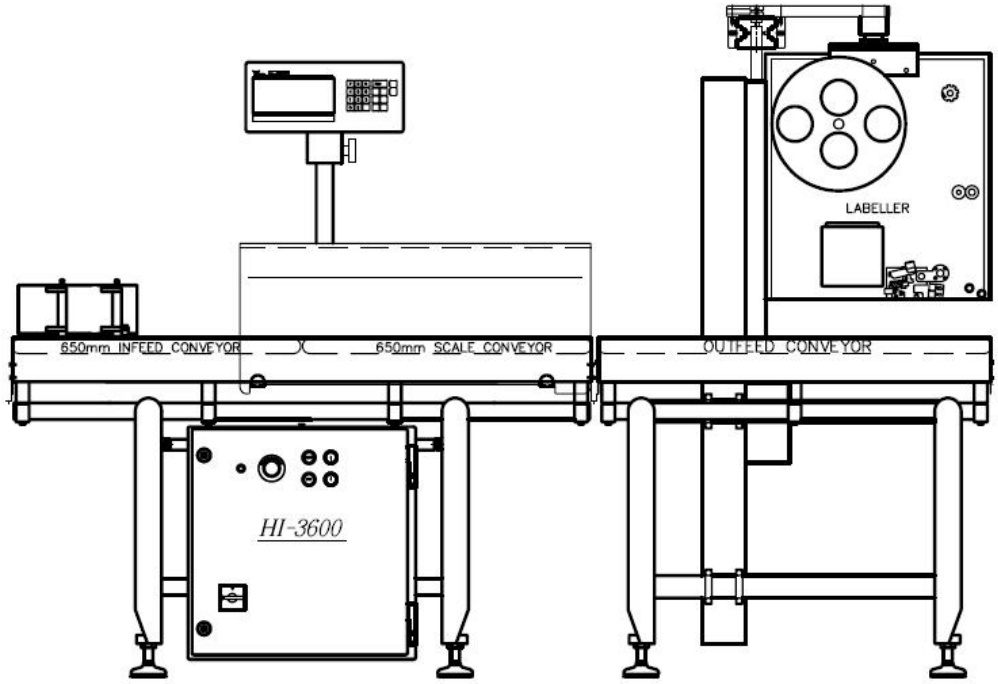
FIGURE 6/14G/4 - 5

Digi Model MI-3600E Catchweighing Instrument

FIGURE 6/14G/4 – 6



(a) Model HI-3600TF – shorter load receptor version



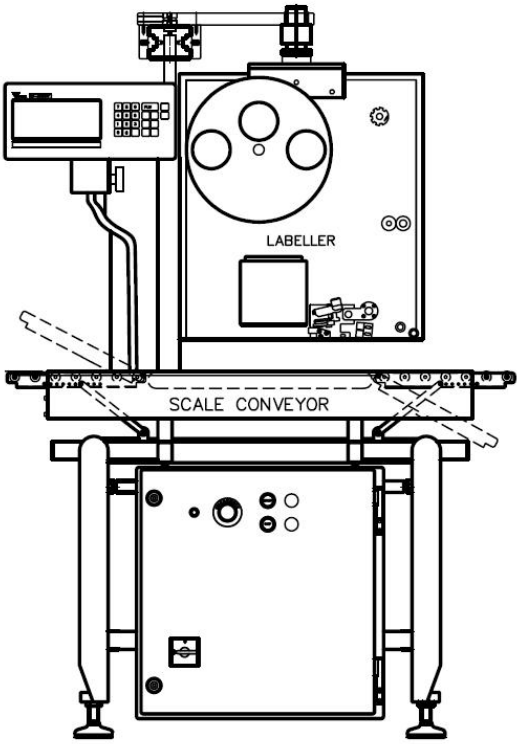
(b) Model HI-3600TF – longer load receptor version

Digi Model HI-3600TF

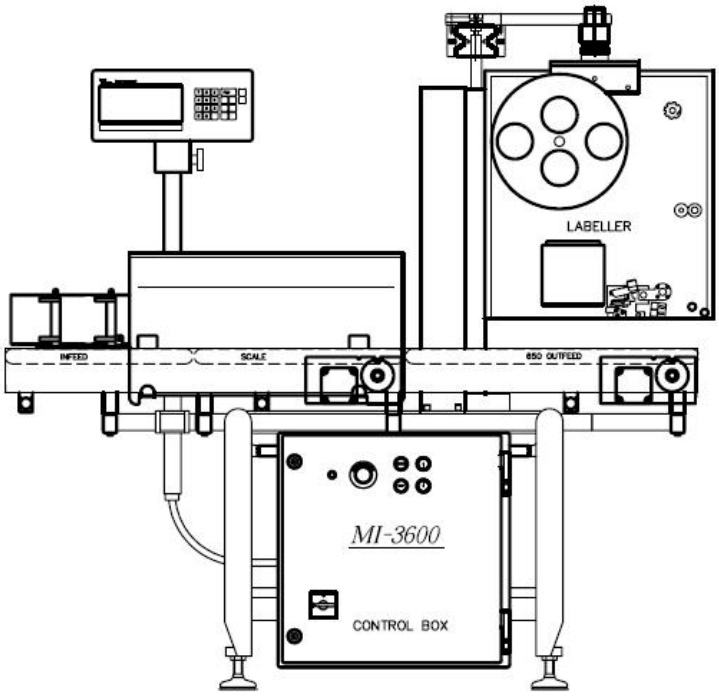
FIGURE 6/14G/4 – 7

Digi Model WI-3600TF

FIGURE 6/14G/4 – 8



(a) Model LI-3600TF



(b) Model MI-3600TF

Digi Models LI-3600TF and MI-3600TF