Australian Government
Department of Industry, Innovation and Science

National Measurement Institute

36 Bradfield Road, West Lindfield NSW 2070

Supplementary Certificate of Approval

No S588

VARIANT 1 VALID FOR VERIFICATION PURPOSES UNTIL 1 May 2021

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.

Newcastle Weighing Services Model NSSM Point of Sale (POS) System

submitted by Newcastle Weighing Services Pty Ltd
5C Murray Dwyer Circuit
Mayfield West NSW 2304

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 M7, *Pattern Approval Specifications for Point of Sale Systems*, dated June 2012.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern approved – interim certificate issued	13/09/12
1	Pattern amended (validity date) – interim certificate issued	13/12/12
2	Pattern amended (validity date) – interim certificate issued	28/02/13
3	Pattern approved – certificate issued	15/03/13
4	Variant 1 provisionally approved – certificate issued	05/05/20

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI S588' 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.

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.

Special Conditions of Approval: (weighbridges)

The pattern has not been assessed for compliance with requirements which are outside the scope of document NMI M 7, including those features which control the automation of weighbridge operation, or ticket formats for public weighbridges, or 'axle weighing' or 'end-and-end weighing'.

This Certificate does not constitute or imply approval for these functions. Details of these requirements can be found on the NMI website.

Special Conditions of Approval: (Provisional Approval – Variant 1)

The submittor shall advise NMI in writing of the proposed location or serial number of each instrument purporting to comply with Provisional Approval Variant 1 prior to it being initially verified.

Instruments purporting to comply with variant 1 of this approval shall be marked with approval number 'NMI PS588' and only by persons authorised by the submittor. (Note: The 'P' in the approval number may be a temporary marking.)

The variation to the approval will remain provisional pending completion of satisfactory testing and evaluation.

In the event of unsatisfactory performance the approval may be cancelled (or altered).

The submittor shall implement such modifications as required by NMI. In the event that such modifications (if any are required by NMI) are not made to the satisfaction of NMI, this approval may be withdrawn.

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 S588

1. Description of Pattern approved on 13/09/12

A Newcastle Weighing Services model NSSM (NWS Scale Service Module) point of sale (POS) system (Figure 1) to provide certain additional facilities for transactions when interfaced to compatible (#) NMI-approved measuring instruments.

1.1 Key Features

- The system provides point of sale arrangements when connected to NMI-approved measuring instruments fitted with a NUWEIGH model JAC 190 digital indicator (approval NMI S554) or other compatible (#) NMI-approved measuring instruments.
- The system receives measurement data from the output interface of the approved measuring instrument and computes prices using a product look up (PLU) facility.
- The system computes total price for multiple items including non-measured items and is approved for use for transactions direct to the public.
- Manually entered measurement data shall be indicated as such on a printed transaction record.
- The system is able to apply a preset tare value up to the maximum capacity of the approved measuring instrument. Preset tare values may be keyboard-entered or stored (e.g. within a PLU facility).
- The POS controllers may be connected in a network to share common PLU data, for totalisation, and to accumulate and retrieve management information.

(#) 'Compatible' is defined to mean that no additions/changes to the hardware/software specified in this approval are required for satisfactory operation of the system.

1.2 System Description

The Newcastle Weighing Services model NSSM point of sale (POS) system comprises:

(i) POS Controller

The Newcastle Weighing Services model NSSM POS controller (Figure 1) is a PC-based device that operates a Microsoft Windows operating system running NSSM POS version 1.000 software.

The NSSM is a software module that provides the measurement functionality to an application software. The application software includes models WasteMan 2G, ClearWeigh, AutoWeigh 2G, Roadweigh 2G, or any other application software or system that interfaces to the approved measuring instrument via the NSSM module. The application software must not cause the system to incorrectly indicate measured quantity or price.

The NSSW software version number is displayed in the application 'About' facility (Figure 2a) that can be accessed via either the application main toolbar or the 'Help Menu'.

(ii) Electronic Indications

Indications shall satisfy the requirements of document NMI M7, *Pattern Approval Specifications for Point of Sale Systems*.

A computer monitor is connected to the POS controller to provide an indication for the operator and the customer (Figures 2a and 2b).

Information additional to that required by document NMI M7, including totalisation details and product images, may also be indicated.

(iii) Printing Devices

Transaction records shall satisfy the requirements of document NMI M7, *Pattern Approval Specifications for Point of Sale Systems*.

A Nuweigh model RHA492 printer or equivalent (*) is connected to the controller to provide transaction record printing facility. A typical record is shown in Figure 3.

Labels shall satisfy the requirements of document NMI M7.

A Nuweigh model RHA492 printer or equivalent (*) is connected to the controller to provide label printing facility.

Note: Tickets have NOT been assessed for compliance with the requirements for Weighbridge Measurement Tickets as given in relevant Licensing Directives of the trade measurement section of NMI as published on the NMI website.

(*) 'Equivalent' is defined to mean other proprietary equipment of the same or better specifications requiring no changes to the software specified in this approval for satisfactory operation of the system.

(iv) Additional System Facilities

The system may include additional peripheral devices including but not limited to barcode scanning devices, RFID card readers, driver control stations, programmable logic controllers (PLC), input/output controllers, video surveillance cameras, video overlay devices and other plant/site-specific control systems. The facilities shall not interact with the system in a way that would cause an incorrect indication of the measured quantity or price.

1.3 Verification Provision

Provision is made for the application of a verification mark.

1.4 Descriptive Markings

The POS controller is marked in a clear and permanent manner, in one location, with the following information:

Submittor's name or mark	……..
Serial number or other unique identifier	……..
Pattern approval number	NMI S588

2. Description of Variant 1 provisionally approved on 05/05/20

The Newcastle Weighing Services model NSSM POS controller running NSSMPOS version 2.000 software.

The NSSMPOS software adds functions to apply, remove and view the verification information of the system using an electronic method in the software. The facility to electronically verify is available from the “About” facility in the software.

Refer to the section ELECTRONIC VERIFICATION S588 for the method to apply, remove and view the log of verifications.

2.1 Verification Provision

Provision is made to electronically apply a verification mark only.

Note: Instruments of the Pattern that are upgraded to Variant 1 must have any previous verification marking removed from the POS controller before an electronic verification is applied.

2.2 Descriptive Markings

In addition to the **1.4 Descriptive Markings and Notices** for the pattern, instruments of variant 1 carry a notice stating *“Verification mark for this instrument is electronically displayed, refer to the certificate of approval”,* or similar wording.

TEST PROCEDURE No S588

The POS system shall be tested in addition to any tests specified in the approval documentation for the instruments to which the POS system is connected, as appropriate

The POS system shall be tested in the normal operational mode of the instrument and device, not in 'training mode' or any other management mode.

Maximum Permissible Error

The maximum permissible error for price computation is ±0.5 cent.

1. Check the software version number/s.
2. Check that the POS system faithfully reproduces the measurement data in the same units and scale interval as the connected approved measuring instrument, e.g. test by using a PLU without a stored tare.
3. Check that the system performs correct price computation, and computes and indicates a correct unrounded subtotal. For cash payment methods, check that any rounding calculation is correct.
4. Perform a measurement with a preset tare applied and confirm that the POS system correctly calculates and indicates a net measurement result.
5. Manually enter some pre-determined measurement data and ensure that the printed transaction record clearly indicates the transaction as such.
6. For network systems, check that the measurement data printed on the transaction record is correctly reproduced when a transaction is transferred or stored through the network.
7. Ensure that electronic indications and printed information are in accordance with document NMI M7.

ELECTRONIC VERIFICATION S588

Systems operating NSSM POS version 2.000 to support the application of an electronic verification mark via the system About Box function

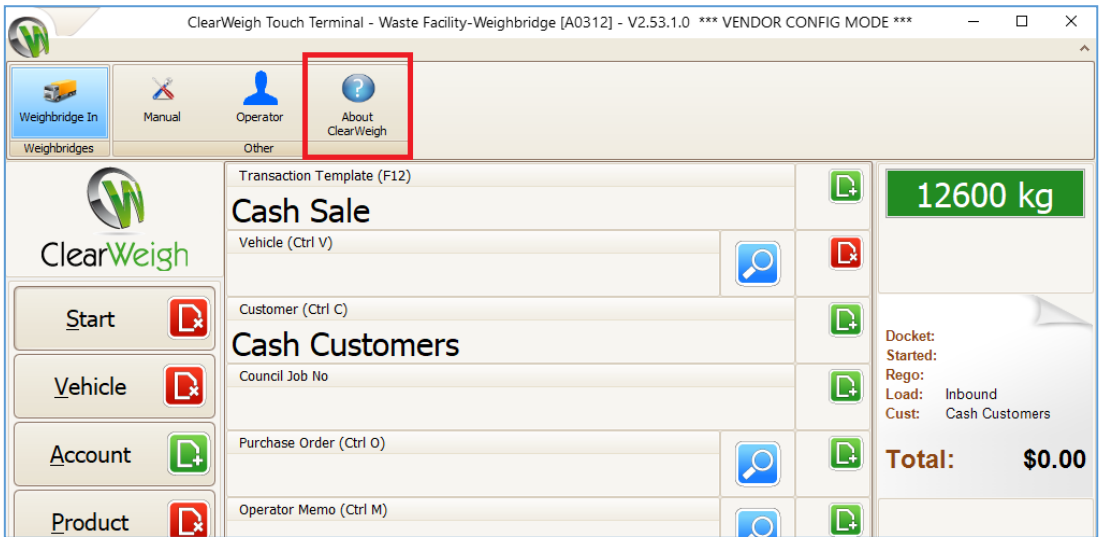
The POS system supports the application, and removal of electronic verification marks via the system “About” box. The application of an electronic verification mark requires the password shown in the Add/Update method.

The removal of an electronic verification mark is not a privileged operation. Warning is given to the person invoking the function, so they understand the consequences of doing this.

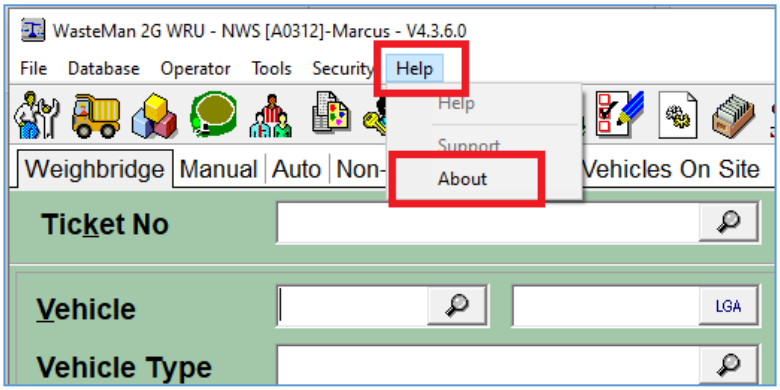
All changes to verification are written to the application system log and can be viewed by invoking the “View Log” function which is also available in the About Box (Figure 2a).

1. Displaying the About Box

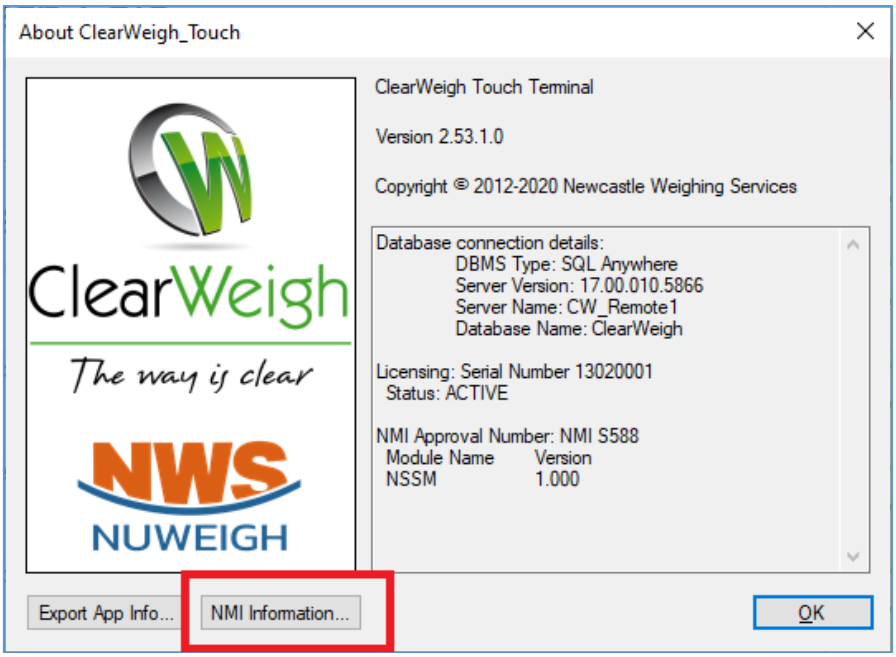
The About Box can be displayed by selecting the appropriate “About” function from the main screen of the application, an example of which is shown below.



In some applications utilising the NSSM POS module, the About box is available instead from the “Help” menu on the main screen as shown.



The About Box provides access to the electronic verification mark by pressing the "NMI Information" button found at the bottom of the dialog.



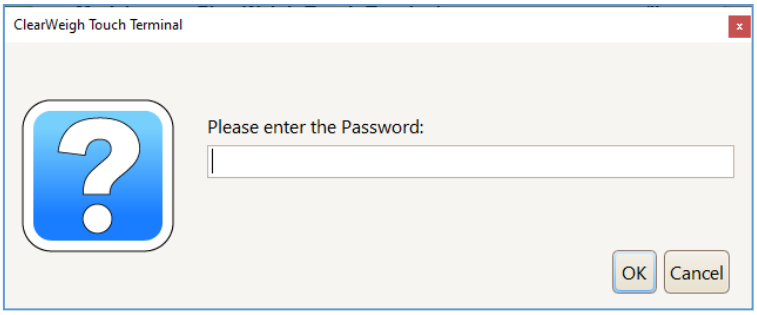
The functions available in the NMI Information dialog are shown below.

2. Add/Update

The Add / Update function allows a new or updated verifiers mark to be applied to the application running on that computer.

When selected the system will display a dialog for the entry of the new verifiers mark.

After entering the new mark, the system will display a prompt for the password.



The password for this function is shown below.

Nw5p@ss

The password protects the integrity of the verification process and should be used only by verifiers with the appropriate NMI license to verify Point of Sale systems.

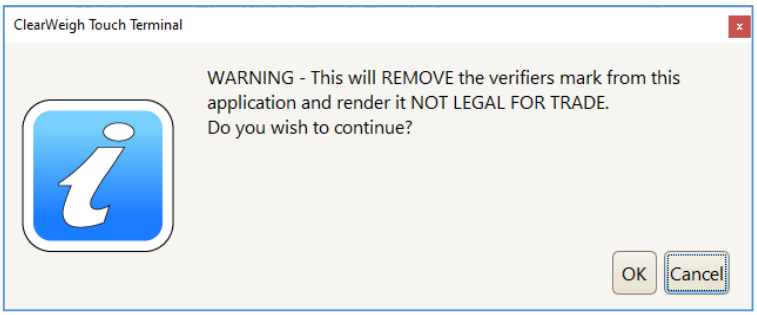
Once the correct password is entered, the system will apply the new verifiers mark to the application and make an entry in the NMI Audit Log.

The verifiers mark is stored in the system database and encrypted to prevent tampering by unauthorised personnel.

3. REMOVE

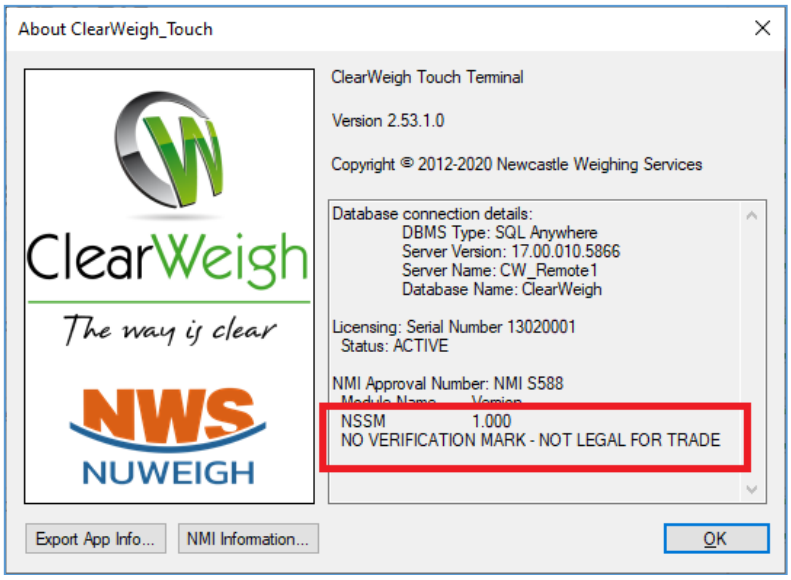
The “REMOVE” function in the NMI Information box allows a verification mark to be removed from the system.

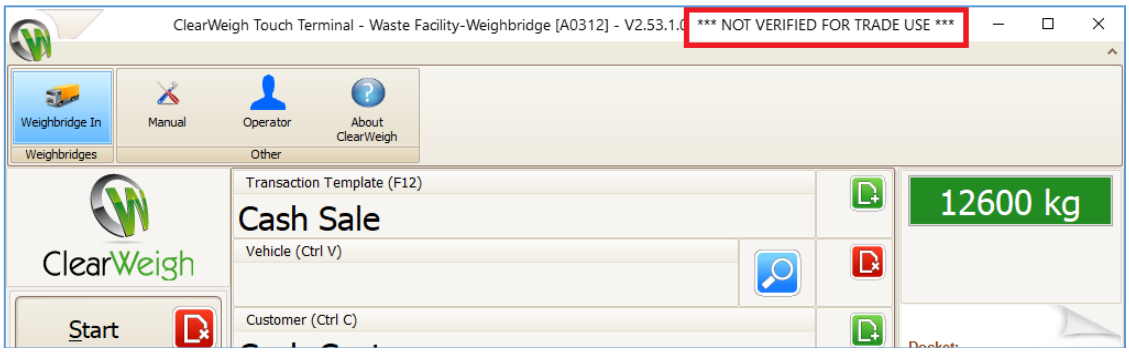
This function does NOT require a password, however a warning message is first displayed to the user as below.



If the prompt is acknowledged, the system will remove the verifiers mark and add an entry to the Log.

Once the verification mark has been removed, the system About Box will display an information message indicating that the application is not legal for trade. This is also shown on the application main form.



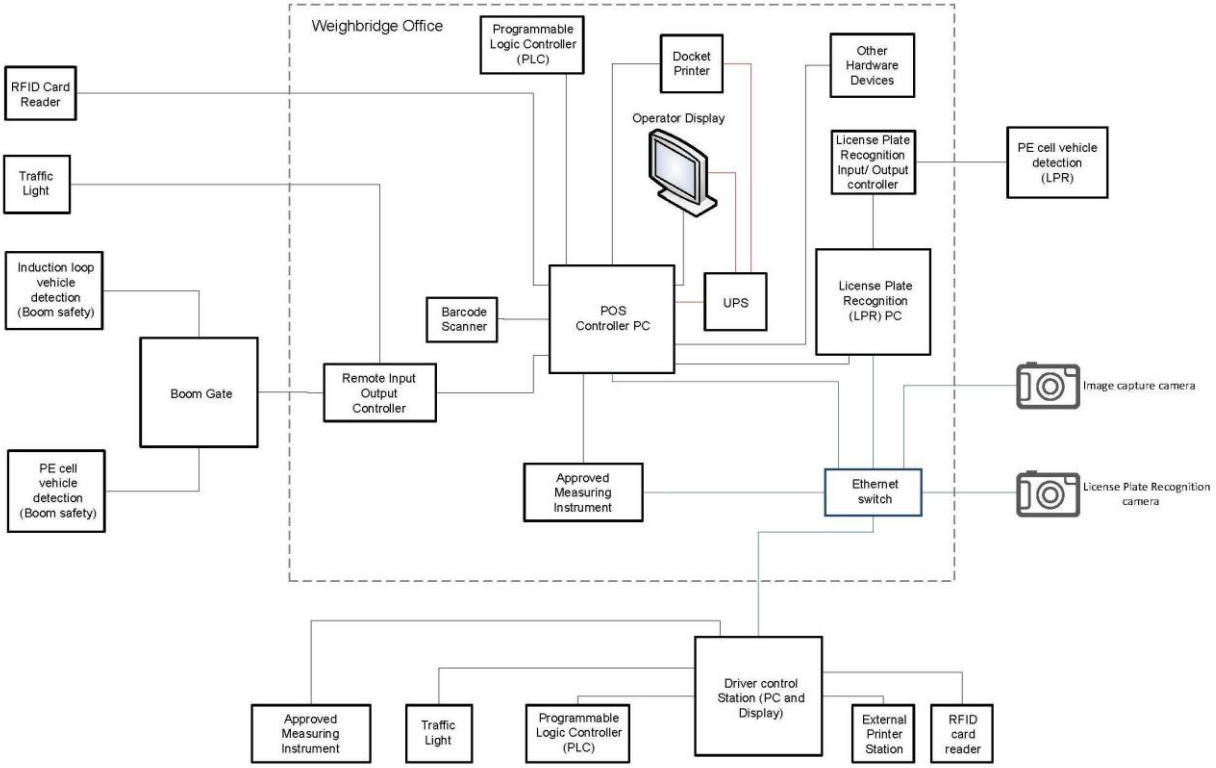


4. View Log

The View Log function will display the audit log of changes to verification marks for the instrument. Any line in the log can be double-clicked to bring up the full details in a window.

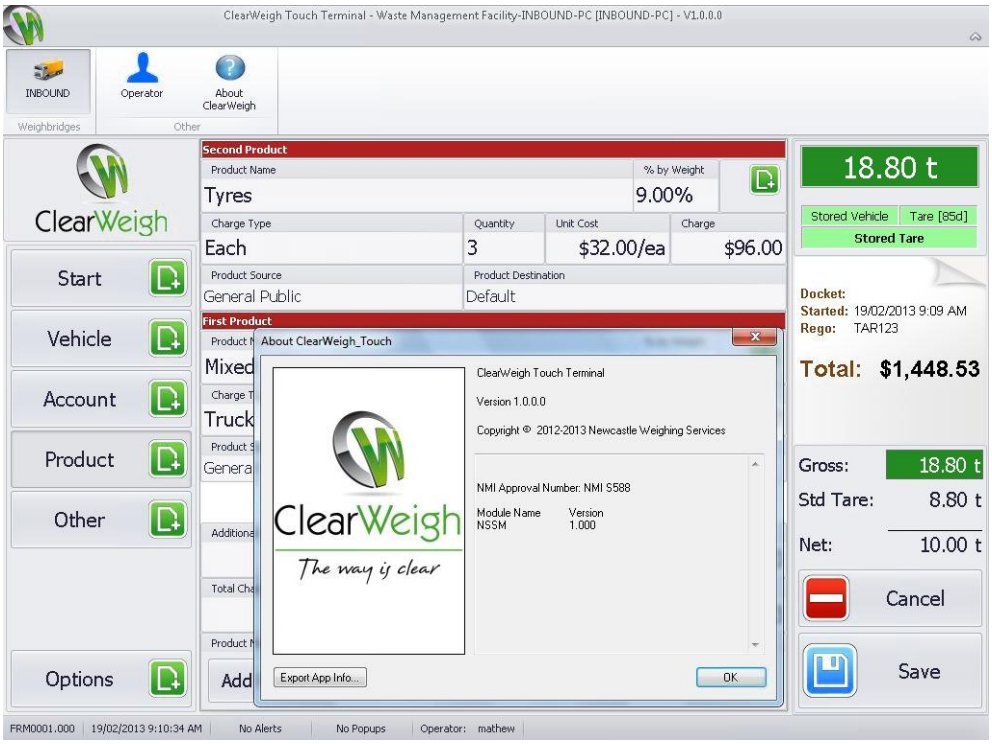
The Audit Log is read-only. Entries in the log may not be modified or removed once added.

FIGURE S588 – 1

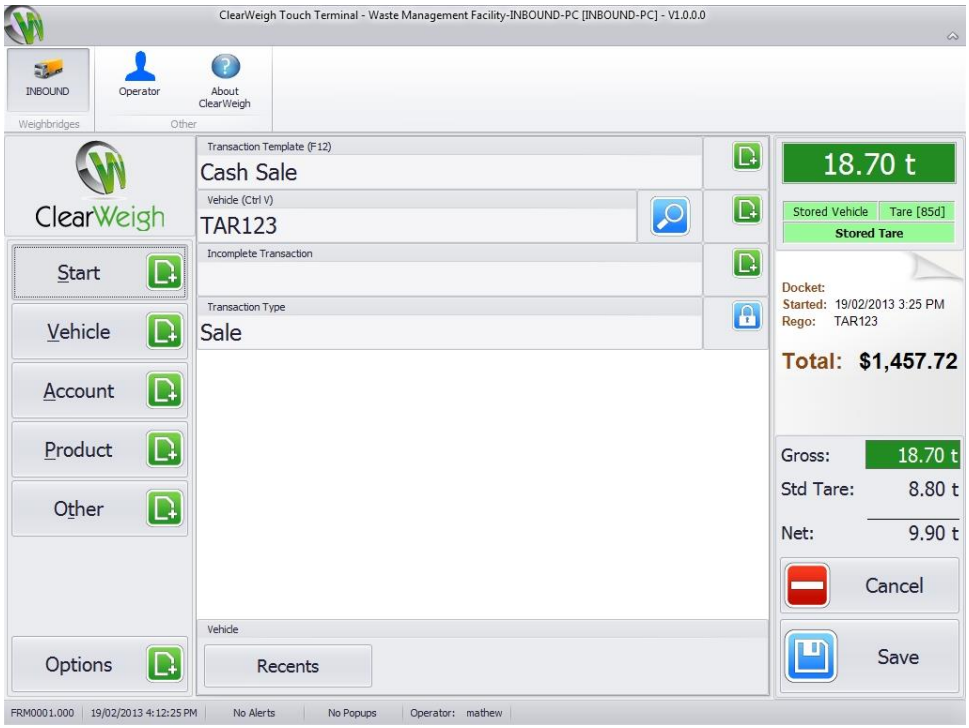


Newcastle Weighing Services Model NSSM Point of Sale (POS) System

FIGURE S588 – 2



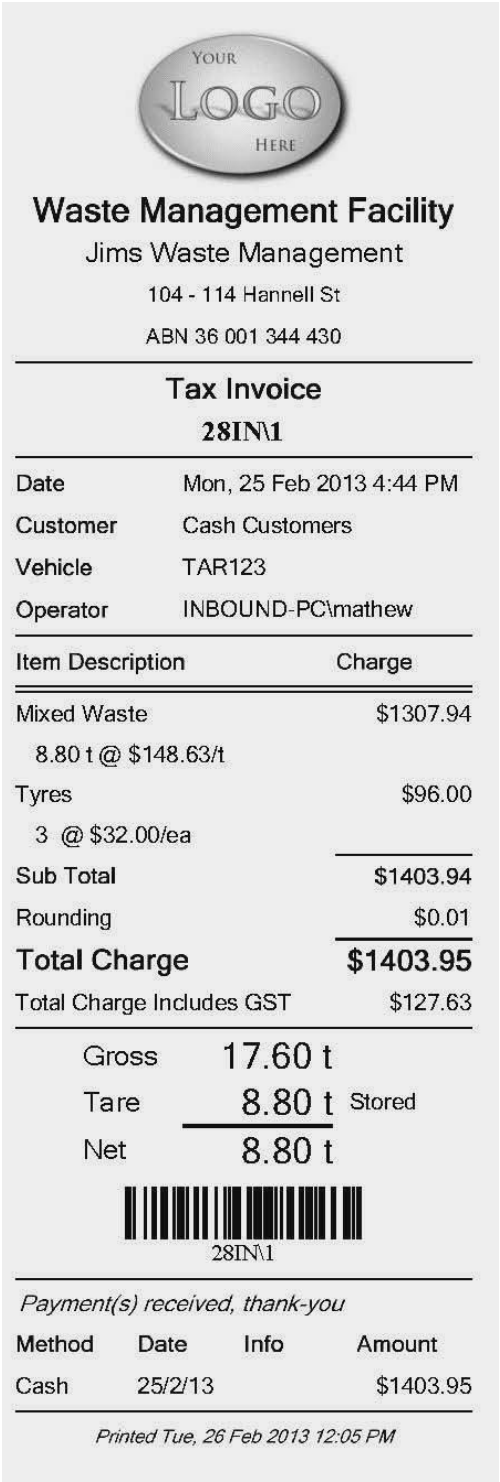
(a) Includes Pop-up 'About' Screen Showing Software Version Number (Pattern)



(b) A Typical Alternative Screen

Typical Operator/Customer Displays
(in these cases using ClearWeigh application software)

FIGURE S588 – 4



Waste Management Facility
Jims Waste Management
104 - 114 Hannell St
ABN 36 001 344 430

Tax Invoice
28IN\1

Date	Mon, 25 Feb 2013 4:44 PM
Customer	Cash Customers
Vehicle	TAR123
Operator	INBOUND-PC\mathew

Item Description	Charge
Mixed Waste	$1307.94
8.80 t @ $148.63/t	
Tyres	$96.00
3 @ $32.00/ea	
Sub Total	$1403.94
Rounding	$0.01
Total Charge	**$1403.95**
Total Charge Includes GST	$127.63

Gross	17.60 t	
Tare	8.80 t	Stored
Net	8.80 t	

28IN\1

Payment(s) received, thank-you

Method	Date	Info	Amount
Cash	25/2/13		$1403.95

Printed Tue, 26 Feb 2013 12:05 PM

A Typical Receipt

~ End of Document ~