S374
16 May 2003

National Standards Commission

12 Lyonpark Road, North Ryde NSW

Cancellation

Supplementary Certificate of Approval No S374

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

Transponder Technologies Model TransTech Control System for Fuel Dispensers for Motor Vehicles

submitted by Transponder Technologies Pty Ltd
2 Hamra Drive
Export Park
Adelaide Airport SA 5950

has been cancelled in respect of new instruments as from 1 June 2003.

Signed by a person authorised under Regulation 60 of the National Measurement Regulations 1999 to exercise the powers and functions of the Commission under this Regulation.

S374
24 May 2001

National Standards Commission

12 Lyonpark Road, North Ryde NSW

Supplementary Certificate of Approval

No S374

Issued 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

Transponder Technologies Model TransTech Control System for Fuel Dispensers for Motor Vehicles

submitted by Transponder Technologies Pty Ltd
2 Hamra Drive
Export Park
Adelaide Airport SA 5950.

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.

..../2

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 S374 and only by persons authorised by the submittor.

Instruments incorporating a component purporting to comply with this approval shall be marked NSC No S374 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 NSC P 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 fuel dispensers for motor vehicles described in this approval, and may only be used for central unit price setting of fuel dispensers which have been Commission-approved with that facility.

DESCRIPTIVE ADVICE

Pattern: approved 3 March 2000

- A Transponder Technologies model TransTech control system for fuel dispensers for motor vehicles for use with Commission-approved fuel dispensers fitted with Compac model C3000H indicators for use in attended service mode.

Variants: approved 3 March 2000

1. For use with Production Engineering model Retron 80 or model MHP indicators.
2. For use in unattended service mode.
3. For use with a Transponder Technologies model TransTech 3000 Customer Authorisation Station or a model TransTech 4000 Customer Authorisation Station.
4. For use with a Transponder Technologies model Email Protocol Convertor.
5. For use with a Transponder Technologies model Gilbarco Protocol Convertor.

Technical Schedule No S374 describes the pattern and variants 1 to 5.

..../2

Supplementary Certificate of Approval No S374

Variant: approved 9 March 2001

6. A Transponders Technologies model FC6000 controller.

Technical Schedule No S374 Variation No 1 describes variant 6.

FILING ADVICE

Supplementary Certificate of Approval No S374 dated 9 August 2000 is superseded by this certificate, and may be destroyed. The documentation for this approval now comprises:

Supplementary Certificate of Approval No S374 dated 24 May 2001
Technical Schedule No S374 dated 9 August 2000 (incl. Test Procedure)
Technical Schedule No S374 Variation No 1 dated 24 May 2001
Figures 1 to 7 dated 9 August 2000
Figure 8 dated 24 May 2001

Signed by a person authorised under Regulation 60 of the National Measurement Regulations 1999 to exercise the powers and functions of the Commission under this Regulation.

TECHNICAL SCHEDULE No S374

Pattern: Transponder Technologies Model TransTech Control System for Fuel Dispensers for Motor Vehicles.

Submittor: Transponder Technologies Pty Ltd
2 Hamra Drive
Export Park
Adelaide Airport SA 5950.

1. Description of Pattern

A Transponder Technologies model TransTech control system for fuel dispensers for motor vehicles for use with Commission-approved fuel dispensers 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 fuel dispensers for motor vehicles and comprises:

- a Transponder Technologies model TransHub controller (Figure 2);
- a Transponder Technologies model TransHub operator's console (Figure 2);
- a Transponder Technologies 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 pre-set function which may be used for pre-pay transactions;
- a pump stop and all pumps emergency stop function;
- a temporary storage facility; and
- a memory facility.

1.2 Controller

The model TransHub controller (Figure 2) controls the various functions of the system including the model TransTech 3000 Customer Authorisation Station or a model TransTech 4000 Customer Authorisation Station (Figure 7), 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.

1.3 Operator's Console

The model TransHub operator's console (Figure 2) consists of a visual display unit (VDU) and keyboard connected directly to the controller. The console provides a means of authorisation of the fuel dispensers for motor vehicles.

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 fuel dispenser for motor vehicles 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 fuel dispenser. 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:

Manufacturer's mark, or name written in full	.....
Model number	.....
Serial number of the instrument	.....
Pattern approval mark for the instrument	NSC No S374
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 fuel dispensers for motor vehicles fitted with Production Engineering model Retron 80 or MHP indicators.

2.2 Variant 2

For use in **unattended** service mode (Figure 3), in which case the TransHub 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 3 shows a typical system. The TransHub controller, the means of authorisation, and the receipt printer may be housed together in a unit known as either a model TransTech 3000 Driveway Card Acceptor (Figure 4) or a model TransTech 4000 Driveway Card Acceptor (Figures 5 and 6). The TransTech 4000 may be constructed using one of two versions of Customer Interface Modules (CIM) which comprise a PIN pad, a liquid crystal display, an ID media reader and a receipt printer chute. CIM version 1 is constructed using a cast aluminium facia and CIM version 2 uses a machined aluminium facia.

2.3 Variant 3

For use with a Transponder Technologies model TransTech 3000 Customer Authorisation Station or a model TransTech 4000 Customer Authorisation Station (Figures 1 and 7). The Customer Authorisation Stations consist of a Compac model 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 Transponder Technologies model Email Protocol Convertor integrated circuit board in which case the system may be used with Commission-approved fuel dispensers for motor vehicles fitted with Email model MVR79R or MPP or IDIS indicators.

2.5 Variant 5

For use with a Transponder Technologies model Gilbarco Protocol Convertor integrated circuit board in which case the system may be used with Commission-approved fuel dispensers for motor vehicles fitted with Gilbarco model Electroline or MPP or Calcopac indicators.

TEST PROCEDURE

Instruments should be tested in accordance with any tests included in the approval documentation for the fuel dispenser/s for motor vehicles 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. Post-pay Mode (including temporary storage test)

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

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

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

Stop the fuel dispenser 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 fuel dispenser 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 fuel dispenser.

(v) At the same fuel dispenser, 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 fuel dispenser by using the fuel dispenser 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 fuel dispenser 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 fuel dispensers.

2. Pre-pay Mode

The operation in pre-pay mode is similar to that described above.

(i) At the console, authorise a fuel dispenser by pressing the fuel dispenser NUMBER button and then the PRE-PAY button and the amount.

(ii) While the delivery is in progress, attempt to authorised a pre-paid transaction (by selecting the fuel dispenser, 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 pre-paid transaction for the fuel dispenser 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 fuel dispenser is to be used, and the time and date. Check that the pre-set value is displayed on the VDU and on the fuel dispenser pre-set display panel.

(v) Start the delivery and observe that the fuel dispenser stops on the pre-set 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 fuel dispenser.

(vii) Commence another delivery but hang-up the nozzle before the pre-paid 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 fuel dispenser on site to which a pre-set panel and indicator are not fitted and/or there is no remote purchaser's indicator connected, attempt to authorise a pre-pay delivery at the console; this should not be possible.

TECHNICAL SCHEDULE No S374

VARIATION No 1

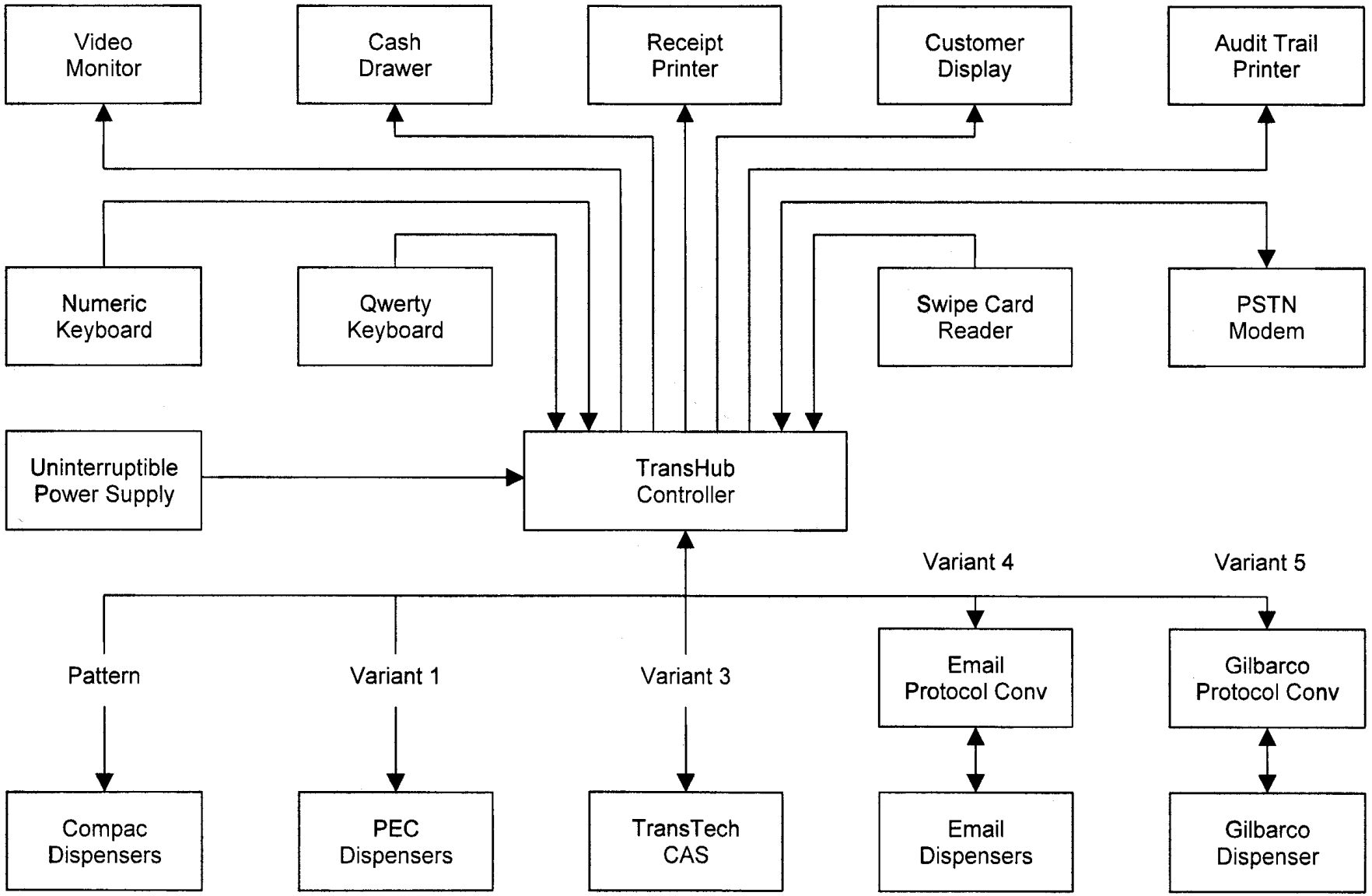
Pattern: Transponder Technologies Model TransTech Control System for Fuel Dispensers for Motor Vehicles.

Submittor: Transponder Technologies Pty Ltd
2 Hamra Drive
Export Park
Adelaide Airport SA 5950.

1. Description of Variant 6

A Transponder Technologies model FC6000 controller which incorporates the model TransHub controller described for the pattern, and its configuration display/keypad (Figure 2), in a single enclosure (Figure 8).

FIGURE S374 - 1

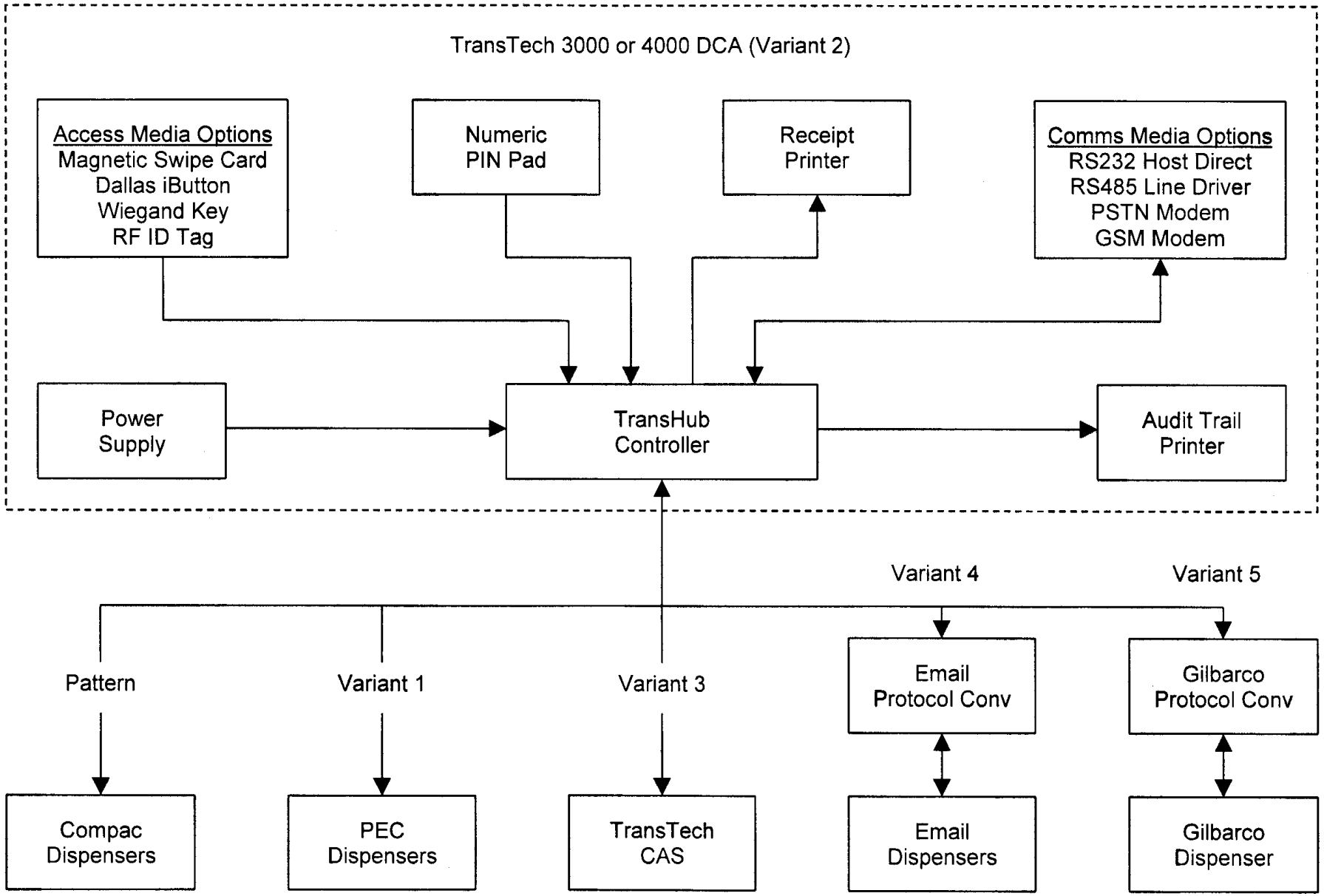


Typical Transponder Technologies TransTech System - Attended Service Mode

FIGURE S374 - 2

Transponder Technologies Model TransHub Controller and
Model TransHub Operator’s Console

FIGURE S374 - 3



Typical Transponder Technologies TransTech System - Unattended Service Mode

FIGURE S374 - 4

Transponder Technologies Model TransTech 3000 Driveway Card Acceptor

FIGURE S374 - 5

Transponder Technologies Model TransTech 4000 Driveway Card Acceptor
(Version 1 with Cast Aluminium Customer Interface Module Facia)

FIGURE S374 - 6

Transponder Technologies Model TransTech 4000 Driveway Card Acceptor
(Version 2 with Machined Aluminium Customer Interface Module Facia)

FIGURE S374 - 7

Transponder Technologies Model TransTech 3000 Customer Authorisation Station
(Model TransTech 4000 Customer Authorisation Station is Visually Identical)

FIGURE S374 - 8

Transponder Technologies Model FC6000 Controller and
Model TransHub Operator's Console