Stick Reader

SDL 440S

USER MANUAL

Links to mobile apps, printers and weighers.

Version 27.09.2019   Copyright © 2019 Shearwell Data Ltd

Getting started

The SDL440S stick reader comes complete with everything you need to get started.
- SDL stick reader
- Battery pack and four rechargeable AA batteries
- Mains battery charger
- Car adapter for battery charger

The stick reader comes with four AA rechargeable batteries. Standard AA batteries can also be used.

Shearwell label

LCD screen

Battery pack

Green button

Handle

End cap for battery access

Turn the stick reader on and off
Press and release the green button once. The LCD screen will light up and display the start-up screen (version number and the battery level).

Turn off the stick reader by pressing and holding the green button for at least two seconds until the LCD screen shuts off. If the stick reader is left idle for five minutes it will turn itself off to conserve battery power.   Shutdown time can be changed on the computer with **SDL Connect > Stick Configuration**

Warning: The Shearwell label above the display should NOT be removed! The serial number, product codes and Bluetooth address are printed on the back. Removal of the label will void any warranty.

Battery information

Inserting batteries
Note: You will not lose your data when you remove the battery pack.

1. Open the stick reader by unscrewing the end of the red or blue handle. Use the white loop to pull out the battery pack.
2. Insert the batteries into the holder ensuring the positive and negative markings (+ / -) on the batteries match up with the (+ / -) on the holder.
3. Insert the battery pack with the green arrow and green circle facing the same direction as the green button on the reader. Ensure that the battery pack is aligned with the grooves inside the stick reader.
4. Replace the end of the reader by screwing the cap on. *Warning: Do not over-tighten the battery cap as this could damage the thread.*

Check the battery level

The battery level indicator shows very briefly on the start-up screen when the stick reader is turned on. To check the level of the batteries when the stick reader is turned on, first turn it off, then turn it back on to see the start-up screen.

The stick reader should operate for at least eight hours on a fully charged set of batteries. For the first several hours the battery indicator will show *Good*. When the battery indicator first shows *Low* you should still have one or two hours of use left, but should plan to recharge or replace the batteries soon. A sign the batteries are getting low is the stick reader is unable to maintain a Bluetooth link to a printer or weigher. When the indicator shows *Empty* the batteries should be recharged or replaced immediately.

Charging the batteries

```
Shearwell Version        Shearwell Version        Shearwell Version
  Battery Good             Battery Low              Battery Empty
```

Use the supplied battery charger to recharge the batteries. The mains and car adapter for charging the stick reader batteries are labelled "Battery Charger". Place the batteries in the charger, ensuring that the positive and negative markings (+ / -) on the batteries match up with the (+ / -) on the charger. Charging the supplied batteries from flat to full should take about four hours.

The mains and car adapter for charging the printer are labelled "Printer Charger". Be careful not to confuse the battery charger and printer charger leads because you could damage them by using the wrong adapter! Turn on the stick reader. Press and release the green button once. You don't need to hold the button

> **WARNING:** *If you are using a Bluetooth printer with a stick reader be sure to use the correct adapter for each when re-charging. Shearwell Data Ltd. will not be liable for damage caused by failure to use the correct charger.*

down. The stick reader will begin to scan for an EID. For information on Rapid Read mode see page 7.

EID found

```
 Press to read...
 Grp=A Count=0
```

If an EID is within range the light ring at the end of the stick reader will flash green and a short 'beep' will be heard. The EID number will show on the LCD screen and be stored in the memory. The group count will be increased by one. The stick reader is ready to scan for another EID - press the green button once to start scanning again.

EID not found

```
 UK0123456 08863
 Grp=A Count=1
```

If the stick reader scans but no EID is found the screen will display *No EID found*. The light ring will glow red and a different long 'beep' will signal a failed read.

EID already stored in memory

```
 No EID found
 Grp=A Count=0
```

If the same EID tag is read more than once, the screen will briefly display the message *Already saved*. The light ring will flash red and a short beep will indicate that this number is already stored in memory for this group. The second 'read' is not stored and the count is not increased.

If the same EID tag is scanned in a <u>different</u> group the stick reader will treat it as a new number and record it as an EID found.

Note: This information is for individual reading, not Rapid Read mode. Learn about Rapid Read

```
 UK0123456 08863
 Already saved...
```

```
 UK0123456 08863
 Grp=B Count=3
```

mode in the Menu Option section on page 6.

Menu options

The menu is a list of options for changing the way the stick reader functions. The menu is only accessible when the stick reader is turned on.

1. Turn off the stick reader by holding down the green button.
2. With the stick reader off, press and hold down the green button. Continue holding down the green button to view all the menu options.
3. Release the green button to make a selection.
4. To exit the menu without making changes and return to scanning, wait for the *Cancel* option and release the green button.

Menu options

Your own stick reader may not have every option listed here.

> **New group?**

New group
Animals are always recorded into a group. The default group is "A" but you can create different groups beyond that, named in alphabetical order. However, only one group is active at a time, so once you create a new group you can not go back to a previous group unless you erase your latest group by using the *Erase last grp* option from the menu.

> **Print** options are available if the stick reader is linked to a Bluetooth printer. See page 9.

> **Erase last group?**   **Are you sure?**
>   **Press to erase**

Erase last group
When a grouping of animals is no longer wanted, erase the group and all the EID numbers stored inside it will be deleted. This will result in the previous group becoming the active group.

Select *Erase last grp* from the menu. Confirm by pushing the green button again before the end of the countdown. If you do not push the green button before the end of the countdown the action will be canceled.

> **Erase all tags?**   **Are you sure?**
>   **Press to erase**

Erase all tags
This function deletes all the EID numbers stored in memory. The stick reader software can store thousands of EID numbers but the more tag numbers in storage, the slower the process of scanning and saving each tag. Once you have exported or printed tag numbers it's advisable to delete them. Erasing all tags also allows animals to be re-scanned and their EID number saved again.

Select *Erase all tags* from the menu. Confirm by pushing the green button again before the end of the countdown. If you do not push the green button before the end of the countdown the action will be canceled.

Menu options

Disable memory?   **Memory disabled**
Press to read...

Disable memory

Disabling the memory allows tags to be scanned and the number displayed but the EID is not stored.

Select *Disable memory* from the menu. To re-enable memory after disabling it, select the *Enable memory* option from the menu.

Rapid read on?   **Rapid read off?**

Rapid Read mode

When set to *Rapid Read* there is no need to press the green button for every animal - the stick reader will be constantly scanning for tags. The stick reader will look for new tags continuously for up to 12 seconds. If no tags are detected in that 12 seconds, the stick reader gives a long beep, stops scanning and goes on standby to conserve battery power. Press the green button again to start scanning again.

Select *Rapid read on* from the menu to change from *Press to Read* to *Rapid Read*. Press and release the green button once and the stick reader will be constantly scanning for tags. Press the green button a second time to stop scanning. To disable rapid read mode and return to individual read, select *Rapid read off* from the menu. Note that the stick reader remembers the last mode selected when it was turned off and will start in that mode when next turned on.

Cancel?

Cancel

This option will close the menu without any changes to the settings.

Link to weigher?

Link to weigher

This option is available if the stick reader is configured to link to a Bluetooth weigh head. See page 22.

Print options are only visible if the stick reader is linked to a Bluetooth printer. See page 9.
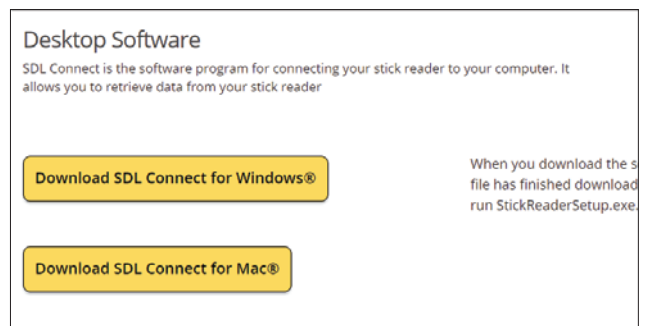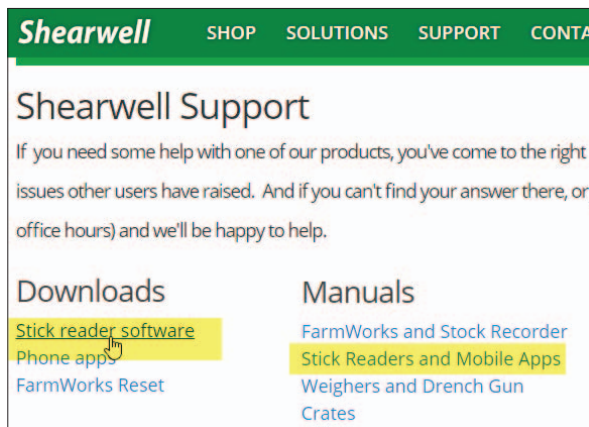
SDL Connect

SDL Connect is the software program for connecting your Shearwell stick reader to your computer. Install this software on your computer from the Shearwell Data website before you start scanning tags. Changing configurations and keeping the date and time correct are all done through the computer software.

Download from the Shearwell data website
1. Go to the Shearwell Data website - www.shearwell.co.uk
2. Click on the top tab called **Support**.

3. Then look to the left side of the screen for **Downloads**. Click on **Stick reader software**
4. Find the link to download the right user manual for your stick reader. Click on the link to download the manual to your computer desktop.
5. Find the link to download software for Windows or a Mac computer. Click to download **SDL Connect** for your computer.

6. Save the program in your Downloads folder on your computer.
7. When the download is finished, double-click the link on the bottom of the screen called SDLConnect-Setup.exe. If you do not see the link, go to your Downloads folder and find SDLConnectSetup.exe.
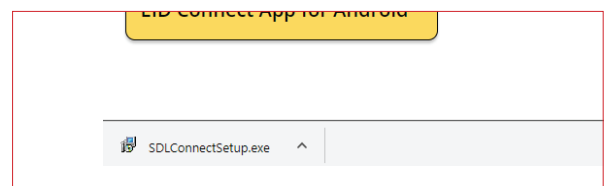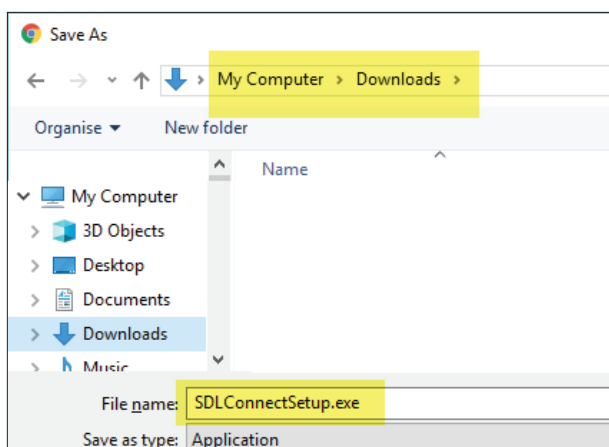
SDL Connect

1. Click Yes to allow the program to make changes to your computer.
2. Select the language for the installation process. This will NOT change the language in the SDL Connect program - only the language used for the setup procedure.
3. On the Ready to Install screen, click on Install.
4. Click Finish to exit the setup program.
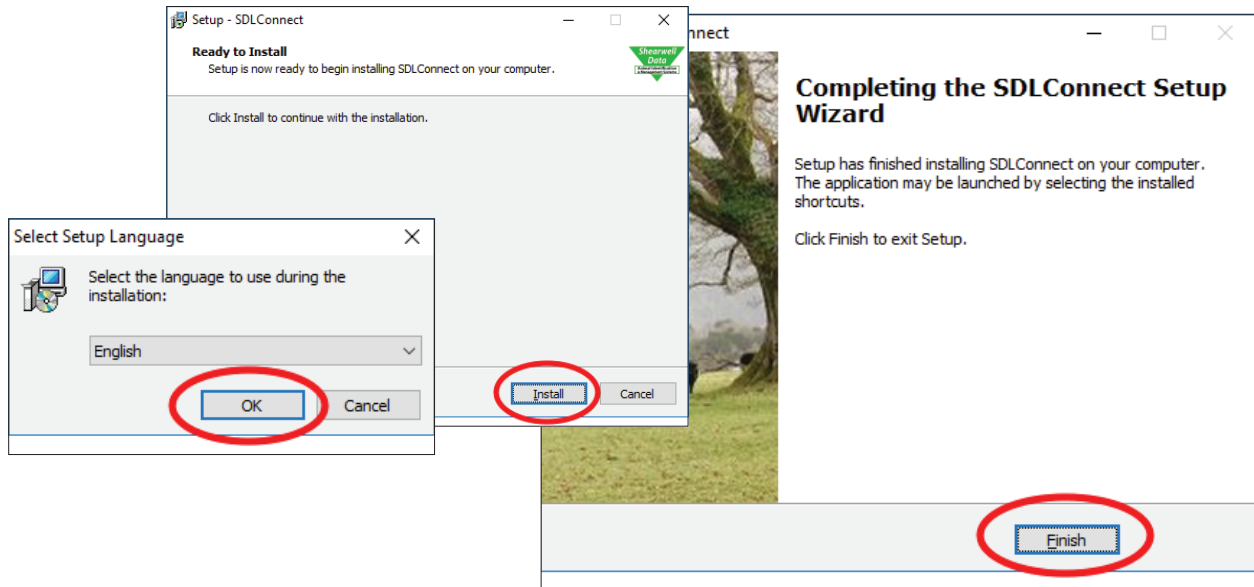
An SDL Connect shortcut is now on your computer desktop as a link to open the program. Consult the SDL Connect user manual for help connecting your stick reader by Bluetooth to your computer for downloading tag numbers or changing the configuration.

Link to a mobile printer

The stick reader is fully compatible with a thermal Bluetooth printer. The mobile printer recommended and supplied by Shearwell is an Able Systems AP1300BT.

Cover

Release catch for cover

Power button

Indicator light

Printer on and off
Press the power button once to turn the printer on. The printer turns itself off automatically if it has not been used for a few minutes. You can turn the printer off manually by opening the cover and double-clicking the power button.

Battery charging
The battery can be recharged using either the mains charger or the car charger supplied. Charging the printer battery from flat to full should take about three hours.

Indicator light
Steady green = Normal operation
Long green, short red = Battery is low
Short green, long orange = Battery charging
Blinking red = Error

*WARNING: Use the correct adapter for charging the printer. Do not confuse the stick reader battery chargers with the printer chargers. The mains and car charger for the printer are labelled **Printer Charger.***

Paper roll installation
To insert a new roll of paper, slide the catch down and away from the paper slot.
The cover for the paper container will release and open. Remove the
old paper core and insert a new roll of paper.

Link to a mobile printer

Printer and stick reader combination

When a stick reader and printer are purchased as a bundle they will come from Shearwell with the Bluetooth link already established. A label on the underside of the printer confirms your stick reader is linked. Print options will not be displayed on your stick reader's menu if it is not linked to a printer.


New connections

To establish a new printer link, or if you wish to link an existing printer to an alternative stick reader, you must have already completed the earlier steps for installing **SDL Connect** software on your computer. (See page 7.) Once the stick reader is linked to **SDL Connect** on the computer, a new connection to the printer is made through the *Configure Stick* screen in SDL Connect.

1. Turn on the stick reader.
2. Open the SDL Connect software. Click on *Configure Stick*.
3. For a Windows computer, scroll down to find the *Printer Type* field. Select AP1300BT.
4. For a Mac computer, click *Configure stick > Peripherals*

5. Turn on the printer by pressing the power button. The indicator light will glow green.
6. Press and release the power button twice, in quick succession. This will cause the printer to print out a test strip.
7. On the test strip, find the MAC Address. This 12 character code is the printer's Bluetooth ID.
8. On the *Configure Stick* screen on the PC (or *Peripherals* screen on a Mac) find the field *Printer Bluetooth ID* and type in the MAC Address from the test strip.
9. Click *Save Configuration*. The blue light on the stick reader will flash as the two connect.
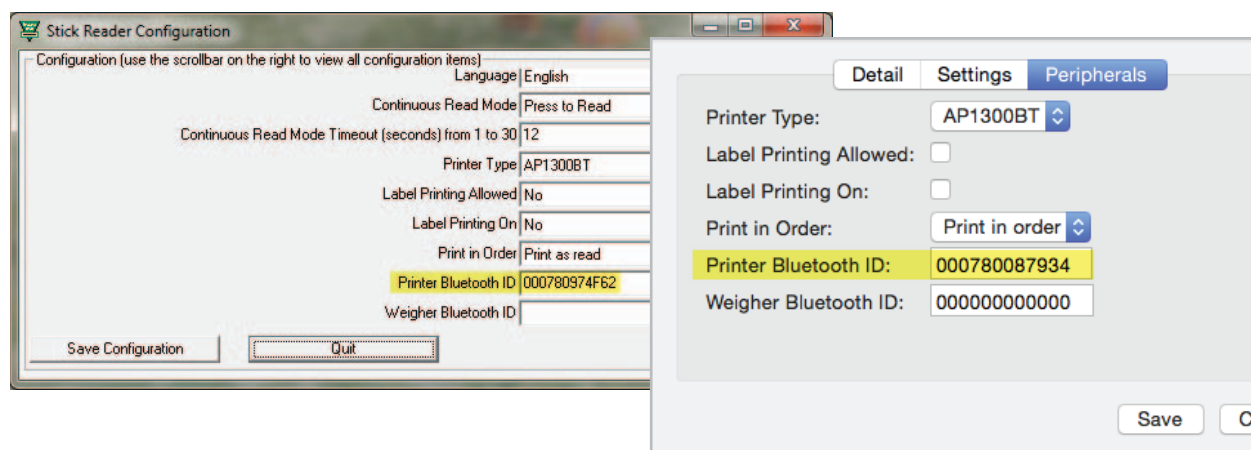
Configure printer options - Windows

The **Configure Stick** window on your Windows computer software includes many of the same options as the menu on the stick reader. To save your changes click on **Save Configuration**. To cancel and exit click on **Quit**.
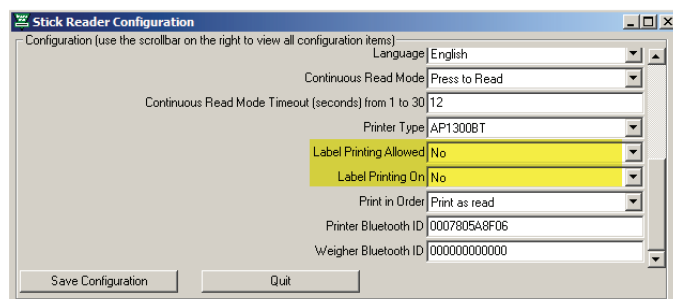
Label Printing Allowed

The **Print label** menu option is only available on the stick reader when the **Configure Stick** option is set to **Yes**.

Label printing is a specialized function so the default is set to **No**.

Label Printer On

If Label Printing is allowed, then the actual label printing function can be turned on or off by selecting **Yes** or **No**. This option activates the Bluetooth printer after each animal is scanned - a label of each EID number is printed after each tag is read.
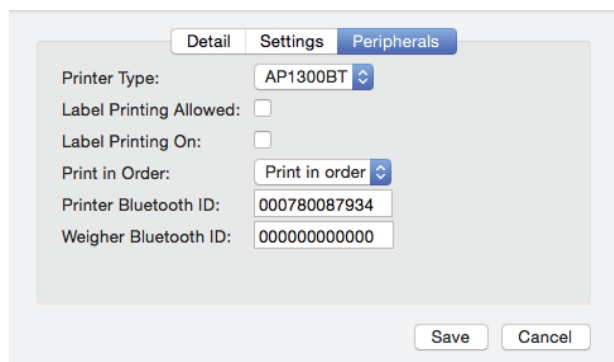
Print in Order

EID numbers will be printed in numerical order.

Please note: Printing will be slower when this is selected.

Please note: **Print Order** does not work if the EID display option is set to **Tag Lookup**.

Configure printer options - Mac

The **Configure Stick** window on your Mac computer software includes many of the same options as the menu on the stick reader. To save your changes click on **Save**. To cancel and exit click on **Cancel**.

Peripherals

Printer Type
The default setting is AP1300BT. This is the mobile Bluetooth printer supplied by Shearwell.

Label Printer Allowed
Label printing is a specialized function so the default setting is unticked.

Label Printer On
If Label Printing is allowed, then the actual label printing function can be turned on or off by selecting **Yes** or **No**. This option activates the Bluetooth printer after each animal is scanned - a label of each EID number is printed after each tag is read.

Print in Order
EID numbers can be printed in numerical order or in the order the tags were read.
Note: Printing will be slower when **Print in order** is selected.
Note: **Print in order** does not work if the EID display option is set to **Tag Lookup**.

Printer Bluetooth ID
This is the MAC address of the Bluetooth printer you want to link to your stick reader. See page 10 for how to find your printer's Mac address.

Print options on the stick reader

A stick reader linked to a mobile printer will display print options on the stick menu. The format of the EID numbers depends on the settings you choose on the *Configure Stick* program on the computer.

1. Turn on the printer and make sure there is sufficient paper loaded.
2. Turn on the stick reader by pressing and holding the green button to see all the menu options.
3. Release the button to make a selection from the menu.

Print order on?

Print order on
EID numbers are printed in numerical order. To change back to print EID numbers in the order they were read select *Print order off*.

Print group?

Print Group
This prints all the EID numbers in the current group.

Print all groups?

Print all groups
This prints all the EID numbers divided into groups.
No print out will be produced if Group A = 0 animals.

Print barcodes?

Print barcode
EIDs are shown as both numbers and barcodes.

Print label?

Print labels
This option is only available when the stick reader is configured *Label Printing Allowed*. After each animal is scanned the printer prints the EID number and the matching barcode. If the EID Format is set to Tag Lookup then that number will appear underneath the barcode.

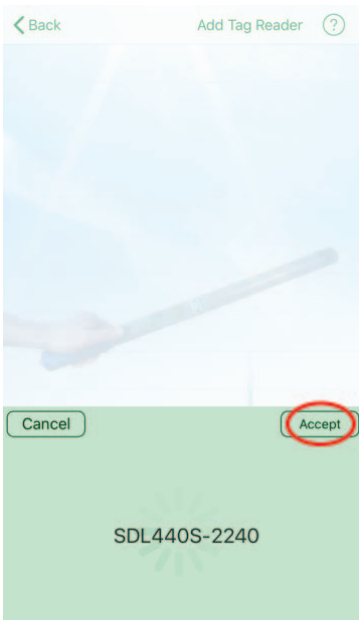# Link to StockMove *Express* for iPhone

1. Power on the stick reader you want to link. Open Stock Move Express on your phone.
2. From the home screen of Stock Move Express, touch the Settings icon.
3. Select **Tag Readers**
4. Touch **Add Tag Reader**.
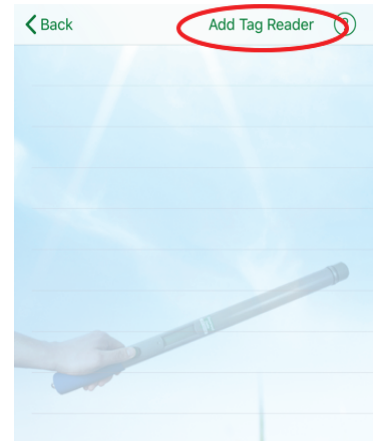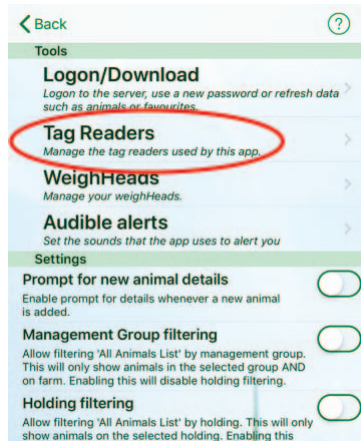
5. The app will now scan for all Bluetooth devices in range.
6. On the back of the stick reader, look for a label with the Bluetooth name. It will start with SDL440S- followed by some digits. For example: SDL440S-1234

7. Once the scan is complete, you will see the stick reader's Bluetooth name. Select it and press **Accept**.
8. The phone will show that it is connected to the reader and the stick reader's blue light will also shine.
9. From now on, the phone will try to automatically connect to this reader whenever you are on a screen which can accept tag reads. Look on the top of the screen for the icon that shows when the stick is connected.
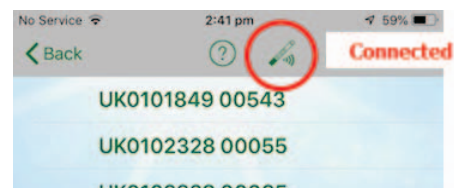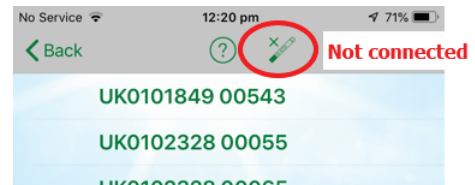
Link to StockMove *Express* for iPhone

Use the *StockMove Express* Help Guide

Touch the help icon at the top right-hand corner of any page to open a help screen.

Use the online help on NLMD-LT

Go to *www.nlmd-lt.co.uk*
Click on *Getting Started*

Setting Up
- Import Existing Animals
- Send Cattle Birth, Movements and Deaths to BCMS
- Send Sheep Movements to ARAMS (sheep movement database for England)
- Send Sheep Movements, Tag Applications and Deaths to ScotEID
- Add Holdings To Your Account
- Change Your Account Details
- Change Your Password

Recording
- Move Animals
- Births / Tag Applications
- On Farm Deaths
- Tag Replacement
- Administer Medicines to Animals
- Administer Treatment Procedures
- Purchase or Dispose a Medicine
- Record Comments

Link to StockMove *Express* for Android

Phone Requirements

Stock Move Express for Android requires a smart phone or tablet running Google's Android operating system. The phone or tablet must have Bluetooth and will need Internet access via mobile data or WiFi.

Download StockMove Express

1. Touch the Google Play Store icon on the home page on your mobile phone or tablet. New users to the Play Store may be required to set up a Google account.
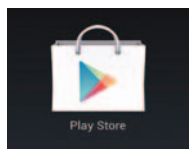
2. In the search box at the top, search for 'shearwell stock move'
3. Select *StockMove Express* in the search result, then press **Install.**

Register with NLMD-LT

You must have an NLMD account to use StockMove Express.

1. Open *StockMove Express*. Register as a new user or log in if you already have an account.

2. You can also register online at *www.nlmd-lt.co.uk*
3. Remember your user name and password - you will need them to log into *StockMove Express*

Connect to your stick reader

1. Turn on your stick reader.
2. Open *StockMove Express*. Touch *Settings*.

3. Touch *Connect to Reader*.
4. Touch *Scan for Devices* to find the Bluetooth signal from your stick reader.
5. Touch your stick reader Bluetooth number (ex. SDL400-XXXX). See page 14 of this manual for help finding the Bluetooth number.
6. Type in passcode *1111.* Touch *OK.* You are ready to scan tags.
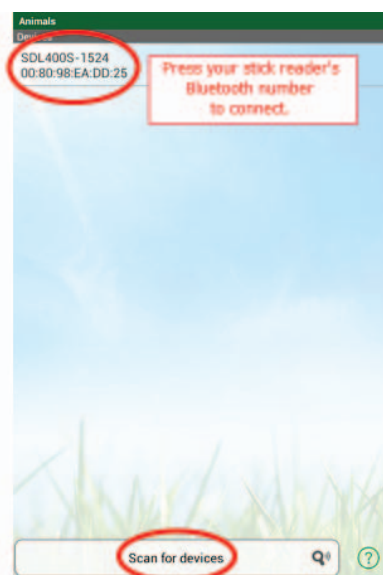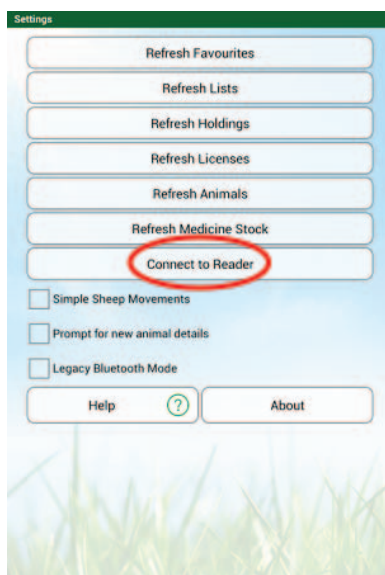
Link to StockMove *Express* for Android

Use the *StockMove Express* Help Guide

Touch the help icon at the top right-hand corner of any page to open a help screen.

Use the online help on NLMD-LT

Go to *www.nlmd-lt.co.uk*
Click on *Getting Started*

Setting Up
- Import Existing Animals
- Send Cattle Birth, Movements and Deaths to BCMS
- Send Sheep Movements to ARAMS (sheep movement database for England)
- Send Sheep Movements, Tag Applications and Deaths to ScotEID
- Add Holdings To Your Account
- Change Your Account Details
- Change Your Password

Recording
- Move Animals
- Births / Tag Applications
- On Farm Deaths
- Tag Replacement
- Administer Medicines to Animals
- Administer Treatment Procedures
- Purchase or Dispose a Medicine
- Record Comments

Link to FarmWorks Mobile for Android

1. Turn on your stick reader. Look on the label for its Bluetooth number. (Example: SDL400S 1234)
2. Open *FarmWorks Mobile*. Touch either the cow or the sheep icon.
3. Touch *Statutory*. Select a *Movement* (Example: Private sale)
4. Touch *Add Animals*. Touch *Connect* at the top of the screen.
5. Touch *Scan for Devices* to find the Bluetooth signal from your stick reader.
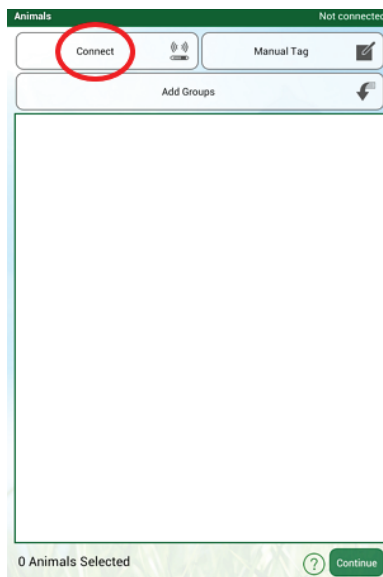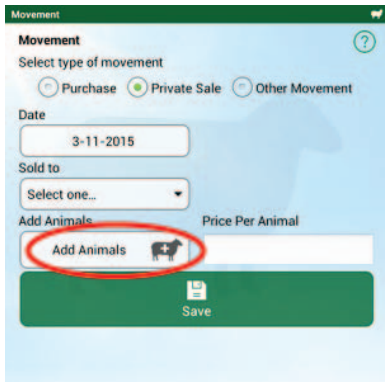
6. Find your stick reader's Bluetooth number in the list and press on it.
7. For a new connection you will be prompted to enter the pairing PIN.
8. Enter the PIN '1111' and tap *OK*.
9. Look for the tick and the stick reader icon in the top left of the screen. It will say *Connected* and the stick reader will display a blue light when there is an active connection. The stick reader number will be shown on the top right of the screen.
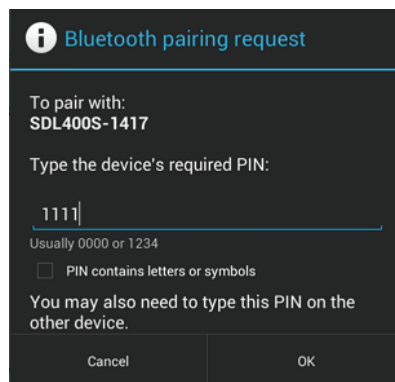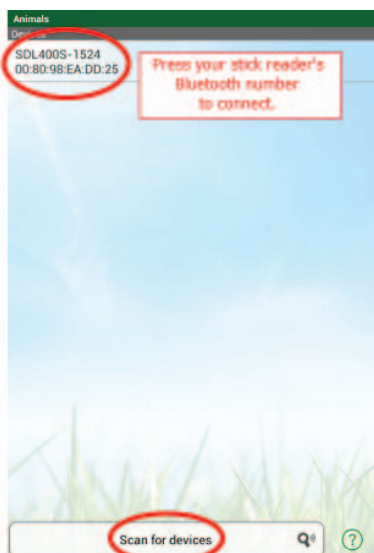
Link to EID Connect

EID Connect is a free download for your Android or Apple device. Go to the Google Playstore® (Android) or the App Store® (Apple) and search for "Shearwell".

Help is available inside **EID Connect** by touching the menu icon and selecting *About*.

Get ready

» Look on the back of your stick reader for a label with its Bluetooth name - it will start SDL440S, followed by another four digits. For example: SDL440S 1234
» Turn on your stick reader.
» On your mobile device open **EID Connect** by touching the stick reader icon.
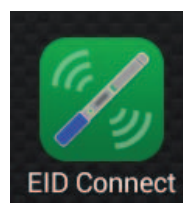
Connect to the stick reader the first time

» Touch the green *Connect* button. The device will start scanning for the Bluetooth signal from your stick reader.
» Find and press the stick reader's name on the Bluetooth devices screen.
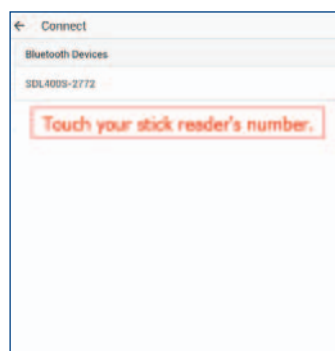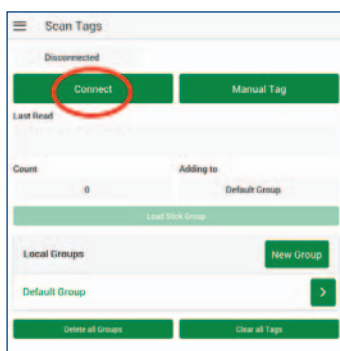
» If you are asked for a pairing PIN enter 1111 and press *OK*.
» The blue light on the stick reader will glow and your stick reader name will be displayed when a Bluetooth connection is made. Now you can start scanning tags or downloading tags that are already saved on your stick reader.
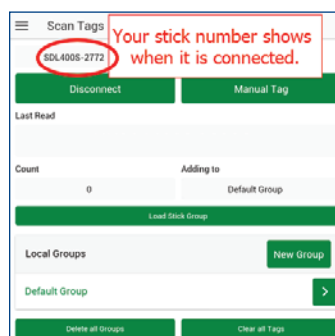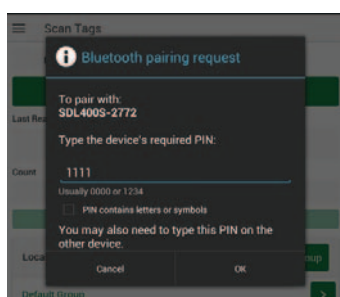
Link to EID Connect

Scan tags into a group

You can create new groups on the app, which are called **Local Groups**. Local Groups can be named anything you want. Groups of tag numbers that are saved on the stick reader are called **Stick Groups**. Stick Groups are named A, B, C, etc.

To add animals to a group on the app:

» Touch **Connect** to connect your stick reader.

» Select an existing group from the list or touch **New Group**. Type in a name for the group and touch **OK**. ("Default Group" is the name given to a group if you do not enter another name.)

» Scan a tag to add each animal to the group. The last number read and the count are displayed.
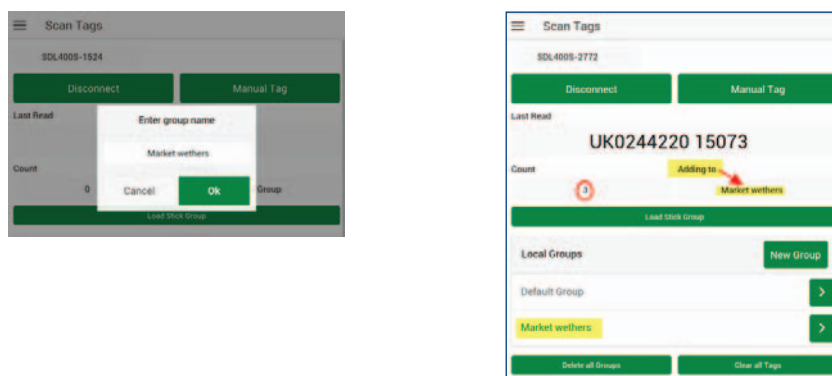

Download tag numbers stored on the stick reader

» If you have already scanned tags into a group saved on the stick reader then touch **Load Stick Group**.

» Use the dropdown list to select a Local Group to download tags into.

» All the groups saved on the stick reader will be displayed at the top of the screen. Select a group then touch **Load**. The tag numbers in that stick group will be added to your app group.
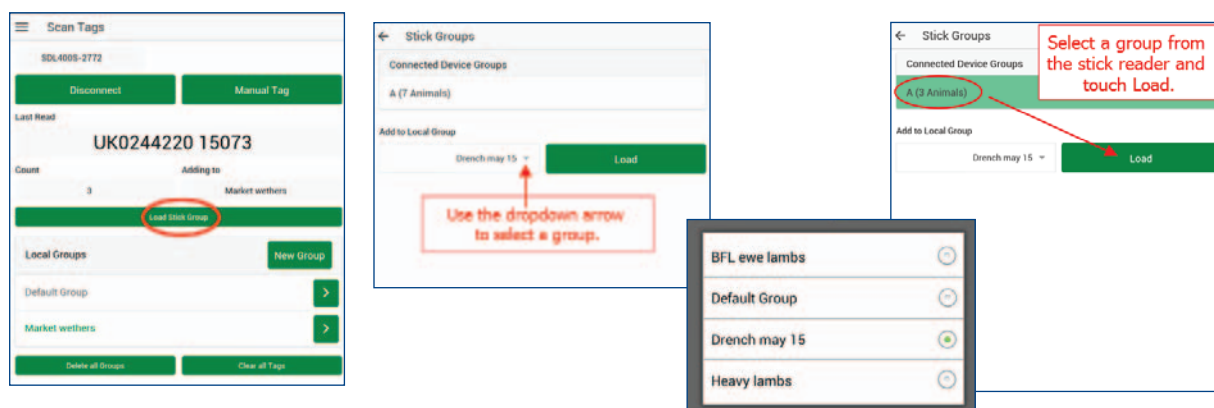
Export Data

You can send tag numbers by email, Bluetooth or other means, depending on what programs you have installed on your device.

» Touch the menu icon.

» Touch **Export Data**. Choose a method for sending a file to another device or computer. A csv file with all your groups will be sent to the recipient.
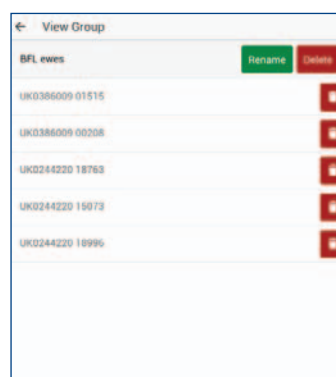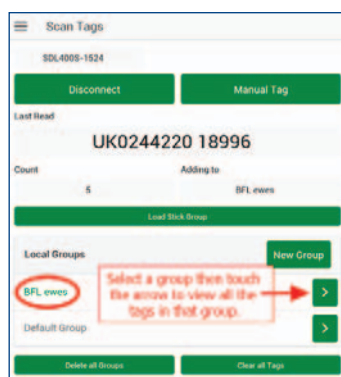

20
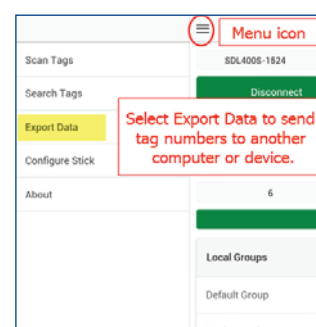
View tags

You can view all the tags in any group, with the option to delete one or more tags.
- » In the **Scan Tags** screen select the group you wish to view.
- » Touch the arrow to view the tags.
- » Touch the rubbish bin icon to delete a tag from the group.
- » Change the name of the group by touching **Rename** and entering a new name.

Search for a tag

Find a tag that is in a group on the app (Local Group).
- » Touch the menu icon.
- » Touch **Search Tags**.
- » Scan a tag or type the number in as Manual Tag (you must enter the entire number exactly as it is printed on the tag, including the space).
- » The groups that contain that tag number will be displayed. Then touch the arrow to **View Group** if you wish to delete that tag from the group.
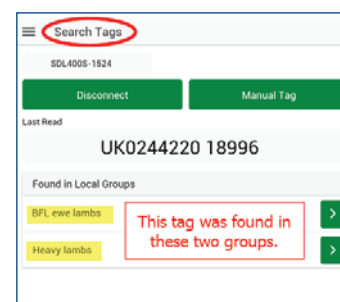
Configure the stick reader

Some stick reader settings can be changed here.
- » Turn on your stick reader. Connect to your app.
- » Touch the menu icon.
- » Touch **Configure Stick**.
- » **Auto Connect on Startup** means the app will try to connect to your stick reader automatically whenever the stick reader is turned on.
- » **Continuous Read Mode** means the stick is constantly scanning for tags without you having to push the scan button.
- » Changing the **Display Format** and **Output Forma**t might be necessary if you are linking your stick reader to another device (such as a weigher) that needs the tag number in a certain format.
- » For more information on configurations see your SDL Connect manual.

Link to a weigher - EziWeigh7I

The SDL440S stick reader can be linked to a weigher that has Bluetooth. Devices with Bluetooth will have the Bluetooth symbol on the front.

The first step to link your stick reader to an EziWeigh7I is to find the Bluetooth ID of the weigher.

1. Push the power button to turn on the weigher.
2. Push the *Menu* button.
3. Use the bottom arrow to scroll down through the functions to *Setups...*

4. Push *Enter*. Use the bottom arrow to scroll down through the functions to BT Address
5. Write down the BT address on a piece of paper, leaving out the colons. The example in the photo above would be BT Address 00A0963D2FA3.
6. Press the *Escape* button twice to exit.

Link to a weigher - EziWeigh7i

The second step to link your stick reader to an EziWeigh7I weigher is to change the configuration on your stick reader.

1. Make sure the Bluetooth adapter is plugged into a USB port on your computer (Windows).
2. Turn on the stick reader.
3. Click on the **SDL Connect** icon on your computer desktop. The blue light on the stick reader should flash as the Bluetooth connection is made.
4. Click on **Configure Stick**.
5. For a Windows computer, scroll down to find the **Weigher Bluetooth ID** field. Type in the Bluetooth ID number for your weigher.
6. For a Windows computer, scroll down to find the **Weigher Bluetooth ID** field. Type in the Bluetooth ID number for your weigher.
7. Click **Save Configuration** and **Quit**.
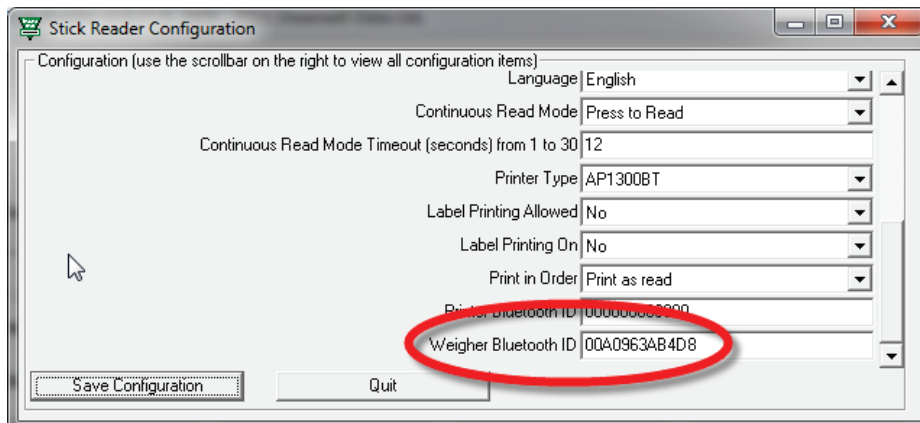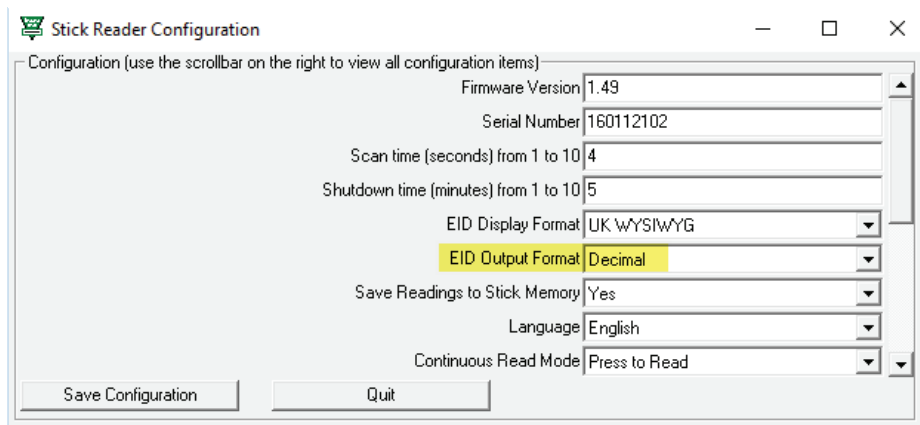
8. On a Mac computer, click on **Peripherals**.
9. Change the **EID Output Format** to **Decimal**.
10. Type in the Bluetooth ID number for your weigher in the **Weigher Bluetooth ID** field.
11. Click **Save**.
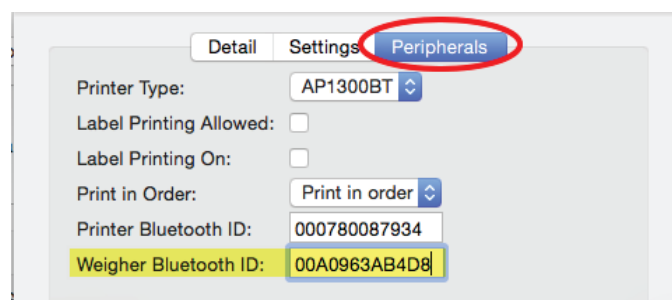
» Turn off your stick reader.
» Turn the stick reader back on, pressing and holding the green button to view the menu options.
» Release the button at *Link to weigher?* The blue light on the stick reader will glow when the Bluetooth connection is made.
» The stick reader and weigher are now linked - when a tag is scanned by the stick reader the EID number will be sent to the weigher and be displayed on the screen.

EID tag number

Contact us

For technical support telephone:	**+44 (0) 1643 841814**
You can email technical support at:	**support@shearwell.co.uk**
For general enquiries telephone:	**+44 (0) 1643 842100**
Fax:	**+44 (0) 1643 841628**
Alternatively visit our website at:	**www.shearwell.co.uk**

Lines are open from Monday to Friday between 8am - 5pm GMT.

Certification

FCC ID: YVSSDL400S

The SDL440S complies with parts15.207 and 15.209 of the FCC rules CFR47:2009. 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.

The SDL440S operates at a frequency of 134.2KHz and complies with part 15C emission requirements. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause harmful interference in which case the user will be required to correct the interference at his own expense.

IC: 8856A-SDL440S

The SDL440S also complies with Industry Canada RSS-210 issue 7. This SDL440S complies with Industry Canada licence-exempt RSS standard (s).

N29666