XRS EID Stick Reader

This user manual provides comprehensive instructions for setting up and using an XRS EID Stick Reader (the stick reader). For more information about the XRS EID Stick Reader, see www.tru-test.com.

Note: In this document, EID = Electronic Identification and VID = Visual Identification.

Contents

Before you start

Note: In this document, EID = Electronic Identification and VID = Visual Identification.

Charging the internal battery

Note: Before using the stick reader, ensure that the internal battery is fully charged.

The ambient temperature should be between +5 and +40 °C (+41 and +104 °F) when charging the battery. The battery will be fully charged in approximately 3 hours. When fully charged, the internal battery will allow the stick reader to be used for up to 19 hours[1].

3. Plug in the power adaptor and switch on the power.

4. When the stick reader is powered by the mains power adaptor the battery indicator scrolls, indicating that the battery is charging.

1. Insert the XRS adaptor cable with the two arrows aligned. Tighten the screw collar.

2. Insert the plug on the output lead of the power adaptor into the socket on the XRS adaptor cable.

The stick reader may be used while it is on charge.

For an alternative method of charging the internal battery, see *Charging the internal battery using a 12 V vehicle battery* on page 7.

Using the stick reader

The stick reader can be used in two ways:

1 Standalone - the stick reader saves each scanned tag in its internal memory. These records can be transferred to a PC afterwards.
2 Connected – the stick reader is connected to another device, such as a weigh scale indicator or a PC running a third party application, via cable or *Bluetooth*® wireless connection. When connected, the stick reader transmits every scanned tag immediately to the connected device.

Note: When using a stick reader connected to another device, it still saves all the scanned tags to its own internal memory. Therefore, when you connect to a PC and run Data Link, a session with a large number of unwanted scanned records may be displayed. If you don't need this session, it may be deleted.

Connections to other devices

Connection to a PC can be made using the XRS-Serial cable and the USB-Serial adaptor (see picture below).

Connection to most weigh scale indicators is via *Bluetooth*® wireless connection. When connecting via a *Bluetooth* wireless connection, the stick reader will automatically pair and connect with a Tru-Test weigh scale indicator. This may take a few minutes.

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[1] When default settings are used.

Using the Data Link software

Data Link software can be installed from the USB flash drive/CD provided with the stick reader. Data Link allows information to be transferred to and from the stick reader and a PC. A number of stick reader settings can be adjusted on the stick reader itself, but there are some that must be configured using Data Link.

To use Data Link:

1   Install the Data Link software on a PC. To do this, insert the USB flash drive into a USB port or insert the CD into the CD drive on your PC and follow the instructions.

2   Connect the stick reader to the PC's USB port using the XRS-Serial cable and the USB-Serial adaptor (see opposite).

3   Turn on the stick reader.

4   Launch Data Link by double-clicking on the Data Link icon on the desktop:

Tru-Test Data Link

USB-Serial adaptor   XRS-serial cable

Note: For troubleshooting information, see the Data Link help system.

Using the Android smartphone app

You can transfer sessions to and from the stick reader using an Android* smartphone with the Tru-Test Data Link app installed. This free app can be downloaded from the Google Play* Store.

The stick reader's *Bluetooth*® wireless connectivity setting must be set to Manual in order to connect to a smartphone. See *Modifying the stick reader settings* on page 4.

Instructions for using the Tru-Test Data Link app are available on the Tru-Test website www.tru-test.com.

Parts of the stick reader

Antenna

LCD   Green LED

Read button

Hand grip

Battery compartment cover

Blue/Red LED   Scroll button

Dust cap to keep out dirt and moisture when socket is not in use.

Socket for connection to a PC or scales indicator, mains power adaptor or 12 V battery.
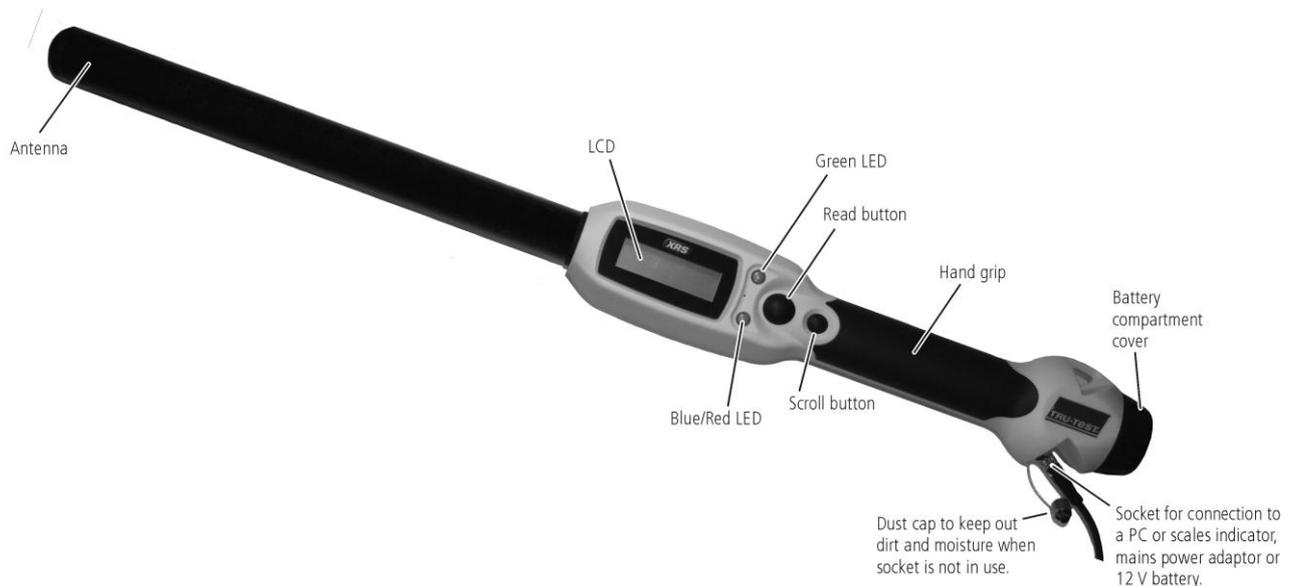
LEDs

The stick reader has two LEDs. One is green and the other is blue or red, depending on the current function of the stick reader. Here are the most common LED display sequences:

Blue/Red LED flashing.	The stick reader is in the process of scanning for or reading an EID tag.
Green LED flashes.	The EID tag has been read successfully.
Blue/Red LED is blue when not flashing red.	The stick reader is connected to a *Bluetooth* enabled device.

Parts of the stick reader LCD
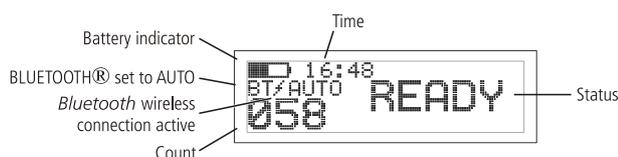
Battery indicator	Shows the battery charge level.
BLUETOOTH® set to AUTO	Indicates that the *Bluetooth* setting is set to automatically connect to a *Bluetooth* enabled device. To change this, see *Modifying the stick reader settings* on page 4.
Bluetooth wireless connection active	The stick reader is connected to another *Bluetooth* enabled device.
Time	The current time is displayed. The time and date are recorded against the animal ID during the scanning session. The stick reader's date and time can be set in Data Link. See *Date Time tab* on page 18 for information.
Count	The number of animals scanned during the current scanning session.
Status	Message display area.

Turn on the stick reader

Press the Read button.

The stick reader beeps ♫ and the message "READY" appears on the LCD:

Scanning an EID tag

Press and release the Read button while passing the antenna near a tag.

The ID tag number appears on the LCD, the green LED flashes once, the hand grip vibrates and the stick reader beeps ♪ to indicate that the tag has been read successfully.
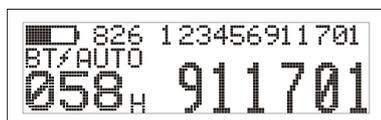
Tip: If animals are moving quickly through a race or into a pen, you can hold down the Read button continuously. Scanning will stop when the Read button is released[2].

Turning off the stick reader

Press and hold the Scroll button.

A countdown appears on the LCD (3, 2, 1) then the stick reader beeps ♫ and turns off.

Using a cross reference file

A file containing EIDs and corresponding VIDs (visible tag numbers) can be transferred to the stick reader prior to the scanning session, using Data Link. If a cross reference file has been pre-loaded, the animal's VID will appear in large numerals on the LCD when a tag is scanned. The EID is displayed in small numerals directly above.
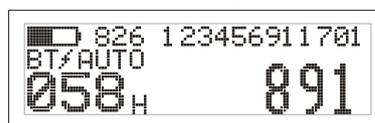
For information about transferring a cross reference file, see *Transferring a cross reference file to the stick reader using Data Link* on page 8.

Modifying the stick reader settings

To access stick reader settings:

Press and hold both the Read button and the Scroll button.

The first three items appear on the LCD with the EXIT option available at the top.

To scroll through the menu options, press the Scroll button repeatedly.

To select an option, highlight the option and press the Read button.

To exit out of the stick reader menu settings, press the Scroll button until EXIT is highlighted, then press the Read button.

For an explanation of the stick reader menu settings, see *Stick reader menu settings* on page 6.

Other stick reader settings

Other stick reader settings can be configured using the Data Link software. Settings include Automatic Power Down, Beeper and Vibration On/Off, Date/Time settings etc. See *Data Link XRS Configuration Reference* on page 16 for information.

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[2] When Read Mode is set to "Standard" (default).

Adding custom field information during scanning

If you have enabled the Custom Field setting, you can add information about each animal during scanning. The stick reader has one preset custom field – Flag (options are blank, 1, 2, 3, 4 or 5). The custom field may also be customised in Data Link (see *Customising the custom field using Data Link* on page 11 for information).

```
■▭        911701
BT/AUTO
058             ▶2
```
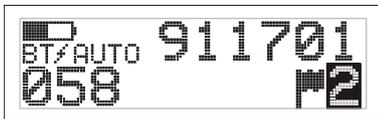
1   Scan the EID tag as described above.
2   Press the Scroll button to view the available options.
3   When the appropriate option is displayed, scan the next EID tag.
     The custom field information for the previously scanned EID tag will then be stored against it.

Note: The custom field information will also be stored if the display times out and returns to the READY screen or the stick reader is turned off.

Receiving alerts during scanning

If you have enabled the Alerts setting, you can receive alerts about a particular animal as its tag is read. A file containing EIDs and alert messages can be transferred to the stick reader prior to the scanning session, using Data Link.

1   Scan the EID tag as described above.
     If an alert is stored against the EID, the stick reader will beep, the handle will vibrate and a message appears on the LCD:

```
ATTENTION     911701
CULL
> CONTINUE
```
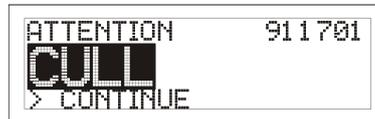
2   Press the Scroll button to select **Continue** and then press the Read button. This acknowledges the alert and allows you to continue scanning.

For information about transferring an alerts file, see *Transferring an alerts file to the stick reader using Data Link* on page 12.

Stick reader menu settings

Menu name	Options[1]	Description
START NEW SESSION		All tags recorded are stored in sessions (files). Up to 50 sessions can be created. A session can be transferred using Data Link or the Tru-Test Data Link App for Android* smartphones.
		Press the Read button to start a new scanning session.
CUSTOM FIELD	OFF* ON	Enable Custom Field if you want to enter data about an animal during a session, such as a condition score. The custom field label and options can be customised in Data Link then transferred to the stick reader (see *Customising the custom field using Data Link* on page 11 for information).
ALERTS	OFF* ON	Enable Alerts if you want to be warned when a particular animal's tag has been scanned. For example, you may want to set an alert in order to remind you than an animal is in a withholding period. Alert information can be configured in Data Link then transferred to the stick reader (see *Transferring an alerts file to the stick reader using Data Link* on page 12 for information).
BLUETOOTH®	AUTO* OFF MANUAL	*Bluetooth®* wireless connectivity enables the transfer of information from the stick reader to another device such as a weigh scale indicator or a computer with *Bluetooth* wireless connectivity.
		Auto – When BLUETOOTH® is set to Auto, the stick reader will automatically connect to the *Bluetooth* enabled device most recently used. If it can't find this device, it will attempt to connect to another *Bluetooth* enabled device from its list of previously paired devices. If a previously paired device can't be found, the stick reader will search for a weigh scale indicator, then connect with it and add it to its list of paired devices. If this is not successful, the stick reader will then allow an incoming connection from any other *Bluetooth* enabled device. At any time, you may override the Auto settings and manually search for a device (see FIND BT DEVICES below) or select a device from the list of previously paired devices (see PAIRED DEVICES below). The Auto setting is ideal if you typically use the same *Bluetooth* enabled device with the stick reader.
		Off – You may want to disable *Bluetooth* wireless connectivity if you don't want the stick reader to automatically connect to or search for another *Bluetooth* enabled device. Disabling *Bluetooth* wireless connectivity conserves the stick reader's battery.
		Manual – When BLUETOOTH® is set to Manual, the stick reader will allow an incoming connection from another *Bluetooth* enabled device. Also, you can manually search for another *Bluetooth* enabled device (see FIND BT DEVICES below) or select a device from the list of previously paired devices (see PAIRED DEVICES below).
FIND BT DEVICES		When BLUETOOTH® is in set to Auto or Manual, you can manually search for and connect to a particular device or break an existing connection and force it to a different device.
		Press the Read button to search for *Bluetooth* enabled devices within range.
		After a few moments, the stick reader populates the screen with devices that are within range.
		To connect to a device:
		Select the required device from the list and press the Read button.
		The device is added to the list of paired devices (see PAIRED DEVICES below).
PAIRED DEVICES		When BLUETOOTH® is set to Auto or Manual, you can manually connect to a previously paired device or break an existing connection and force it to a different device.
		Connecting to a previously paired device is faster than using the 'FIND BT DEVICES' option.
		Press the Read button to display previously connected (paired) devices. Select a device and press the Read button.
		The stick reader attempts to connect to the previously paired device.
DUPLICATES	ON* OFF	When Duplicates is enabled, the stick reader will not record the same EID twice in the same session. The stick reader remembers the previous 500 tags.
FLIP SCREEN	OFF* ON	Enable Flip Screen to rotate the LCD for a left-handed user. The LCD screen will then be displayed upside-down for a right-handed user.
CONTRAST		Adjust the contrast to suit the light conditions.
		Press the Read button repeatedly to adjust the contrast on the LCD.
READ MODE	STANDARD* CONTINUOUS SINGLE	When set to Standard, the stick reader begins scanning when the Read button is pressed. Scanning continues for 3 seconds (default) or until a tag is read if this is sooner. If the Read button is held down continuously, the stick reader will continue to scan and therefore read multiple tags. 'Standard' is the recommended setting for general use. The read time can be set in Data Link, see *Data Link XRS Configuration Reference* (Reading Tags tab) on page 16.
		When set to Continuous, the stick reader begins scanning when the Read button is pressed and it only stops when the Read button is pressed again. This setting is useful if you want to scan every animal in a pen or race.
		When set to Single, the stick reader behaves as it would in Standard mode, except that even if the Read button is held down, the stick reader won't continue scanning after it reads the first tag. To scan for another tag, the Read button must be released and pressed again.
PRINT SESSION		This will print all sessions (files) stored on the stick reader to a connected *Bluetooth* enabled printer.
BACKLIGHT	OFF LOW* HIGH	Adjust the backlight to suit the lighting conditions.
		Press the Read button to adjust the backlight on the LCD.
SOFTWARE VERSION		The stick reader software version is displayed.
ENGLISH*	ESPAÑOL (Spanish) PORTUGUÊS (Portuguese) FRANÇAIS (French) DEUTSCH (German) ITALIANO (Italian) DANSK (Danish) SVENSKA (Swedish) [other languages…]	The language displayed on the stick reader LCD can be modified. Press the Read button repeatedly. When the stick reader is connected to a weigh scale indicator via a *Bluetooth* wireless connection, it will automatically display the same language as the indicator.

[1] Default settings marked *

Charging the internal battery using a 12 V vehicle battery

Normally, the internal battery is charged by connecting the stick reader to the mains power supply via the XRS adaptor cable and the power adaptor cable (see *Charging the internal battery* on page 2). However, the internal battery may also be recharged by a 12 V vehicle battery, using the battery leads supplied.

3. Attach the positive (red) clip to the positive terminal on the battery.
Attach the negative (black) clip to the negative terminal on the battery.

2. Insert the plug on the battery leads into the socket on the XRS adaptor cable.

1. Insert the XRS adaptor cable with the two arrows aligned. Tighten the screw collar.
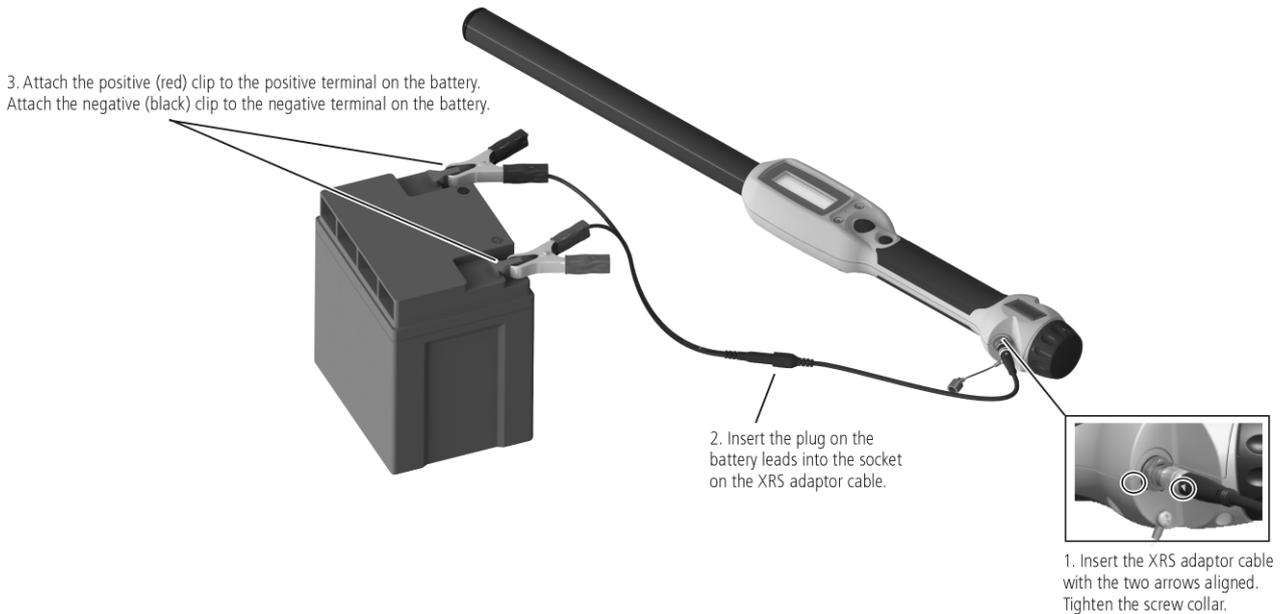
The stick reader may be used during battery charging, even if the battery is flat. To use the stick reader while the battery is charging, the internal battery must be in the battery compartment and the stick reader must be connected to the supplied mains power adaptor or a 12 V battery as described above.

Caution! The stick reader must only be used with the power adaptor and cables supplied or genuine replacement parts.

Changing the battery

A spare battery may be purchased as an accessory (Tru-Test part number 813295). To change the battery, unscrew the battery compartment cover, located at the end of the stick reader (see *Parts of the stick reader* on page 3). Carefully slide the battery out and insert the spare battery. Ensure that moisture and dirt do not enter the battery compartment and that batteries remain clean and dry at all times.

Transferring a cross reference file to the stick reader using Data Link

A file containing EIDs and corresponding VID tag numbers can be transferred to the stick reader prior to a scanning session using Data Link. Up to 20,000 EID/VID pairs may be transferred to the stick reader. The cross reference file must be formatted as follows:

- File must be in .csv, .xls or .xlsx format. .txt files are also acceptable as long as the fields are separated by a comma (essentially a .csv file).
- The file must contain only two columns of data – one column for VIDs and one for EIDs.
- VIDs can be in the first column and EIDs in the second column, or the other way around.
- A header row is optional.
- The file should only contain letters and digits. It must not contain any of the following characters [ ] ( ) { }, ; ` ~ ^ \ #.
- If the VID is seven characters or more, only the digits after the last letter from the right hand end will be used. For example, if the VID in cross reference file is XBX00047, it will be exported as 00047. This allows the use of tag bucket files.

  If the VID is six characters or less, it will be exported in full. For example, if the VID in the cross reference file is VID001, it will be exported as VID001.
- The EID format used in the EID-VID pairs file can be in any of the three allowable formats, regardless of the EID format setting in the stick reader itself. The allowable formats for EID are: Standard (e.g. 826 0000000123456), No space (e.g. 8260000000123456) and Hexadecimal (e.g. 8000F58000000001).

Here are two possible formats for the cross reference file:

	A	B
1	123	826 000000123456
2	456	826 000000987654
3	345	826 000000123457

VIDs in first column, EIDs in second column, with no header row

	A	B
1	**EID**	**VID**
2	826 000000123456	123
3	826 000000987654	456
4	826 000000123457	345

EIDs in first column, VIDs in second column, with header row

Note: Do not connect the stick reader to the PC until you have installed the Data Link software. Data Link includes the driver required by the stick reader. If you have already connected the stick reader without installing Data Link, disconnect the stick reader and cancel the Windows wizard if this has begun.

To transfer a cross reference file to the stick reader using Data Link:

1   Click ⬆.
     The 'Put information onto device' dialogue is displayed.
2   Select **Cross reference file** and click **Next**.
3   Locate the file you want to transfer, click to select it, then click **Open**.
     The EIDs and corresponding VIDs are transferred to the stick reader and a confirmation dialogue appears.
4   Click **OK**.

Note: If EID-VID pairs already exist in the stick reader, when you attempt to transfer a cross reference file, you will be asked if you want to merge the existing EID-VID pairs with the new pairs. If you select **Merge**, the new pairs will be merged with the old pairs and any new pairs will be transferred to the stick reader. If you select **Do not merge**, the old pairs on the stick reader will be deleted and the new pairs will be transferred.

For more information about using a cross reference file during scanning see *Using a cross reference file* on page 4.

To remove EID-VID pairs from the stick reader, see *Clearing information off the stick reader using Data Link* on page 14.

Transferring sessions from the stick reader using Data Link

As soon as you have connected the stick reader to the PC, all of the sessions on the stick reader will be displayed on Data Link's main screen.
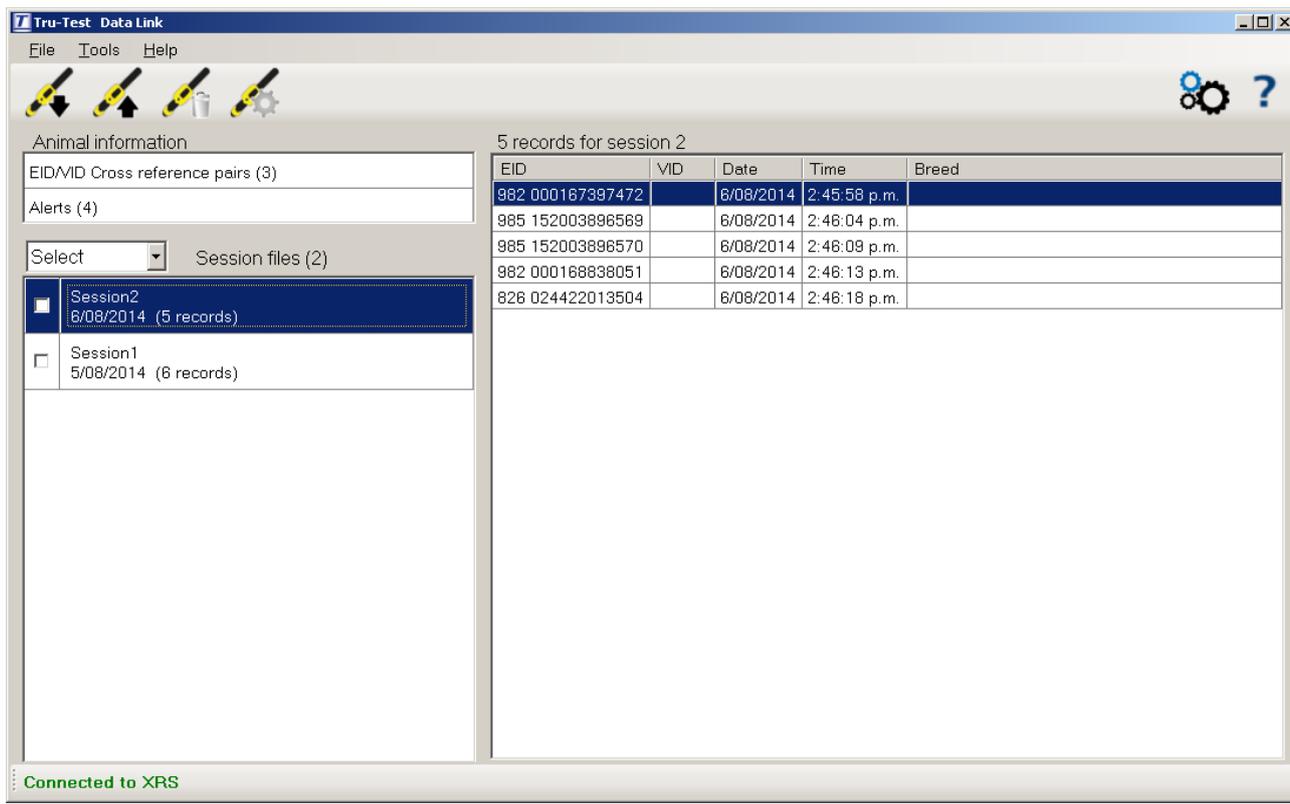
Tip: Click on a session name in the left hand pane to view session records in the right hand pane.

You can save session files in .csv, .xls, .xlsx, xml, NAIT or NLIS format.

To transfer sessions from the device to the PC:

1   If you want to select a particular session, click on the check box beside the session name.
    If you want to transfer all sessions, click on the drop-down box above the list of sessions and select **All**.
    If you want to transfer just today's session, click on the drop-down box above the list of sessions and select **Today**.

2   Click ⬇.

3   Select **Save selected sessions as files on the PC** and click **Next**.

4   Accept the default file name.

5   Depending on what you are going to do with your data, you may want to change the file format (see *Changing the file format using Data Link* on page 10).

6   Click **Save**.

Note: Each session will be saved as a separate file on the PC.

Note: There are special considerations when getting sessions off the device for sending to NLIS or NAIT. See the Data Link help system.

Changing the file format using Data Link

Data transferred from the stick reader can be saved on the PC in one of the following formats. The format you choose will depend on what you intend doing with the data.

.csv	Comma separated values file format. .csv files are commonly used to transfer data to a third party application. On machines that have Excel installed, .csv files automatically open in Excel; however it is better to use the .xls format for this to avoid issues with data formats, which can happen especially with EID numbers that have no space. To see the contents of a .csv file, you can open it in Notepad using the 'Open With' function of Windows.
.csv No Header	As above, but the file will not contain a header row.
.csv 3000 format	As above. Use this format when transferring files from a Series 3000 weigh scale indicator.
.csv Minda format	As above. Use this format when transferring files for use with Minda software.
.csv EID only	As above, but the file will only contain EID numbers.
.xls or .xlsx	These file formats allow you to open and manipulate data using MS Excel.
.xml	Extensible markup language file format. Use this format if the application you are using requires xml format.
NLIS (.csv)	Use this format if you want to send data to the Australian national livestock identification programme.
NAIT (.csv)	Use this format if you want to send data to the New Zealand national animal identification and tracing programme.

You can select a different file format in the Data Link options menu OR you can override the file format when you save a file to the PC.

To change the file format in the Data Link options menu:

1   Click ⚙.
2   On the File format tab, select the file format you would like to save files in.
3   Click **OK**.

Note: Changing the file format here means that all files will be saved in this format unless you override it during the saving process.

Customising the custom field using Data Link

A custom field can be customised in Data Link. The custom field can be used to record information about each during scanning.

For example, you could customise it for recording the breed of animals or treatment information.

Before you begin, the stick reader must not have any session data stored on it. All session data must be transferred to a PC (see *Transferring sessions from the stick reader using Data Link* on page 9) and the sessions must be cleared from the stick reader (see *Clearing information off the stick reader using Data Link* on page 14).

Up to ten options can be created. Each label may contain up to eleven letters or numbers. Each option may contain up to six letters or numbers.

Note: The combined total of characters used for the label and the longest option cannot exceed twelve. Therefore, if a long label is entered, then shorter options must be used or vice versa.

To customise the custom field using Data Link:

1   Click 🔧.
     The XRS Configuration dialogue is displayed.
2   Click on the **Custom Field** tab.
3   Enable **Custom Field**.
4   Click **Clear All** to delete existing custom field setups.
5   Type a label in the **Label** field or to use the flag symbol, type a hash (#).
6   Type the options you would like to select from.
7   Click **Save**.
     The custom field information is sent to the stick reader.

Note: If the label and options can't be changed, this is because the stick reader is not empty.

For more information about using a custom field during scanning, see *Adding custom field information during scanning* on page 5.

Example of custom field

In this example, the custom field will be used to record information about animal breed.

The custom field is labelled "BREED".

The options are ANG (short for Angus), HER (short for Hereford), SIM (short for Simmental), BRA (short for Brangus) and X (short for Crossbreed).

Data Link is used to customise the custom field with a label and options.

Here is the custom field set up in Data Link:
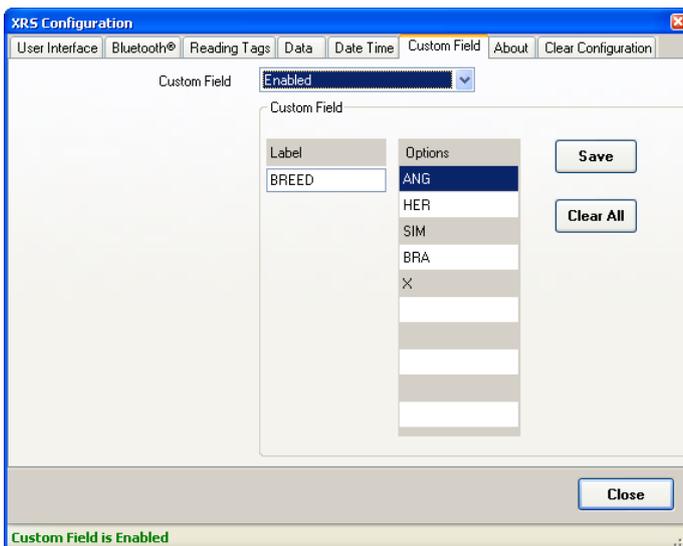
During scanning, when an EID tag is scanned, breed can be entered:
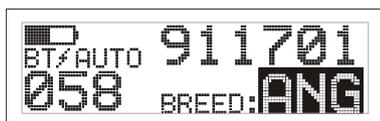
1   The EID tag is scanned.
2   The Scroll button is pressed in order to view the available options.
3   When the appropriate option is displayed, the next EID tag is scanned.
    The custom field information for the previously scanned EID tag is then stored against it.

Transferring an alerts file to the stick reader using Data Link

If you have enabled the Alerts setting, you can receive alerts about a particular animal as its tag is read. Using Data Link, a file containing EIDs and optional alert messages can be transferred to the stick reader prior to the scanning session.

Up to 10,000 alerts can be set and up to 254 different messages can be used. A message may contain up to 32 letters or digits. The alerts file must be formatted as follows:

- The file must be in .csv, .xls or .xlsx format. .txt files are also acceptable as long as the fields are separated by a comma (essentially a .csv file).
- The file may contain up to two columns of data – one column for EIDs and one for messages (optional).
- EIDs must be in the first column and messages in the second column.
- The file should only contain letters and digits. It must not contain any of the following characters [ ] ( ) { }, ; ` ~ ^ \ #.
- The EID format used in the alerts file can be in any of the three allowable formats, regardless of the EID format setting in the stick reader itself. The allowable formats for EID are: Standard (e.g. 826 0000000123456), No space (e.g. 8260000000123456) and Hexadecimal (e.g. 8000F58000000001).

An alerts file may look like one of these examples:

EIDs and messages

EIDs and messages for selected EIDs

EIDs only

To transfer an alerts file to the stick reader using Data Link:

1   Click ⬆.
2   Select **Alerts file** and click **Next**.
3   Locate the file you want to transfer, click to select it, then click **Open**.
    The alerts will be transferred to the stick reader and a confirmation dialogue appears.
4   Click **OK**.

Notes:
-   If alerts already exist on the stick reader, a dialogue box will advise you that exporting new alerts will delete existing alerts.
-   If only selected EIDs have messages, Data Link will ask whether you want to export all EIDs or just the EIDs with messages.
-   If messages are not used in the alerts file, during scanning, the stick reader will still provide an alert when the EID tag is read, however the message area on the LCD will be blank. The alert still needs to be acknowledged.

- By default, alerts will be received about animals that are <u>included</u> in the alerts file, however this setting can be changed so that an alert is received for any animal <u>not included</u> in the alerts file. See *Data Link XRS Configuration Reference* on page 16 (Data tab, Alert if animal setting). Also see *Example of alerts for animals not in list* on page 13.

For information about using alerts during scanning, see *Receiving alerts during scanning* on page 5.

Example of alerts without messages

In this example, alerts will be used to help identify a number of animals for removal from the mob. No messages are required as the farmer knows what the alert is for.

Here is the alerts file as it is displayed in Excel:

	A
1	826 152003896569
2	826 024422013504
3	826 000167397472
4	826 000168838051

Data Link is used to export the alerts file to the stick reader.

During scanning, if one of the EIDs in the alerts file is read, the stick reader will beep, the handle will vibrate and an alert appears on the LCD:

```
ATTENTION        896569

> CONTINUE
```
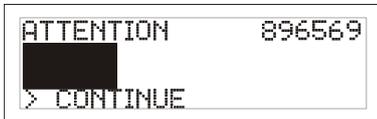
The Scroll button is pressed in order to select **Continue** and then the Read button is pressed. This acknowledges the alert and allows scanning to continue.

Example of alerts with messages

In this example, alerts will be used to help identify several animals for culling and withholding. Messages (CULL and W'HOLD respectively) are required to help identify which category each animal belongs to.

Here is the alerts file as it is displayed in Excel:

	A	B
1	826 152003896569	CULL
2	826 024422013504	CULL
3	826 000167397472	W'HOLD
4	826 000168838051	W'HOLD

During scanning, if one of the EIDs in the alerts file is read, the stick reader will beep, the handle will vibrate and a message appears on the LCD:

```
ATTENTION        397472
W'HOLD
> CONTINUE
```

The Scroll button is pressed in order to select **Continue** and then the Read button is pressed. This acknowledges the alert and allows scanning to continue.

Example of alerts for animals not in list

In this example, a farmer is loading a group of animals onto a truck and wants to identify animals that do not belong in the group (stray animals).

The stick reader can be set up to send an alert for animals not included in the alerts file:
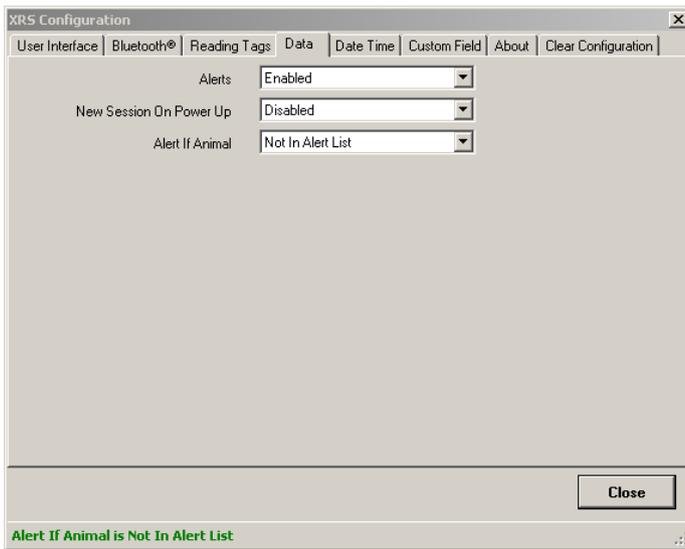
Here is the alerts file as it is displayed in Excel:

	A
1	826 152003896569
2	826 024422013504
3	826 000167397472
4	826 000168838051

Data Link is used to transfer the alerts file to the stick reader.

During scanning, if an EID is read that is <u>not included</u> in the the alerts file, the stick reader will beep, the handle will vibrate and an alert appears on the LCD:
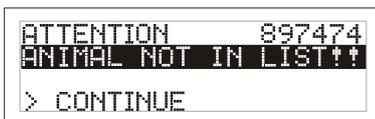
The Scroll button is pressed in order to select **Continue** and then the Read button is pressed. This acknowledges the alert and allows scanning to continue.

Clearing information off the stick reader using Data Link

You can delete sessions, alerts or all data at once from the stick reader, using Data Link.

Caution! Before deleting any data, be sure that you have backed up the data first.

To delete data from the stick reader:

1   Click 🗑.
2   Select the data you want to delete and click **Next**.
    A warning message appears, asking you to confirm that you would like to delete the data. Click **Yes**.
    A confirmation message appears.
3   Click **OK**.

Updating the stick reader's software

You can use Data Link to update the device software and the Data Link software.

Note: You must be connected to the internet to use this feature.

To update the stick reader software and Data Link software:

1   Click **Tools/Updates**.
2   Click on an option:
     Click on the check box **Configure Data Link automatically** to configure Data Link to automatically check for software updates for the device and Data Link each time the application is launched.
     Click **Check for updates** to immediately check the web for software updates for the device and Data Link.
     Click **Update device firmware from file** if you have been provided with a firmware update file from Tru-Test Ltd.
     Click **Reinstall device driver** if you are having problems using Data Link with your stick reader.
3   Click **Close**.

Notes:
-    When updating Data Link software, there is no need to uninstall the old version of Data Link first.
-    The stick reader must be disconnected from the PC before it can be used.

Data Link XRS Configuration Reference

To modify stick reader settings using Data Link:

1   Click ⚙.

2   Click on one of the tabs:

XRS Configuration

| User Interface | Bluetooth® | Reading Tags | Data | Date Time | Custom Field | About | Clear Configuration |
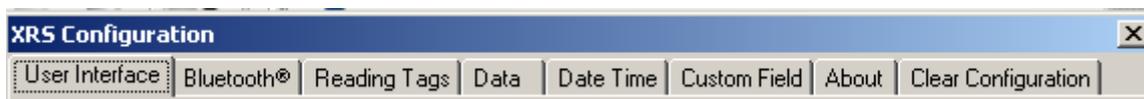
User Interface tab

This tab allows you to modify the stick reader's user interface.

Setting	Options	Explanation
Contrast Level	1 2* 3 4 5	The contrast used on the LCD can be adjusted to suit the light conditions. In high or low temperatures, a different setting may improve the contrast. This setting may also be changed on the stick reader itself. See *Stick reader menu settings* on page 6.
Flip Screen	Off* On	The LCD orientation may be adjusted for a left-handed user. When Flip Screen is set to On, the LCD screen will then be displayed correctly for a left-handed user (upside-down for a right-handed user). This setting may also be changed on the stick reader itself. See *Stick reader menu settings* on page 6.
Beeper	Disabled Enabled*	The stick reader normally beeps when a tag is read or when a key is pressed. This can be disabled, if desired.
Vibrator	Disabled Enabled*	The stick reader normally vibrates when a tag is read. This can be disabled, if desired.
Display Message Duration	1 second 2 seconds* 3 seconds 5 seconds 10 seconds 15 seconds 20 seconds 25 seconds	The stick reader displays messages, such as "Connected", for a period of time. The length of time that messages are displayed for can be modified, if required.
Automatic Power Down	Off 1 minute 5 minutes 10 minutes 15 minutes* 30 minutes 45 minutes 1 hour	This setting modifies the length of time it takes for the stick reader to power down automatically.
Language	English* Español Português Français Deutsch Italiano Dansk Svenska [Other languages]…	The user interface can be displayed in English, Spanish, Portuguese, French, German, Italian, Danish, Swedish or various other languages. This setting may also be changed on the stick reader itself. See *Stick reader menu settings* on page 6. *Note:* When connected to a Tru-Test weigh scale indicator for the first time, the stick reader's language is set to match the language of the indicator.

This tab allows you to modify the stick reader's *Bluetooth* settings.

Setting	Options	Explanation
Bluetooth Control	Off Manual Auto*	This setting allows you to change the way the stick reader's *Bluetooth* wireless connection works. This setting may also be changed on the stick reader itself. See *Stick reader menu settings* on page 6. For more information about *Bluetooth* wireless connection options, see page 6 or the Technical Bulletin *"XRS Connections"*, at www.tru-test.com.
XRS MAC Address	N/A (read only)	This is the unique address for the stick reader's *Bluetooth* wireless connection module. This address may be used to confirm the identity of the stick reader when it is searched for by another device such as a PC.
Clear Paired BT Device List	N/A	Click on **Clear Paired BT Device List** to remove all previously paired devices from the stick reader's list of paired devices. You may want to do this to speed up automatic connection to a new weigh scale indicator, or to prevent connection to a device that you accidentally paired to.
Set XRS *Bluetooth* PIN	Set PIN to 0000* Set PIN to default	When pairing the stick reader with another *Bluetooth* enabled device (for example a mobile phone), you may need to reset the stick reader's *Bluetooth* PIN number. This may be because the device will only accept a PIN number comprising of either alphabetic characters or numeric characters. By default, the stick reader's *Bluetooth* PIN number is set to 0000 (numeric characters), however if you need to change it to default (alphabetic characters), select **Set PIN to default**. If you are having trouble pairing the stick reader with another device, try resetting the PIN then repeat the steps for pairing.

This tab allows you to modify the way the stick reader reads tags.

Setting	Options	Explanation
Read Mode	Standard* Continuous Single	When set to Standard, the stick reader begins scanning when the Read button is pressed. Scanning continues for the length of time set in the Read Time option (default is 3 seconds) or until a tag is read if this is sooner. If the Read button is held down continuously, the stick reader will continue to scan and therefore read multiple tags. 'Standard' is the recommended setting for general use. When set to Continuous, the stick reader begins scanning when the Read button is pressed and it only stops when the Read button is pressed again. This setting is useful if you want to scan every animal in a pen or race. When set to Single, the stick reader behaves as it would in Standard mode, except that even if the Read button is held down, the stick reader won't continue scanning after it reads the first tag. To scan for another tag, the Read button must be released and pressed again. This setting may also be changed on the stick reader itself. See *Stick reader menu settings* on page 6.
Read Time	1 second 2 seconds 3 seconds* 5 seconds 10 seconds 15 seconds 20 seconds	If the Read Mode is set to Standard or Single the Read Time setting determines the length of time the stick reader takes to scan for a tag.
EID Output Format	Standard* No space Hexadecimal	This setting allows you to change the way EIDs are stored and output from the stick reader. The options are Standard (e.g. 826 0000000123456), No space (e.g. 8260000000123456) and Hexadecimal (e.g. 8000F58000000001).
Check for Duplicates	Enabled* Disabled	You can change the way the stick reader handles a duplicate ID within the same session. If Check for Duplicates is enabled, each time a tag is scanned, the stick reader will check the EID against the last 500 tags scanned in the session. If a duplicate ID exists, a message appears on the LCD and the stick reader beeps differently. The duplicate ID is not saved. If Check for Duplicates is disabled, the stick reader will store any duplicate IDs in the session. This setting may also be changed on the stick reader itself. See *Stick reader menu settings* on page 6.
Read non-animal tags	Enabled Disabled*	This setting allows non-animal tags to be read (EID tags used in industry). EID tags used for animal identification should be programmed as animal tags. However in some cases tags are supplied that are programmed as non-animal.

Data tab

This tab allows you to change the way the stick reader manages data.

Setting	Options	Explanation
Alerts	Disabled* Enabled	The Alerts setting must be enabled in order to receive alerts about a particular animal during scanning. See *Receiving alerts during scanning* on page 5.
		Alerts may be enabled or disabled on the stick reader itself (see *Stick reader menu settings* on page 6, however an alerts file must be created using another application (e.g. Excel) and Data Link used to export it to the stick reader. See *Transferring an alerts file to the stick reader using Data Link* on page 12.
New Session on Power Up	Disabled* Enabled	If this setting is enabled, the stick reader will automatically start a new session each time the stick reader is switched on.
		Note: You may want to change the Auto Power Down setting to be longer if using this feature.
Alert If Animal	In Alert List* Not in Alert List.	This setting allows you to determine whether an alert will be received for animals listed in the alerts file, or animals that are <u>not included</u> in the alerts file. For example, if you were loading a group of animals onto a truck and wanted to identify animals that did not belong in the group (stray animals), you could set up the stick reader to alert you to animals <u>not included</u> in the alerts file.

Date Time tab

This tab allows you to change the stick reader's date and time. The date and the time settings are recorded against the animal ID during a scanning session. When the session is transferred to a PC, the date and time are columns in the resulting file. The filename, by default, also contains the date of the first scanned record in the session.

Setting	Options	Explanation
Synch stick reader to PC Date/Time	N/A	Allows you to synchronise the stick reader's date and time with the settings on the PC.

Set Time	N/A	To change the time:
		1 Beside the time field, click to select the digits you want to change.
		2 Either type in the required digits
		  – or –
		  Click on the arrows beside the time field.
		3 Click to select a.m. or p.m.
		4 Either type a or p
		  – or –
		  Click on the arrows to toggle between a.m. and p.m.

Set Date	N/A	To set the date:
		1 Beside the date field, click to select the digits you want to change.
		2 Either type in the required digits
		  – or –
		  Click on the drop-down arrow beside the date field to view the calendar. Use the scroll arrows on the left and right hand side of the calendar to change the month. Click to select a date.
		3 Click **Close**.

Custom Field tab

This tab allows you to create a custom field. See *Customising the custom field using Data Link* on page 11.

Setting	Options	Explanation
Custom Field	Disabled Enabled*	The Custom Field setting must be enabled in order to add information about each animal during scanning. See *Adding custom field information during scanning* on page 5.
		A custom field may be enabled or disabled on the stick reader itself (see *Stick reader menu settings* on page 6), however a custom field can only be customised and edited in Data Link. See *Customising the custom field using Data Link* on page 11.

About tab

This tab allows you to view the properties of the stick reader. The stick reader properties may be required during troubleshooting.

Setting	Options	Explanation
Firmware Version	N/A (read only)	Version of software used by the stick reader. To update the stick reader's software, see *Updating the stick reader's* software on page 15.
Serial Number	N/A (read only)	The stick reader's serial number.
Battery Charge Level	N/A (read only)	The stick reader battery's charge level. The battery charge level can also be viewed on the stick reader's LCD. See *Parts of the stick reader LCD* on page 4.

Clear Configuration tab

The tab allows you to reset the stick reader settings to default values. Resetting stick reader settings to default values will not alter previously recorded records or sessions.

Setting	Options	Explanation
Reset All XRS Configurations Back to Factory Defaults	N/A	Click on **Reset all XRS configurations back to factory defaults** to reset the stick reader settings to default values, as indicated by the asterisks on the settings throughout this table.

Defaults are marked *

Troubleshooting

Symptom	Cause	Solution
The stick reader has switched off unexpectedly.	The stick reader automatically switches off after a period of inactivity. This is normal behaviour when default settings are applied, however the settings are configurable.	Change the length of time it takes for the stick reader to automatically power down, or disable **Automatic Power Down**, see *Data Link XRS Configuration Reference* on page 16 (User Interface tab, Automatic Power Down setting).
	The internal battery is flat.	Recharge the battery. See *Charging the internal battery* on page 2.
The stick reader won't record an EID twice in a session.	This is normal behaviour when default settings are applied.	To allow the stick reader to record EIDs twice, disable **DUPLICATES** in the stick reader settings. See *Modifying the stick reader settings* on page 4.
During scanning, the stick reader's LCD displays a flag and the resulting session file contains unwanted custom field information.	**CUSTOM FIELD** has been set to **ON**. A custom field has previously been set up and this feature has not been disabled.	Disable **CUSTOM FIELD** in the stick reader settings, see *Modifying the stick reader settings* on page 4.
During scanning, the stick reader beeps, the handle vibrates and a message appears on the LCD when a particular animal ID is scanned.	**ALERTS** has been set to **ON**. Alerts have previously been set up and this feature has not been disabled.	Disable **ALERTS** in the stick reader settings, see *Modifying the stick reader settings* on page 4.
The stick reader records the EID tags in a particular format and this format isn't suitable.	The stick reader has been set to store EID tags in Standard format 826 000000012345, No space format (e.g. 8260000000123456) or Hexadecimal format (e.g. 8000F58000000001).	Change the **EID Output Format,** see *Data Link XRS Configuration Reference* on page 16 (Reading Tags tab, EID Output Format setting).
EIDs display in Excel as scientific numbers, e.g. 826000000123456 displayed as 8.26E+14	Data Link has been set to import sessions in a NLIS or .csv format and the EID information doesn't display correctly when opened in Excel.	Change the file format to .xls, see *Changing the file format using Data Link* on page 10 or, change the EID Ouput Format to include a space, see *Data Link XRS Configuration Reference* on page 16 (Reading Tags tab, EID Output Format).
The stick reader starts a new session each time the stick reader is switched on.	**New Session On Power Up** has been set to **On**.	Disable **New Session On Power Up**. See *Data Link XRS Configuration Reference* on page 16 (Data tab, New Session On Power Up setting). To start a new session manually, select **START NEW SESSION** from the stick reader settings (see *Modifying the stick reader settings* on page 4).
The stick reader only scans for an EID tag for a short time.	**Read Mode** has been set to **Standard** or **Single** and the stick reader has been set to scan for an EID tag for a set period of time.	You can extend the scan time *OR* you can change the way the stick reader scans for an EID by changing the **Read Mode** to continuously scan: To change the length of time it takes for the stick to scan for an EID tag, see *Data Link XRS Configuration Reference* on page 16 (Reading Tags tab, Read Time setting). To change the way the stick reader scans for an EID tag, change the **Read Mode** to **Continuous**. In Continuous mode, the stick reader begins scanning when the Read button is pressed and it only stops when the Read button is pressed again. This setting is useful if you want to scan every animal in a pen or race. To change the Read Mode, see *Modifying the stick reader settings* on page 4.

Symptom	Cause	Solution
The stick reader keeps on scanning for a tag continuously unless the Read button is pressed again.	**Read Mode** has been set to **Continuous**.	To change the way the stick reader scans for an EID tag, change the **Read Mode** to **Standard** or **Single**. In Standard mode, the stick reader begins scanning when the Read button is pressed. Scanning continues for the length of time set in the Read Time option (default is 3 seconds) or until a tag is read if this is sooner. If the Read button is held down continuously, the stick reader will continue to scan and therefore read multiple tags. 'Standard' is the recommended setting for general use. In Single mode, the stick reader behaves as it would in Standard mode, except that even if the Read button is held down, the stick reader won't continue scanning after it reads the first tag. To scan for another tag, the Read button must be released and pressed again. To change the Read Mode, see *Modifying the stick reader settings* on page 4.
The stick reader only scans one tag, even though I hold the Read button down continuously.	**Read Mode** has been set to **Single**.	In Single mode, the stick reader will only read the first scanned tag, even if the Read button is held down continuously. To scan for another tag, the Read button must be released and pressed again. To change the way the stick reader scans for an EID tag, change the **Read Mode** to **Standard** or **Continuous**. In Standard mode, the stick reader begins scanning when the Read button is pressed. Scanning continues for the length of time set in the Read Time option (default is 3 seconds) or until a tag is read if this is sooner. If the Read button is held down continuously, the stick reader will continue to scan. In Continuous mode, the stick reader begins scanning when the Read button is pressed and it only stops when the Read button is pressed again. To change the Read Mode, see *Modifying the stick reader settings* on page 4.
The stick reader doesn't beep when a tag is scanned or the stick reader is switched on etc.	The **Beeper** setting has been disabled.	Enable the **Beeper** setting. See *Data Link XRS Configuration Reference* on page 16 (User Interface tab, Beeper setting).
The stick reader isn't vibrating when I scan a tag etc.	The **Vibrator** setting has been disabled.	Enable the **Vibrator** setting. See *Data Link XRS Configuration Reference* on page 16 (User Interface tab, Vibrator setting).
The stick reader will not connect to the indicator.	Depends on the type of connection – serial cable or *Bluetooth* wireless.	Refer to the Technical Bulletin *"XRS Connections"*, available at www.tru-test.com.
The stick reader will not connect to the PC.	Depends on the type of connection – serial cable or *Bluetooth* wireless.	Refer to the Technical Bulletin *"XRS Connections"*, available at www.tru-test.com.
Data Link does not 'see' the stick reader.	The stick reader must be connected to the PC and switched on <u>before</u> Data Link is launched.	1 Ensure that the stick reader is connected to the PC properly (see *Using the Data* Link on page 3). 2 Turn on the stick reader. 3 Launch Data Link.
The *Bluetooth* wireless connection between the stick reader and the indicator keeps dropping out.	The signal strength or link quality may be poor.	Refer to the Technical Bulletin *"XRS Connections"*, available at www.tru-test.com.
Reduced read range or responsiveness.	Another EID reader (especially a panel reader) may be in the vicinity. An electrical device e.g. PC Monitor, variable speed drive (as used in a dairy shed), may be causing interference.	Turn off the other EID reader or electrical device or use the stick reader in an area well away from the device causing interference.
The LCD looks washed out.	This can be caused by extreme temperatures.	Adjust the **CONTRAST** or the **BACKLIGHT** in the stick reader settings, see *Modifying the stick reader settings* on page 4.

Symptom	Cause	Solution
Battery goes flat too soon.	At temperatures below 5 °C or above 40 °C, the battery may appear to be charging, but can't actually accept much charge at those temperatures.	Always charge the battery at temperatures between 5 °C and 40 °C.
	The displayed battery charge level is only accurate five minutes after being disconnected from the power supply.	Wait for five minutes before gauging the battery charge level.
	Lithium Ion batteries naturally lose some of their capacity each year depending on the temperature and battery state, and eventually need to be replaced.	Loss of capacity can be minimised by storing the stick reader in a cool place, and with the battery only half full. It is better to recharge the battery before use rather than after use. Replace battery, if required (Tru-Test part number 813295).
Tag not reading at all.	There are two or more EID tags in the read zone.	During scanning, position the stick reader or adjust the scanning setup area so that only one tag at a time is in the read zone.
	EID tag is not ISO11784/ISO11785 compliant HDX or FDX.	Contact the supplier of the EID tags.
	EID tag is faulty or not programmed by the manufacturer.	
VIDs not displaying, even though a cross reference file has been transferred to the stick reader.	The format of the cross reference file may not be correct.	Check the formatting rules for a cross reference file. See *Transferring a cross reference file to the stick reader using Data Link* on page 8.
Alerts not working, even though an alerts file has been transferred to the stick reader.	The format of the alerts file may not be correct.	Check the formatting rules for an alerts file. See *Transferring an alerts file to the stick reader using Data Link* on page 12.
Stick reader displaying "Animal not on list!!!" when a tag is scanned.	The stick reader has been set to send an alert for any animals <u>not</u> included in the alerts file.	Change the setting for **Alert if Animal** to **In Alert List**. See *Data Link XRS Configuration Reference* on page 16 (Data tab, Alert if animal setting).
Scanning records being over-written.	Stick reader memory is full.	When the stick reader's memory is full (20,000 scan capacity), the stick reader will begin to overwrite the oldest scan records. Transfer sessions to a PC using Data Link. See *Transferring sessions from the stick reader using Data Link* on page 9. Clear unwanted session data from the stick reader. See *Clearing information off the stick reader using Data Link* on page 14.

Caring for the stick reader

Wipe the stick reader clean using a damp cloth, warm water and soap. Other cleaners may damage the case. Do not immerse the stick reader in water.

Store the stick reader in a cool, dry place.

Fit the dust cap when there are no cables connected to the stick reader. This will prevent moisture and dirt from entering the socket.

Service and warranty information

For service and warranty information, see www.tru-test.com.

Specifications

Size	651 x 65 x 51 mm (25½ x 2½ x 2") (L x H x W)
Weight	706 g, including battery
Communications	*Bluetooth*® Class 1 wireless connection, up to 100 m (330') range. RS232 9600-115200 bps, Xon/Xoff
Operating temperature	-10 to +50 °C (+14 to +122 °F).
Storage temperature	-20 to +35 °C (-4 to +95 °F).
Battery charging temperature	+5 to +40 °C (+41 to +104 °F).
Read distance	HDX up to 330 mm (13"), FDX up to 350 mm (14").
Read rate	Up to 1000 reads per minute.
Memory capacity	Up to 20,000 scanned records Up to 10,000 alerts Up to 20,000 EID-VID pairs
Tag compatibility	Reads ISO HDX and ISO FDX-B
Ingress protection	IP67 (immersion in 1 m (3') of water for 30 minutes).
Battery life	19 hours – Read Mode = Standard or Single 9.5 hours – Read Mode = Continuous
Battery	7.4 V, 1500 mAh Lithium Ion
Charging time	3 hours
Software	Tru-Test Data Link

Compliance

FCC notice

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.

FCC warning

Note: Users are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Industry Canada notice

This radio transmitter, model XRS-2, has been approved by Industry Canada to operate only with its integral antenna.

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

(1) this device may not cause interference, and

(2) this device must accept any interference, including interference that may cause undesired operation of the device.

EC declaration of conformity

CE   Tru-Test Limited hereby declares that this EID Reader is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. The declaration of conformity may be consulted at http://livestock.tru-test.com/compliance.

Index