Australian Government

Department of Industry, Science and Resources

National Measurement Institute

36 Bradfield Road, West Lindfield NSW 2070

Certificate of Approval
NMI 6/14G/34

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 AW-5600ATII 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 & variants 1 to 2 approved – certificate issued	14/04/20
1	Pattern amended & Variant 3 approved – certificate issued	21/06/24

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI 6/14G/34' 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 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/34

1. Description of Pattern
approved on 14/04/20
amended on 21/06/24

A Teraoka model DIGI AW-5600ATII 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 a weigh/price labeller.

1.1 Details

The pattern is a class Y(a) multi-interval self-indicating price-computing automatic catchweighing instrument (Figure 1) with a verification scale interval e_1 of 0.002 kg for up to 6 kg and with a verification scale interval e_2 of 0.005 kg from 6 kg to 15 kg 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. The package is weighed statically (package stops on the weighing receptor), then transported through the DIGI AW-5600ATII to be wrapped and labelled by the system.

The instrument may operate up to a maximum of 30 packages per minute.

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. 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).

The pattern comprises:

- A terminal/indicator with an LCD colour touchscreen display;
- A weighing receptor unit mounted in front of the main unit;
- A wrapping and heat sealing system incorporated within the main unit;
- Printing units incorporated within the main unit;
- An in-feed conveyor; and
- Arrangements for handling the output of the system (e.g. output roller slide).

1.2 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, capable of setting zero to within $\pm 0.25 e_1$.

Zero is automatically corrected to within $\pm 0.25 e$ whenever the instrument comes to rest within $0.5e$ of zero (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 taring device of up to 5.998 kg capacity may be fitted. This device may only be activated (tare obtained) whilst the infeed conveyor is

stationary, however the value obtained may continue to be used when the instrument is set into automatic weighing mode (automatic feed of packages).

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

1.4   Operation

A package moves along the in-feed conveyor system until it arrives at the gate of the in-feed conveyor and is stopped. When the weighing receptor is empty, the gate drops and the package moves onto the weighing receptor and stops. Weighing takes place in a stationary position upon the weighing receptor. After weighing is completed the package is moved further into the machine for wrapping and sealing automatically. A label (including with the weight value) is then printed and applied to the package which is then delivered to the output of the system.

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

1.5   Terminal/Indicator

The terminal/indicator is fitted with an LCD colour touchscreen display, as well as a keypad. 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 segmented load receptor with surface area of approximately 320 mm (W) x 220 mm (L).

1.7   Printing Unit

The printing unit is comprised of a printer and a compressed air unit used to apply the label to the weighed object.

Please note the Special Condition of Approval regarding printing formats.

1.8   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	…..	
Serial number	…..	
Accuracy class	Y(a)	
Pattern approval mark	NMI 6/14G/34	#3
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 $\qquad$ $T = -$ .... 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*.

#3 To prevent confusion, AW-5600ATII instruments used as an automatic weighing instrument must have its NMI 6/4D/377 (non-automatic weighing instrument approval number) removed or obscured.

1.9   Verification Provision

Provision is made for the application of a verification mark.

1.10   Sealing Provision

A calibration switch is located on the A/D board which has its own cover and is located inside the basework (below the weighing receptor conveyor).

Sealing is achieved by means of destructible adhesive labels or lead and wire type seals with drilled screws to seal access to the calibration switch as shown in Figure 2.

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).

1.11   Software

The software is designated 6.xx for console, 4.xx for measurement software and 3.yy for A/D board, where 'xx = 00...99' and 'yy = 22...99' refer to the identification of non-legally relevant software.

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 the second MAIN MENU screen.
- Press the 'SETUP' button to enter the setup mode.
- Press the 'SOFTWARE VERSION' button. The software versions are displayed.

2.   Description of Variant 1   approved on 14/04/20

The Teraoka model DIGI AW-5600ATII instruments in certain other capacities 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

| 6/15 kg | 0.04 kg | 0.002/0.005 kg | 5.998 kg | 23 kg |

3.   Description of Variant 2   approved on 14/04/20

The Teraoka model DIGI AW-5600ATII instruments in certain single interval capacities as listed in Table 2 below.

TABLE 2

Maximum Capacity (Max)	Minimum Capacity (Min)	Verification Scale Interval (e)	Maximum Subtractive Tare Capacity ($T = - ...$)	Load Cell Capacity (E_{max})
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 21/06/24

A DIGI supplied external console ARBOR model Gladius G0975 (Figure 4) fitted with DIGI Virtual Network Computing (VNC) client software may be connected to the pattern or variants 1 and 2 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 AW-5600ATII instrument software, and the VNC client software xtightvncviewer' on the extern console. The connection allows the user to operate the DIGI AW-5600ATII instrument from a location away from the weighing instrument as shown in Figure 5.

The external console software 'xtightvncviewer' is designed 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 AW-5600ATII instrument.

TEST PROCEDURE No 6/14G/34

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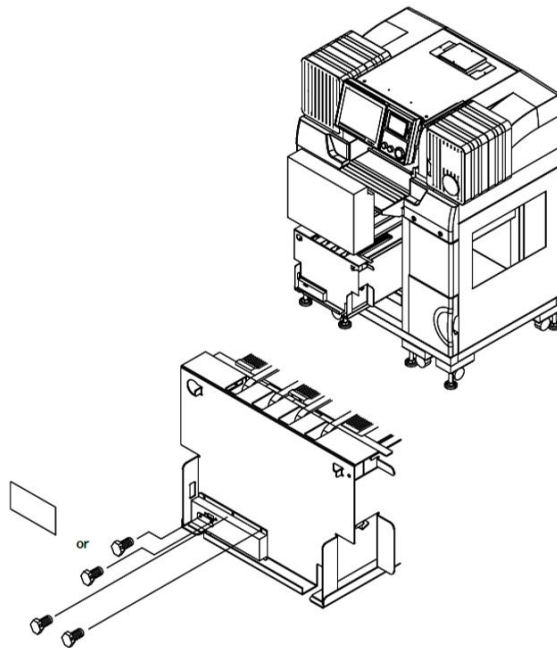
For multi-interval instruments with verification scale intervals of e_1, e_2 …, apply e_1 for zero adjustment, and maximum permissible errors apply e_1, e_2 …, as applicable for the load.

FIGURE 6/14G/34 – 1

DIGI Model AW-5600ATII Automatic Catchweighing Instrument
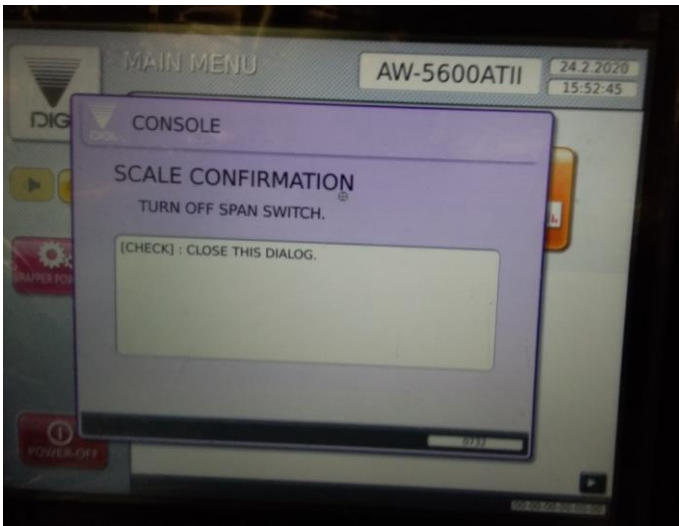
FIGURE 6/14G/34 – 2

Typical Sealing Method

FIGURE 6/14G/34 – 3

In MAIN MENU press 'OPERATION MODE'

If the 'SCALE CONFIRMATION TURN OFF SPAN SWITCH' message is displayed, then the instrument calibration is not protected.
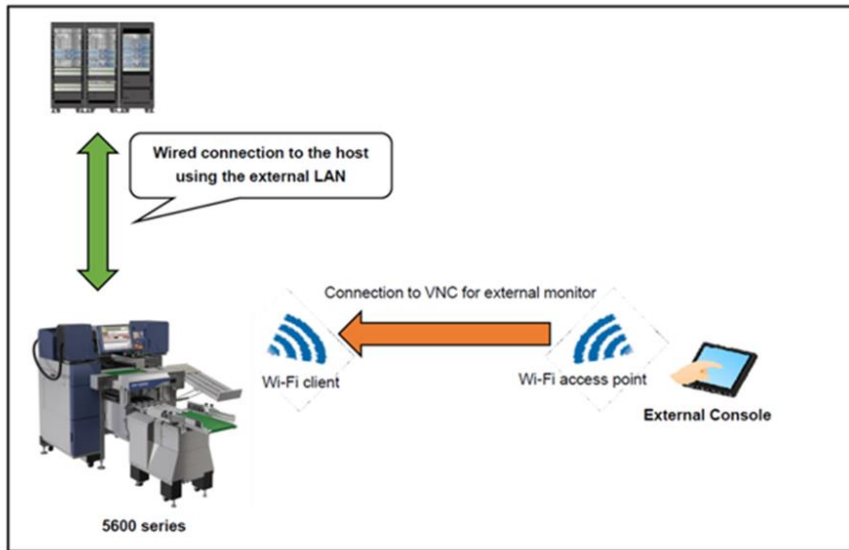
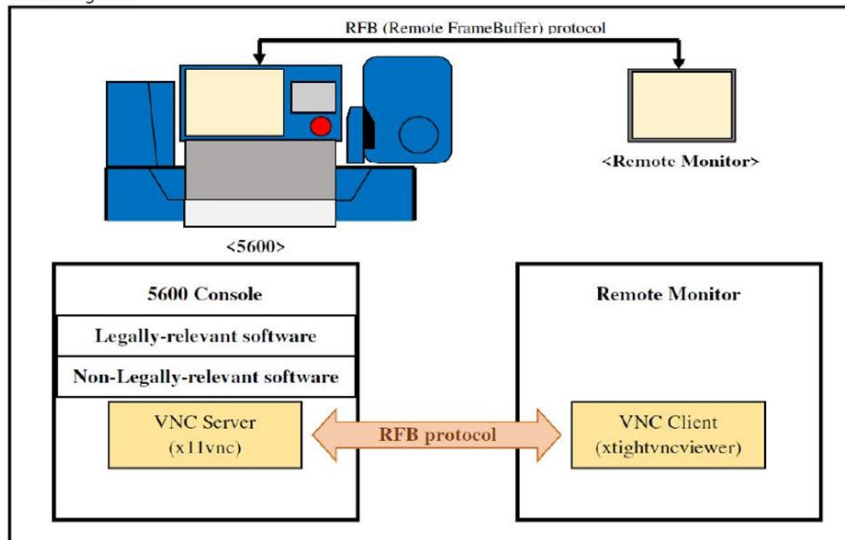Display Indication for Span Switch Setting

FIGURE 6/14G/34 – 4

ARBOR Model Gladius G0975

FIGURE 6/14G/34 – 5

VNC Software Operation Diagrams

~ End of Document ~