Australian Government

National Measurement Institute

12 Lyonpark Road, North Ryde NSW 2113

Cancellation

Supplementary Certificate of

Approval No S340

Issued by the Chief Metrologist under Regulation 60
of the
National Measurement Regulations 1999

This is to certify that the approval for use for trade granted in Approval S340 issued in respect of the

Compac Model Commander Driveway Flowmeter Control System

submitted by Compac Industries Limited
52 Walls Road
Penrose Auckland New Zealand

has been cancelled in respect of new instruments as from 1 April 2005.

Signed by a person authorised by the Chief Metrologist to exercise his powers under Regulation 60 of the National Measurement Regulations 1999.

National Standards Commission

Supplementary Certificate of Approval

No S340

Issued under Regulation 9
of the
National Measurement (Patterns of Measuring Instruments) Regulations

This is to certify that an approval for use for trade has been granted in respect of the

Compac Model Commander Driveway Flowmeter Control System

submitted by Compac Industries Limited
52 Walls Road
Penrose Auckland New Zealand.

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 January 2002 and then every 5 years thereafter.

Instruments purporting to comply with this approval shall be marked NSC No S340 and only by persons authorised by the submittor.

..../2

Instruments incorporating a component purporting to comply with this approval shall be marked NSC No S340 in addition to the approval number of the instrument.

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 Commission 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 the Commission's Document 106.

The Commission 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.

Special:

Instruments are only approved for installations incorporating the Commission-approved driveway flowmeters described in this approval, and may only be used for central unit price setting of driveway flowmeters which have been Commission-approved with that facility.

DESCRIPTIVE ADVICE

Pattern: approved 17 December 1996

- A Compac model Commander driveway flowmeter control system for use with Commission-approved driveway flowmeters fitted with Compac model C3000H indicators for use in attended service mode.

Variant: approved 17 December 1996

1. For use with Production Engineering model Retron 80 or model MHP indicators.

Variants: approved 18 April 1997

2. For use in unattended service mode.

3. For use with a Compac model C3000H remote authorisation device.

Variant: approved 16 June 1997

4. For use with a Compac model Procon V3.1 protocol convertor.

Variant: approved 16 September 1997

5. For use with certain Gilbarco indicators.

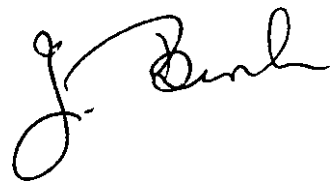
Technical Schedule No S340 describes the pattern and variants 1 to 5.

FILING ADVICE

The documentation for this approval comprises:

Supplementary Certificate of Approval No S340 dated 27 October 1997
Technical Schedule No S340 dated 27 October 1997 (incl. Test Procedure)
Figures 1 to 6 dated 27 October 1997

Signed and sealed by a person authorised under Regulation 9 of the National Measurement (Patterns of Measuring Instruments) Regulations to exercise the powers and functions of the Commission under this Regulation.



TECHNICAL SCHEDULE No S340

Pattern: Compac Model Commander Driveway Flowmeter Control System.

Submittor: Compac Industries Limited
52 Walls Road
Penrose Auckland New Zealand.

1. Description of Pattern

A Compac model Commander driveway flowmeter control system for use with Commission-approved driveway flowmeters fitted with Compac model C3000H indicators, in **attended** service mode.

1.1 The System

The system (Figure 1) may be used with up to 32 Commission-approved driveway flowmeters and comprises:

- a Compac model Communicator controller (Figure 2);
- a Compac model Commander operator's console (Figure 3);
- a Compac remote purchaser's indicator; and
- an uninterruptible power supply.

A ticket printer may also be fitted.

The system facilities include:

- a point of sale (POS) facility including a cash drawer or register;
- an electronic funds transfer (EFT) facility;
- a facility for centrally setting the unit price (refer to the Special Conditions of Approval);
- a grade selection facility;
- a preset function which may be used for prepay transactions;
- a pump stop and all pumps emergency stop function;
- a temporary storage facility; and
- a memory facility.

1.2 Controller

The model Communicator controller (Figure 2) controls the various functions of the system including the driveway flowmeters, printer(s), operator's console and purchaser's indicator. It may be located remotely from the console. The controller uses version BF-A-01:04 software.

..../2

1.3 Operator's Console

The model Commander operator's console (Figure 3) consists of a visual display unit (VDU) and keyboard connected directly to the controller. The console provides a means of authorisation of the driveway flowmeters.

1.3.1 Point of Sale Facility

The console incorporates point of sale (POS) facilities and these shall not interact with the controller or the console in any way which would cause an incorrect indication of the measured volume or price.

1.3.2 Card-reader Facility

The console incorporates a card reader facility which allows account and EFT transactions. The authorised cards may either be controlled distribution cards issued to selected users or financial institution cards available to the public.

1.3.3 Temporary Storage Facility

This facility allows two purchasers to operate simultaneously, i.e. a second transaction may be carried out while a previous transaction which has not yet been completed is retained in memory.

Only one transaction for each driveway flowmeter may be stored in memory at any time.

The first purchaser carries out a delivery of fuel and the transaction data is indicated on both the purchaser's and vendor's indicators. After a period of not less than 5 seconds, and once the first purchaser has hung-up the nozzle but before the first transaction has been completed, a second purchaser can be authorised for the same flowmeter. The details of the first transaction are temporarily stored in the memory, and can be shown on both the vendor's and purchaser's displays.

1.4 Sealing Provision

No sealing is required.

1.5 Verification/Certification Provision

Provision is made for the application of a verification/certification mark.

1.6 Markings

Instruments carry the following markings, in the form shown at right:

Manufacturer's mark, or name written in full	
Model number	
Serial number of the instrument	
Pattern approval mark for the instrument	NSC No S340
Operating (air) temperature range	-10°C to 40°C

2. Description of Variants

2.1 Variant 1

The pattern may be used with Commission-approved driveway flowmeters fitted with Production Engineering model Retron 80 or MHP indicators.

2.2 Variant 2

For use in **unattended** service mode, in which case the Commander operator's console, the remote purchaser's indicator and the uninterruptible power supply are not required. Some means of authorisation (e.g. cardreader, MagKey reader, PIN pad) is provided.

Instruments are fitted with a memory facility and a receipt printer.

Figure 4 shows a typical system. The Communicator controller, the means of authorisation, and the receipt printer may be housed together in a unit known as a model Driveway Card Acceptor.

2.3 Variant 3

For use with a Compac remote authorisation station (Figures 1 and 5). This consists of a C3000H indicator, a means of authorisation (cardreader, MagKey reader, etc.), and a PIN pad with display.

Instruments are fitted with a memory facility and a receipt printer.

2.4 Variant 4

For use with a Compac model Procon V3.1 protocol convertor (Figure 6) in which case the system may be used with Commission-approved driveway flowmeters fitted with Email model MVR79R or MPP or IDIS indicators.

2.5 Variant 5

The pattern may be used with Commission-approved driveway flowmeters fitted with Gilbarco model Electroline or MPP or Calcopac indicators.

..../4

TEST PROCEDURE

Instruments should be tested in accordance with any tests included in the approval documentation for the driveway flowmeter/s to which the pattern is connected, as appropriate, and in accordance with any relevant tests specified in the Inspector's Handbook.

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

1. Postpay Mode (including temporary storage test)

(i) At any driveway flowmeter, remove a nozzle from its hang-up position.

(ii) At the console, set the pump to AUTO-HOLD mode, authorise the flowmeter by pressing the flowmeter NUMBER button and then the HOLD-TOGGLE button.

(iii) At the flowmeter deliver sufficient fuel to cause the price and quantity indicators to move significantly off zero.

Stop the flowmeter by returning the nozzle to its hang-up and record the details of the delivery.

Remove the nozzle from its hang-up position again and check that the flowmeter indicator does not reset to zero.

(iv) At the console, check that the price and volume displayed are the same as the price and volume recorded from the flowmeter.

(v) At the same flowmeter, perform another delivery as per (i) to (iii) above.

(vi) At the console check that both transactions are displayed as described in the operational details of the temporary storage facility given in the Technical Schedule.

(vii) Attempt to authorise a third delivery from the same flowmeter by using the flowmeter NUMBER button and then the AUTHORISE button; this should not be possible.

(viii) Observe that the indications for both transactions are displayed on the VDU.

(ix) Complete the CURRENT transaction by pressing the flowmeter NUMBER button followed by the SALE button, and then press ENTER twice. Pay off the transaction by a pay media (CASH, CREDIT or CHEQUE) button, and then similarly complete the STORED transaction. Check that as each transaction is completed the data for the transaction is displayed on the purchaser's indicator.

Check that both memories are now clear.

(x) Repeat steps (i) to (ix) for a number of driveway flowmeters.

2. Prepay Mode

The operation in prepay mode is similar to that described above.

(i) At the console, authorise a flowmeter by pressing the flowmeter NUMBER button and then thePREPAY button and the amount.

(ii) While the delivery is in progress, attempt to authorised a prepaid transaction (by selecting the flowmeter, entering a cash value via the keyboard, and then a payment media button); this should not be possible.

(iii) Complete the delivery by returning the nozzle to its hang-up position.

(iv) Authorise a prepaid transaction for the flowmeter as in (ii) in the second memory using the HOLD-TOGGLE button. The console will accept the authorisation and issue a receipt indicating acceptance of the price, which flowmeter is to be used, and the time and date. Check that the preset value is displayed on the VDU and on the flowmeter preset display panel.

(v) Start the delivery and observe that the flowmeter stops on the preset value, and that when the nozzle is returned to its hang-up, no amount is due at the console for this transaction. Complete the transaction.

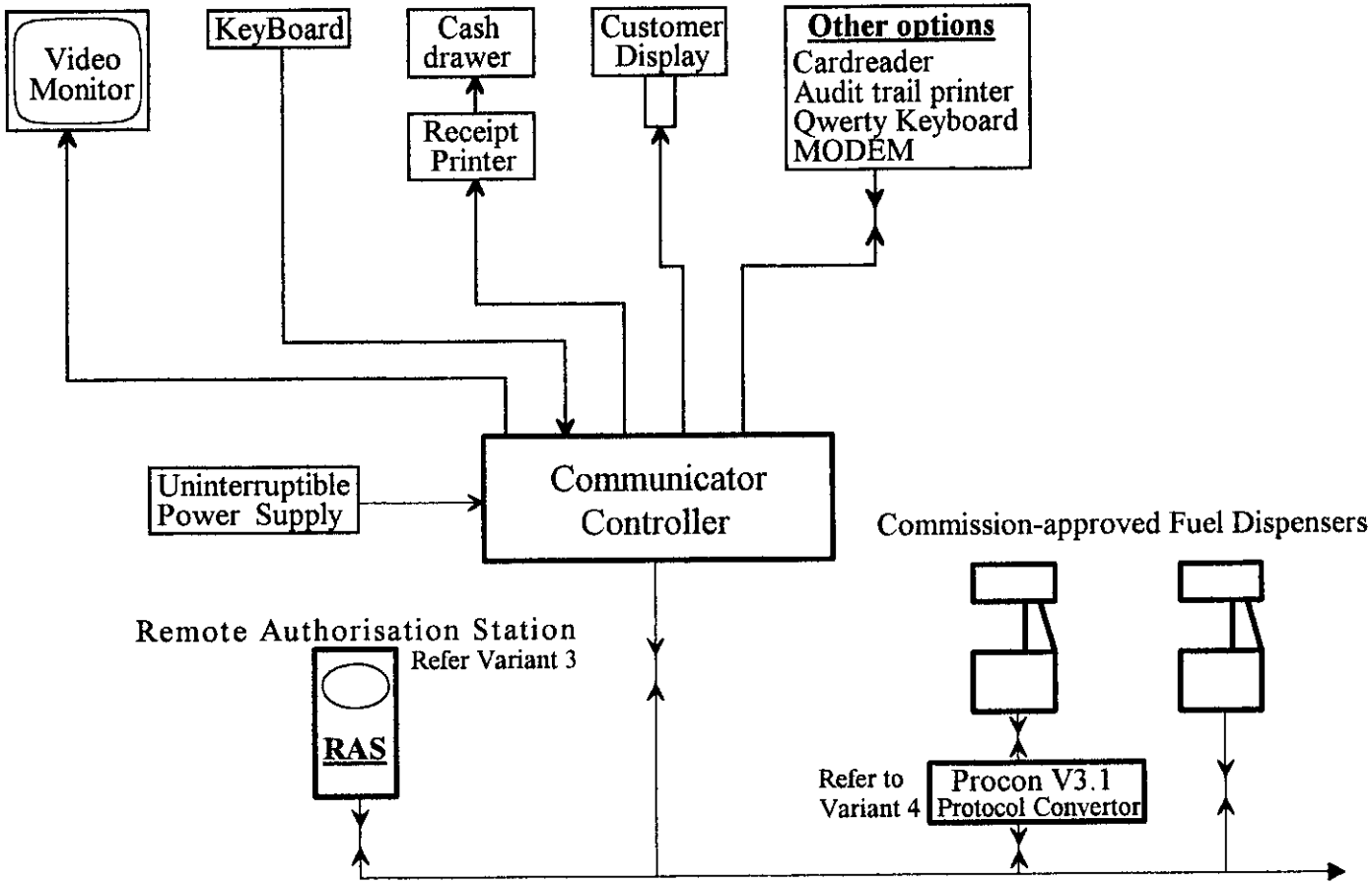
(vi) Repeat the above for another flowmeter.

(vii) Commence another delivery but hang-up the nozzle before the prepaid value is reached. Observe that the details of the incomplete transaction are displayed.

(viii) Complete the transaction and observe that details on the receipt issued and the console indications are the same.

(ix) If there is a flowmeter on site to which a preset panel and indicator are not fitted and/or there is no remote purchaser's indicator connected, attempt to authorise a prepay delivery at the console; this should not be possible.

FIGURE S340 - 1

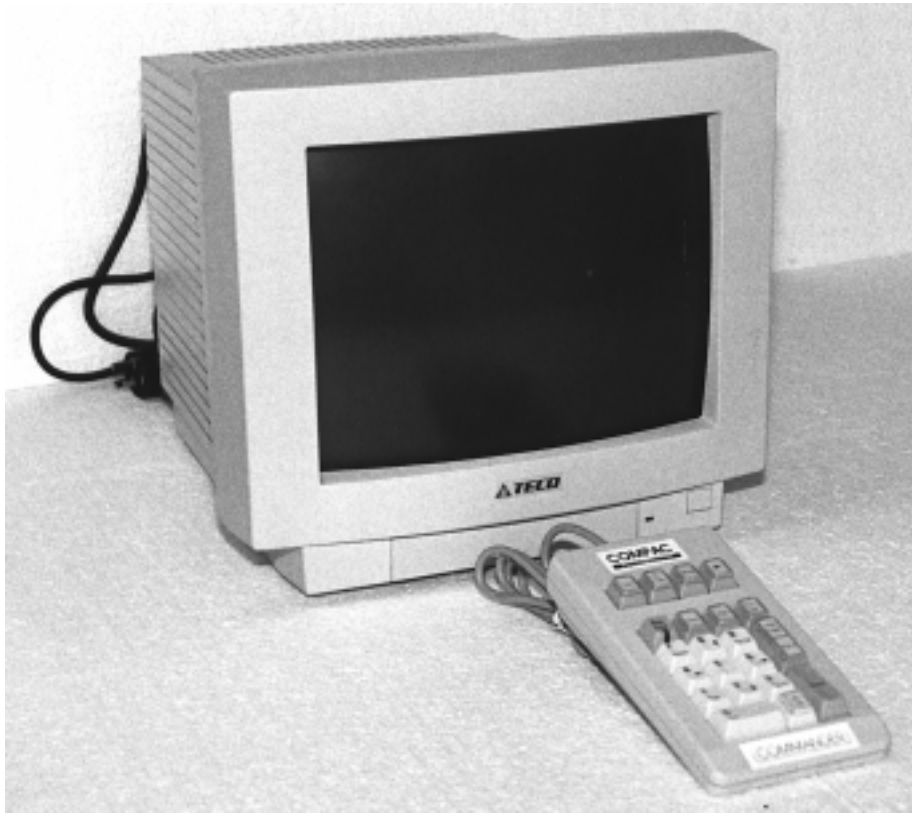


Typical Compac Commander System - Attended Service Mode

FIGURE S340 - 2

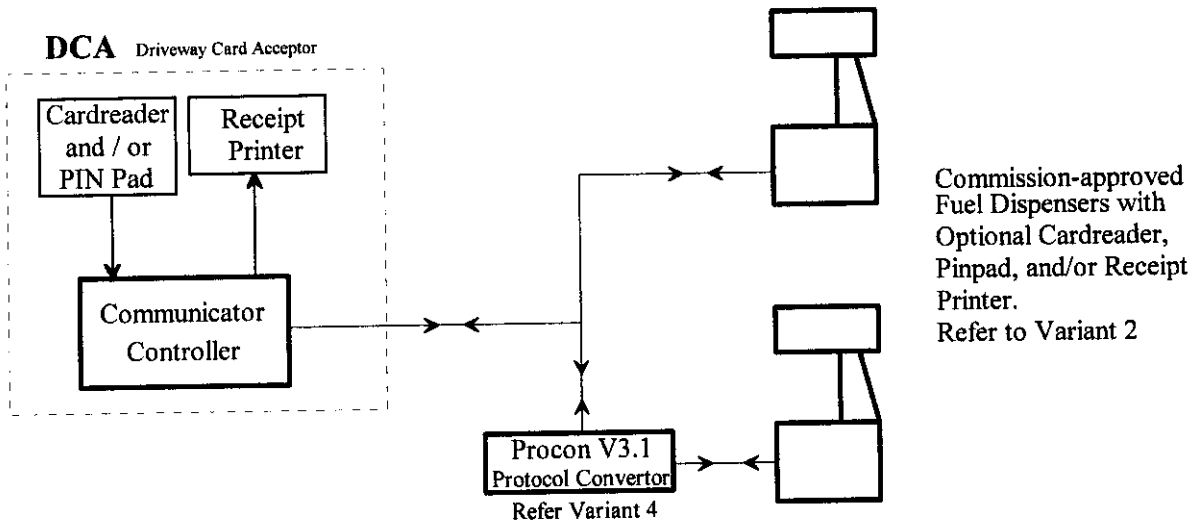
Compac Model Communicator Controller

FIGURE S340 - 3



Compac Model Commander Operator’s Console

FIGURE S340 - 4



Typical Compac Commander System - Unattended Service Mode

FIGURE S340 - 5

Compac Remote Authorisation Station

FIGURE S340 - 6

Compac Model Procon V3.1 Protocol Convertor