



Link-2 Field Service Utility Manual

Rev 1.3

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1. FSU Program Installation

The FSU program is designed to work with a CASWA LINK2 Bluetooth modem.

Ensure that your computer is switched on, connected to the internet and that the minimum required software versions are installed (see Appendix A: System Requirements). Ensure that the LINK-2 modem is installed and that the drivers have loaded.


More information on installing the LINK-2 modem can be found in the document Link-2 installation, which can be downloaded from <http://www.liftlog.com.au/literature.asp>.

1.1 Installing the FSU application

The latest Liftlog™ LINK-2 FSU software (Link-2_FSU) can be downloaded from <http://liftlog.com.au/updates.asp>.

You should check this location periodically for updates and information.

2. Launching the application

Double click on the FSU program icon: .

2.1 Connecting

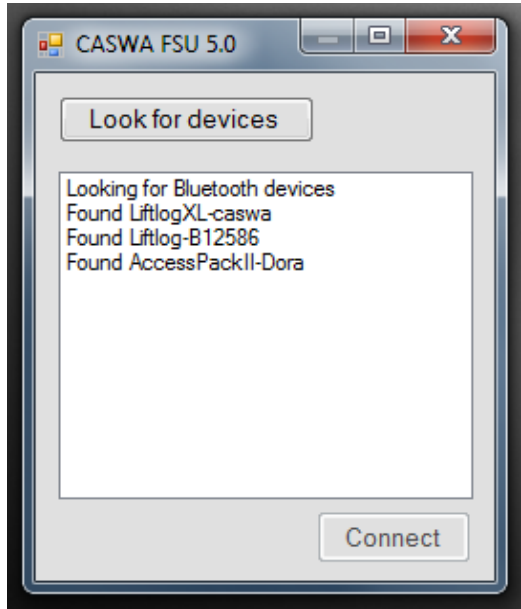
The FSU will scan for Bluetooth enabled devices. This process takes approximately 10 seconds, when complete a list of all CASWA devices within range will be displayed. If particular devices are not found, ensure they are powered up and press <Look for devices> to repeat the search.

NB: The Bluetooth link between PDA and a Liftlog™ logger or AccessPack has a range of approximately 200m.

Select the Logger or AccessPack you wish to connect to and press <Connect>.

Depending on the type of device selected, proceed the following sections of this manual for a description of how to configure or use your device:

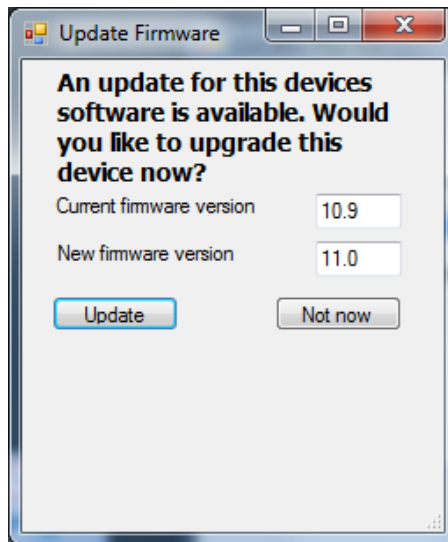
- Liftlog™ – Section 3
- AccessPack – Section 0
- LiftlogXL – Section 5.



3. Configuring a Liftlog™

3.1 Checking for Firmware

After you have selected your desired Liftlog™, a connection will be made and the software will check if the device has the current firmware. If a new firmware version is available the following window will pop up:



Press <Update> to update the Liftlog™ to the latest available firmware version (recommended). The new firmware will be installed on the device. **DO NOT switch off the computer or remove the LINK2 modem until this is complete – doing so may leave the Liftlog™ in an unrecoverable state.**

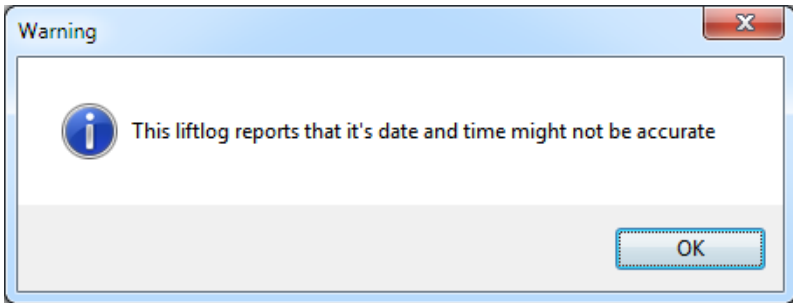
Alternatively, press <Not now> to update firmware at a later time.

NB: If you did not see this window, then your device already has the most current firmware.

3.2 Checking the Date and Time

After checking for firmware the FSU application verifies whether the AccessPack has the same date/time as your computer.

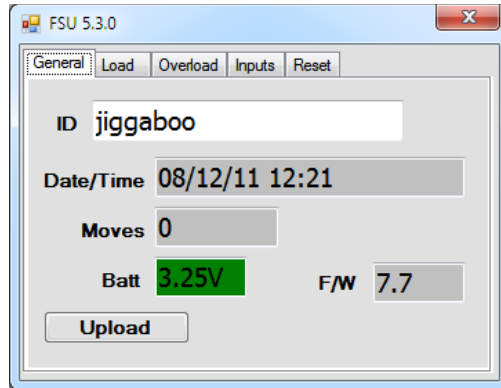
If the times are not the same, the following pop up window will display on the screen:



When you press the <OK> button, the Liftlog™ time will be set to be the same as the laptop/PC. So before doing this, you should ensure the laptop is set up with the correct time and date.

3.3 Liftlog™ Configuration Screen

Once firmware versions and date/time has been verified, the following screen will appear.

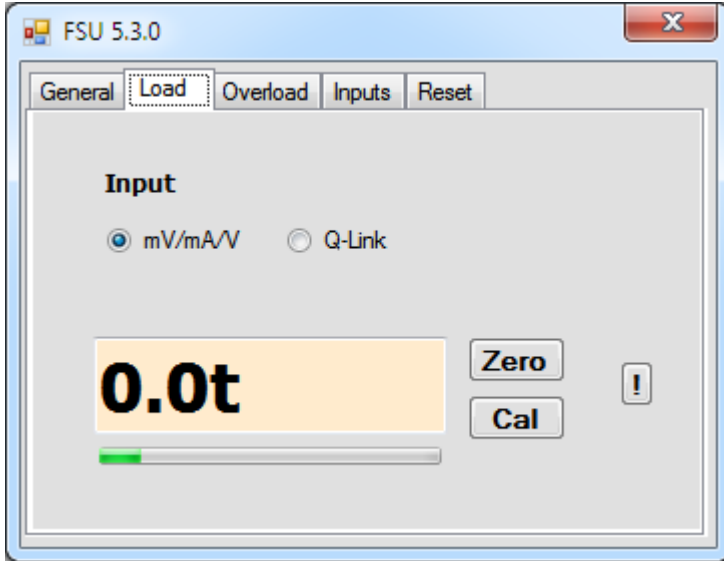


This screen shows the:

- Crane ID (see section 3.7 for configuring this)
- Current Date/time on the device
- Total number of moves (contact closures) undertaken by the crane since the logger was installed (or card last formatted)
- Available battery voltage
- Current firmware version operating on the device.

3.4 Calibrating the Liftlog™

Click on the Load tab to bring up the load settings screen.



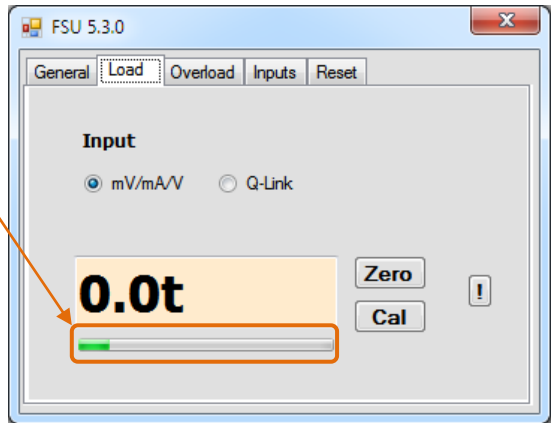
Setting the Input Type

Make sure that the Input is set to the type of Liftlog™ input. By default, the mV/mA/V input will be selected. This is applicable for Liftlog™ devices that have a strain gauge, 4-20mA and 0-10V DC input.

If you have a Q-Link Liftlog™ you will need to change this selection.

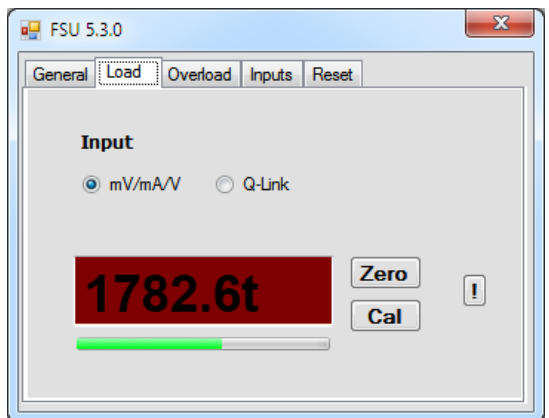
Checking the Gain

A bar underneath the load display indicates the signal strength.



It is important that the highlighted section of the bar moves to the right as load is increased and moves to the left as load is decreased.

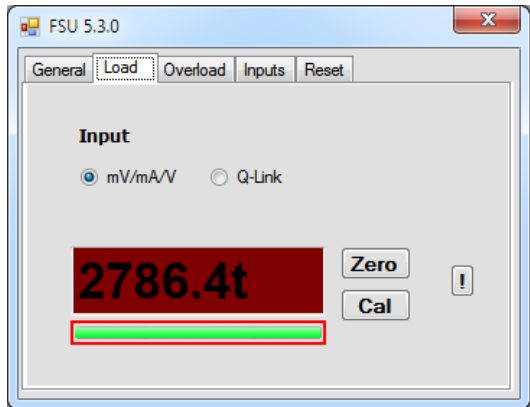
If the bar does not change at all, check your wiring from the load cell.



A small change in the bar across a wide range of loads (e.g. zero to full load) indicates that the load signal requires more gain.

Conversely, if the bar moves past the end of the scale then you have too much gain. The signal from the load cell is being clipped and load readings will be incorrect. The red box around the bar alerts you to this clipping.

If this occurs, you need to reduce the gain in the Liftlog™.



See the Liftlog™ user's manual for instructions on changing the gain.

NB: You will need to recalibrate the Liftlog™ after changing the gain.

Setting the Zero Value

With no load on the hook (or the crane load display reading 0.00t), click on the <Zero> button.

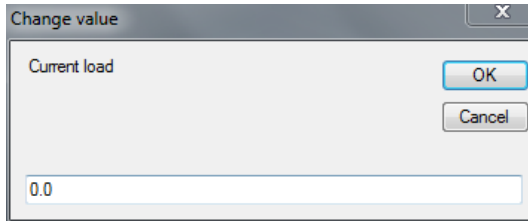
Within a few seconds the display will change to 0.0t:



Calibrating the Logger

Lift a load (minimum 80% of rated capacity) and click the <Cal> button.

Enter the mass shown on the load display when prompted and press <OK>.



NB: If the fault output of the logger is used as an overload, you may need to go to the Overload screen and set a large overload limit (e.g. 3000) to allow the load to be lifted. See section 3.8 for details.

Tap the <OK> button and the main screen will now display the load on the hook.

NB: An overload will probably be shown (box becomes red) as the maximum load has not yet been set.



3.5 Erasing the Calibration

Under some circumstances, it may be necessary to erase the calibration of a hoist.

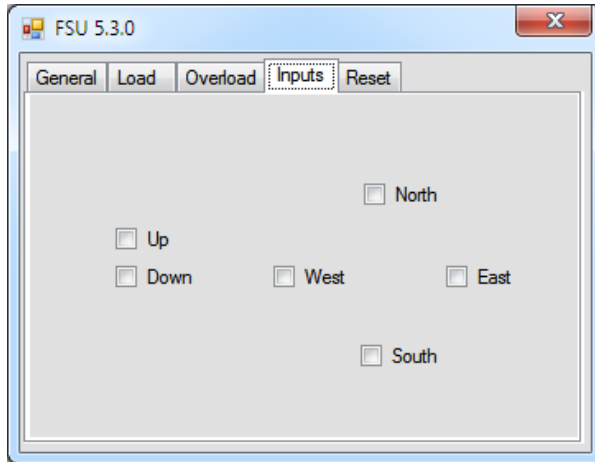
Warning: IF YOU ERASE THE CALIBRATION THEN YOU WILL NEED A TEST WEIGHT TO SET IT AGAIN!

To reset the calibration for a hoist, tap the <!> button.

NB: Resetting the calibration of one hoist (main or aux) does not affect the calibration of the other.

3.6 Checking the Inputs

To check the inputs, press the <Inputs> tab to bring up the following screen:



The boxes show the status of each of the Liftlog™'s input signals. They are intended to be used to confirm the correct wiring of the unit.

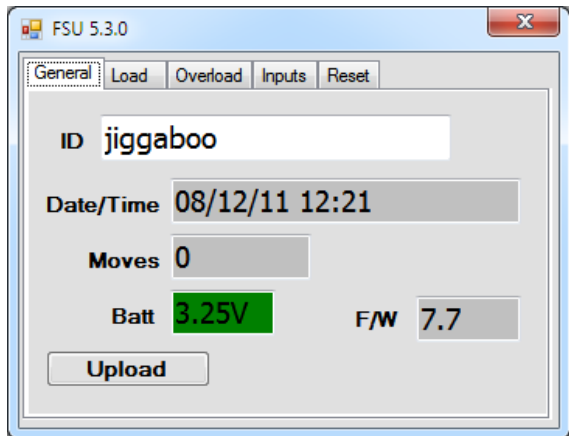
When a signal is detected, the respective box will be checked.

3.7 Setting the Crane ID

Setting the crane ID and overloads should be the last steps in configuring the device. Whilst the craneID is “unconfigured” and the overload is not set, the device will display lifts but not log them. This prevents data from lifts prior to calibration affecting later analysis.

To set the crane ID click on the <General> button to return to the first screen.

Type in the desired Crane identification in the ‘ID’ field. This must be 18 characters or less.

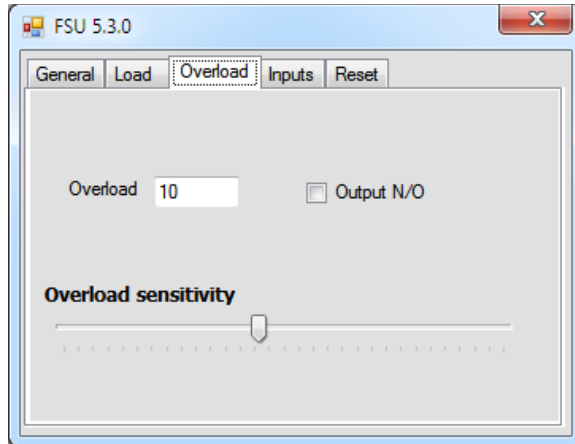


If the logger will be used with the Liftlog™- AccessPack system, set the crane ID as directed by your AccessPack vendor or administrator of the AccessPack manager software at your location.

Tip: Whilst you can set the Crane ID to anything you want, setting it to the crane’s serial number or other external marking will help you distinguish it from other logger equipped cranes. If you also include the crane classification such as C4M5 in the ID then the analysis software will use this in its calculations.

3.8 Configuring the Overload

To set the overloads and/or to invert the output signal, press the 'Overload' tab to bring up the following screen:



Set Overload

Enter the desired overload. This can be in 0.1t increments (E.g. 9.4).

Overload Sensitivity

The overload sensitivity is controlled by a slider that changes how sensitive the overload is to short overloads caused by signal noise. Moving the slider to the right will make it less sensitive, so that it will effectively take longer to respond to a real overload event. Moving it to the left will make the logger respond quicker to real overloads, but also make it more susceptible spurious trips.

You should set this slider as far to the left as possible without the overload tripping during normal operation. A text warning will display if this is set too high.

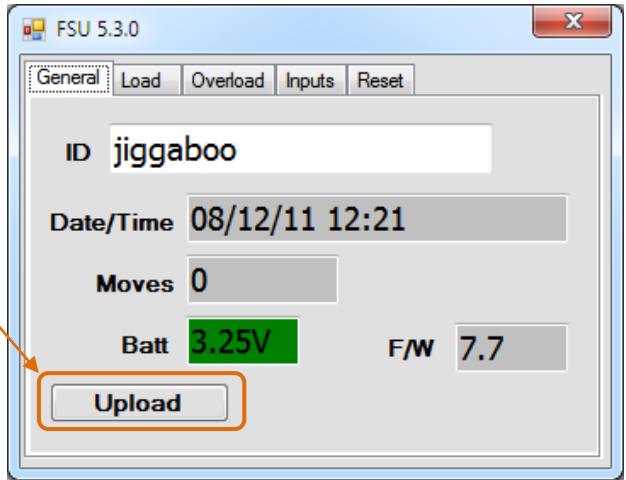
Invert Output

The fault output on the Liftlog™ is a pair of normally closed contacts. Checking the <Output N/O> box will change the normally closed fault output to normally open. You may need to do this:

- If there is an interposing relay between the Liftlog™ and the up contactor;
- You want the Liftlog™ to operate in a “fail functional” rather than a “fail safe” mode;
- You are using the Liftlog™ for slack rope detection

3.9 Uploading Data

To upload the logged data from the device to your computer, return to the General screen and click on the <Upload> button.

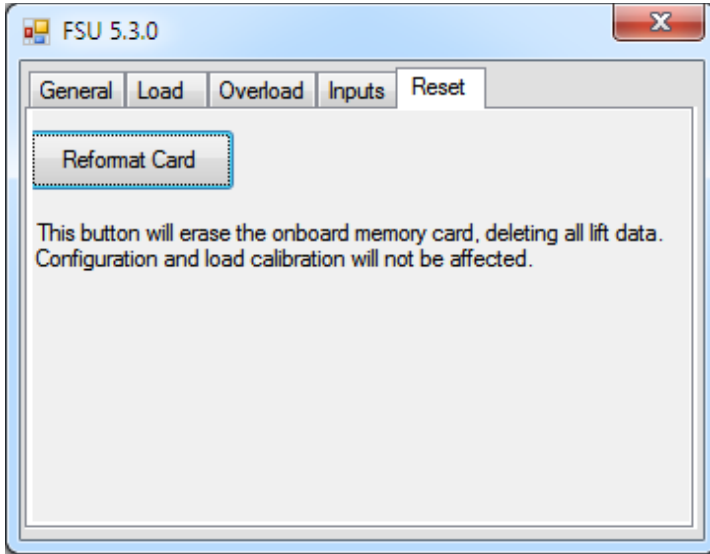


This will bring up a dialog box asking where to save the data. The program defaults to your Documents folder.

Enter the required file name (usually the crane name or serial number).

3.10 Erase Logger

To erase all data from the logger, select the Reset tab to bring up the following screen:

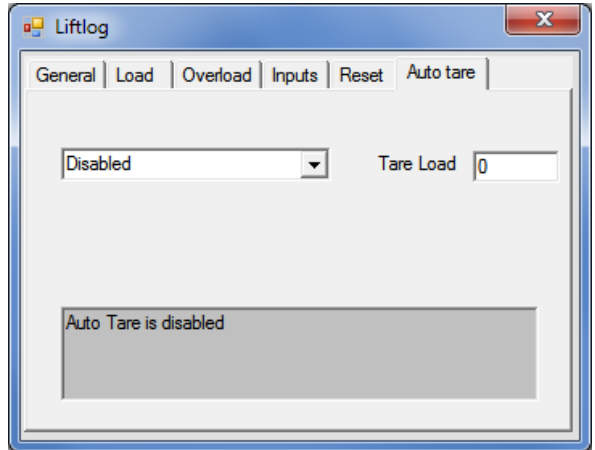


Press the <Reformat Card> button. You will be asked to confirm this action.

NB: It is recommended that you upload data to your computer (see section 3.9) prior to erasing the logger.

3.11 AutoTare Setting

When the Liftlog™ or load sensor may be exposed to large temperature swings or significant shock loads, it may be desirable to have the Liftlog re-tare periodically. To enable this, or to change the tare reset settings, press the 'Auto tare' tab.



The default setting is for the auto-tare function to be disabled.

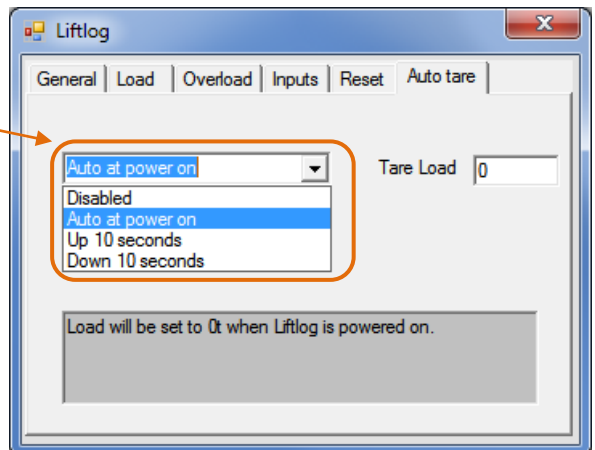
Enter the tare load

The tare load is the presumed load on the unloaded crane. It includes lifting jigs, spreader bars etc. Enter the desired tare load in the <Tare Load> field.

Enable Auto-tare

To enable the auto-tare function, click on the dropdown box and select the method you want to use to initiate the auto-tare function.

Auto at power on will apply the tare load each time the Liftlog™ is powered on.





Up 10 seconds will apply the tare load if the first move after powering up the Liftlog™ is 'Up' and this move has a duration of at least 10 seconds.

Down 10 seconds will apply the tare load if the first move after powering up the Liftlog™ is 'Down' and this move has a duration of at least 10 seconds.

4. Configuring an AccessPack

4.1 Checking for firmware

After you have selected your desired AccessPack, a connection will be made and the software will check if the device has the current firmware. If a new firmware version is available the following window will pop up:



Press <Update> to update the AccessPack to the latest available firmware version (recommended). The new firmware will be installed on the device. **DO NOT switch off the computer or remove the LINK2 modem until this is complete – doing so may leave the AccessPack in an unrecoverable state.**

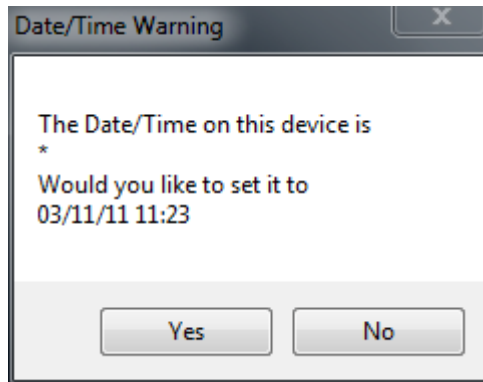
Alternatively, press <Not now> to update firmware at a later time.

NB: If you did not see this window, then your device already has the most current firmware.

4.2 Checking the date/time

After checking for firmware the FSU application verifies whether the AccessPack has the same date/time as your computer.

If the times are not the same, the following pop up window will display on the screen:

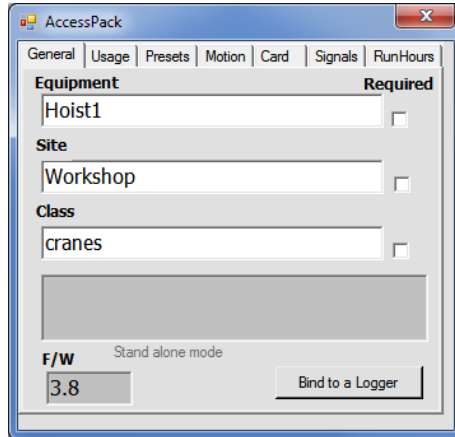


Press <Yes> to update the devices date/time or press <No> to leave the date/time on the device as it is.

NB: If you did not see this window, then your device has the same date/time as your computer.

4.3 General Tab

After checking firmware versions and date/time, the following screen will appear.



The installed firmware version is shown on the left bottom corner of the screen.

This 'General' tab allows you to configure:

- The name of the equipment;
- The location (site) of the equipment;
- The class of the equipment;

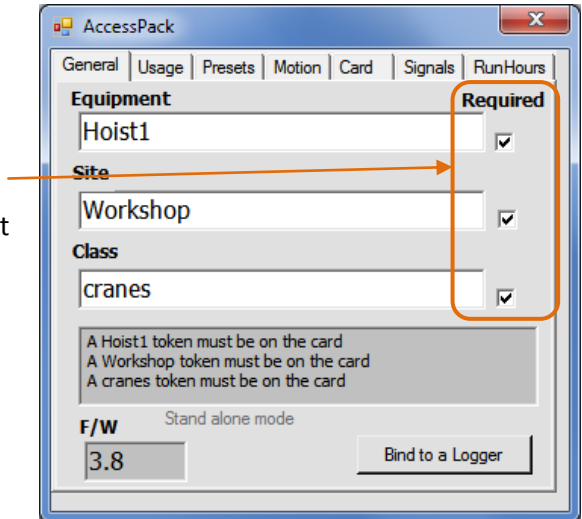
NB: This information **MUST EXACTLY MATCH** the entries for the equipment in the database and is usually provided for you by CASWA.

Any changes to these fields will be automatically saved once you exit the field.

Defining Mandatory Tokens

In its default state, the AccessPack authorises use if a card is presented containing any token that matches either the Equipment, Site or Class listed on this screen.

In situations where multiple sets of permissions are require to operate equipment, e.g. A forklift license and a site induction, check the <required> box next to the types of tokens that must be present on the card



As shown here, the AccessPack will only authorise use if a card is presented with all three specific tokens (i.e. contains a valid Hoist1 token AND a valid Workshop token AND a valid cranes token).

Bind to a Logger

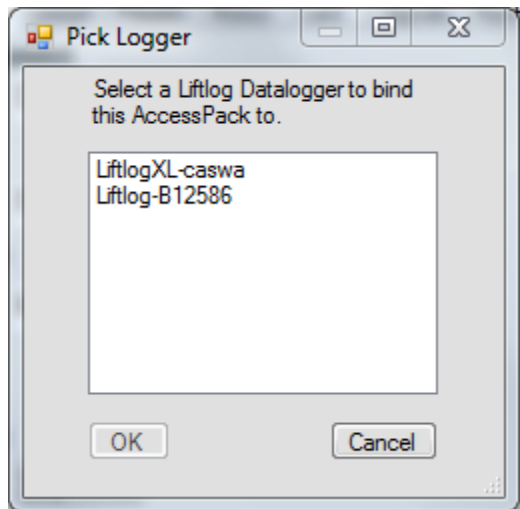
Binding an AccessPack to a Liftlog™ or Liftlog™XL data logger, tells the AccessPack to send card swipe information to that logger so that it can record the operator's name along with the usage history of the crane.

First check that the logger is connected, powered up and configured (commissioned).

To begin the binding process, press <Bind to a Logger>.

The following screen will appear:

Select the desired logger to bind to and press <OK>.



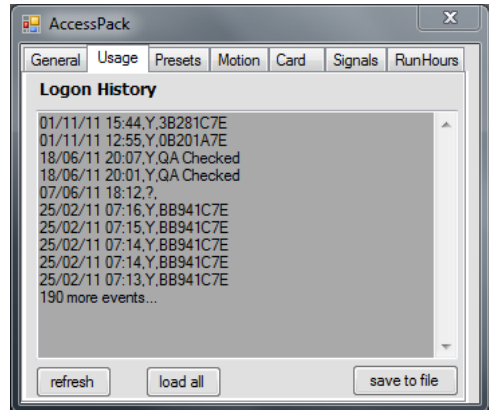
If the desired logger is not in the list, check that the logger is power up. Press <Cancel> and repeat the binding process.

NB: If the AccessPack is in Door Mode, you will not be able to bind the AccessPack to a logger as the <Bind to a Logger> button will be disabled. To check whether the AccessPack is in Door Mode, click on the <Signals> tab (see Section 4.5).

4.4 Usage Tab

This tab shows the list of users who have recently activated the AccessPack. Only the most recent 10 records are shown initially.

Depending on the model of AccessPack, it may also show the date and time of each access and whether the user's card was accepted or rejected.

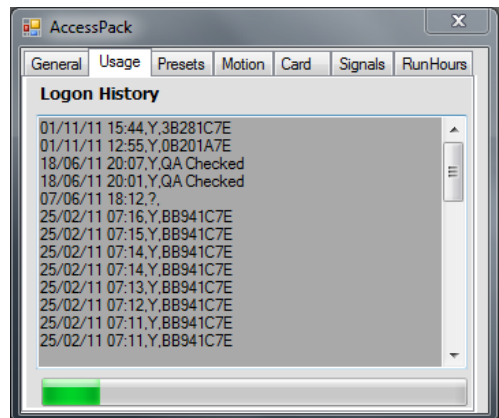


The <refresh> button updates the logon list in the event that another operator has logged on while connected to the AccessPack.

The <save to file> button commences a dialogue to save the list to a text file on the computer.

When the list is long, only first 10 entries are shown and the load all button is activated.

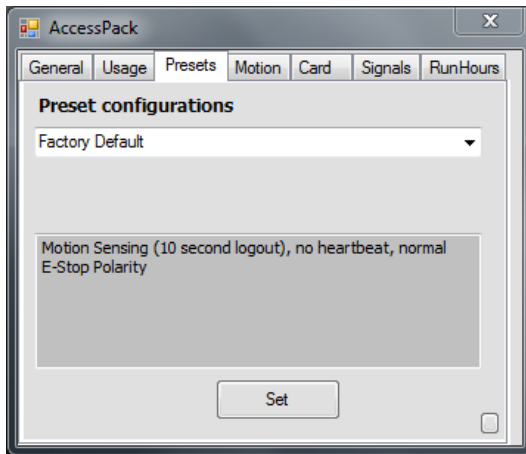
Press <load all> to load the remaining entries. This may take some time depending on the amount of data stored on the device.



A green progress bar is visible on the bottom of the screen as data is being loaded to indicate how much data has yet to be retrieved.

4.5 Presets Tab

The presets tab provides an easy way to set all the configuration values of the AccessPack based on the type of equipment being commissioned. After applying a preset configuration, it is still possible to go back and tune individual settings.

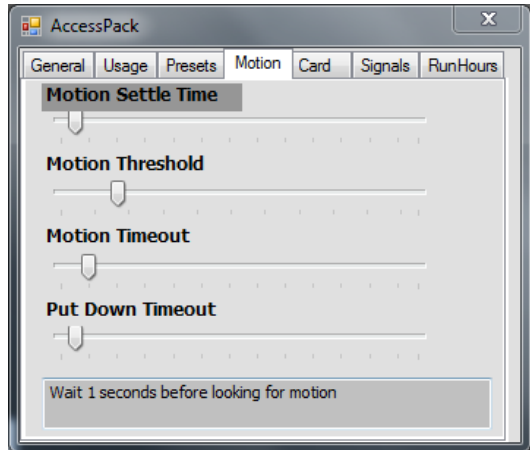


To set a preset configuration, select the equipment type from the dropdown list and tap the <Set> button.

NB: If an AccessPack was bound to a logger, selecting a preset will remove this binding.

4.6 Motion Tab

This tab displays sliders that adjust parameters relating to the AccessPack's motion detection hardware. Simply touch the slider to change the value. A text box at the bottom of the page contains an explanation of each parameter and its current value.



Motion Parameters

Motion Settle Time is the amount of time the AccessPack will wait after logging on or off before beginning to look for motion. It is typically set to a low value.

Motion Threshold is the basic sensitivity of the motion system. Smaller numbers are more sensitive; 10-20 are typical values. In use, the AccessPack also dynamically adjusts the basic motion sensitivity to eliminate the chance of inadvertent logouts.


Motion Timeout sets the time between the AccessPack motion system detecting stillness and the beginning of the Put Down timeout. Set this to a larger value if the unit will be periodically put down for a few seconds.

Put Down Timeout sets the time the red LED will flash (after the motion timeout has expired) before the AccessPack will log the user out. In Door Mode this parameter sets how long the door is held unlocked after an authorised card swipe.

Setting up motion detection

To manually tune motion detection, first set the Motion Timeout to 1 or 2 and the Put Down Timeout to about 200. Then swipe a valid card to activate the AccessPack.

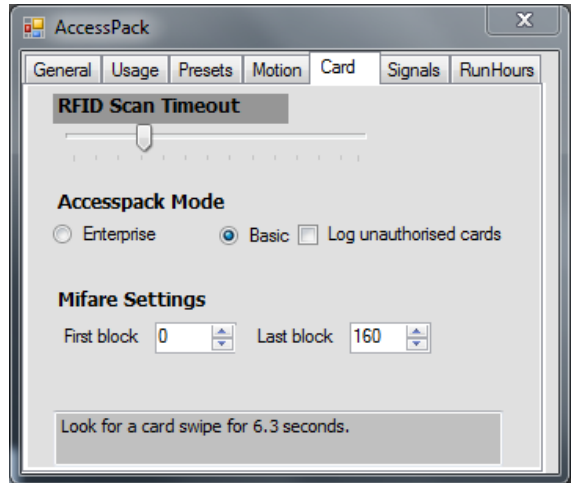
This will cause the AccessPack to flash the red LED whenever it thinks it is motionless.

In addition to the red LED being off, the motion icon  will appear at the bottom of the screen when AccessPack senses motion.

You can now adjust the Motion Threshold (i.e. the sensitivity of the system) to a level appropriate for the installation. When you are happy with the sensitivity, adjust the Motion Timeout and Put Down Timeout as required.

4.7 Card Tab

This tab displays sliders that that adjust parameters relating to the AccessPack’s card reader. Simply touch the slider to change the value. A text box at the bottom of the page contains an explanation of each parameter and its current value.



Card Parameters

RFID Scan Timeout sets the length of time the AccessPack will look for a valid card before returning to an idle state. Setting this value to zero will disable the return to idle and the AccessPack will scan continuously for a card

AccessPack Mode: Select Basic mode to enable any RFID card to grant access to the controlled device. In this mode only the card serial number is recorded. Select Enterprise mode to enable the use of the AccessPack Manager to configure permissions to individual devices.

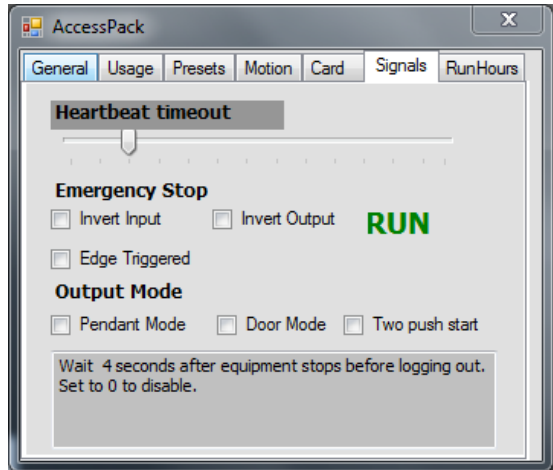
Log Unauthorised Cards: Checking this box will cause the AccessPack to record the names or serial numbers for both accepted and rejected card swipes.

Mifare Settings: These settings configure the AccessPack to use only part of the space on the swipe card. This is usually done to allow a customer’s existing access card to be used with the AccessPack system. They should be set to 0 and 160 (as shown) unless directed by the AccessPack Support desk.

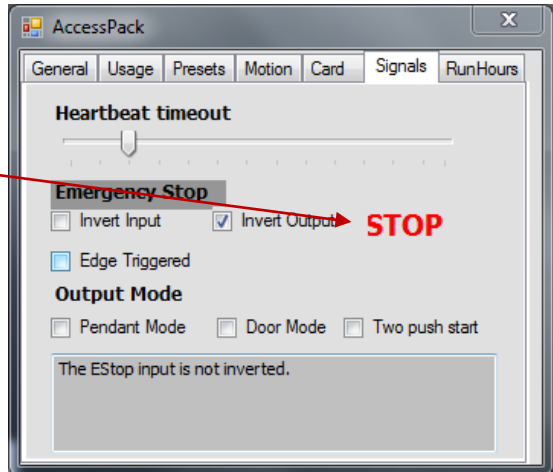
4.8 Signals Tab

This tab displays parameters relating to the AccessPack's inputs and outputs.

A text box at the bottom of the page contains an explanation of the parameter and its current value.



The current status of the AccessPack is also shown.



Signals Parameters

Heartbeat Timeout sets the time after a heartbeat signal (a flashing LED, a closed set of contacts etc) stops that the AccessPack will consider the equipment to have stopped or timed out. After the Heartbeat Timeout has expired, the user is logged out. Simply touch the slider to change the value.

Emergency Stop Invert sets the polarity (active high, or active low) of the emergency stop input that will cause the current user to be logged out.

Edge Triggered configures the AccessPack to log out the user only when the E Stop signal transitions from not stopped to stopped. After logging out and disabling the equipment, the AccessPack will immediately start looking for a card. Check this box when the equipment is stationary and has a separate start/stop circuit which will be activated after the user has swiped their card (e.g. fixed equipment with the AccessPack mounted on the wall). It is recommended that the RFID scan timeout slider be set to 0 (i.e. scan indefinitely) and motion sensing disabled when this checkbox is set.

Pendant Mode: When unchecked, output 1 will toggle high or low to indicate the current locked/unlocked status of the AccessPack. When checked, output 1 will pulse high for one second when a user logs on. This output is used to push a start button.

Door Mode: When Door Mode is checked, the Estop output (output 1) will pulse for the duration set by “Put Down Time Out” (see Motion Tab). It will also not be possible to bind an AccessPack to a logger (see General Tab).

Two Push Start: When checked and a valid card is swiped, the AccessPack will:

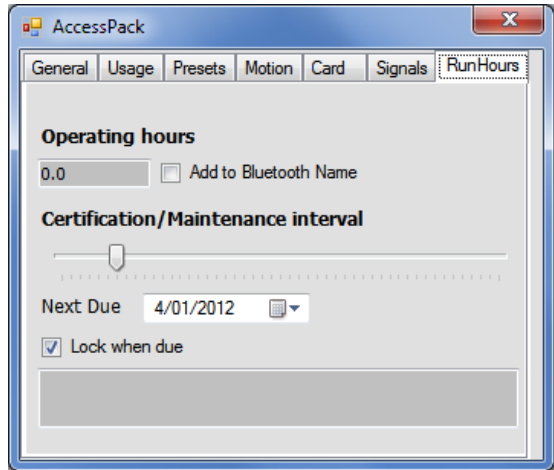
- Close the start contacts for 600mS
- Open them for 500mS
- Close them for 2500mS

Otherwise the AccessPack will close the start contacts for 1000mS.

4.9 Run Hours tab

The Run Hours tab allows you to view the total operating hours of the equipment.

This tab also allows you to set a mandatory Certification/ Maintenance interval (if desired). When the selected date is reached and the maintenance interval is >0, the AccessPack will either continuously flash



both LED's at the same time to alert the user that the equipment's maintenance/certification period has expired or lock out the equipment (by declining any access requests after the due date).

The AccessPack will remain in the alert/locked state enabled until the certification/maintenance due date is reset. This can be done by changing the date using the Pocket FSU application or by swiping a specially issued recertification card. If using the latter, the <Next Due> date will be set to the current date (date that the recertification card is presented) plus the <certification/maintenance interval>.

Run Hours Parameters

Add to Bluetooth Name causes the total operating hours to be appended to the Bluetooth name of the device. This allows the run hours to be read with any mobile phone or laptop. Under normal conditions, the run hours will be updated twice a day.

Certification/maintenance interval: This slider changes the required periodicity of re-certification or maintenance. If set to zero, alarming or lockout due to overdue certification will not be enabled.

Next due is the date by which mandatory certification or maintenance must be performed. If blank, alarming or lockout due to overdue certification will not be enabled.

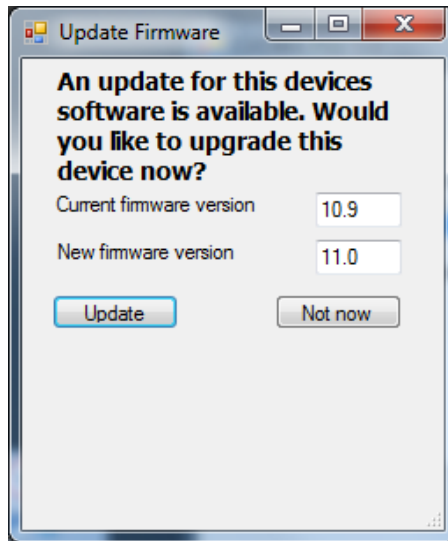
Lock when due establishes whether, in the event of an overdue certification period, the AccessPack will merely flash to alarm the operators or whether it will actually disable the equipment

Note: This option should only be selected following a risk assessment that confirms that there is no possibility for unsafe conditions arising as a result of the equipment being locked out.

5. Configuring a Liftlog™ XL

5.1 Checking for firmware

After you have selected your desired Liftlog™XL, a connection will be made and the software will check if the device has the current firmware. If a new firmware version is available the following window will pop up:



Press <Update> to update the Liftlog™XL to the latest available firmware version (recommended). The new firmware will be installed on the device. **DO NOT switch off the computer or remove the LINK2 modem until this is complete – doing so may leave the Liftlog™XL in an unrecoverable state.**

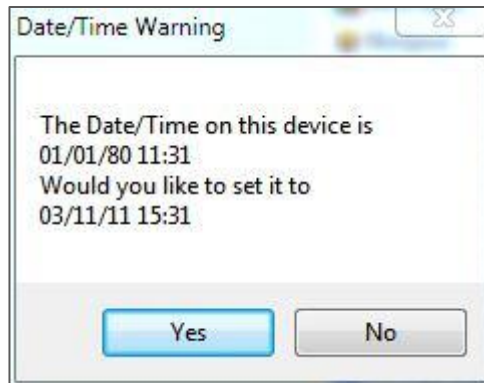
Alternatively, press <Not now> to update firmware at a later time.

NB: If you did not see this window, then your device already has the most current firmware.

5.2 Checking the date/time

After checking for firmware the FSU application verifies whether the Liftlog™XL has the same date/time as your computer.

If the times are not the same, the following pop up window will display on the screen:



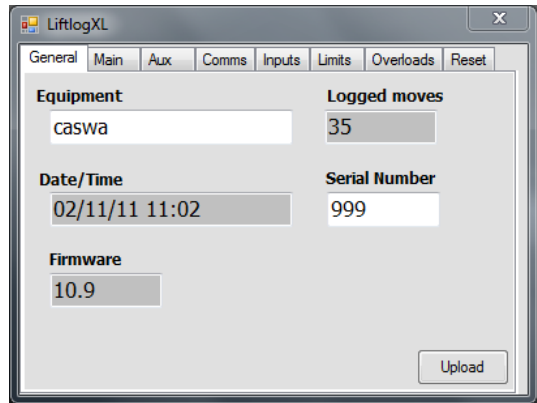
Press <Yes> to update the devices date/time or press <No> to leave the date/time on the device as it is.

NB: If you did not see this window, then your device has the same date/time as your computer.

5.3 General tab

Setting Equipment Name

The only configurable item on the general page is the Equipment ID. This text can be up to 18 characters long and it is used to identify the crane in the reporting system. Whilst any name may be used, it is highly recommended that the XL be named according to the registration details provided at the time of purchase.



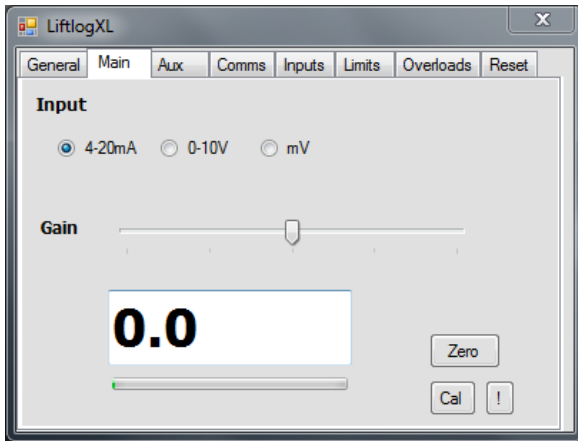
Upload data to the computer

Clicking the <Upload> button brings up a dialog asking where to save the data.

Enter the required file name (usually the crane name or serial number). Make sure the Location entry is set to "Storage card" and press <Save>.

Progress is indicated on the main screen. Time to download depends on the number of lifts and can be up to 20 minutes.

5.2 Main and Aux Hoist Configuration



The process to configuration the Main and Aux hoists is identical as are the configuration screens.

5.2.1 Input Selection

Select the button that corresponds to the input you have connected to the Liftlog™XL . For connection details see the “Liftlog™XL Hardware Guide”.

If the Auxiliary input is not used, it is recommended that its input selection be set to 4-20mA as this input relatively insensitive to electrical noise

5.2.2 Amplification and the Signal Indicator

Irrespective of the indicated load (which is determined from the calibration), the signal indicator (bar below the load display) shows the absolute magnitude of the input signal.

Before undertaking a calibration, check the magnitude of the signal at near full load. It should be approximately 70-80% of the full scale reading.

If the signal is too large, the signal indicator will turn red and you should reduce the amplification applied to the signal by moving the gain slider to the left.

If the signal is less than half of full scale, then increase the amplification by moving the gain slider to the right.

5.2.3 Calibration

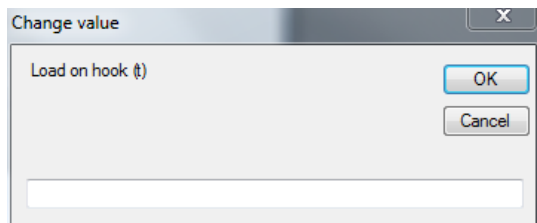
With no load on the hook, press the <Zero> button.

After a brief pause the indicated load will show zero. Don't be concerned if the indicated load changes or is slightly higher than zero; in this state the indicated load is very sensitive to both electrical noise and very small changes in applied load.

Next, lift a known load with the crane. Ideally this load should be >80% of the cranes lifting capacity.

Note: In practice, it is often not possible to arrange test weights for every install. Provided the input amplification has been set correctly (5.2.2), then an acceptable calibration may be performed with 30-50% of the cranes capacity. However, if this is done, the Liftlog™XL should then be recalibrated when the crane is next subject to a full load test.

With this known load lifted, press the <Cal> button. The Pocket FSU application will prompt you to enter the load. Do so and press <OK>.



After a brief pause the indicated load will match the load on the hook.

5.2.3.1 Resetting the calibration.

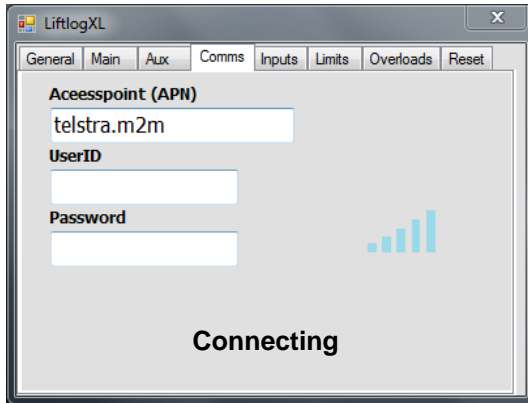
Under some circumstances, it may be necessary to erase the calibration of a hoist.

Warning: IF YOU ERASE THE CALIBRATION THEN YOU WILL NEED A TEST WEIGHT TO SET IT AGAIN!

To reset the calibration for a hoist, tap the <!> button.

NB: Resetting the calibration of one hoist (main or aux) does not affect the calibration of the other.

5.3 Comms Tab



3G configuration

This tab allows the configuration of the 3G connection used to send data.

The values for APN UserID and Password are usually provided by the company supplying the SIM card.

If the SIM card is provided by CASWA, then the settings are:

APN: telstra.m2m
UserID: <blank>
Password: <blank>

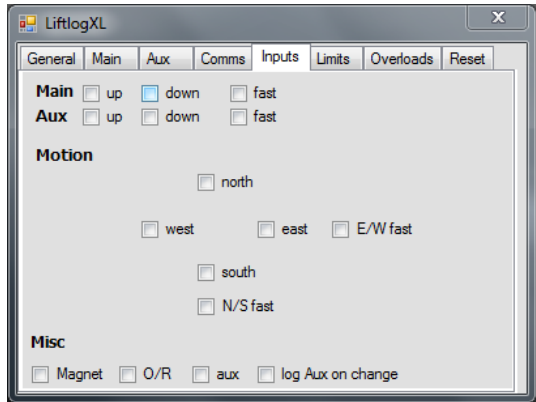
Link status

Text at the bottom of the window will read either “Connecting”, “Connected”, or “Online” depending on the state of the 3G connection. After power on, the Liftlog™XL will take up to two minutes to establish a connection to the 3G network. Once connected, any motion of the crane will cause the status to change to “Online”.

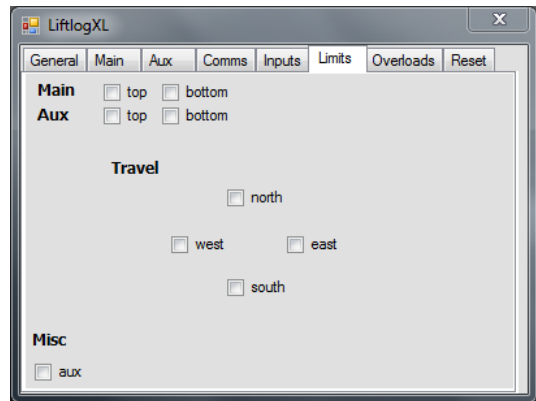
On the right of the window is a signal strength meter. NB: This meter is only updated when the Liftlog™XL status is “Connected”.

5.4 Inputs and Limits

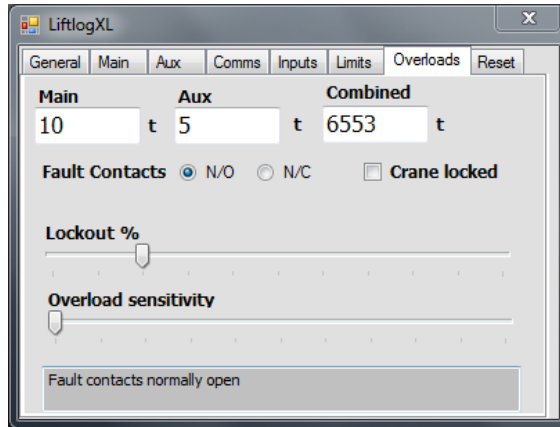
These two tabs show the status of each of the LiftlogXL's input signals. They are intended to be used to confirm the correct wiring of the unit.



When a signal is detected, the respective box will be checked.



5.5 Overloads



Main, Aux and Combined

In each of these boxes, enter the required overload in tons.

If only one load input is connected, it is recommended that the Aux and Combined overload be left at their default values.

Overload Sensitivity

Moving this slider changes the period of time that the hoist must be in an overload state before an overload event is triggered. It should always be set as far to the left as practical. Where electrical noise (K1 contactor closures are important to test) a rough runway or high vibrations are triggering false overload events, move the slider to the right to decrease the sensitivity.

Lockout

When an overload occurs, the fault output of the Liftlog™XL opens. When the load is reduced to a safe level, there is a delay of 3 seconds after which the fault output closes and allows lifting to continue.

If the Lockout control is set to a non-zero value, when the indicated load exceeds $\langle \text{Overload} \rangle + \text{Lockout}\%$ a special alert will be sent and the fault output will not close. This effectively disables the crane until it can be inspected and put back into service.

NB: The locked state can only be cleared by unchecking the “Locked” checkbox.

An Example:

Crane capacity: 10t

Overload set to: 11t

Lockout set to: 20%

Indicated load	Liftlog™XL behaviour
$\geq 11\text{t}$ and $< 13.3\text{t}$	An overload alert is sent, and lifting is disabled until the indicated load drops below 11t
$\geq 13.3\text{t}$	An additional locked out alert is sent and lifting is disabled until a technician re-enables it by clearing the “Locked” checkbox.

Appendix A: System Requirements

- Laptop computer running Windows XP SP3 or later.
- One Spare USB port
- Microsoft .NET framework 3.5

Appendix B: Troubleshooting

Fault	Cause	Fix
No lights on AccessPack	No Power EStop inverted	Check for 5V between the red and black wire on the AccessPack connector. Check the EStop connection and try the EStop button in both positions. In vert the EStop Signal if required
Swiping card fails (RED Light)	Mis spelt ID, Site or Class name	Check the spelling and case of all three fields
Any card will activate the AccessPack	AccessPack is in Basic mode	Set Enterprise mode on the card tab of the Pocket FSU Application.



Appendix C: FSU AccesPack Application Presets

Parameter	Factory Default	Radio without motion sensing	Radio with motion sensing	Pendant without motion sensing	Pendant with motion sensing	Vehicle	Stationary equipment	Door
Motion Timeout	20	20	20	20	20	20	20	0
Motion Threshold	10	0	10	0	10	0	10	0
Put Down Timeout	10	0	10	0	100	0	10	40
Motion Settle Time	10	10	10	10	10	10	10	10
RFID Scan Timeout	60	250	60	250	60	60	60	0
Button Timeout	40	40	40	0	0	0	40	0
Estop Invert	0	0	0	1	1	1	1	1
Pendant Mode	0	0	0	1	1	0	0	0
Door Mode	0	0	0	0	0	0	0	1
Log Unauthorised Swipes	0	0	0	0	0	0	0	0
Edge Triggered	No	No	No	No	No	No	Yes	No



EStop								
Mifare Start/End block	Reset to 0/160	No change	No change	No change	No change	No change	No change	No change
Run Hours	Off	Off	Off	Off	Off	Off	Off	Off
Cert interval	Off	Off	Off	Off	Off	Off	Off	off