



Australian Government  
Department of Industry,  
Science and Resources

**National  
Measurement  
Institute**

36 Bradfield Road, West Lindfield NSW 2070

**Certificate of Approval**  
**NMI 6/14G/35**

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.

Teraoka Model DIGI LI-5600 II Automatic Catchweighing Instrument

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

**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 August 2009.

This approval is subject to review at the decision of the Chief Metrologist in accordance with the conditions specified in the document NMI P 106.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern and variants 1 to 5 approved – certificate issued	08/02/21
1	Variant 6 approved – certificate issued	06/09/23

## CONDITIONS OF APPROVAL

### General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI 6/14G/35' and only by persons authorised by the submitter.

It is the submitter'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 Certificate No S1/0B.

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

### Special

Certain aspects of this instrument (in particular transaction record printing formats) are able to be configured by the user. Whilst NMI believes that acceptable formats can be achieved for typical basic sales modes, it is also possible for the instrument to be configured to produce unacceptable formats, and use of some formats may be inappropriate for different sales modes. It is the responsibility of the user to ensure that acceptable and appropriate formats are used in any particular situation.

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 6/14G/35

### 1. Description of Pattern

approved on 08/02/21

A Teraoka model DIGI LI-5600 II class Y(a) automatic catchweighing instrument (Figure 1 and Table 1) which is only approved for use to weigh objects statically.

Instruments have a price computing facility and are intended for use as weigh/price labellers.

#### 1.1 Details

The instrument is a class Y(a) multi-interval self-indicating price computing automatic catchweighing instrument with a verification scale interval  $e_1$  of 0.002 kg up to 6 kg and with a verification scale interval  $e_2$  of 0.005 kg from 6 kg to 15 kg, and with a minimum capacity of 0.04 kg.

The instrument uses an in-feed conveyor to introduce the object to be weighed (package) to the weighing receptor conveyor. The package is weighed statically (package stops on the weighing receptor), then transported through to be labelled by the system.

Instruments may be fitted with data sockets (output interfacing capability) for the connection of peripheral and/or auxiliary devices, and for the external programming of PLU and labelling data.

The pattern comprises:

- A terminal/indicator with an LCD colour touchscreen display and a keypad;
- A weighing module and conveyor system with associated control sensors;
- 2 label printers and 2 label applicators above the outfeed conveyor; and
- Outfeed conveyor.

#### 1.2 Zero

A zero-tracking device may be fitted.

The instrument has a semi-automatic zero-setting device with nominal range of not more than 4% of the maximum capacity of the instrument, and capable of setting zero to within  $\pm 0.25e_1$  (this may operate whilst the conveyors are operating).

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

#### 1.3 Tare

A semi-automatic subtractive tare device of up to 5.998 kg capacity may be fitted. This device may only be activated (e.g. tare obtained) whilst the conveyors are stationary. The tare value obtained may continue to be used when the instrument is set into automatic weighing mode (automatic feed of packages).

A non-automatic keyboard-entered pre-set subtractive tare device of up to 5.998 kg capacity may be fitted. The pre-set tare values may be stored in association with product-look-up (PLU) items.

#### 1.4 Operation

A package to be weighed moves from the infeed conveyor onto the weighing receptor conveyor and then stops to be weighed statically. The system uses

photocells to determine where the packs have to be stopped on the weighing receptor. After weighing, the object continues onto the outfeed conveyor where a label is then printed and applied to the object.

If the instrument is unable to obtain an acceptable weight reading, error messages are displayed and a label is not printed.

### 1.5 Terminal/Indicator

The terminal/indicator is fitted with an LCD colour touchscreen display and a keypad (Figure 2). This is used to control the system and store data such as system parameters.

It displays tare weight (in kg), weight (in kg), unit price (in \$/kg), and price (in \$).

Instruments have unit price to \$9999.99/kg, total (pack) price to \$9999.99, a product-look-up (PLU) facility and a separate tare display.

### 1.6 Weighing Unit

The weighing unit uses a Teraoka type N load cell of 23 kg capacity supporting a load receptor with belt conveyor of 393 mm (W) × 230 mm (L).

### 1.7 Printing Unit

The printing unit is comprised of printers and applicators to apply the label to the weighed object.

Please note the Special Condition of Approval regarding printing formats.

### 1.8 Interfaces

The instrument may be fitted with interfaces for the connection of auxiliary and/or peripheral devices. Any interfaces shall comply with clause 4.2.4 of document NMI R51 (the basic intent of which is that it shall not be possible to alter weighing results via the interfaces).

### 1.9 Levelling

Where instruments are not installed in a permanently fixed location they are provided with adjustable feet and a level indicator.

The instrument is to be used in a level condition as indicated by the level indicator.

### 1.10 Descriptive Markings and Notices

Instruments carry the following markings:

Manufacturer's mark, or name written in full	Teraoka	
Importer's mark, or name written in full	WEDDERBURN	
Model designation	DIGI LI-5600 II	
Serial number	.....	
Accuracy class	Y(a)	
Pattern approval mark	NMI 6/14G/35	
Maximum capacity	Max ...../..... g or kg	#1
Minimum capacity	Min ..... g or kg	#1
Verification scale interval	e = ...../..... g or kg	#1
Maximum subtractive tare	T = - ..... g or kg	#2

- #1 These markings are also shown near the display of the result if they are not already located there.
- #2 This marking is required if  $T$  is not equal to  $Max$ .

### 1.11 Sealing Provision

A calibration switch is located within the weighing conveyor framework. Access is via the base of this conveyor or by removing a cover plate.

Sealing is achieved by means of a destructible adhesive label or lead and wire type of seals to seal access to the calibration switch as shown in Figure 3.

The calibration protection can be verified by pressing the 'OPERATION MODE' button on the 'MAIN MENU' screen. If the 'SCALE CONFIRMATION – TURN OFF SPAN SWITCH' message screen is displayed, then the instrument is in calibration mode. Otherwise the calibration switch is off and the instrument calibration is protected (Figure 3).

### 1.12 Software

The measurement software is designated 4.xx (where xx represents minor/non-legally relevant software changes and is 00 ... 99) and the software version of TPB-3356 A/D-board is designated 3.yy (where yy represents minor/non-legally relevant software changes and is 30...99) as shown in Figure 4.

The instructions for accessing the software versions are as follows (starting from the operation screen):

- Press the 'EXIT' button to open the MAIN MENU screen.
- Press the 'RIGHT POINTING ARROW' to navigate to second MAIN MENU screen.
- Press the 'SETUP' button to enter the setup mode.
- Press the 'SOFTWARE VERSION' button. The software versions are displayed.

### 1.13 Verification Provision

Provision is made for the application of a verification mark.

## 2. Description of Variant 1

approved on 08/02/21

The Teraoka model DIGI LI-5600 II instruments in certain other capacities are as listed in Table 1 below (the pattern is shown in **bold**).

TABLE 1

Maximum Capacity ( $Max_1/Max_2$ )	Minimum Capacity ( $Min$ )	Verification Scale Interval ( $e_1/e_2$ )	Maximum Subtractive Tare Capacity ( $T=-...$ )	Load Cell Capacity ( $E_{max}$ )
3/6 kg	0.02 kg	0.001/0.002 kg	2.999 kg	9 kg
<b>6/15 kg</b>	<b>0.04 kg</b>	<b>0.002/0.005 kg</b>	<b>5.998 kg</b>	<b>23 kg</b>

**3. Description of Variant 2** **approved on 08/02/21**

The Teraoka model DIGI LI-5600 II as single interval instruments in certain capacities as listed in Table 2.

TABLE 2

Maximum Capacity ( <i>Max</i> )	Minimum Capacity ( <i>Min</i> )	Verification Scale Interval ( <i>e</i> )	Maximum Subtractive Tare Capacity ( <i>T=-...</i> )	Load Cell Capacity ( <i>E<sub>max</sub></i> )
3 kg	0.02 kg	0.001 kg	3 kg	9 kg
6 kg	0.04 kg	0.002 kg	6 kg	9 kg
15 kg	0.1 kg	0.005 kg	15 kg	23 kg

**4. Description of Variant 3** **approved on 08/02/21**

Similar to the pattern in configuration of either variant 1 or 2 but may have one or more printers and one or more label applicators mounted above the outfeed conveyor (Figures 5a, 5b, and 5c).

**5. Description of Variant 4** **approved on 08/02/21**

Similar to the pattern in configuration of either variant 1 or 2 with 5600 series indicator, printer and label applicator mounted above weighing conveyor with rollers for infeed and outfeed (Figure 6).

**6. Description of Variant 5** **approved on 08/02/21**

The pattern or variant 1 to 4 may be fitted with an optional linerless BP bottom labeller, connected after the DIGI LI-5600 II (Figure 7).

**7. Description of Variant 6** **approved on 06/09/23**

A DIGI supplied external console ARBOR model Gladius G0975M (Figure 8) fitted with DIGI Virtual Network Computing (VNC) client software may be connected to the pattern or variants 1 to 5 either through LAN or WiFi connection to a network.

The external console may also be directly connected to the instrument through a WiFi dongle installed to the instrument, or through an LAN connection.

The VNC software connection is obtained through the VNC server software 'x11vnc' which is a part of the DIGI LI-5600 II series instrument software, and the VNC client software 'xtightvncviewer' on the external console. The connection allows the user to operate the DIGI LI-5600 II series instrument from a location away from the weighing instrument as shown in Figure 9.

The external console software 'xtightvncviewer' is designated CONSOLE VERSION:08.00 (or greater) and indicated on the top of the external console start-up screen.

The external console may be mounted on stand, arm or mounted to fixed surface. Only one external console can be connected to one DIGI LI-5600 II series instrument.

## TEST PROCEDURE No 6/14G/35

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*.

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

FIGURE 6/14G/35 – 1



Teraoka Model DIGI LI-5600 II Automatic Catchweighing Instrument  
(Pattern)

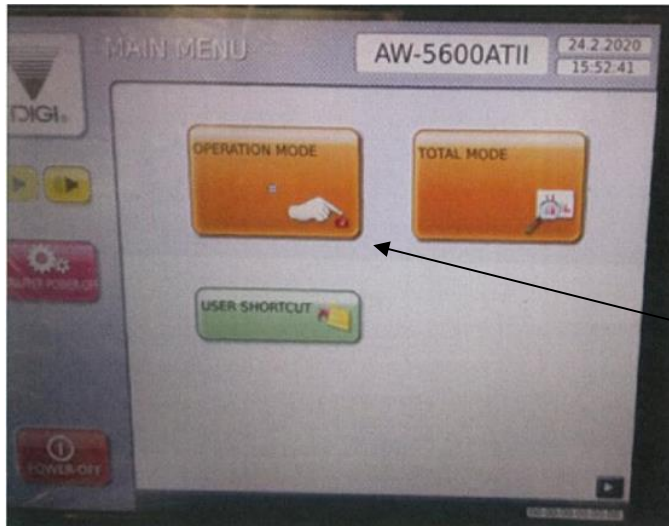
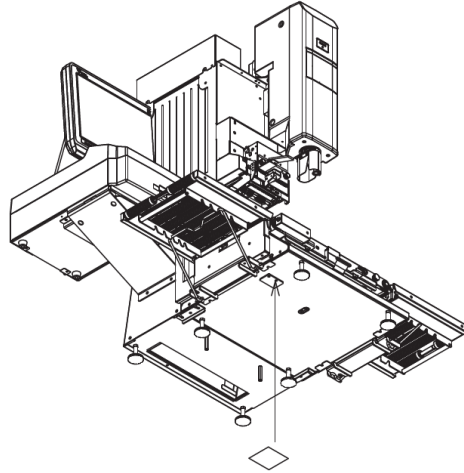
FIGURE 6/14G/35 – 2



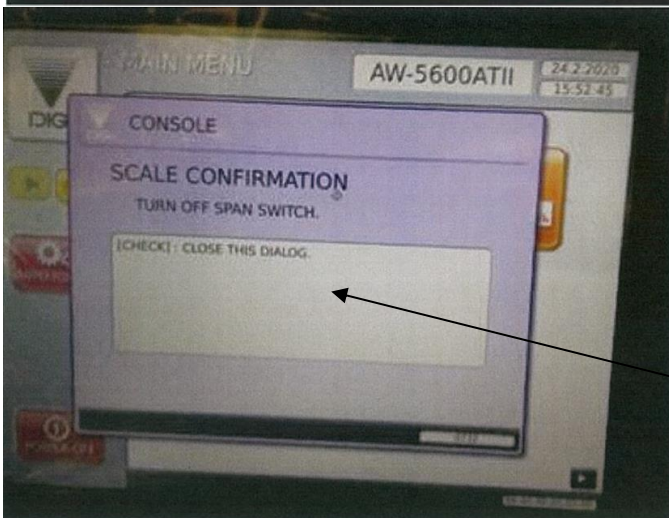
Terminal/Indicator – Touchscreen Display and Keypad



FIGURE 6/14G/35 – 3



Press 'Operation Mode' in Main Menu



If the 'SCALE CONFIRMATION TURN OFF SPAN SWITCH' message is displayed, then the instrument calibration is not protected.

Typical Sealing Method

FIGURE 6/14G/35 – 4



Software identification

FIGURE 6/14G/35 – 5



(a) Teraoka Model DIGI LI-5600 II Automatic Catchweighing Instrument with Single Printer and Single Label Applicator



(b) Teraoka Model DIGI LI-5600 II Automatic Catchweighing Instrument with Two Printers and Single Label Applicator



(c) Teraoka Model DIGI LI-5600 II Automatic Catchweighing Instrument with Three Printers and Two Label Applicators

FIGURE 6/14G/35 – 6



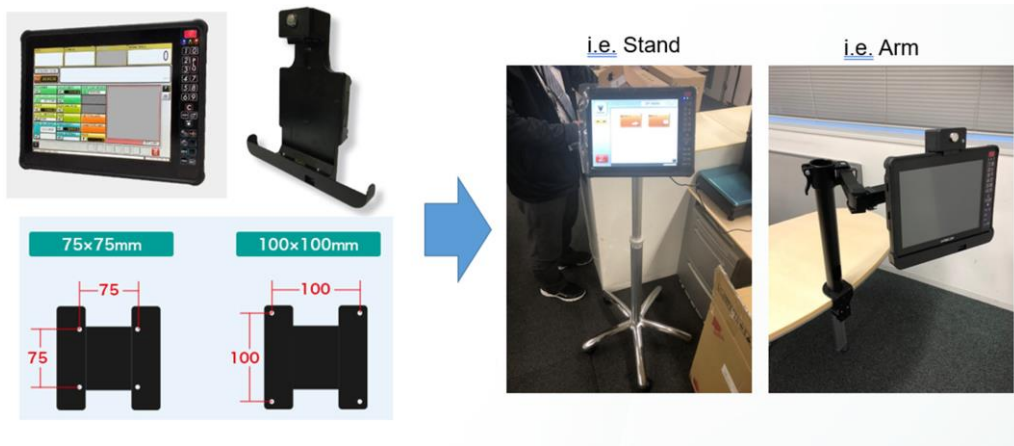
Teraoka Model DIGI LI-5600 II Automatic Catchweighing Instrument with Single Printer and Single Label Applicator Mounted above Weighing Platform with Rollers (Variant 4)

FIGURE 6/14G/35 – 7



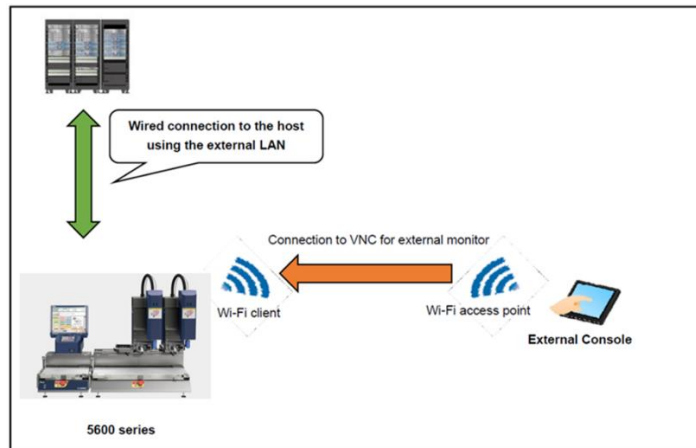
BP Linerless Bottom Labeller

FIGURE 6/14G/35 – 8

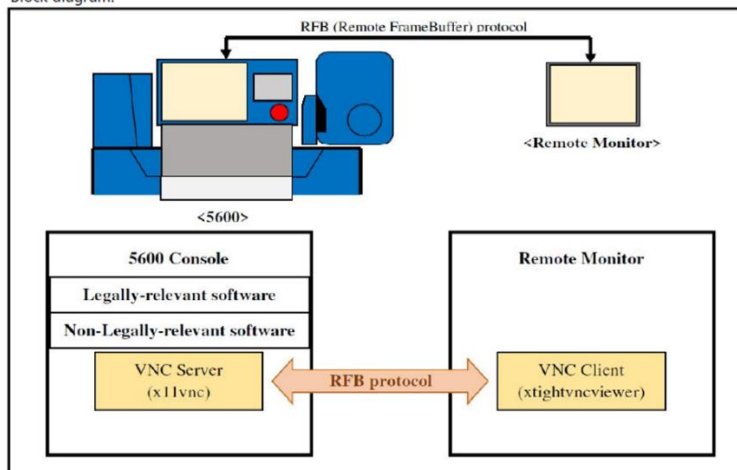


Typical Remote Console and Mounting Method

FIGURE 6/14G/35 – 9



Block diagram:



VNC Software Operation Diagrams

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