

Australian Government

National Measurement Institute

Bradfield Road, West Lindfield NSW 2070

# Notification of Change Supplementary Certificate of Approval No S449 Change No 1

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

Radiant Systems Model Radar POS Control System for Fuel Dispensers for Motor Vehicles

submitted by Radiant Systems Asia Pacific Pty Ltd 44-46 Little Ryrie Street Geelong VIC 3220.

In Supplementary Certificate of Approval No S449 dated 25 October 2005:

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 November **2015**, and then every 5 years thereafter."

2. The FILING ADVICE should be amended by adding the following: "Notification of Change No 1 dated 23 June 2011"

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

12 Lyonpark Road, North Ryde NSW 2113

## **Supplementary Certificate of Approval**

## No S449

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

Radiant Systems Model Radar POS Control System for Fuel Dispensers for Motor Vehicles

submitted by Radiant Systems Asia Pacific Pty Ltd 44-46 Little Ryrie Street Geelong VIC 3220.

**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.

#### CONDITIONS OF APPROVAL

This approval becomes subject to review on 1 November 2009, and then every 5 years thereafter.

Instruments purporting to comply with this approval shall be marked with approval number 'NMI S449' and only by persons authorised by the submittor.

Instruments incorporating a component purporting to comply with this approval shall be marked 'NMI S449' in addition to the approval number of the instrument.

#### Supplementary Certificate of Approval No S449

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.

#### DESCRIPTIVE ADVICE

Pattern: approved 19 October 2004

• A Radiant Systems model Radar POS control system for use with compatible approved fuel dispensers for motor vehicles.

Technical Schedule No S449 describes the pattern.

Variant: approved 6 September 2005

1. A Radiant Systems model RFCID control system.

Technical Schedule No S449 Variation No 1 describes variant 1.

#### FILING ADVICE

Supplementary Certificate of Approval No S449 dated 21 March 2005 is superseded by this Certificate, and may be destroyed. The documentation for this approval now comprises:

Supplementary Certificate of Approval No S449 dated 25 October 2005 Technical Schedule No S449 dated 21 March 2005 Technical Schedule No S449 Variation No 1 dated 25 October 2005 Figures 1 and 2 dated 21 March 2005 Figures 3 and 4 dated 25 October 2005

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 S449

 Pattern:
 Radiant Systems Model Radar POS Control System for Fuel

 Dispensers for Motor Vehicles

Submittor: Radiant Systems Asia Pacific Pty Ltd 44-46 Little Ryrie Street Geelong VIC 3220

#### 1. Description of Pattern

The Radiant Systems model Radar POS point of sale control system provides an attended self-service facility for compatible (#) approved fuel dispensers for motor vehicles. The system (Figure 1) includes at least the Radar POS point of sale operator console, a Postec model PCC4 communications controller and a back office server.

(#) "Compatible" is defined to mean that no additions/changes to hardware/software are required for satisfactory operation of the complete system including all checking facilities.

#### 1.1 Field of Operation

- The Radar POS operator console and the back office server are approved for environmental class A, a climate-controlled environment between 5°C and 30°C.
- The PCC4 communications controller is approved for environmental class N, an environment between -10°C and 55°C.
- The system can provide a self-service arrangement for up to 32 compatible approved fuel dispensers fitted with a Compac model C4000 calculator/indicator, or other compatible approved fuel dispensers.
- The system allows post-payment deliveries only.
- The system allows up to two transactions per fuel dispenser, i.e. current sale on the fuel dispenser and a stored transaction.
- The system operates in a single mode operation, authorisation of dispensers via attended method only.
- Additional Radiant POS operator consoles may be interfaced for multi-attended self-serve operation.
- The nominal supply voltage is 240 V AC.

#### **1.2 System Description**

#### (i) Operator Console

The Radar POS operator console (Figure 2) is comprised of an interactive touchsensitive operator display including a built-in card reader, operating Radiant POS version 6.xx (\*) software.

(\*) Minor revision versions are denoted by 'xx'. Minor revisions shall not impact on the metrological control functions of the software.

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#### Technical Schedule No S449

The operator console connects to other operator consoles and a back office server via an Ethernet connection. Other devices connect via RS232 and USB communication ports.

The operator console includes the following additional components:

- An uninterruptible power supply unit (UPS) to provide operation under power failure condition. Note: The UPS supplied was a Sola model of 750 VA rating – the submittor should be consulted regarding the acceptability of alternative power supply units, which must also be compatible with clause 1.3 (ii).
- A Radiant Systems 2x20 segment customer display (Figure 2).
- (#) "Compatible" is defined to mean that no additions/changes to hardware/software are required for satisfactory operation of the complete system including all checking facilities.

The following optional devices may be connected:

- A barcode scanner.
- A receipt printer.
- A cash drawer.
- A Radiant Systems model Bumble Bee colour customer display unit (hinged to the operator display (Figure 2) or mounted separately).

#### (ii) Back Office Server

An IBM compatible back office server acts as a file server for the Radar POS control system.

The back office server also provides the communication interface between the operator consoles and the Postec PCC4 controller. The server connects to the Postec PCC4 controller using a Serial RS232 connection and connects to the operator consoles via an Ethernet network connection.

#### (iii) Postec PCC4 Controller

The Postec model PCC4 communications controller provides the interface between the Radar POS control system and the fuel dispensers.

The PCC4 controller operates with Postec version 6.xx (\*) software.

(\*) Minor revision versions are denoted by 'xx'. Minor revisions shall not impact on the metrological control functions of the software.

Note: A Postec PIPI intelligent purchaser indicator is NOT required.

## 1.3 Checking Facilities

(i) Back Office Server

If an error occurs with the back office file server, the Radiant POS system will indicate the failure and signal that an error has occurred.

(ii) Uninterruptible Power Supply (UPS)

The Radar POS operator console monitors the expected remaining battery life left on the UPS and the function of the POS console is maintained until the battery level drops below 15 minutes of power remaining. Once the UPS has reached this point the memory storage ability of the system will be disabled.

If a problem with the UPS occurs which prevents the UPS from signalling expected power remaining, the memory storage facility will be disabled.

An indication on the operator console advises of any significant conditions in the UPS.

(iii) Printer

If the printer, where fitted, is unavailable a message is displayed on the operator console reporting the details of the error that has occurred with the printer.

(iv) Customer Display

If the connection to the customer display is interrupted or an error occurs with the display, the memory storage ability will be disabled. An error message is also displayed on the operator console warning that the display is disconnected. A visual segment checking facility is provided to verify display operation.

(v) Unit Price Changing

If the checking facilities of either the customer display or the uninterruptible power supply cannot ensure correct indication of a stored measurement result, the ability to change unit price is disabled while any incomplete deliveries are in progress and the checking facilities continue to detect this error condition.

### 1.4 Markings

The Radar POS operators console, the PCC4 controller, and the back office server are marked with the following data:

Manufacturer's name or mark	
Model number	
Serial number	
Pattern approval mark	S449
Environmental class	

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#### **1.5 Verification/Certification Provision**

The Radar POS control console has provision for a certification/verification mark to be applied.

## TEST PROCEDURE

Instruments shall be tested in conjunction with any test specified in the approval documentation for the instrument to which the pattern is connected, as appropriate, and accordance with any relevant tests specified in the Uniform Test Procedures.

The maximum permissible errors applicable are those applicable to the fuel dispenser to which the pattern is connected, as stated in the approval documentation for the dispenser.

Items 3-5 below are required at **commissioning**, thereafter may be conducted at the discretion of the inspecting officer.

- 1. Check the Radar POS software version. Pressing the "Other Functions" button followed by the "Version Info" button from the main POS screen can access software versions.
- 2. Check the PCC4 controller software version number. The software version number may be displayed on the back office server VDU by selecting the 'Properties' menu of the PCC Server software.
- 3. Check that the unit price change for the grade of fuel is implemented to the allocated fuel dispensers when they are available for authorisation.
- 4. Check that the control console and the customer display identify and display the correct data for the corresponding number allocated to the fuel dispenser.
- 5. Check that when the customer display is disconnected from the POS console (simulation of fault), the fuel dispenser cannot be authorised for a second delivery unless the transaction for the first delivery has been completed.

#### TECHNICAL SCHEDULE No S449

VARIATION No 1

 Pattern:
 Radiant Systems Model Radar POS Control System for Fuel

 Dispensers for Motor Vehicles

Submittor: Radiant Systems Asia Pacific Pty Ltd 44-46 Little Ryrie Street Geelong VIC 3220

#### 1. Description of Variant 1

The Radiant Systems model Forecourt Controller Interface Device (RFCID) which is designed to operate the software applications previously running on the back office server of the pattern (model Radar POS control system). The RFCID (Figure 3) becomes the communication interface between the Radar POS operator console/s and the Postec model PCC4 communications controller, eliminating dependency on the back office server. Figure 4 shows a typical RFCID system.

#### 1.1 Field of Operation

- The Forecourt Controller Interface Device (RFCID) is approved for environmental class A, a climate-controlled environment between 5°C and 30°C.
- The nominal supply voltage is 240 V AC.

#### **1.2 System Description**

The RFCID is connected to the back office server and the control console/s via an ethernet network (Figure 4).

- (i) The Forecourt Controller Interface Device (RFCID) is a solid state PC device and includes the following components/features:
- IBM compatible motherboard (Radiant model P400).
- Postec model Forman4 'Visual Console' software version 1.1 (\*) operating under Microsoft ® XP imbedded operating environment.
- (ii) The Postec PCC4 controller operates with Postec software version 6.32 (\*).
- (iii) The Radiant back office server operating system is version 6.2.1001.
- (\*) The Postec model Forman4 console and model PCC4 controller are described in the documentation of NMI approval S398 including approved software versions. As software versions are upgraded and listed in approval S398, they may be used in this approval.

Note: A Postec PIPI intelligent purchaser indicator is NOT required.

## Technical Schedule No S449

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## 1.3 Markings

The Forecourt Controller Interface Device (RFCID) is marked with the following data:

Manufacturer's name or mark	
Model number	
Model number	
Serial number	
Pattern approval mark	S449
Environmental class	

FIGURE S449 - 1



Radiant Systems Model Radar POS Control System for Fuel Dispensers for Motor Vehicles S449 21 March 2005

## FIGURE S449 - 2



 a) Radiant POS showing typical screen display



b) Radiant POS showing variable position Tilt Stand, card reader and "Bumble Bee" Color Customer Display



c) Customer Display Unit



d) Receipt Printer



e) Bar Code Scanner



f) Cash Drawer

Major Components of a Radiant Systems Model Radar POS Control System

## FIGURE S449 - 3



Radiant Systems Model Forecourt Controller Interface Device (RFCID)





Radiant Systems Model RFCID Control System for Fuel Dispensers for Motor Vehicles