



TranScan®2

User Reference Manual



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Transcan®2

User Reference Manual

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All diagrams featured are available in a larger format in the appendices of this manual.

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TranScan®2

User Reference Manual

1.0 Introduction

1.1 Product Overview

TranScan®2 has been designed specifically to meet the recommendations of Food Hygiene Regulations with regard to the transport and delivery of chilled and frozen foodstuffs in refrigerated vehicles. TranScan®2 is approved to EN 12830 (and other national requirements) meeting the objectives of directives 92/1/EEC and 93/43/EEC.

TranScan®2 is available in three styles as depicted below:



TRANSCAN2
Rigid

TranScan®2R for in-cab installation in a standard DIN car radio slot



TRANSCAN2
Cab

TranScan®2C for in-cab installation on a vertical surface or bulkhead



TRANSCAN2
Trailer

TranScan®2T in weatherproof enclosure for external installation on trailers

1.2 Inputs and Outputs

TranScan®2 supports the following inputs and outputs:

- 4 channels of temperature measurement using precision thermistor sensors
- 4 status or on/off inputs derived from volt free contacts.
- Three of these are dedicated (Alarm enable, Door and Defrost) and one is user definable
- An alarm output to warn of out of range temperature conditions
- The recorder must be powered from a DC voltage supply within the range 10-36V

Wiring diagram TWD1117 shows these connections. (See Appendix or visit www.seventelelectronics.co.uk/support).

1.3 Principle of Operation

TranScan®2 measures temperatures and status (on/off) conditions and automatically stores these in the form of internal "journey files". A new journey file is normally created for each day. TranScan®2 may then provide a record of the day's measurements or any previous journey file retained in memory as either a paper ticket printout or in a form that can be transferred to an industry standard PC. The user can choose to print information in either Delivery Ticket (current temperatures) or Journey Ticket (recorded temperature and status conditions) format.

When the TranScan® data memory is full new recordings automatically replace the oldest recordings. The number of recordings that can be retained at any one time depends on the memory size, recording interval and number of temperature channels in use (See 6.8).

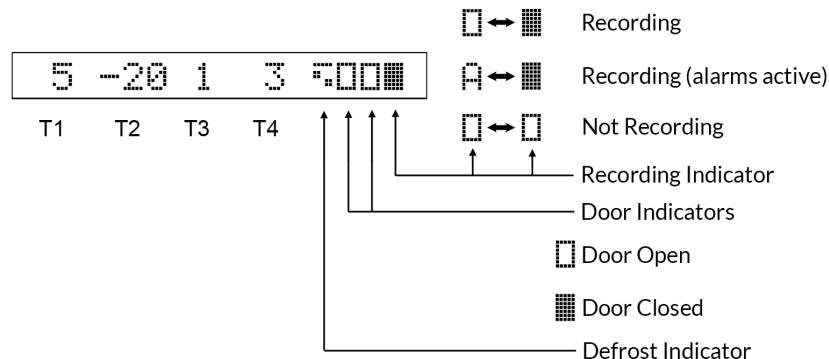
1.4 Main Components

TranScan®2 comprises three main components; the Display, the Operator Keys and the Printer.

1.4.1 The Display

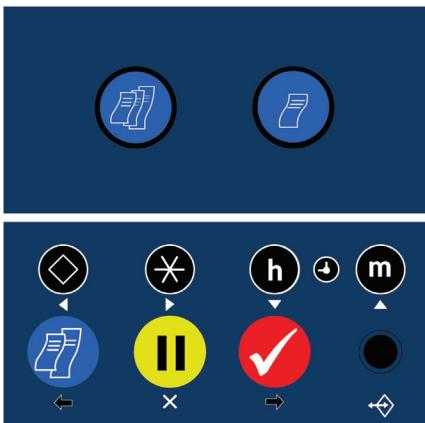
This normally shows all enabled channels to one degree resolution together with symbols which indicate the current state of each

enabled on/off input. The display mode may be changed to show each temperature channel individually with 0.1 degree resolution or to respectively scroll through all enabled channels (see 3.6).



1.4.2 The Operator Keys

The operator keys are colour coded and identified with symbols to indicate their function. For a description of the key functions see 3.0 (basic operation) and 4.0 (advanced operation).



These keys are provided with TranScan®2 type "T" and type "C" recorders only.



These keys are provided with all styles of TranScan®2 - type "T", type "C" and type "R".

1.4.3 The Printer

The printer is fitted to the left of the TranScan® display and uses a standard 44mm wide x 44mm diameter paper roll and Epson ERC 05 ribbon cartridge. When a ticket is requested the paper feeds automatically. Replacement rolls and ribbons are available by contacting the Seven Telematics sales team. Please contact +44(0)1636 550320 or sales@seventelematics.co.uk to order your ribbons and rolls today.

2.0 Getting Started

See also 3.1 "Help Printout"

Before operating your TranScan® recorder for the first time check that it is set to operate to your requirements by carrying out a few simple checks in the following order:

2.1 Set the Language of Operation

TranScan®2 is factory set to English.

If a different language is required

Press **◊** and **h** together and the Display shows **Set User Options**

Press **◊** and the Display shows the language selected

Press **◊** to step through the alternatives available

English Francais Deutsch Nederlands Espanol

Portugues Italiano Alt. English Polski

Press **✓** to confirm selection and **||** to return to the normal Display.

2.2 Print a Journey Ticket

If this is the first time using your TranScan® recorder this ticket will show the operating settings. These settings are explored in detail throughout this manual.

Type “R” – press  three times until the display shows JOURNEY TICKET.

After a short pause a Journey Ticket will be printed.

Type "T" and "C" – Press  once and the display shows **JOURNEY TICKET**. After a short pause a Journey Ticket will be printed.

Examples of Journey Ticket printouts are shown below:

Food Supply Co
Vehicle: X2344CCI
Recorder: TI9091
JOURNEY TICKET
T1 = Front
T2 = Rear
Temp, alarm = 1
Door Open
!Ice On
!Side Dr status
Update = 10 mins
13 Jun'13 09:20
T1 T2
-20-17
-13-11
-12-9
13 Jun'13 09:00
-15-11
-21-19
-21-19
-21-19
-21-19
-21-19
13 Jun'13 08:00
-21-19
-21-19
-21-19
-21-19
-21-19
-21-19
13 Jun'13 07:00
Sign:

Date of report
13 Jun'13 09:29
Seven TranScan

Journey Ticket (Values)

Food Supply Co
 Vehicle: X2344CCI
 Recorder: T19091
 JOURNEY TICKET
 T1 = Front
 T2 = Rear
 Temp. alarm = 1
 Door Open
 Device On
 Side Dr status
 Update = 02 Mins
 28Mar'13 11:12
 °C T1 T2
 18.6 3.9
 18.5 3.9
 18.5 3.9
 18.5 3.9
 18.5 3.9
 18.6 3.8
 28 Mar'13 11:10
 18.9 3.9
 18.9 3.9
 18.7 3.8
 18.7 3.8
 18.7 3.8
 18.7 3.8
 28 Mar'13 10:00
 12.9 3.9
 12.7 3.8
 12.7 3.8
 12.7 3.8
 28 Mar'13 09:00
 Reason codes:
 ET
 Sign:
 Date of report
 28 Mar'13 11:12
 Seven TransScan

Journey Ticket

Food Supply Co
 Vehicle: X2344CC1
 Recorder: T19091
JOURNEY TICKET
 T1 — Front
 T2 --- Rear
 Temp. alarm = 1
 | Door Open
 | Device On
 | Side Dr status
 20 mms / hour
 01 hrs/division
 13 Jun '13 09:30
 -30 -20 -10

 -30 -20 -10
 13 Jun '13 05:00
 Sign:
 Date of report
 13 Jun '13 09:31
 Seven TransScan

Journey Ticket (Tenths and Reason Codes)

2.3 Check the Vehicle Identifiers

Check that the Title and Vehicle descriptions are set correctly. The Title is a total of 16 characters that is usually set to the vehicle operator's company name and is printed on the first line of each report. This is factory set to "Company Name". The Vehicle number is an 8 character descriptor normally used for the registration number or trailer number. It is factory set to AB51 CDE for type "C" and "R" recorders and TRL 1234 for type "T" recorders. *To change the Title and Vehicle descriptions, See 5.2.13.*

2.4 Check the Time and Date

The time and date which are printed at the end of the Journey and Delivery Ticket are factory set to GMT immediately prior to despatch from the factory. Once set the Date should never need adjusting during the lifetime of the recorder. The clock includes automatic adjustment for winter/summer time. This automatically adds one hour to the set time between 2:00am on the last Sunday in March and 2:00am on the last Sunday in October.

To check the clock time and date press **h**.

To adjust the time and/or date see 4.5 and 5.2.12.

NOTE: When the time or date are changed a new recording is started and the message **NEW FILE** will appear on the display.

2.5 Check the Printout Style

TranScan®2 can print Journey Tickets in graphical or numeric values (in whole or tenths formats). Delivery Tickets are always printed numerically. To check the print style:

Press ***** once to display the type of report selected.

Press ***** again to display the alternative choices.

Press **✓** to confirm your choice and the display shows **OK** next to the print style selected (display shows **Print Values OK**, **Print Graphs OK** and **Print Tenthcs OK**).

Journey Tickets can be printed in any format from memory as often as required.

2.6 Check that all required inputs are being monitored

TranScan®2 supports up to 4 temperature channels and 4 on/off inputs but most applications call for two temperature channels only. Inspect the Journey Ticket printout taken and compare with the examples above (see 2.2) to determine how many temperature channels your recorder is monitoring. Examine the display (see 1.4.1) to determine if door and/or defrost monitoring is enabled by reference to the relevant symbols. Exercise these inputs (eg. by opening and closing the compartment door) to check that the input sensors are working correctly by checking that the symbols on the display change accordingly.

2.7 Check that Recordings are Being Made

TranScan®2 is factory set to record continuously 24 hours a day 7 days a week. Data is recorded in separate complete 24 hour periods, or daily files, for ease of access. This is known as Automatic Daily Recording (ADR). Although many different recording regimes are possible, this standard setting is very widely used. Normally no action or adjustment is required to start or stop the recording process.

Use the display (see 1.4.1) to check that recording is in progress.

2.8 Check the Recording Interval

TranScan®2 is factory set to record every 10 minutes. To check the recording interval

Press \diamond and the Display will show the recording interval in minutes.

To change the recording interval:

Press \blacksquare and the Display shows PAUSING

Press \diamond to show the recording interval selected

Press \diamond to step through the alternatives available (1, 2, 5, 10, 15, 20, 30, 60 mins)

Press \checkmark to confirm selection and return to the normal Display.

NOTE: When recording interval is changed a new recording is started and the message **NEW FILE** will appear on the display.

3.0 Basic Operation

Basic operation covers the most commonly used facilities such as using the display, setting the print style, obtaining printouts, checking the time and date and setting/accepting alarms. For additional operational information see 4.0 (Advanced Operation).

3.1 Help Printout

See also 4.1 "More Help".

An in-built Help facility is provided to guide the operator through the principal functions of the recorder.

For 'R' Type press \blacksquare twice and for 'T' and 'C' Type press \blacksquare twice and the Display shows **TranScan Help**

The ticket will be printed after a short pause or press \checkmark and the basic help file will be printed.

A typical TranScan®2 Help printout is:

```
TranScan Help
& Delivery ticket
& TranScan Help
& Journey ticket
& 2-day ticket
& 3-day ticket
& 4-day ticket
& 5-day ticket
& 6-day ticket
& 7-day ticket
& More Help

press any key to
stop printing

✓ to stop alarm
✓ to say yes
♦ read update
* print graphs ✓
* print values ✓
* print tenths ✓

h read date/time
m scroll display/
m display all ✓
m display one ✓
m display two ✓

II PAUSE
♦ set update ✓
* set alarm ✓
h set hours
m set minutes
II exit pause
```

Use the Help Printout to guide you through the operation of the recorder.

NOTE: Since we constantly strive to improve the operation and facilities of TranScan® recorders the Help Printout produced by your recorder may vary slightly from that shown above. In case of any discrepancy the Help printout produced by your recorder will always describe the correct operation of your recorder.

3.2 To Print a Delivery Ticket

Type "R" – Press  once and the display shows **DELIVERY TICKET**. After a short pause a Delivery Ticket will be printed.

Type "T" and "C" – Press  once and the display shows **DELIVERY TICKET** after a short pause a Delivery Ticket will be printed.

A Delivery Ticket shows the temperatures as measured at the time it is printed and may be used to provide printed confirmation of these at the time of delivery.

3.3 To Print a Journey Ticket

Type "R" – press  three times until the display shows **JOURNEY TICKET**.

After a short pause a Journey Ticket will be printed.

Type "T" and "C" – Press  once and the display shows **JOURNEY TICKET**. After a short pause a Journey Ticket will be printed.

NOTE: To change the printout between graph and numerical presentation see 2.5.

3.4 To Print a Multi-Day Ticket

A single printed ticket covering up to the last 7 days recordings may be printed out. This is particularly useful where single journeys cover several days.

Type "R" – press  repeatedly to cycle through the options available. When the display shows the number of days required the Multi-Day printout will be printed after a short pause.

Type "T" and "C" – press  repeatedly to cycle through the options available. When the display shows the number of days required the Multi-Day printout will be printed after a short pause.

NOTE: To change the printout between graph and numerical presentation see 2.5.

3.5 To Print any File From Memory

TranScan®2 stores data as Journey Files each of which normally cover a complete 24 hour period. Other types of recording regime are possible to cover specific requirements (see section 4.0). TranScan® data memory is battery backed and data is retained for up to 10 years. Individual Journey Files may be printed from memory as often as required.

NOTE: See 4.2 for further information about printing data from memory and see 6.8 for a description of memory size and data storage capacity.

3.6 To Set the Display Mode

The TranScan®2 display can be set to any of the following options:

Summary Display

All enabled temperature channels are displayed simultaneously (resolution 1.0 degree) together with symbols representing the enabled on/off inputs. This is the factory default setting.

Single Display

One selected enabled temperature channel is displayed individually (resolution 0.1 degrees) together with its name. This is useful when undertaking a temperature verification or reference check on an individual temperature channel.

Scroll Display

This shows each enabled channel plus the summary display in turn. To change the display mode.

Press **M** and the display shows scroll display.

Press **M** to show the summary.

Press **M** to step through the individual temperature channels enabled.

Press **✓** at any time to confirm your choice.

NOTE: For more information concerning the display symbols and their meaning see 1.4.1.

3.7 To Check and Adjust the Recording Interval

Transcan®2 is factory set to record every 10 minutes.

To check the recording interval

Press **◇** and the Display will show the recording interval in minutes.

To change the recording interval:

Press **II** and the Display shows PAUSING

Press **◇** to show the recording interval selected

Press **◇** to step through the alternatives available (1, 2, 5, 10, 15, 20, 30, 60 mins)

Press **✓** to confirm selection and return to the normal Display.

NOTE: When recording interval is changed a new recording is started and the message **NEW FILE** will appear on the display.

3.8 To Check and Set Alarm Operation

Transcan®2 is factory set with its out of range temperature alarms disabled unless specifically requested. To check if temperature alarms are enabled.

Press **II** and the Display shows PAUSING

Press ***** and if alarms are not enabled within the recorder configuration the display shows **No Alarms**

If alarms are enabled within the recorder configuration a series of options for each channel to which alarms are enabled will be presented. Press **✓** to confirm selection and return to the normal Display.

NOTE: As well as selecting a temperature alarm via the ***** key it is usual to disable alarms when the refrigeration system is switched off. This is to minimise the occurrence of false alarms. The disable signal is normally derived from a contact within the fridge control panel and must be connected to on/off input # 1 on the Transcan®. For further information on alarm operation see 4.6.

4.0 Advanced Operation

NOTE: Advanced operation covers the less commonly used facilities such as selecting data from memory and printing it, offloading data to a Data Collection Unit or PC, setting user options, adjusting the time and date and programming out of range temperature alarms. For basic operational information see 3.0 (Basic Operation).

4.1 More Help

An in-built Help facility is provided to guide the operator through the principal functions of the recorder. Section 3.1 shows how to obtain the basic Help file printout. For advanced operation Transcan®2 also includes a secondary Help file called More Help.

Press **HELP** repeatedly until the Display shows **More Help**

Press **✓** and the More Help file will be printed.

A typical Transcan®2 More Help printout is:

```
More Help
H to return to
normal display
H SELECT PRINT
  list files ✓
  new files ✓
  all files ✓
  one file ✓
  h go back ✓
  m go forward ✓
H SELECT FILE
  list files ✓
  upload new ✓
  upload old ✓
  upload all ✓
  upload one ✓
  h go back ✓
  m go forward ✓
H SET OPTIONS
  English ✓
  Francais ✓
  Deutsch ✓
  Nederlands ✓
  Espanol ✓
  Portugues ✓
  Italiano ✓
  Am.English ✓
  Polski ✓
  * print fwd ✓
  * print revse ✓
  h unit typeR ✓
  h unit typeT ✓
  m degrees C ✓
  m degrees F ✓
```

Use the More Help Printout to guide you through advanced operation of the recorder

NOTE: Since we constantly strive to improve the operation and facilities of TranScan® recorders the More Help Printout produced by your recorder may vary slightly from that shown above. In case of any discrepancy the More Help printout produced by your recorder will always describe the correct operation of the your recorder.

4.2 Printing Data from Memory (Select Printout)

It is possible to print a list of all files stored in the TranScan® data memory, mark a file to identify those that have been printed (subsequent recordings are then identified as "New"), print all files contained in memory or select and print one or more files.

Press  and  together and the display shows **Select printout**

Press  to scroll through the following options

Print file list

Print new files

Print all files

DD MM hh:mm (then use **h** to move back through older recordings and **m** to move forwards through newer ones)

DD MM hh:mm is the date and start time of the most recent recording in memory. For standard TranScan®2 operation this will be the current date with a start time of 00:00 (midnight).

When the appropriate selection has been made press  to confirm your choice and printing will begin.

4.2.1 Print File List (Select printout)

A typical file list printout is :

28 Oct '13 13:55
16 Oct 00:00
17 Oct 00:00 M
Old files
18 Oct 00:00 A
19 Oct 00:00
20 Oct 00:00
21 Oct 00:00
22 Oct 00:00
23 Oct 00:00
24 Oct 00:00
25 Oct 00:00
26 Oct 00:00 A
27 Oct 00:00
28 Oct 00:00
New files
Print file list
TS2-T410 T12732
Seven TranScan

06 May '14 09:53
01 Jan 01:01
10 Mar 12:46
10 Mar 12:46 CMM
10 Mar 23:28
10 Mar 23:28 EN
10 Mar 23:40
11 Mar 00:00
12 Mar 15:03
12 Mar 15:03 MPT
04 May 00:00 ET
05 May 00:00 ET
New files
Print file list
TS2-T410 T53515
TranScan Tracker

(Depends on firmware version)

The file list shows the start time of all files contained within the TranScan® data memory at the date that the printout is taken. New files are those that have not been printed or have been recorded with start times which are after the time of the marked file. The marked file is indicated by the letter "M" to the right of the file start time. Old files are those that have been printed or have a start time including and earlier than the marked file.

- A - Indicates that out of range temperature alarms have occurred during the recording
- M - Indicates the marked file
- R - Indicates that the file is a normal recording generated by the TranScan® ADR clock system.

4.2.2 Print New Files

Press  and  together and the display shows **Select printout**

Press  repeatedly until the display shows **Print new files**

Press  and all files recorded with start times after the marked file will be printed starting with the most recent recording.

NOTE: When all new files have been printed the mark (M) is

automatically moved to the most recent recording in memory and all recordings subsequently made after the printout has been taken will then be identified as new files. See also 4.2.4 "Marking a file"

4.2.3 Print all Files

Press  and  together and the display shows **Select printout**

Press  repeatedly until the display shows **Print all files**

Press  and all files in memory will be printed starting with the most recent recording.

NOTE: When all files have been printed the mark (M) is automatically moved to the most recent recording in memory and all recordings subsequently made after the printout has been taken will then be identified as new files. See also 4.2.4 "Marking a file"

4.2.4 Marking a File

Press  and  together and the display shows **Select printout**

Press  repeatedly until the display shows the date and time of the most recent recording in memory.

Press **h** to move back through older recordings and **m** to move forwards through newer ones and then press ***** or **◊** to mark a chosen file.

NOTE: The marking of files for printing data from memory is completely independent of that when offloading recordings to a Data Collection Unit or PC (see 4.3.5).

4.3 Offloading Data to a Computer (Select filedump)

Data recorded by the TranScan® may be offloaded for archiving on an office computer. TranScan® supply a Data Collection Unit (DCU) and software for this purpose. Alternatively a PC running TranScan® Data Management software may be connected directly to the TranScan®.

Offloading data is a copying process and does not remove or delete data from the TranScan® data memory.

NOTE: Data is offloaded through the communications socket located on the front fascia of the TranScan® (see 1.4.2) using a lead and jack plug to connect to a DCU or PC running software supplied by TranScan®. For further information concerning data offloading, compatible equipment and software contact the TranScan® Sales Desk or your accredited TranScan® dealer.

Press  and  together and the display shows **Select filedump**

Press  to scroll through the following options

Upload file list

Upload new files

Upload old files

Upload all files

DD MM hh:mm (then use **h** to move back through older recordings and **m** to move forwards through newer ones).

DD MM hh:mm is the date and start time of the most recent recording in memory. For standard TranScan®2 operation this will be the current date with a start time of 00:00 (midnight).

When the appropriate selection has been made press  to confirm choice and offloading will begin.

4.3.1 Print File List (Select filedump)

A typical file list printout is:

06 May '14 09:53		
01	Jan	01:01
10	Mar	12:46
10	Mar	12:46
10	Mar	23:28
10	Mar	23:28
10	Mar	23:49
10	Mar	23:49
11	Mar	00:00
13	Mar	15:03
13	Mar	15:03
28	Oct	00:00
04	May	00:00
05	May	00:00
06	May	00:00
New files		
Print file list		
TS2-1410 T12732		
Seven TranScan		

(Depends on firmware version)

The file list shows the start time of all files contained within the TranScan® data memory at the date that the printout is taken. New files are those that have not been offloaded or have been recorded with start times which are after the time of the marked file. The marked file is indicated by the letter "X" to the right of the file start time. Old files are those that have been offloaded or have a start time including and earlier than the marked file.

A - Indicates that out of range temperature alarms have occurred during the recording

X - Indicates the marked file

R - Indicates that the file is a normal recording generated by the TranScan® ADR clock system

4.3.2 Upload New Files

Press  and  together and the display shows **Select filedump**

Press  repeatedly until the display shows **Upload new files**

Press  and all files recorded with start times after the marked file will be offloaded starting with the most recent recording.

NOTE: When all new files have been offloaded the mark (X) is automatically moved to the most recent recording in memory and all recordings subsequently made after the offload will then be identified as new files. See also 4.3.5 "Marking a file"

4.3.3 Upload Old Files

Press  and  together and the display shows **Select filedump**

Press  repeatedly until the display shows **Upload old files**

Press  and all files recorded with start times earlier than the marked file will be offloaded starting with the marked file. Offloading old files does not alter the marked file.

4.3.4 Upload All Files

Press  and  together and the display shows **Select filedump**

Press  repeatedly until the display shows **Upload all files**

Press  and all files in memory will be offloaded starting with the most recent recording.

NOTE: When all files have been offloaded the mark (X) is automatically moved to the most recent recording in memory and all recordings subsequently made after the offload will then be identified as new files. See also 4.3.5 "Marking a file"

4.3.5 Marking a File

Press  and  together and the display shows **Select filedump**

Press  repeatedly until the display shows the date and time of the most recent recording in memory.

Press **h** to move back through older recordings and **m** to move forwards through newer ones and then press ***** or **◇** to mark a chosen file.

NOTE: The marking of files for offloading data to a Data Collection Unit or PC is completely independent from marking files for printing data from memory (see 4.2.4).

4.4 Setting User Options

It is possible to customise the operation of the TranScan® through the User Options feature. To review or change the User Options for a recorder

Press **◇** and **h** together and the display shows **Set User Options**

Press **◇** to select the operator language

English **Français** **Deutsch** **Nederlands** **Español**
Português **Italiano** **Alt.** **English** **Polski**

Press ***** to select the print direction as **FORWARD** or **REVERSE**

Press **h** to select recorder type as **R** or **T**. Select **T** for type "T" and type "C" recorders

Press **m** to select operation in **C** or **F**

In all cases press  to confirm a choice from the options available.

The  or  key return the recorder to the normal operating display. Journey tickets may be printed in a forward or reverse direction as

determined by the selected print direction. The results look similar but timed data is always printed in the reverse time direction (most recent first) independently of the direction of printing.

The default settings for print direction are:

Type "T"/"C" – REVERSE direction

Type "R" – FORWARD direction

These settings ensure that printed data emerges from the printer with the text readable as it is being printed (ie not upside down). However this will result in the data being presented differently when comparing printouts produced by type "R" recorders with those produced by type "T" / "C" recorders. If the direction of data on printouts is important for ease of comparing recordings printed by type "R" recorders with those printed by type "T" / "C" recorders then it will be necessary to set the print direction the same for both types.

4.5 Adjusting the Time and Date

The time and date are factory set to GMT prior to despatch from the factory. The clock includes automatic adjustment for winter/summer time. This automatically adjusts the set time between 02:00 on the last Sunday in March and 02:00 on the last Sunday in October. (When the local time is different from GMT this should be taken into account when setting the clock, see 5.2.12).

4.5.1 Clock Protect

Adjustment of the real time clock can be security protected by the Configuration Parameter 'Clk Protect'. This is factory set to OFF but can be set to ON to prevent unauthorised adjustment of the time. To check if the clock protect is enabled;

Press **||** and the display shows **PAUSING**

Press **h** or **m** and if the clock protect is enabled the display shows **PROTECTED**.

When the clock protect is enabled the clock can only be adjusted by using the PIN protected Configuration Mode. (See 4.5.3).

4.5.2 Clock Adjustment (clock protect not enabled)

When the clock protect is not enabled;

Press **||** and the display shows **PAUSING**

Press **h** to adjust hours and **m** to adjust minutes.

4.5.3 Clock Adjustment (clock protect enabled)

To adjust the clock when the clock protect is enabled (see 4.5.1) it is necessary to enter the PIN protected Configuration Mode as follows. PIN code (1,1,1,1) is the factory default value (see 5.0, 5.2 and 5.2.12).

Press **4** and **✓** and the display shows **Enter PIN code**

Press **4**, **4**, **4**, **4** and the display shows **Start time>00:00**

Press **4** and hold until the display shows **ENG Display>OFF**

Press **h** and the display shows **ENG Display> ON**

Press **✓** until the display shows **Set clock >hh:mm**

Adjust the date by moving the cursor with the **◀** and **▶** keys and then making the adjustment with the **▲** and **▼** keys.

When clock adjustment is complete:

Press **4** until the display shows **ENG Display> ON**

Press **h** and the display shows **ENG Display>OFF**

Press **||** to return to the normal operating display.

NOTE: When the time or date are changed a new recording is started and the message **NEW FILE** will appear on the display.

4.5.4 Date Adjustment

The date is factory set and the clock system includes a calendar up to the year 2049. The date can only be changed by entering the PIN protected Configuration Mode as follows. PIN code (1,1,1,1) is the factory default value (see 5.0, 5.2 and 5.2.12).

Press  and  and the display shows **Enter PIN code**

Press , , ,  and the display shows **Start time>00:00**

Press  until the display shows **ENG Display>OFF**

Press **h** and the display shows **ENG Display> ON**

Press  until the display shows **Date>15 Sep'13**

Adjust the date by moving the cursor with the **◀** and **▶** keys and then making the adjustment with the **▲** and **▼** keys.

When date adjustment is complete:

Press  until the display shows **ENG Display> ON**

Press **h** and the display shows **ENG Display>OFF**

Press  to return to the normal operating display.

NOTE: When the time or date are changed a new recording is started and the message **NEW FILE** will appear on the display.

4.6 Temperature Alarms

Up to four complete alarm sets may be defined (Alarm Sets 1 to 4) and each temperature channel may be provided with the option for Alarm Set 1, Alarm Set 2, Alarm Set 3, Alarm Set 4, Auto Alarms and No Alarms by setting these to ON in configuration mode.

All Temperature Alarms are recorded in the memory of the recorder. The Auto Alarms facility enables usage of all alarm sets simultaneously so that an alarm will occur unless the temperature is within the acceptable ranges defined by any of these alarm sets.

4.6.1 Alarm Sets

Each alarm set has the following parameters that may be defined in configuration mode:

Alarm Name	A Seven Character Description	eg Frozen
High alarm	the upper acceptable limit	eg -15C
Low alarm	the lower acceptable limit	eg -25C
Alarm wait	the time delay on alarm activation	eg 30m
Graph high	the upper limit of the graph printout	eg -10C
Graph low	the lower limit of the graph printout	eg -30C

4.6.2 Enabling/Disabling Alarms

The TranScan®2 is factory set to record 24hrs/day and if alarm monitoring is required care must be taken to ensure that any alarms are deactivated when the fridge system is switched off for extended periods or when the vehicle is not in use. Otherwise false alarm signals may be generated.

To automate the process of alarm suppression it is possible to connect an on/off signal to Status input #1 so that the alarms will only be active when, say, the input is closed. This signal may be derived from the refrigeration unit so that any alarms selected will be automatically enabled when the fridge is operational. Refer to the wiring diagram provided with the TranScan®2 kit for connection details.

Additionally this enable action may be extended for a period after the input signal is removed (eg to allow the fridge to be switched off momentarily during delivery) via the parameter 'Extend Time'. To facilitate the alarm control feature:

Enter configuration mode. PIN code (1,1,1,1) is the factory default value (see 5.0, 5.2 and 5.2.12).

Press  and  and the display shows **Enter PIN code**

Press , , ,  and the display shows **Start time>00:00**

Set the alarm control input to respond to a contact closure signal:

Press **✓** and hold until the display shows **Alarm control >OFF** (or **ON**)

Press **h** to set **Alarm control > ON**

Press **✓** until the display shows **Alarm reverse >OFF** (or **ON**)

Press **h** to set **Alarm reverse > ON**

Set an alarm extend time

Press **✓** until the display shows **Extend time >OFF** (or **ON**)

Press **h** to set **Extend time > ON**

Press **✓** until the display shows **Added time >00:00**

Set an added time by moving the cursor with the **◀** and **▶** keys and then making the adjustment with the **▲** and **▼** keys.

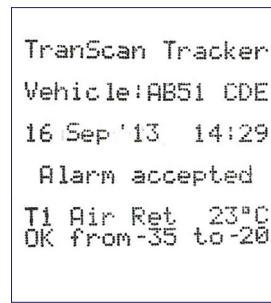
Connect the Fridge on/off detector to an appropriate signal in the refrigeration unit and then connect the output from the detector to Status input #1 on the recorder.

When recording is in progress and the Alarm Control is activated the recording indicator on the display alternates between a solid rectangle **█** and the letter **A**.

4.6.3 Alarm Indicator Light and Buzzer

The TranScan®2 can be supplied with an alarm indicator light. Please contact sales office for further information. Refer to the wiring diagram provided with the recorder for connection details of this option.

All TranScan®2 recorders include an internal buzzer which activates when an alarm condition occurs. To cancel the buzzer press the **✓** key which also prints a ticket as a record of the alarm. The external alarm light will only extinguish when the alarm condition is removed (i.e. temperature returns within acceptable range or alarm is set to OFF).



4.6.4 Selecting Alarms

Up to four Alarm sets are provided and these are called Alarm Sets 1 to 4. Each temperature channel may be provided with the option of each alarm, all alarms simultaneously (Auto Alarm) or no alarms by setting the appropriate parameters in configuration mode (see 5.2.6, 5.2.10 and 5.2.11).

Press **█** and the display shows **PAUSING**

Press ***** to review the alarm options available

Press **✓** to confirm a selection.

Kits which include all the relevant components to facilitate alarm monitoring are available from Seven Telematics or authorised TranScan® dealers.

5.0 Configuration Parameters

TranScan®2 has been designed to allow a number of variations in the way it operates. This is provided by the configuration parameters and how they are set. TranScan® recorders are normally supplied as a kit that includes appropriate components for the application concerned and the configuration parameters are set accordingly.

Entry to Configuration Mode is password protected to prevent unauthorised adjustment. When the correct sequence of keys is pressed Configuration Mode is entered and each parameter is then presented on the display one at a time. The user can step through each parameter and make modifications as necessary.

In order to enter Configuration Mode a PIN code is required. To enter the PIN code each of the operator keys is associated with a number as follows:

█ = 1, **█** = 2, **✓** = 3, **◊** = 4, ***** = 5, **h** = 6, **m** = 7.

5.1 Printing the Parameters

Before attempting to adjust any of the configuration parameters it is recommended that a printout of the parameters is taken.

Press  and  together and the display shows **Enter PIN code**

Press , , ,  (PIN code 1,2,1,2) and after a short pause the parameters and their current settings will be printed.

A typical parameter printout is shown below:

Printed Parameter	Description	Section
Transcan Tracker TS2-T410.A34-512	Product description and sign on message	5.2.1
Start time>00:00	Recording Regime	5.2.2
Stop time>00:00		
Log by Day >OFF		
min/update>0010	Recording Interval	5.2.3
mm/hour >0010		
Door switch >OFF		
DeIce switch>OFF	Graph length mm per hour	5.2.4
Spare switch>OFF		
AlarmControl1>OFF	On/Off inputs	5.2.5
Graph high>0010		
Graph low >-0030	Alarm Control	5.2.6
Preset names>ON		
Temperature1>ON	Graph Scaling	5.2.7
T1 name >Front		
Temperature2>ON	Enables temp and alarm channel preset descriptions	5.2.8
T2 name >Rear		
Temperature3>OFF		
Temperature4>OFF	Temperature channels and descriptions	5.2.9
Alarm set 1 > ON		
A1 name >Chill	Alarm Parameters	5.2.10
High alarm>0005		
Low alarm>0081		
Alarm wait>0030		
Graph high>0010		
Graph low >-0010		
Alarm set 2 > ON		
A2 name >Frozen		
High alarm>-0015		
Low alarm>-0025		
Alarm wait>0030		
Graph high>0010		
Graph low >-0030		
Alarm set 3 >OFF		
Alarm set 4 >OFF		
Print T1 > ON	Information to be included in reports	5.2.11
Alarm on T1 >OFF		
Print T2 > ON		
Alarm on T2 >OFF		
Print T3 >OFF		
Alarm on T3 >OFF		
Print T4 >OFF		
Alarm on T4 >OFF	Allows access to engineering parameters	5.2.12
Print Door >OFF		
Print De-Ice>OFF		
Print Spare >OFF		
ENG Display >OFF	Vehicle Identifier	5.2.13
Vehicle>ABS1 CODE		
Title1 > Company	Additional identifiers e.g. used for Company Name	5.2.13
Title2 > Name		
Tkt reason >OFF	Ticket Reason	5.2.14
Signature: 5134	A 4 digit number unique to this parameter set	5.2.15

5.2 Accessing Configuration Parameters

To enter the configuration mode and adjust individual parameters it is necessary to enter a PIN code:

Press  and  together and the display shows **Enter PIN code**

Press , , ,  (PIN code 1,1,1,1) and the first parameter **Start time > 00:00** is displayed.

PIN code (1,1,1,1) is the factory default value (see 5.0 and 5.2.12).

The operating keys have the following functions in configuration mode

	steps to the previous parameter	
	exits configuration mode	
	steps to the next parameter	
	shifts cursor one place left	
	shifts cursor one place right	
	scrolls backwards through available characters	
	scrolls forward through available characters	

Each parameter consists of a prompt followed by a value that can be changed. Values are one of three different types:

ON/OFF values	change between ON and OFF by pressing  ,  ,  , or 
Numeric values	use  and  to position the cursor and  and  to select the value required
Alphanumeric values	use  and  to position the cursor and  and  to select the character required

5.2.1 Product Description and Sign on Message

The product description and sign on message appear on the parameter printout (see 5.1) but are not accessible in configuration mode. The sign on message also appears whenever the power to the recorder is restored and is of the format;

1- INITIALIZING
 2- TranScan Tracker
 3- Recorder - T12345
 4- TS2-T410.010-512

Product type Firmware (product software) version Data memory size in Kb

NOTE: It is possible to reset the recorder without disconnecting the power. This is called a "Soft Reset" and will initialise the recorder and display the sign on message. The soft reset does not interrupt the recording process.

Press  and  together and the display shows **Enter PIN code**

Press  and  together 4 times and the display shows **INITIALIZING** followed by the sign on message. See also 5.2.14 "Signature".

5.2.2 Recording Regime

Start time > 00:00

Stop time > 00:00

These define the daily start and stop times for the ADR (Automatic Daily Recording) system. If the start time is after the stop time then the recording continues through midnight.

Log by Day > OFF

The TranScan® recorder may be set to start and stop recording automatically according to the day of the week as specified by the day code parameter. To use this facility the Log by Day parameter must be set to ON.

Day Code > CCCCCC

Each of the seven character codes in this parameter control the recording action for a corresponding day of the week starting with Sunday. The permitted characters and their meaning for each daily code are as follows:

0: not recording
 1: record for 24 hours
 S: start recording at Start time
 T: terminate recording at Stop time
 C: start and stop recordings as defined by the start and stop times
 Using these codes a variety of operating regimes may be user defined.

5.2.3 Recording Interval

min/update > 0010

Sets the rate at which recordings are made. The value written to memory is the average temperature during the update time which is calculated from samples taken every few seconds.

5.2.4 Graph Length per Hour

mm/s/hour > 0020

Specifies the length of paper ticket used for each hour of elapsed time in graphical reports.

5.2.5 On / Off Inputs

Door switch > ON

ON tells the TranScan® that status input 2 is to be used as the main door switch contact. A closed contact normally represents a closed door.

Door reverse > OFF

Normal operation of the door switch is that the switch is open when the door is open. An ON reply to this prompt means that a closed switch will be seen as an open door.

DeIce switch > ON

ON tells the TranScan® that status input 3 is to be used as the DeIce (Defrost) switch contact. A closed contact normally represents defrost cycle is in operation.

DeIce reverse > ON

An OFF reply to this prompt means that an open contact represents defrost cycle in operation.

Spare switch> ON

ON tells the TranScan® that status input 4 is to be used for monitoring a user defined on/off input or second alarm control. Operation is normally an open contact (ie side door operation).

Spare reverse>OFF

An ON reply to this prompt reverses the sense of the spare switch input to a closed contact.

Spare name>Side Dr

A 7 character description can be entered for the user defined (spare) input.

Spare symbol>

A symbol can be selected from four characters for the user defined (spare) input. A door symbol (rectangular box) is the default.

The options are- □, ■, ★, #, !

5.2.6 Alarm Control

To automate the process of temperature alarm monitoring an on/off input may be connected to Status input #1 so that the alarms will only be active when, say, the input is closed. This signal may be derived from the refrigeration unit so that any alarms selected will be automatically enabled when the fridge is operational. Refer to the wiring diagram provided with the TranScan®2 kit for connection details. *See also 4.6.4*

Alarm enable> ON

Tells the TranScan® that status input #1 is to be used to enable / disable out of range temperature alarms.

Alarm reverse> ON

Tells the TranScan® that a closed contact enables the out of range alarm(s). An OFF reply to this prompt reverses the action so that an open contact enables the alarm(s).

Extend time > ON

Allows the action taken by the alarm control signal to be delayed by a period of time set by the parameter "Added time". This allows the alarms to remain active when the fridge is switched off for short periods e.g. when making a delivery.

Added time>00:30

Specifies the period of time that the alarms remain active when the fridge is switched off. A maximum value of 23 hrs and 59 minutes may be set. The factory set value is 30 minutes.

NOTE: When alarms are enabled the recording indicator on the display shows a flashing A.

5.2.7 Graph Scaling

Graph high> 0030**Graph low >-0010**

These are the upper and lower limits used for graphical printouts when the alarm is enabled. *See also 4.6.1*

5.2.8 Preset Names

Preset names> ON

Each temperature channel and alarm set may have its own unique 7 character name or description assigned to it. However if this parameter is set to ON then the name for each channel and alarm set must be selected from the following predefined list:

Channel names: Front, Rear, Air Ret, Product, Fr ARet, Rr ARet, Centre, Chill, Freeze

Alarm names: Chill, Ambient, F&Ueg, Fresh, Alarm, Frozen

Predefined names are automatically translated when a different operating language is selected.

5.2.9 Temperature Channels and Descriptions

Temperature1> ON

Temperature 1 input (T1) will be measured and displayed when set to ON. An OFF reply to this prompt will turn the measurement off and there will be no display for T1 on the display or in reports.

T1 name >Air Ret

The name of T1 is shown on the display and in reports. A 7 character description can be used.

Other channels (T2 to T4) are similarly programmed.

NOTE: When the name is changed a new recording is started and the message **NEW FILE** will appear on the display.

5.2.10 Alarm Parameters

Four independent alarm conditions may be defined as Alarm sets 1 to 4. Each alarm has the following parameters that may be set when the corresponding Alarm parameter is set to ON.

A1 name >	a seven character description	
High alarm>	the upper acceptable limit	eg Frozen
Low alarm>	the lower acceptable limit	eg -15C
Alarm wait>	the time delay on alarm activation	eg -25C
Graph high>	the upper limit of the graph printout	eg 30m
Graph low >	the lower limit of the graph printout	eg -10C
		eg -30C

Alarms are then enabled for each temperature channel and (when activated by On/Off input #1) are selected by the operator or driver through the keypad as described in 4.6.4.

5.2.11 Information to be Included in Reports

It is possible to define which inputs are printed on reports. For each temperature channel it is also possible to define which alarm sets are active. To appear on the printout the relevant input must be set to ON. Only activate those inputs which are being monitored.

Each temperature channel may be enabled for Alarm Set 1, Alarm Set 2, Alarm Set 3, Alarm Set 4, Auto Alarms and No Alarms by setting these options to ON accordingly.

Auto Alarm enables all alarm sets simultaneously for that temperature channel so that an alarm will occur unless the temperature is within the acceptable range defined by the alarm sets.

5.2.12 Engineering Display

ENG Display>OFF

This parameter is normally set to OFF.

An ON value allows the following parameters to be displayed

R standard> 9090

This is a standard calibration constant for the TranScan®. This constant can't be modified.

T1 cal val> 2252

This is the standard calibration value for the thermistor probes supplied for use with TranScan® recorders. This value can't be modified.

Other channels (T2 to T4) are similarly programmed.

PIN number> 1111 (Factory default value)

The PIN can consist of any digits in the range 1-7. Setting a PIN of 0000 has the effect of not requiring a PIN code to be entered in order to access the Configuration parameters. **WARNING** If the PIN is changed, access to parameters will be denied unless the new PIN code is entered correctly. See 5.0, 5.1 and 5.2

Unit I/D> T12345

This is an individual 6 character identifier which is always set to the serial number of the recorder. The identifier is recorded with the data. The unit I/D is printed on each report. This parameter can't be changed.

Baud Rate > 9600

This is the speed of communication when the recorder is connected to a PC or other device via the serial port.

Date >15 Oct '01

Adjust the date by moving the cursor with the **◀** and **▶** keys and then making the adjustment with the **▲** and **▼** keys. Invalid dates cannot be set.

Set clock >12:00

Adjust the clock by moving the cursor with the **◀** and **▶** keys and then making the adjustment with the **▲** and **▼** keys.

Auto Clk Adj> ON

Set this parameter to ON to automatically adjust the time by one hour at 02:00 on the last Sunday in March (add 1 hour) and 02:00 on the last Sunday in October (subtract 1 hour).

C1k Protect >OFF

When this parameter is set to OFF it is possible to adjust the clock without the need to enter Configuration Mode by pressing **II** and using the **h** and **m** keys (see 4.5.3).

TrakmId>

Tracker directives set by engineer during installation

MobileNr>

Not required

JabberId>

Not required

Push temp. > ON

Tracker directives set by engineer during installation

Push temp. > ON

Tracker directives set by engineer during installation

Push temp. > ON

Tracker directives set by engineer during installation

Push dlverys>OFF

Tracker directives set by engineer during installation

5.2.13 Vehicle Identifiers

Vehicle>TRL 1234

A 8 character identifier which may be used to identify the vehicle registration or trailer ID number and which is printed on each report.

NOTE: When the vehicle ID is changed a new recording is started and the message **NEW FILE** will appear on the display.

Title 1>XXXXXXXX

Title 2>XXXXXXXX

A further two 8 character identifiers which are used together to specify a user defined 16 character title line which is printed as line 1 of each report.

5.2.14 Print Reason Code

Tkt reason> ON

Option to print the reason code for file creation on journey tickets, always prints on file list (see 4.2.1 and 4.3.1)

The reason code letters appear within printed file/upload lists and optionally journey tickets, set by Tkt reason

P	Settings before change
E	Recording start (initiated by start time or day code)
F	No journey files
T	Start and stop time same
H	Channel count change (2 to 4 channel or vice-versa)
C	Clock changed
B	Clock set back
W	Clock set forward
A	Firmware version change
N	Channel name change (1-4)
V	Vehicle identity change (registration)
I	Recording interval change (1-60 minutes)
Z	File size

5.2.15 Signature

This is a four digit number which uniquely characterises the current settings of the configuration parameters. The signature does not depend on any of the descriptive names.

NOTE: The signature may be inspected without the need for taking a parameter printout by viewing it on the display. This is useful when a quick comparison between a number of recorders is required in order to establish if their parameter settings are identical.

Press  and  together and the display shows **Enter PIN code**

Press  and **h** together and the signature will be shown on the display for a few seconds.

Recorders with identical firmware (product software) and different signatures have different parameter settings. To check the firmware of the recorder see 5.2.1 "Product description and sign on message".

6.0 Specification

TranScan® temperature recorders are designed to meet the requirements of EN12830 and other national requirements to support the objectives of directives 92/1/EEC (amended by 93/43/EEC) - usually known as the Quick Frozen Food Directive.

6.1 Type of Application

Suitable for recording storage temperatures.
Suitable for recording transport temperatures.

6.2 Measuring Range

Certified range	-30 °C to +30 °C
For Germany	-35 °C to +25 °C
Available range	-50 °C to +50 °C

6.3 Autonomous Power

Lithium Thionyl Chloride ½ AA battery provides up to 10 years of unpowered data retention. The battery is not user replaceable but the TranScan® should be returned to the manufacturer before the expiry of 10 years for the battery to be replaced.

6.4 Protection

IP65 for Trailer models, IP20 for Rigid models.
The recorder but not the internal printer in the Rigid model is protected to IP22. In the event of the printer being subject to drips or spillage, it should be allowed to dry out before use. In order to ensure that a printout may be made on demand, a spare printer roll should be carried at all times.

6.5 Supply Voltage

DC 10 V to 36 V. The DC supply shall be either from a vehicle battery fused in-line with a Bussmann type TDS501-2 A (or equivalent T2A fuse approved to EN60127) or from an approved mains operated SELV power supply rated for 3A peaks and limited to 100 VA maximum output. The mains operated power supply should be suitable for IEC installation category II. In order to protect the recorder against reversed power supply connections there is a diode in series with the input supply. Occasionally this may impair printer operation at the minimum supply voltage.

6.6 Accuracy Class

Class 1. Maximum permitted error under all operating conditions of recorder and sensor is 1°C at a resolution of 0.5°C.

6.7 Recording Interval

May be set from 1 minute to 60 minutes in steps of 1 minute. For the installation to comply with current legislation, the user must not set the recording interval less than 10 minutes.

6.8 Recording Duration

Memory capacity in days at a 15 minute recording interval

1 or 2 channels	3 or 4 channels
988 days	640 days

6.9 Data Archiving

In order to satisfy the requirements of national legislation, data must be retained for at least one year. The files may be printed on the internal printer or may be transferred via a Data Collector Unit to a PC. The maximum interval at which this can take place may be determined from the above table, but it is recommended to perform the operation monthly. Records from the internal printer should be kept in a clean dry place to ensure that they are readable after one year.

6.10 Time Recording Error

Relative error less than 0.1%, typical < 0.01%.error less than 15 min in 7 days, typical <1 min in 7 days.

6.11 Climatic Environment

Recording -30 °C to +70 °C

Printing -10 °C to +50 °C

Transport and storage unpowered -40 °C to +85 °C

TranScan® Trailer for indoor or outdoor use

TranScan® Rigid for installation in vehicle cabin.

6.12 EMC

Conforms with requirements of

EN 50081-1
EN 50082-1
EN 61000-3-2
EN 61000-3-3
EN 61000-6-3
ISO 7637-2

Radiated immunity 10v/m. Sensor screens should be bared and

clamped to the chassis with the fixture provided.

Conforms with BS AU 243 (ISO7637-1) grade 4.

6.13 Power Surge

Conforms with BS AU 243 (ISO7637-1) grade 4.

6.14 Electrical Safety

Conforms with EN 61010-1. Safety may be impaired if installation instructions are not adhered to.

NOTE: That the area marked by the symbol at the rear of the TranScan® Rigid unit may become hot if the printer is run for an extended time at the upper limit of ambient temperature.

6.15 Periodic Verification

In accordance with EN141012.

6.16 Cleaning and Maintenance

Visible surfaces may be cleaned with a damp cloth and mild detergent. There are no general maintenance procedures, but replacement of the paper and ribbon is described in section 2.3.

6.17 IEC Symbols Used

 Direct current



Protective conductor terminal.
If the user wishes to bond metalwork to a protective conductor as part of their procedures, this terminal should be used.



Caution (refer to accompanying documents).

7.0 Declaration of Conformance

Declaration of Conformity to European Council Directives

Seven Telematics Ltd Instruments hereby declare that representative samples of the following products:

Models	TranScan® Trailer (2 ADR) TranScan® Rigid (2 ADR)
Manufactured by	Seven Telematics Ltd 4 Faraday Close Durrington Worthing West Sussex BN13 3RB

have been tested and found to comply with the essential requirements of the following European Council Directives:

- Electromagnetic Compatibility 89/336/EEC (amended by 93/68/EEC)
- Quick Frozen Foodstuffs 92/1/EEC (amended by 93/43/EEC)
- Low Voltage Directive 73/23/EEC
- Automotive EMC Directive 95/54/EC

by application of the following harmonised European Standards:

- Temperature Recorders EN12830:1999
- Generic Emission Standard EN50081-1:1992
- Generic Immunity Standard EN50082-1:1997
- Environmental Testing (Vibration and Shock) EN60068:1993
- Degrees of Protection provided by Enclosures EN60529:1992
- Safety of Electrical Equipment EN61010-1:1993/A1:1995

provided that:

- The product is correctly installed in accordance with the installation instructions supplied.
- The product has not been modified in any way.
- The product bears the CE mark.

An authorised copy of this declaration is retained by Seven Telematics Ltd.

8.0 Appendix of Figures

Figure 1.0

Product Overview.



TRANSCAN2
Rigid



TRANSCAN2
Trailer

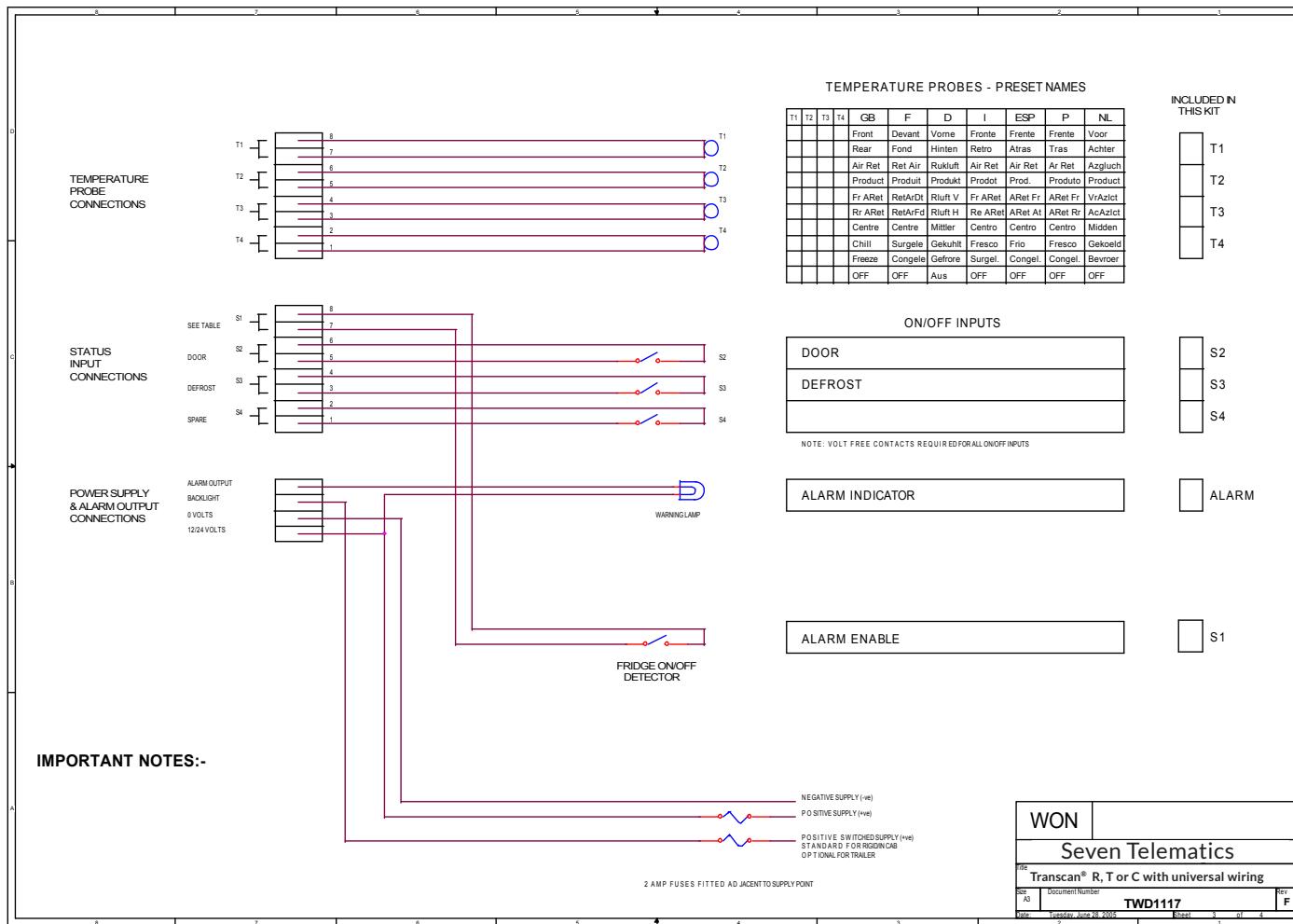


TRANSCAN2
Cab

Figure 1.2

Wiring Diagram

TWD1117



Please visit
www.seventelematics.co.uk/support
for a high definition image

Figure 1.4.1

The Display.

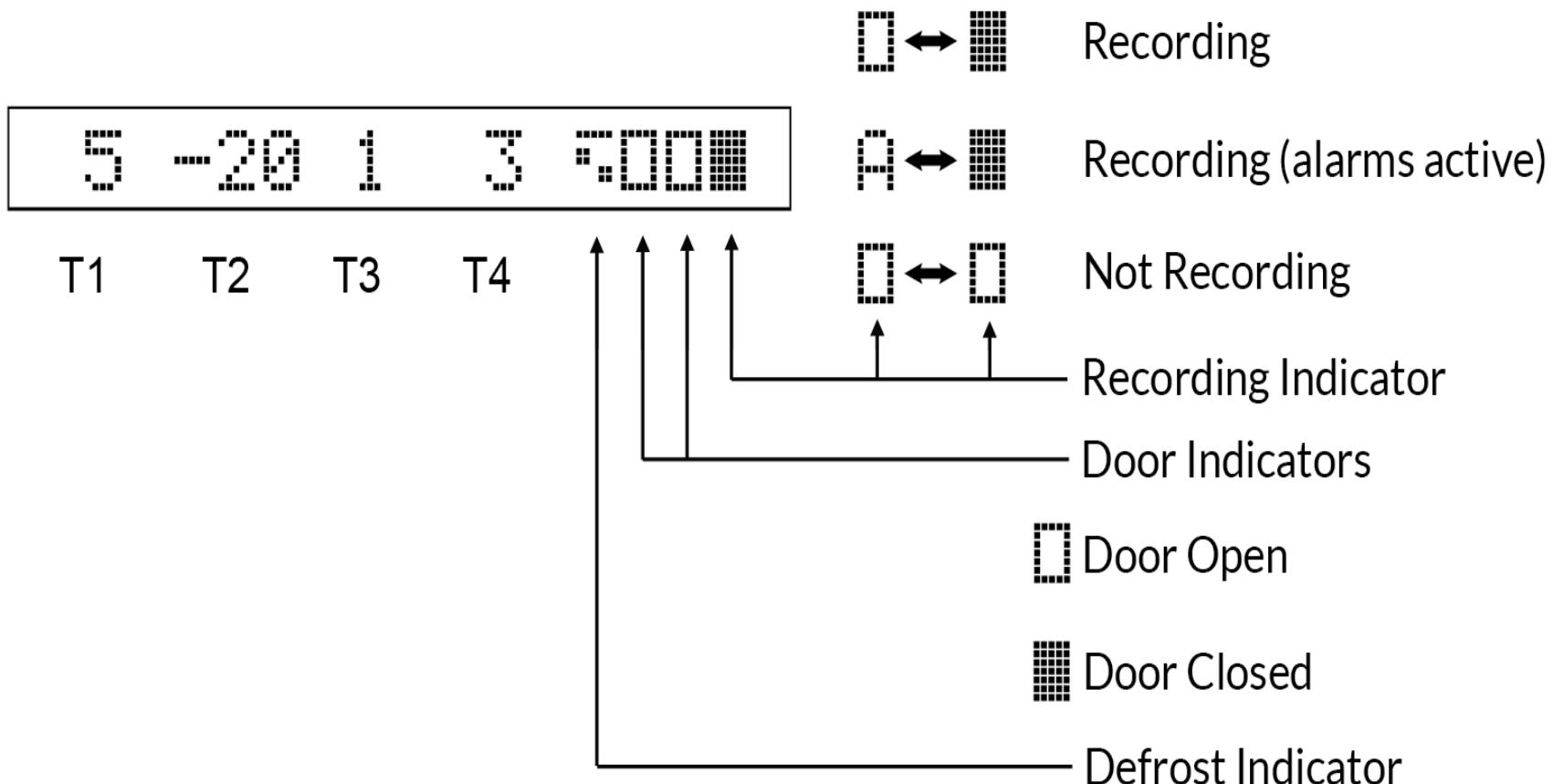


Figure 1.4.2

The Operator Keys.

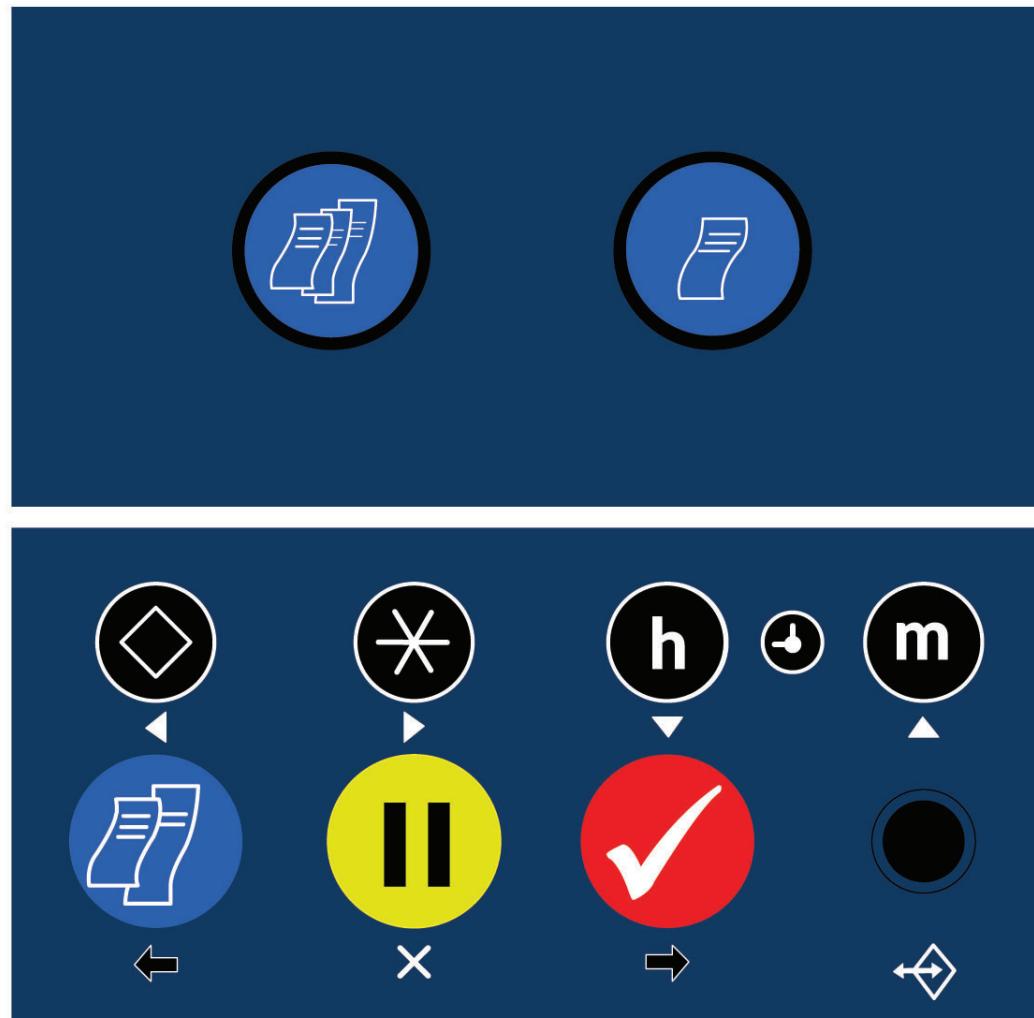


Figure 2.2

Printed Journey Ticket

Food Supply Co

Vehicle: X234CCI
Recorder: T19091

JOURNEY TICKET

T1 = Front
T2 = Rear

Temp. alarm = 1

Door Open
De-ice On
Side Dr status

Update = 10 mins

	13 Jun '13	09:20
T1	T2	
-20	-17	
-13	-11	
-12	-9	
13 Jun '13	09:00	
-15	-11	
-21	-19	
-21	-19	
-21	-19	
-21	-19	
-21	-19	
13 Jun '13	08:00	
-21	-19	
-21	-19	
-21	-19	
-21	-19	
-21	-19	
13 Jun '13	07:00	
Sign:		

Date of report		
13 Jun '13 09:29		
Seven TranScan		

Food Supply Co
Vehicle: X234CCI
Recorder: T19091
JOURNEY TICKET
T1 = Front
T2 = Rear
Temp. alarm = 1
■ Door Open
| De-ice On
| Side Dr status
Update = 02 Mins
28Mar'13 11:12
°C T1 T2
18.6 3.9
18.6 3.9
18.6 3.8
18.6 3.9
18.6 3.8
28 Mar'13 11:10
18.8 3.9
18.7 3.9
18.7 3.8
18.7 3.9
18.7 3.8
28 Mar'13 10:00
17.8 3.9
17.7 3.9
17.7 3.8
17.7 3.9
17.7 3.8
28 Mar'13 09:00
Reason codes:
ET
Sign:

Date of report
28Mar'13 11:12
Seven TranScan

Food Supply Co
 Vehicle: X234CCI
 Recorder: T19091
 JOURNEY TICKET
 T1 — Front
 T2 --- Rear
 Temp. alarm = 1
 | Door Open
 | De-ice On
 | Side Dr status
 20 mms / hour
 01 hrs/division
 13 Jun '13 09:30
 -30 -20 -10

 -30 -20 -10
 13 Jun '13 05:00
 Sign:

 Date of report
 13 Jun '13 09:31
 Seven TranScan

Journey Ticket (Values)

Journey Ticket (Tenths)

Journey Ticket (Graph)

Figure 3.1

Help Printout

```
## TranScan Help
& Delivery ticket
& TranScan Help

& Journey ticket
& 2-day ticket
& 3-day ticket
& 4-day ticket
& 5-day ticket
& 6-day ticket
& 7-day ticket
& More Help

Press any key to
stop printing

✓ to stop alarm
✓ to say yes

◊ read update

* print graphs ✓
* print values ✓

h read date/time

m scroll display✓
m display all ✓
m display one ✓

## PAUSE
◊ set update ✓
* set alarm ✓
h set hours
m set minutes
## exit Pause
```

Figure 4.1

More Help

```
More Help
## to return to
normal display

## SELECT PRINT
& list files ✓
& new files ✓
& all files ✓
& one file
h go back ✓
m go forward✓

## SELECT FILE
& list files ✓
& up load new ✓
& up load old ✓
& up load all ✓
& up load one
h go back ✓
m go forward✓

## SET OPTIONS
◊ English ✓
◊ Francais ✓
◊ Deutsch ✓
◊ Nederlands ✓
◊ Espanol ✓
◊ Portugues ✓
◊ Italiano ✓
◊ Alt.English✓
◊ Polski ✓

* print fwd ✓
* print rvse ✓

h unit typeR ✓
h unit typeT ✓

m degrees C ✓
m degrees F ✓
```

Figure 4.2.1

Print file list (Select printout).

Figure 4.3.1

Print file list (Select `filedump`).

Figure 4.6.3

Alarm Indication
Light and Buzzer

```

TranScan Tracker
Vehicle:AB51 CDE
16 Sep '13 14:29
Alarm accepted
T1 Air Ret 23°C
OK from -35 to -20

```

Figure 5.1

Printing the parameters.

Printed Parameter	Description	Section
TranScan Tracker TS2-T410.A34-512	Product description and sign on message	5.2.1
Start time>00:00	Recording Regime	5.2.2
Stop time>00:00		
Log by Day >OFF		
min/update> 0010	Recording Interval	5.2.3
mms/hour > 0010		
Door switch >OFF		
DeIce switch >OFF		
Spare switch >OFF		
AlarmControl>OFF	On/Off inputs	5.2.5
Graph high> 0010		
Graph low >-0030		
Preset names> ON	Alarm Control	5.2.6
Temperature1> ON		
T1 name >Front	Graph Scaling	5.2.7
Temperature2> ON		
T2 name >Rear		
Temperature3>OFF	Enables temp and alarm channel preset descriptions	5.2.8
Temperature4>OFF		
Alarm set 1 > ON		
A1 name >Chill	Temperature channels and descriptions	5.2.9
High alarm> 0005		
Low alarm> 0001		
Alarm wait> 0030	Alarm Parameters	5.2.10
Graph high> 0010		
Graph low >-0010		
Alarm set 2 > ON		
A2 name >Frozen		
High alarm> -0015		
Low alarm> -0025		
Alarm wait> 0030		
Graph high> -0010		
Graph low >-0030		
Alarm set 3 >OFF		
Alarm set 4 >OFF		
Print T1 > ON	Information to be included in reports	5.2.11
Alarm on T1 >OFF		
Print T2 > ON		
Alarm on T2 >OFF		
Print T3 >OFF		
Alarm on T3 >OFF		
Print T4 >OFF	Allows access to engineering parameters	5.2.12
Alarm on T4 >OFF		
Print Door >OFF		
Print De-Ice>OFF		
Print Spare >OFF		
ENG Display >OFF	Vehicle Identifier	5.2.13
Vehicle>AB51 CDE		
Title1 > Company	Additional identifiers e.g. used for Company Name	5.2.13
Title2 > y Name		
Tkt reason >OFF	Ticket Reason	5.2.14
Signature: 5134	A 4 digit number unique to this parameter set	5.2.15

Figure 5.2.1

Product description and sign on message.

1- INITIALIZING
2- Transcan Tracker
3- Recorder - T12345
4- TS2-T410.010-512

The diagram illustrates the structure of a sign-on message. It consists of four lines of text: '1- INITIALIZING', '2- Transcan Tracker', '3- Recorder - T12345', and '4- TS2-T410.010-512'. Below these lines, three labels are positioned: 'Product type' under the first line, 'Firmware (product software) version' under the second line, and 'Data memory size in Kb' under the third line. Each label is connected to its corresponding line by a blue curved arrow. The fourth line, '4- TS2-T410.010-512', is not connected to any label.

Product type **Firmware (product software) version** **Data memory size in Kb**



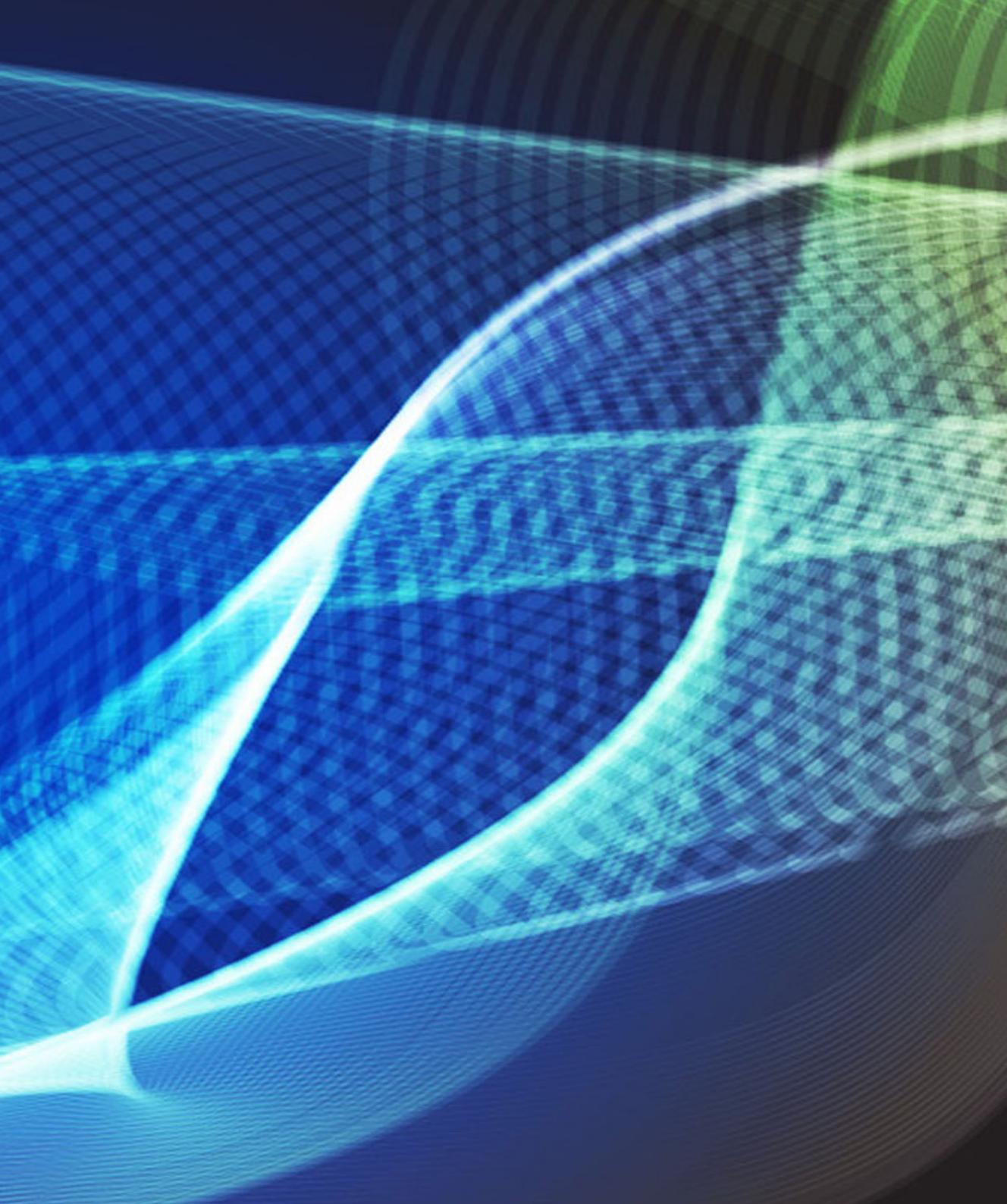
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www.seventelematics.com

User Reference Manual

TEC_20140506_Transcan2_UserReferenceManual

UDN-1601-F

This manual applies to all Firmware versions from TS2T410.013



User Reference Manual

TEC_20140506_Transcan2_UserReferenceManual

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UDN-1601-F

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