In 1983, the National Standards Commission (now the National Measurement Institute) introduced a General Supplementary Certificate of Approval (S1/0) for auxiliary indicating devices. S1/0 specified requirements for auxiliary printing and indicating devices which connect to a measuring instrument in use for trade. These devices are used to duplicate the measurement data displayed by the measuring instrument and may be used to calculate price. They include ticket and label printers, Point of Sale (POS) systems, secondary indicators and summing indicators. In 1992, an update to this Certificate of Approval was reissued as S1/0/A.

When these certificates were released, POS systems were primarily a single simple cash register connected to a weighing instrument which performed basic price computation functions. During the 1990’s POS systems evolved to include additional functionality and became software-based systems consisting of a processor, visual display unit (VDU) and printer.

In 2011, following a review of S1/0/A and a period of consultation, the National Measurement Institute (NMI) introduced a new scheme for the pattern approval of Point of Sale systems.

On 1 August 2012, S1/0/A was replaced with General Supplementary Certificate S1/0B for the approval of simple printers and indicators and with document Pattern Approval Specifications for Point of Sale Systems (NMI M 7) for the approval of POS systems.
Simple printers and indicators (including summing indicators) will be required to be compliant with S1/0B, but will **not** be required to be assessed by the Pattern Approval Section of NMI. They may be self-assessed by the manufacturer/supplier for compliance with S1/0B, and verified by a servicing licensee in conjunction with the instrument to which they are connected.

**POS systems** will be required to be assessed by the Pattern Approval Section for compliance with NMI M 7. Following successful assessment, a Certificate of Approval and a unique approval number (in the form ‘NMI S***’) will be issued for the POS system.

A POS system is defined as a component of a measuring instrument that is:
- approved for use in trade
- used for creating labels, receipts or documents
- able to convert the result of a measurement made by the measuring instrument
- not able to control the measuring instrument or to affect its metrological performance.

By ‘convert the result of the measurement’ we mean that it performs some calculation on the measurement such as price computation or subtraction of stored tare etc.

These types of equipment will be required to be verified before use for trade, and further information on this can be found on the Servicing Licensee pages of the NMI website.
1. What is a simple printer or indicator?
A simple printer or indicator is a simple electronic device that indicates or prints, and is interfaced to an measuring instrument approved for use in trade, to duplicate (but not calculate) price, unit price and/or measurement data.

2. What do I need to do if I have a simple printer or indicator?
Simple printers and indicators need to meet the requirements in the General Certificate of Approval S1/0B. The instrument needs to be marked as described in S1/0B, and a data plate attached to the instrument.

The instrument does not need to be submitted to NMI for pattern approval.

3. What is a POS system?
A POS system is a component of a measuring instrument approved for use in trade, which typically creates labels, or transaction records. It is capable of converting the result of a measurement on the measuring instrument but not capable of controlling it or affecting its metrological operation.

These are systems, which connect to approved-measuring instruments and do more than just replicate the measurement data. They may perform functions such as price computation based on measurement data, or subtraction of a tare value. Such systems typically consist of a controller, display and associated control software. They are external to the measuring instrument but are connected to it digitally.

Auxiliary devices or systems that have the following functions are not POS systems and should be submitted to NMI for pattern approval against the relevant requirements document (e.g. NMI R 76, NMI R 117, etc.). This includes devices that comply with one or all of the following: □ control a function on the measuring instrument/s □ modify the indication of the measured quantity on the primary indicator □ store calibration or other measurement related data for use by the measuring instrument □ control self-service arrangements for fuel dispensers.

4. What do I need to do if I have a POS system?
POS systems need to meet the requirements of NMI M 7 and be assessed by NMI’s Pattern Approval Section for compliance against these requirements. Once Pattern Approval has completed the assessment satisfactorily, a Certificate of Approval will be issued.

Details of how to apply for a Certificate of Approval can be found at http://www.measurement.gov.au/patternapprovalapplication.

Once a Certificate of Approval has been issued, the instrument must be verified by a licensee. Further information on verification requirements can be found in the table of POS Verification Requirements found in the Servicing Licensee pages on the NMI website.
5. What about instruments that are currently installed?
Any system that is compliant with S1/0/A, and was installed prior to 1 August 2012 may continue to be used for trade for as long as the system remains unchanged.

If changes are made to the system, it must be re-approved against the relevant document, i.e. NMI M 7.

Re-approval is required if there are: □ changes to the method of price computation or manipulation of the measurement data □ changes to the software controlling the ticket or label formatting □ other software changes that relate to the measurement operation □ hardware changes such as replacement of processor, display, printer etc, unless the replacement is the same or equivalent type.

Changes to pricing data, Product Look-up tables (PLU tables) or similar do not require reapproval providing that a change as described above is not required.

6. Does every POS system need to be assessed by NMI?
No - the Certificate of Approval will be for a family of POS systems. A family of devices will cover a single model or series of models, or single software version or series of software versions, provided they are not substantially different in their operation.

7. Can I change the hardware in my POS system?
The hardware can be changed within the scope of the Certificate of Approval. For example, the replacement of a printer with an equivalent printer would be allowed, but addition of a printer to a system without one, would not be.

8. Can I change the software in my POS system without requiring re-approval?
NMI M 7 allows the POS software to be split into ‘legally relevant’ and ‘not legally relevant’. If the software has been split in this way, the changes to the ‘not legally-relevant’ portion are allowed as described in the Certificate of Approval. For example, drivers would not be documented in the Certificate of Approval and could therefore be changed.

9. How long will the assessment of a POS system take?
Time scales depend on the workload of the Pattern Approval Laboratory and the complexity of the system, but typically allow 8-12 weeks. The Pattern Approval Section should be able to give more accurate time scales at the time of application.

10. How much will it cost?
Costs depend on the complexity of the system, but estimated costs for a typical POS system can be found on the Pattern Approval application page of NMI’s website.

11. Are the NMI M7 requirements only applicable to retail weighing POS systems?
No - these requirements are applicable to all systems that meet the definition of POS, including those connected to weighbridges.