



LiNX Access iOS

Programming and diagnostic tool



dynamic™

LiNX Access iOS
GBK54034 Issue 5
Jun 2018

Welcome

1 Welcome

1.1 About the LiNX Access iOS tool	2
1.2 Using this manual	2
1.3 Important information	2
1.4 Copyright, trademarks and acknowledgements	2
1.5 Contents	4
1.5.1 Contents Overview	4
1.5.2 Contents Detailed	5
1.6 Glossary	7

1.1 About the LiNX Access iOS tool

Welcome to the user manual for the LiNX Access iOS tool.

The LiNX Access iOS tool is an application for Apple's iPhone, iPad and iPod touch.

It is used to:

- configure Dynamic Controls' range of LiNX wheelchair controllers
- view real-time and historical diagnostic information.

1.2 Using this manual

This manual will help you to understand, install, and use the LiNX Access iOS tool.

This manual uses the following information boxes to convey important and useful information:

Warning

Warnings provide important information that must be followed in order to install, configure and use the product safely and efficiently. Not following the instructions given in a warning can potentially lead to equipment failure, damage to surrounding property, injury or death.

Note

Notes provide supporting information in order to install, configure, and use the product. Not following the instructions given in notes or precautions can lead to equipment failure.

See also

The "See also" box provides cross-references to help you navigate the installation manual more easily.

1.3 Important information

Due to a policy of continuous product improvement, Dynamic Controls reserves the right to update this product and manual without notice. This issue of the manual supersedes all previous issues. Previous issues must no longer be used.

The latest version of this manual can be downloaded from Dynamic Controls' website at www.dynamiccontrols.com

1.4 Copyright, trademarks and acknowledgements

Dynamic Controls, the Dynamic logo and the LiNX logo are trademarks of Dynamic Controls. All other brand and product names, fonts, and company names and logos are trademarks or registered trademarks of their respective companies.

Dynamic Controls owns and will retain all trademark rights, and Dynamic Controls or its licensors own and will retain all copyright, trade secret and other proprietary rights, in and to the documentation.

All materials contained within this manual, in printed or electronic format, are protected by copyright laws and other intellectual property laws.

iPhone, iPod touch, iPad and iTunes are trademarks of Apple Inc., registered in the U.S. and other countries.

The Bluetooth® word, mark, and logos are registered trademarks owned by Bluetooth® SIG, Inc., and any use of such marks by Dynamic Controls is under license.

© Copyright 2014 – 2018 Dynamic Controls. All rights reserved

1.5 Contents

1.5.1 Contents Overview

<i>1 Welcome</i>	.....	<i>1</i>
<i>2 Overview</i>	.....	<i>9</i>
<i>3 Set-up</i>	.....	<i>13</i>
<i>4 Concepts and interface</i>	.....	<i>17</i>
<i>5 Navigation</i>	.....	<i>29</i>
<i>6 How to ...</i>	.....	<i>35</i>
<i>7 Index</i>	.....	<i>63</i>

1.5.2 Contents Detailed

1 Welcome	1
1.1 About the LiNX Access iOS tool	2
1.2 Using this manual	2
1.3 Important information	2
1.4 Copyright, trademarks and acknowledgements	2
1.5 Contents	4
1.5.1 Contents Overview	4
1.5.2 Contents Detailed	5
1.6 Glossary	7
2 Overview	9
2.1 What it does	10
2.2 Features	10
2.3 Version information	10
2.3.1 The LiNX Access iOS tool	10
2.3.2 The LiNX System	10
3 Set-up	13
3.1 System requirements	14
3.2 Install the application	14
3.3 Connect the application to a wheelchair	14
3.4 Application update notifications	14
3.5 The LiNX Access Key (LAK)	14
3.5.1 LAK versions	14
3.5.2 LAK firmware	15
3.5.3 How to insert the LAK	15
4 Concepts and interface	17
4.1 Programming contexts	18
4.1.1 Viewing the contexts	18
4.2 Editing modes	18
4.2.1 Live edit	18
4.2.2 Bulk edit	19
4.3 The interface	20
4.3.1 Home screen	20
4.3.2 Parameter editing screens	20
4.3.3 Utility screens	21
4.3.4 Diagnostic screens	22
4.3.5 Navigation bar	26
4.3.6 Application menu	26
5 Navigation	29
5.1 Overview map	30
5.2 Detail map – excluding profiles and chair setup	31
5.3 Detail maps – profiles	32
5.3.1 Profile	32
5.3.2 Attendant profile	32
5.4 Detail maps – chair setup	33

6 How to ...	35
6.1 Open the LiNX Access iOS tool	36
6.2 Select the context	36
6.2.1 Wheelchair	36
6.2.2 File	37
6.2.3 Toggle between contexts	37
6.3 Connection context actions	37
6.3.1 Connect and disconnect to the LiNX Access tool	38
6.3.2 Manage chair configurations	39
6.3.3 Change the program name and system name	40
6.3.4 Modify a program	40
6.3.5 Save a program	41
6.3.6 Upgrade the firmware	42
6.3.7 Tune the gyro	43
6.3.8 Tune Adaptive Load Compensation (ALC)	43
6.3.9 Calibrate sip and puff	44
6.3.10 Store the Access Level Certificate	45
6.4 File context actions	46
6.4.1 Open and close a file	46
6.4.2 Modify a file	47
6.4.3 Convert configuration	48
6.4.4 Save a file	48
6.4.5 Write to the wheelchair	49
6.4.6 Delete a file	50
6.4.7 Share a file	51
6.5 Modify parameters	52
6.5.1 Modify parameters textually	52
6.5.2 Modify parameters numerically	52
6.5.3 Modify parameters graphically	53
6.6 Modify profiles and functions	57
6.6.1 Add and delete profiles	58
6.6.2 Add, delete and move functions	59
6.6.3 Edit function icons	62
7 Index	63

1.6 Glossary

A

Access Key

A Bluetooth adaptor that plugs into the XLR connector of the Remote module and connects the Remote module to the LiNX Access Tool on your iOS device.

B

Bluetooth

A commonly used, short-range, wireless technology. Bluetooth is used between the LiNX Access Key and an iOS device to transmit programs and diagnostic information with the LiNX Access Tool.

Bulk edit

A feature that writes all parameters to the LiNX system when the user selects Write to Chair. (Compare with Live edit.)

C

Connection - Bluetooth

The process of linking two Bluetooth devices together each time they are within range of each other and data is about to be exchanged between them. This process occurs after the devices have paired. (See Pairing - Bluetooth.)

I

iOS

Operating system used by portable Apple devices such as iPhone, iPad, and iPod touch.

L

Live edit

A feature that writes parameter changes to the LiNX system immediately as they are entered. (Compare with Bulk edit.)

O

OEM

Original Equipment Manufacturer.

P

Pairing - Bluetooth

Pairing is the process of establishing a connection between two Bluetooth devices (e.g. a LiNX Access Key and an iPhone or a PC) for the FIRST time. (Compare with Connection - Bluetooth).

R

Remote module

The physical device that controls the operation of the wheelchair.

X

XLR connector

A connector (industry standard) used with the LiNX system primarily for connecting to the battery charger. It is also used for attaching the LiNX Access Key, a Bluetooth device used to communicate with the LiNX Access tools.

Overview

2 Overview

2.1 What it does	10
2.2 Features	10
2.3 Version information	10
2.3.1 The LiNX Access iOS tool	10
2.3.2 The LiNX System	10

2.1 What it does

The LiNX Access iOS tool connects wirelessly to a LiNX wheelchair controller to read and write control configurations, and view diagnostic information.



Figure 1: The LiNX Access iOS tool

i See also

Visit the *Dynamic Controls website* for more information on the LiNX product range and the LiNX Access Key: www.dynamiccontrols.com

2.2 Features

- Move easily between wheelchair and files
- Instant wireless configuration (live edit) and diagnostics
- Numeric, graphic and text parameter input
- Intuitive, user-friendly interface
- 10 m working range

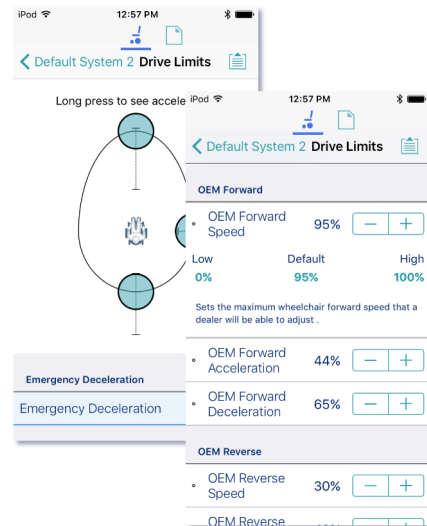


Figure 2: Numerical and graphical programming

2.3 Version information

2.3.1 The LiNX Access iOS tool

This manual has been written for the LiNX Access iOS tool, version 4.0 and later. For information regarding previously released versions, please see the downloads section on the Dynamic Controls website: www.dynamiccontrols.com

2.3.2 The LiNX System

The LiNX Access iOS tool supports all versions of the LiNX family of wheelchair controllers.

⚠ Warning

Performance adjustments must only be made by healthcare professionals or by persons who completely understand the adjustment process and the capabilities of the wheelchair user.

Before upgrading the firmware of the system, or a module in the system, always ensure that the battery charge level is sufficient and the park brakes are not manually or electronically released.

Incorrect settings, or programming in a location that is not safe, can cause injury to the user and bystanders, or damage to the wheelchair and surrounding property.

After you have configured the wheelchair, check to make sure that it performs to the specifications entered in the programming procedure. If the wheelchair does not perform to specifications, reprogram it. Repeat this procedure until the wheelchair performs to specifications. If the wanted operation cannot be reached, contact your service agent.

Ensure that the deceleration parameters are always higher than the acceleration parameters for a safe response. It is the responsibility of the health care professional to make sure that the user is capable of both cognitively understanding and physically operating the programmed features and functions.

With inappropriate programming settings, certain features and options may not be accessible or perform as expected.

Where any inconsistencies about chair status occur between the LiNX System and that reported by a programming tool, the user should take the status as reported by the LiNX System as correct.

3 Set-up

3.1 System requirements	14
3.2 Install the application	14
3.3 Connect the application to a wheelchair	14
3.4 Application update notifications	14
3.5 The LiNX Access Key (LAK)	14
3.5.1 LAK versions	14
3.5.2 LAK firmware	15
3.5.3 How to insert the LAK	15

3.1 System requirements

To use the LiNX Access iOS tool, you need:

- a LiNX wheelchair control system
- a LiNX Access Key
- an Apple iPhone, iPad or iPod touch (using iOS 10.0 or higher)
- the LiNX Access iOS application

3.2 Install the application

The LiNX Access iOS tool is a free application available from the Apple App Store. Search for 'LiNX Access'.

If your iOS device does not have the application installed, you will be prompted to install it when you attempt to pair with a LiNX Access Key for the first time.

3.3 Connect the application to a wheelchair

To connect the LiNX Access iOS tool to a wheelchair, see *Connect and disconnect to the LiNX Access tool*.

3.4 Application update notifications

All updates to the application are automatically notified on your iOS device (if this feature has not been disabled). This feature requires an Internet connection.

3.5 The LiNX Access Key (LAK)

A LiNX Access Key (LAK) is required for the LiNX Access iOS tool to communicate via Bluetooth with a LiNX system.

The LAK is inserted into a remote module's XLR socket. (See *Figure 4*.)



Figure 3: LiNX Access Keys

3.5.1 LAK versions

Two versions of the LiNX Access Key are supplied. The version determines the access you have to programming functions.

The two versions are:

- **Distributors:** Providers, dealers, therapists and wheelchair service agents (DLX-HKEY01-A)
- **Manufacturers:** OEMs and certain service agents (DLX-HKEY02-A)

3.5.2 LAK firmware

The LiNX Access Key's firmware must be version 4.0 or higher to support the features of the LiNX Access iOS tool.

Information on how to upgrade the firmware is at [6.3.6 Upgrade the firmware](#).

3.5.3 How to insert the LAK

Insert the LAK into a remote module's XLR socket – see [Figure 4](#).

The XLR socket's location depends on the remote module.



Figure 4: Inserting the LiNX Access Key
(Above Top: low profile remote module. Above: traditional location)

4 Concepts and interface

4.1 Programming contexts	18
4.1.1 Viewing the contexts	18
4.2 Editing modes	18
4.2.1 Live edit	18
4.2.2 Bulk edit	19
4.3 The interface	20
4.3.1 Home screen	20
4.3.2 Parameter editing screens	20
4.3.3 Utility screens	21
4.3.4 Diagnostic screens	22
4.3.5 Navigation bar	26
4.3.6 Application menu	26

The LiNX Access iOS tool allows you to program, diagnose and analyse LiNX systems.

This chapter gives an overview of the tool and how to use it.

- For information on how to find your way around the tool, see section 5 *Navigation*.
- For information on how to perform particular tasks, see section 6 *How to ...*

4.1 Programming contexts

The LiNX Access iOS tool has two programming contexts:

- **Connection context:** access and program a system directly while connected to the LiNX system on a wheelchair
- **File context:** access and edit a program stored as a file on your device

4.1.1 Viewing the contexts

You can view the contexts by toggling between them on the context switch on the navigation bar. (See 6.2 *Select the context*.)

4.2 Editing modes

Programs can be modified in one of two modes, which define when parameters are written to the wheelchair:

- live edit
- bulk edit

4.2.1 Live edit

Live edit mode is available in the connection context only — that is, when connected to a wheelchair.

Live edit writes parameter changes immediately to the wheelchair as you enter them. This is useful for quickly setting up or testing.

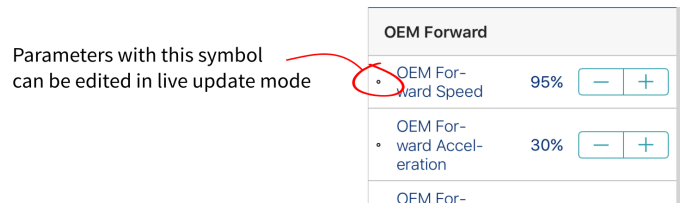


Figure 5: Live edit mode indicator

Not all parameters can be updated in live edit mode. Parameters that can be updated in live edit are identified by a circular icon to the left of the parameter name (see *Figure 5*).

Warning

When in live edit mode, changes to parameters take immediate effect, changing the performance of the wheelchair immediately.

Warning

There is no function to undo a change in live edit mode. Before editing, save a copy of the program to use to restore settings, if required.

4.2.2 Bulk edit

Bulk edit parameters are available in connection context and file context.

In bulk edit, all parameters are editable but none are written to the wheelchair immediately. They are written to the wheelchair when the Write function is selected.

In connection context, bulk edit parameters are identified by a blue background and must be unlocked to be editable. In file context, all parameters are bulk edit parameters.

4.2.2.1 Connection context

To unlock bulk edit, open any bulk edit parameter and tap **Unlock**. Doing this unlocks all bulk edit parameters and switches live edit to bulk edit, and all parameters are editable.

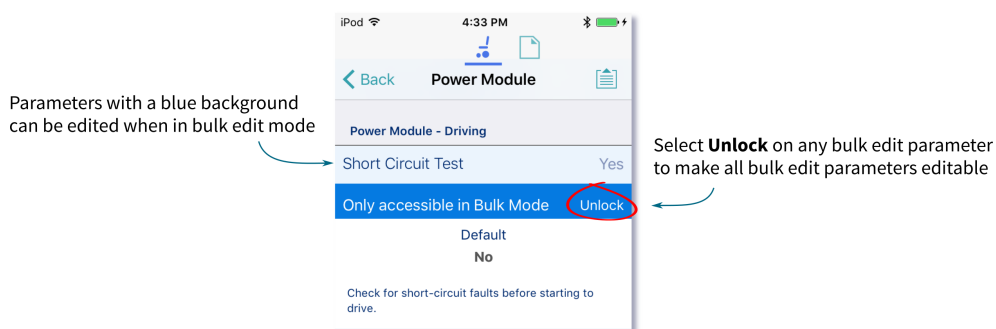


Figure 6: Bulk edit unlock

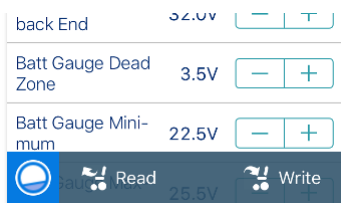


Figure 7: Bulk edit icon, and read and write options

After unlocking bulk edit, the bulk edit icon and read and write options appear at the bottom of the screen.

- **Read** power-cycles the system and returns you to live edit, if your program is in sync with the wheelchair. Any edits you have made will be lost.
- **Write** writes your edits to the wheelchair, power-cycles the system and returns you to live edit.

4.2.2.2 File context

In file context, the Read and Write functions are available only if a wheelchair is connected to the system. To connect a wheelchair, open a connection in connection context and return to file context to edit the file.

Note

By default, live edit mode is enabled every time the system is powered up, including after a power cycle. The application remains in live edit mode until bulk edit mode is unlocked. At that point, the application changes to bulk edit mode and live edit mode is disabled. The application then remains in bulk edit until the system is written to and power-cycled.

4.3 The interface

Find out here about the:

- Home screen
- Parameter editing screens
- Diagnostic screens
- Utility screens
- Navigation bar
- Application menu

4.3.1 Home screen

The Home screen is the default screen after connecting to a wheelchair or opening a configuration file. It provides general information about the system as well as access to the tool's programming and diagnostic screens.

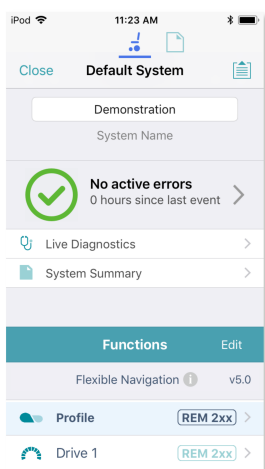


Figure 8: Home screen

Note

Two items, **Chair Configs** and **Restore To Default Config**, are at the top of the **Home** screen, just above the **Program Name** text box.

If they are not visible, you can reveal them by swiping down on the Home screen.

Note

Further information about the home screen, and the screens accessed from it, is in the **Navigation** section.

4.3.2 Parameter editing screens

Edit a wheelchair's operational parameters from the parameter groups on the **Home** screen. Parameter groups include:

- Profiles / Functions
- User preferences
- Chair setup
 - Modules
 - Motion
- Core features *
- Drive limits *
- Gyro limits *
- Lighting *

* Manufacturer only

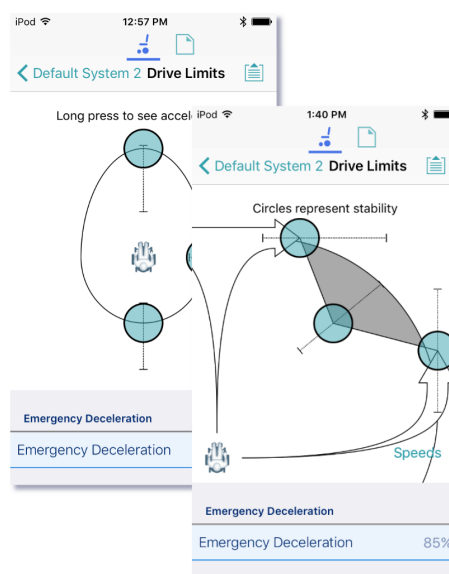


Figure 9: Drive limit speed and stability parameter editing screens

4.3.2.1 Editing a parameter

There are several ways to edit a parameter:

- Change numerical parameters with the +/- buttons, or the low, high or default buttons
- Change non-numerical parameters (yes/no, on/off, etc) with a slide control
- Change the text in the name of a parameter
- Edit some parameters with graphical input tools

For details on how to edit parameters, see [6.5 Modify parameters](#).

For details on how to modify profile and functions, see [6.6 Modify profiles and functions](#).



Note: Function states

The colour of a function icon indicates the state of the function.



Function available



Function not available



Function inoperable

4.3.3 Utility screens

Utility screens display only when particular hardware or features are available.

There are currently three utility screens in LiNX:

- Adaptive load compensation calibration
- Gyro calibration
- Sip and puff calibration

4.3.3.1 ALC calibration

The Adaptive Load Compensation calibration utility calculates the motor resistance values to help provide more consistent motor speed.

ALC must be enabled before this utility can be used.

See information about using the ALC calibration at [Tune Adaptive Load Compensation \(ALC\)](#).

4.3.3.2 Gyro calibration

The Gyro calibration utility helps you set up a gyro module.

A gyro module must be fitted and connected to the system before this utility becomes available.

See information about setting up the gyro utility at [Tune the gyro](#).

4.3.3.3 Sip and Puff calibration

Sip and puff calibration lets you set up sip and puff thresholds on your input module.

See information about calibrating sip and puff at [Sip and puff calibration](#).

4.3.4 Diagnostic screens

Diagnostic screens let you view information about system activity.

View:

- [live diagnostics](#)
- [the system summary](#)
- [the chair log – active and previous errors](#)
- [chair statistics](#)

4.3.4.1 Live diagnostics

When connected to a wheelchair, tap **Live Diagnostics | Drive** to view real-time graphs and data:

- Speed Demand (%)
- Turn Demand (%)
- Left Motor
 - Voltage (V)
 - Current (A)
 - Resistance (mΩ)
- Right Motor
 - Voltage (V)
 - Current (A)
 - Resistance (mΩ)
- Battery Voltage (V)
- Speed Dial (%)



Figure 10: Real-time diagnostics

Tap **Back** to exit the diagnostics.

4.3.4.2 The system summary

Tap **System Summary** to view the System Summary screen.

The System Summary screen displays details of the system's connected modules and tools, such as:

- a connected module's identifier
- a module's software version
- a module's serial number
- the access level of the LiNX Access Key

A link to the Dynamic Controls website is at the bottom of the screen.

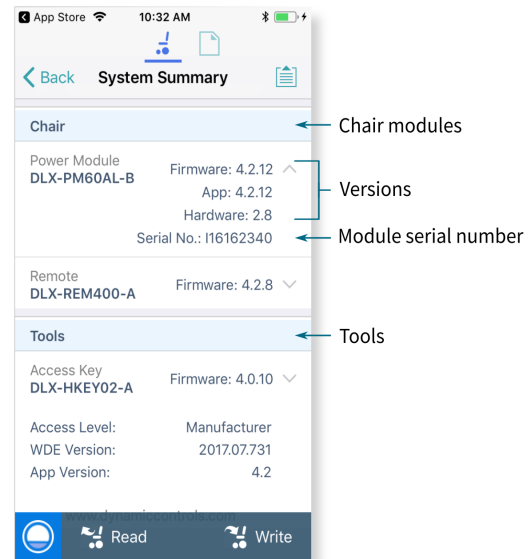


Figure 11: The system summary

4.3.4.3 Active errors

Tap **Active Errors** to access and view:

- *the chair log*
- *chair statistics*

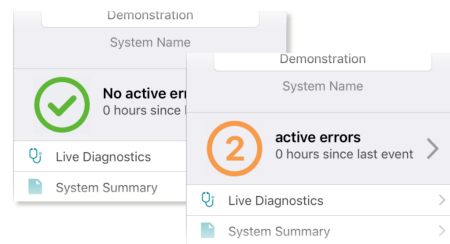


Figure 12: Active error button

View the chair log

Tap **Active Errors**, then tap **Chair Log** to display:

- a list of active errors
- a list of previous errors in the event log

Each entry in the log displays the error, its flash code (e.g. FC:5), and the component where the error occurred.

Tap an error entry to view further information on the error.

Clear the event log

Scroll to the bottom of the list and tap **Clear Event Log**.

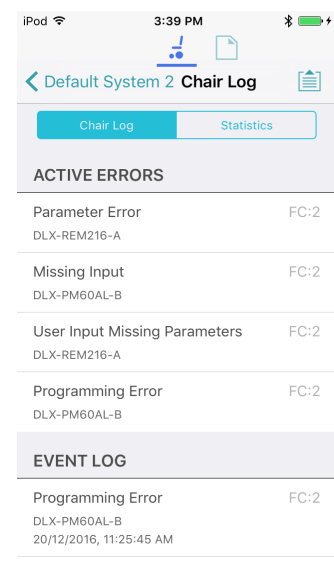


Figure 13: Viewing the event log

View chair statistics

Tap **Statistics** to view current system statistics.

The statistics screen is divided into the following sections:

- *Battery usage*
- *Drive statistics*

Battery usage

The battery usage statistics are in the top section of the statistics screen.

- To view more information about a battery usage statistic, tap the statistic, and a description displays under it.
- To reset the statistics, click **Reset Battery Usage** at the bottom of the battery usage section.

Available battery usage statistics are detailed in the table below:

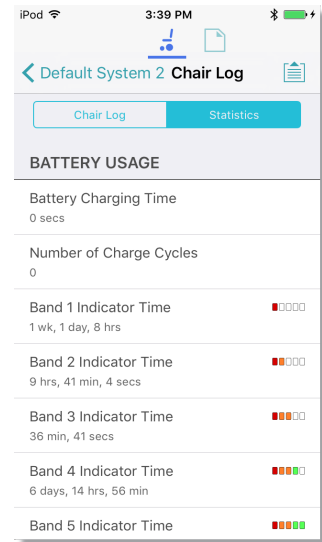


Figure 14: Reading battery usage

Battery usage statistics	Details
Battery Charging Time	The time that the batteries have been charged for
Number of Charge Cycles	The number of times the batteries have been charged
Band 1 Indicator Time	The total time the LiNX system is operated with the state of charge between 0 and 20%
Band 2 Indicator Time	The total time the LiNX system is operated with the state of charge between 20% and 40%
Band 3 Indicator Time	The total time the LiNX system is operated with the state of charge between 40% and 60%
Band 4 Indicator Time	The total time the LiNX system is operated with the state of charge between 60% and 80%
Band 5 Indicator Time	The total time the LiNX system is operated with the state of charge between 80% and 100%
Average Battery Voltage	The average battery voltage over the last 31 days
Last Charge Timestamp	The date and time when the batteries were last put on charge
Number of High Battery Events	The number of high battery warnings
Number of Low Battery Events	The number of low battery warnings
Number of Deep Discharge Warnings	The number of deep discharge warnings
Battery Usage Last Reset	Date when these statistics were last reset

Drive statistics

The drive statistics are in the bottom section of the statistics screen, below the battery statistics.

- To view more information about a drive statistic, tap a statistic, and a description displays below it.
- To reset the statistics, click **Reset Drive Statistics** at the bottom of the drive statistics section.

Drive statistic	Details
Average Motor Current	The average current drawn across all motors while driving
Maximum Left Motor Current	The peak measured motor current
Maximum Left Motor Current Time	Time spent drawing the "Maximum Drive Current Draw"
Maximum Right Motor Current	The peak measured motor current
Maximum Right Motor Current Time	Time spent drawing the "Maximum Drive Current Draw"
Powered Up Time	The total time the wheelchair controller is powered up
Drive Time	The total time the wheelchair has been driven
Average Drive Time	Average drive time
Time Near Maximum Current	The duration the current was within 20% of maximum threshold
Drive Statistics Last Reset	Date when these statistics were last reset

4.3.5 Navigation bar

The navigation bar is at the top of each screen. Its contents change depending on the screen. (See a typical layout in *Figure 15*.)

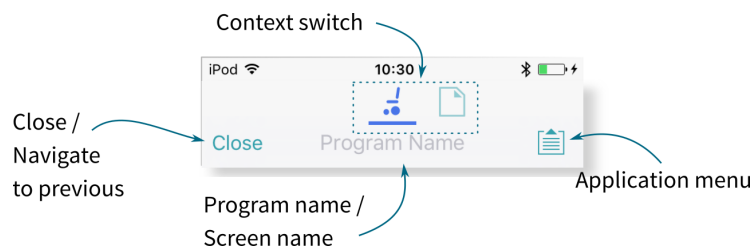


Figure 15: Navigation bar

4.3.6 Application menu

The Application menu contents depend on the selected context:

- Connection context
- File context

In the **connection context**, and when connected to a system, the following options are available:

- Save — save the configuration as a file (.lci)
- Save As — save the configuration as a file (.lci) with a different name
- Read from Chair — read the configuration from the connected LiNX system
- Write to Chair — write the configuration to the connected LiNX system
- Upgrade — go to firmware upgrade mode
- Store authorisation — store an Access Level Certificate

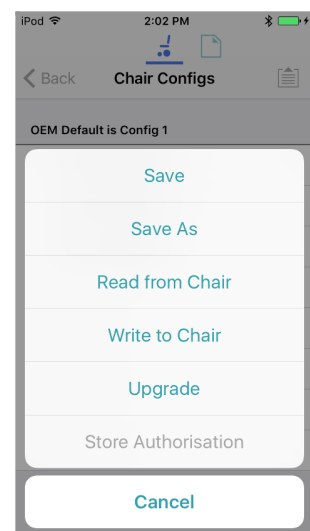


Figure 16: Application menu – connection context

In **file context**, the options are:

- Save
- Save As
- Convert Configuration — convert the file to a valid configuration
- Write to Chair (if connected to a LiNX system).

Warning

The Write to Chair option and the Write button (in Bulk Edit) overwrite the data on the connected LiNX system

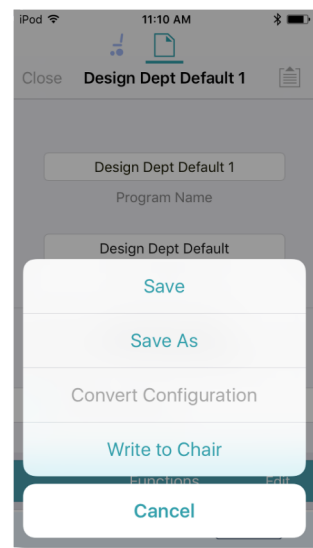


Figure 17: Application menu – file context

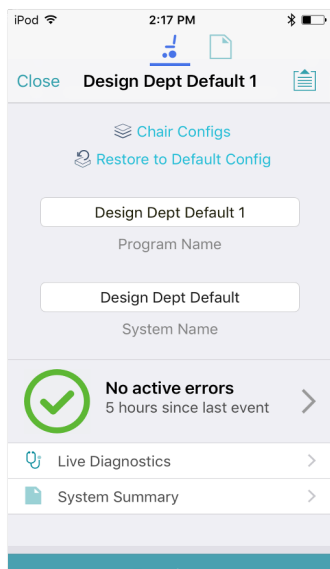
5 Navigation

5.1 Overview map	30
5.2 Detail map – excluding profiles and chair setup	31
5.3 Detail maps – profiles	32
5.3.1 Profile	32
5.3.2 Attendant profile	32
5.4 Detail maps – chair setup	33

In this chapter, find out where to access specific parameters and diagnostic information in the LiNX Access iOS tool.

5.1 Overview map

Here are the parameters and diagnostic information accessible from the home screen:



Chair configurations
Restore to default configuration
Program name
System name
Active errors
Live diagnostics
System summary
Profiles (including Attendant profile, where relevant)
User preferences
Chair setup
Core features *
Drive limits *
Gyro limits *
Lighting *

Figure 18: Home screen overview map * Manufacturer only

Drill down from these parameters to access further parameters (described below):

- *Detail map – excluding profiles and chair setup*
- *Detail maps – profiles*
- *Detail maps – chair setup*



Note

The parameter groups accessed and displayed by the LiNX Access iOS tool vary depending on: your LAK's access level (manufacturer or distributor), the system's configuration and the connected modules.

5.2 Detail map – excluding profiles and chair setup

The parameters accessible from the home screen (excluding profiles and chair setup) are:

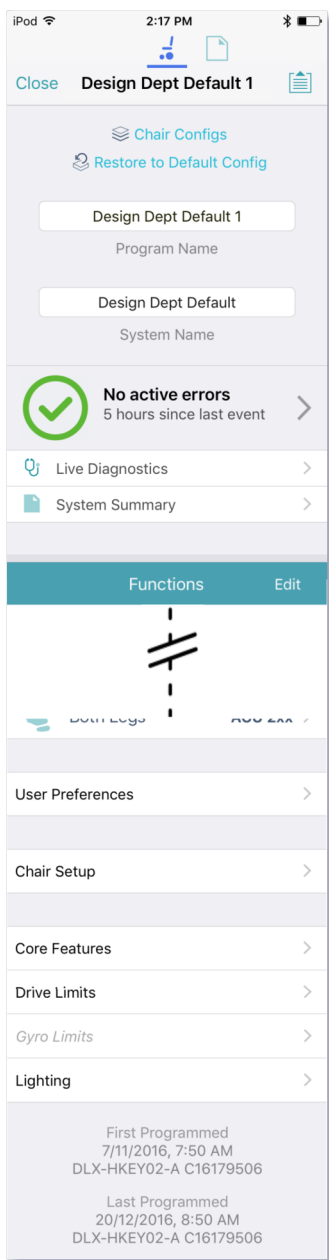


Figure 19: Home screen detail – excluding profiles and chair setup

* Manufacturer only

Active errors	Chair log	Active errors
		Event log
	Statistics	Battery usage
		Drive statistics
Live diagnostics	Drive	Speed demand
		Turn demand
		Left motor
		Right motor
		Motor resistance
		Battery voltage
		Speed dial
System summary	System modules	
	Access level	
	WDE version	
	Application version	
User preferences	Drive settings	
	Switched driving	
	Sleep settings	
	Lock settings	
	User function navigation	
	Control input/output settings	
	Display settings	
Core features *	Battery management	
	Anti-rollaway	
	Actuators	
	Firmware	
	User function change	
	System configuration	
Drive limits *	Emergency deceleration	
	OEM forward	
	OEM reverse	
	OEM turn	
	OEM stability	
Gyro limits *	OEM forward gyro	
	OEM reverse gyro	
	OEM turn gyro	
	OEM stability gyro	
Lighting *	Turn indicators	
	Position	

5.3 Detail maps – profiles

A profile is a container for user functions: drive, seating, connectivity and utility. A profile can contain one or more functions. For profiles with multiple functions, the functions can be of the same type, or mixed. LiNX has two types of profile:

- Profile (many can be created)
- Attendant profile (one available, and only on an ACU module)

Wheelchair occupants can see all profiles except the attendant profile, while wheelchair attendants can only see the attendant profile.

5.3.1 Profile

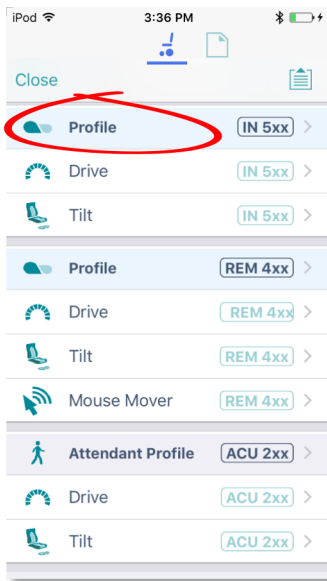


Figure 20: Profile detail

Drive	General
	Forward
	Reverse
	Turn
	Stability
	Latched Driving
	Performance
	Operation
Seating	General
	Axis
Mouse Mover	General
	Cursor Speeds
	Operation
Switch Control	General
Utility	General

5.3.2 Attendant profile

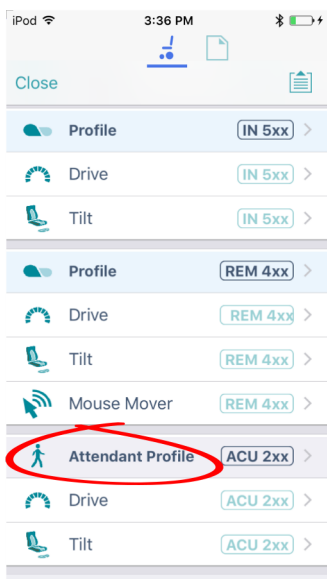


Figure 21: Attendant profile

Drive	General
	Forward
	Reverse
	Turn
	Stability
	Latched Driving
	Performance
	Operation
Seating	General
	Axis

5.4 Detail maps – chair setup

From the home screen, tap **Chair setup** to access parameters under two tabs: Modules / Motion.

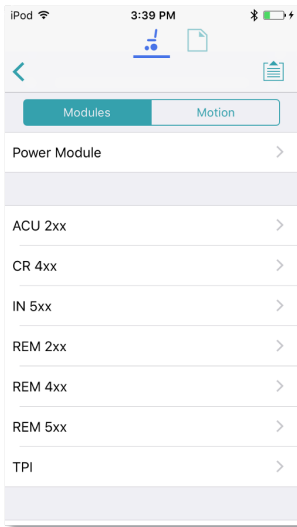


Figure 22: Chair setup – Modules

Modules	Power module	Motors
		<i>Load compensation</i>
		<i>Park brake</i>
		<i>Actuators - Electrical and Timing</i>
		<i>Control inputs - Port settings</i>
		<i>Control input/output port settings</i>
	ACU / Compact Remote / Input Module / REM modules / TPI	<i>User input - configuration</i>
		<i>Port settings (as relevant)</i>
	GYR 100	<i>Gyro performance</i>
	ACT200-1 *	<i>Actuators - Electrical and Timing</i>
		<i>Angle Sensor - Triggers</i>
		<i>Angle Sensor - Orientation</i>
		<i>Control inputs - Port settings</i>
	ACT400-1 *	<i>Actuators - Electrical and Timing</i>
		<i>Angle Sensor - Triggers</i>
		<i>Angle Sensor - Orientation</i>
		<i>Control inputs/outputs</i>

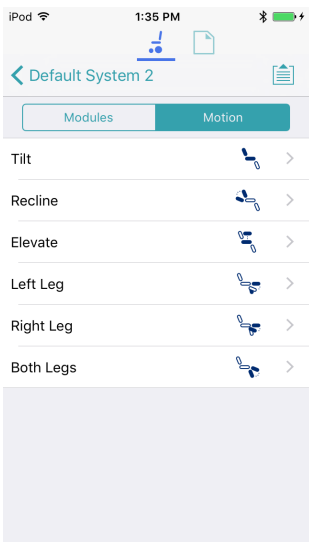


Figure 23: Chair setup – Motion

Motion *	Tilt, Recline, Elevate, Left leg, Right leg, Both legs	Identification
		<i>Behaviour</i>
		<i>Actuation channels</i>

* Manufacturer only

6 How to ...

6.1 Open the LiNX Access iOS tool	36
6.2 Select the context	36
6.2.1 Wheelchair	36
6.2.2 File	37
6.2.3 Toggle between contexts	37
6.3 Connection context actions	37
6.3.1 Connect and disconnect to the LiNX Access tool	38
6.3.2 Manage chair configurations	39
6.3.3 Change the program name and system name	40
6.3.4 Modify a program	40
6.3.5 Save a program	41
6.3.6 Upgrade the firmware	42
6.3.7 Tune the gyro	43
6.3.8 Tune Adaptive Load Compensation (ALC)	43
6.3.9 Calibrate sip and puff	44
6.3.10 Store the Access Level Certificate	45
6.4 File context actions	46
6.4.1 Open and close a file	46
6.4.2 Modify a file	47
6.4.3 Convert configuration	48
6.4.4 Save a file	48
6.4.5 Write to the wheelchair	49
6.4.6 Delete a file	50
6.4.7 Share a file	51
6.5 Modify parameters	52
6.5.1 Modify parameters textually	52
6.5.2 Modify parameters numerically	52
6.5.3 Modify parameters graphically	53
6.6 Modify profiles and functions	57
6.6.1 Add and delete profiles	58
6.6.2 Add, delete and move functions	59
6.6.3 Edit function icons	62

6.1 Open the LiNX Access iOS tool

1. Open the LiNX Access iOS tool on your iOS device using the LiNX icon on your device.
The **Connect to Device** screen opens.
2. From the Navigation bar, select a context to choose to work on a connected wheelchair or a file stored on your device.
See [6.2 Select the context](#) for details on how to select a context.

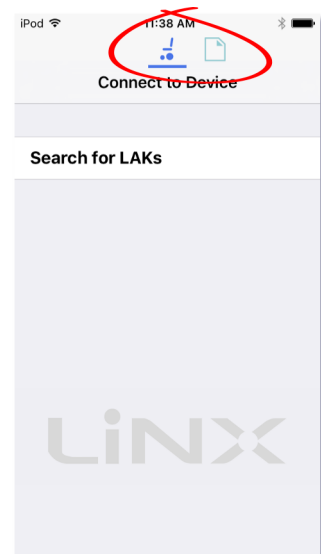



Figure 24: Select a context

6.2 Select the context

6.2.1 Wheelchair

To work on a connected wheelchair, select  (the **connection context**) from the context switch on the *Navigation bar*.

When you select the connection context, and if you are connected to a LiNX system, the last screen you were working on displays.

Otherwise, the **Connect to Device** screen displays.

(See [6.3.1 Connect and disconnect to the LiNX Access tool](#) for how to connect to a LiNX system from the Connect to Device screen.)

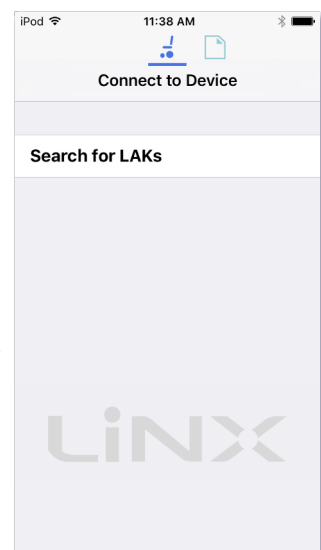



Figure 25: Connect to Device screen

6.2.2 File

To work on a saved file, select  (the **file context**) from the context switch on the *Navigation bar*.

When you select the file context, and if you have a file open, the last screen you were working on displays.

Otherwise, the **Load from File** screen displays.

(See [6.4.1 Open and close a file](#) for how to open a file.)

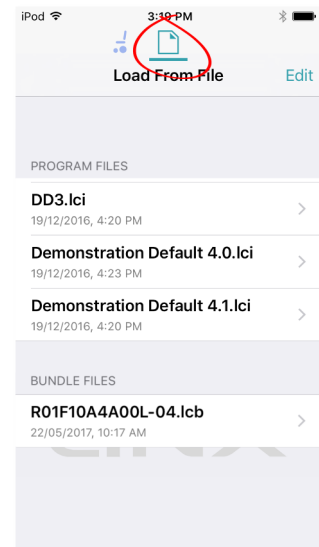


Figure 26: Load from File screen

6.2.3 Toggle between contexts

Tap the icons on the context switch (see [Figure 27](#)) at any time to toggle between **connection context** and **file context**.

The selected context displays a coloured bar beneath its icon.



Figure 27: Context switch

6.3 Connection context actions

The following actions are only relevant when in **connection context**. (For actions related to the **file context**, see [6.4 File context actions](#).)


Find out here how to:

- *Connect and disconnect to the LiNX Access tool*
- *Manage chair configurations*
- *Change the program name and system name*
- *Modify a program*
- *Save a program*
- *Upgrade the firmware*
- *Tune the gyro (manufacturer only)*
- *Tune Adaptive Load Compensation (ALC)*
- *Calibrate sip and puff*
- *Store the Access Level Certificate*

6.3.1 Connect and disconnect to the LiNX Access tool

6.3.1.1 Connect

To connect the LiNX Access iOS tool to the wheelchair:

1. Power up a LiNX wheelchair system.
2. Insert a LAK into the remote module's XLR port.
3. Open the LiNX Access iOS tool application.
4. Select the connection context button:  (in the *Navigation bar*).
5. Tap the **Search for LAKs** button and select a LAK from the *Select an Accessory* list.
A warning screen displays.
6. Read the warning message and tap **I Agree** to continue.

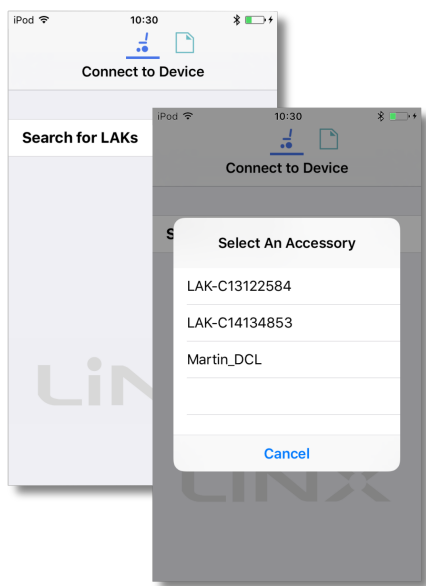


Figure 28: Selecting a LAK

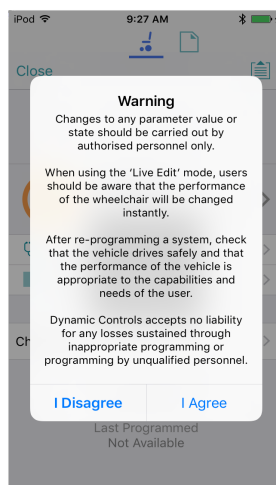


Figure 29: Agree to terms in warning message

6.3.1.2 Disconnect

To disconnect the LiNX Access iOS tool from the wheelchair:

1. Tap **Close** (at the top of the screen).

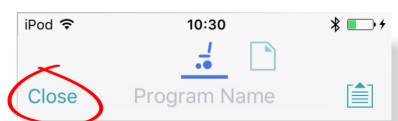


Figure 30: Disconnecting from a connected wheelchair

If all data is saved, the tool returns to the *Connect to Device* screen. If any data is unsaved, the following options display: Save, Write to Chair, Disconnect, Cancel.

Warning

If you click **Disconnect**, any unsaved data is lost.

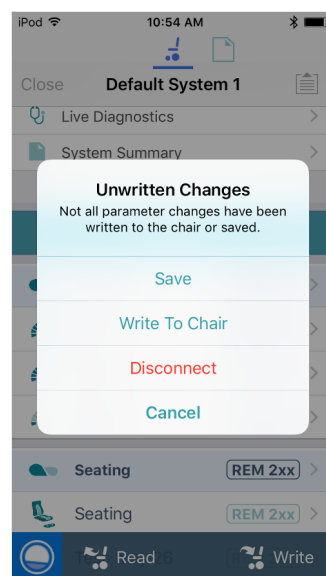


Figure 31: Unwritten changes on the connection context

6.3.2 Manage chair configurations

This section explains how to:

- *select a chair configuration*
- *add a chair configuration*
- *delete a chair configuration*

6.3.2.1 Select a chair configuration

 **Note**

When a new configuration is selected, the system automatically power-cycles before the configuration becomes active.

To select a chair configuration (and make it the active configuration for the wheelchair):

1. Tap **Chair Configs** at the top of the **Home** screen.
The **Chair configs screen** displays.
2. Tap a named configuration.
A warning message displays.
3. On the warning message, tap **Yes** to proceed with your selection.
The system returns you to the home screen.

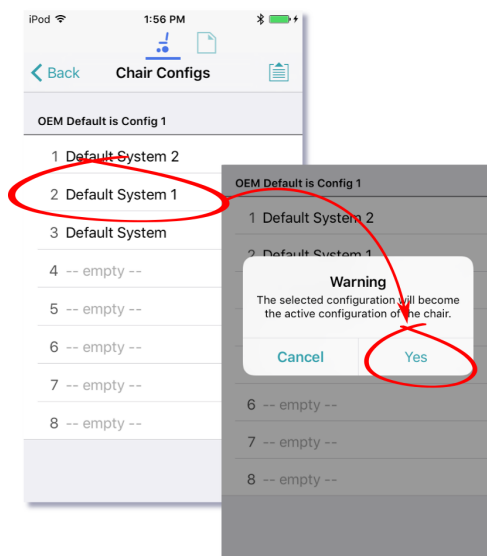


Figure 32: Select a chair configuration

6.3.2.2 Add a chair configuration (manufacturer only)

 **Note**

If in bulk edit mode: before you add the active configuration to the store, ensure it has been written to the chair. To do this, tap **Write** in the blue bar at the bottom of the screen. Wait for the success message before proceeding.

To add the active chair configuration to the chair configuration store:

1. Tap **Chair Configs** at the top of the **Home** screen.
The chair config screen displays.
2. Tap an **--empty--** configuration slot.
A **Working** dialogue displays while the configuration is saved to the empty slot, and the empty slot is renamed with the program name.
3. Tap **Back** to return to the Home screen.

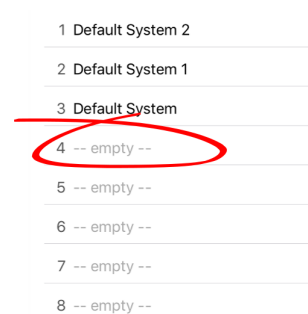


Figure 33: Adding a chair configuration

6.3.2.3 Delete a chair configuration (manufacturer only)

To delete a configuration from the configuration store:

1. Tap **Chair Configs** (top of **Home** screen).
The Chair Configs screen displays.
2. Tap and hold a named configuration until its background turns grey, and then swipe to the left.
A red **Delete** button displays.
3. Tap **Delete**. The configuration is removed and replaced with an **--empty--** slot.

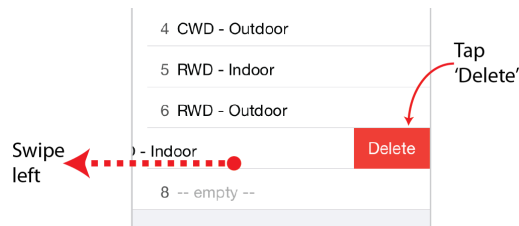


Figure 34: Deleting a chair configuration

6.3.3 Change the program name and system name

The program and system names can be changed depending on your LiNX Access Key version:

- **Distributors** (DLX-HKEY01-A): can edit the Program Name
- **Manufacturers** (DLX-HKEY02-A): can edit the Program Name and System Name

The names are located near the top of the home screen.

1. Type in the name(s) you require.
2. Tap **Return** (on the keyboard).
3. Save the name(s) as required.

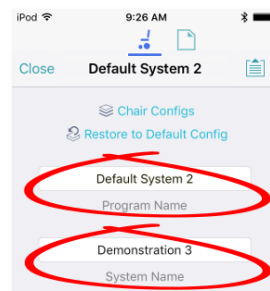


Figure 35: Change program name or system name

Note

- In **Connection context, live edit**, the new names are saved automatically to the wheelchair.
- In **Connection context, bulk edit**, tap **Write** to write the names to the wheelchair.
- In **File context**, save or write the file from the Application menu.

6.3.4 Modify a program

Program parameters can be modified numerically, textually and graphically. (See 6.5 *Modify parameters*.) There are two edit modes in which to modify a program:

- *Live edit*
- *Bulk edit*

Note

When a parameter is modified, its background colour changes to yellow to indicate it has been modified. The yellow background reverts to white when the modified parameter value is written to the controller or saved to a file.

In live edit, it may be difficult to see the background colour changing as the live edit operation can occur rapidly.


6.3.5 Save a program

Save a program using:

- Save
- Save As

6.3.5.1 Using Save

To save the current program as a file to your iOS device.

1. Tap the **Application** menu button .
2. Tap **Save**.
 - If you have previously saved the program to a file in the current session it will automatically save to the same file (and overwrite it).
 - If you have not previously saved the program, you will be prompted to **Save as** with a new file name. After saving the program, the tool displays a confirmation message with the file's name.
3. Tap **Dismiss** to remove the message and continue.

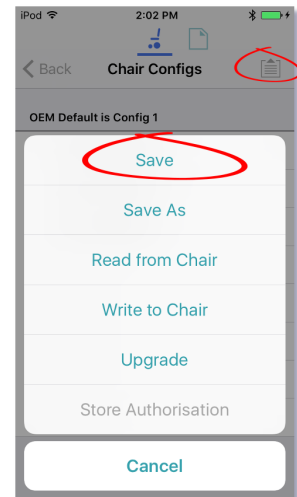


Figure 36: Using Save

Note


All files are saved with a .lci extension.

If, when you save, you are prompted to Save As with a new file name:

- If the program name is set, you can save with the program name.
- If the program name has not been set, the file can be saved with a date/time stamp: **YYYYMMDD-HHMMSS.lci** where: YYYY = year; MM = month; DD = day; HH = hour; MM = minutes; SS = seconds

6.3.5.2 Using Save As

To save the current program with a different name to your iOS device:

1. Tap the **Application** menu button .
2. Select **Save as**.
3. Enter a new file name (or use the displayed file name).
4. Tap **Save**.

After saving the program, the tool displays a confirmation message with the file's name.
5. Tap **Dismiss** to remove the message and continue.

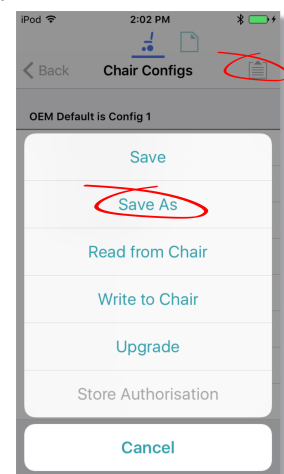


Figure 37: Using Save As



Note

All files are saved with a **.lci** extension.

- If the file has not been saved before, and if the program name is set, the save as dialog suggests saving with the program name.
- If the program name has not been set, the file can be saved with a date / time stamp: **YYYYMMDD-HHMMSS.lci** where: YYYY = year; MM = month; DD = day; HH = hour; MM = minutes; SS = seconds.
- If the file has been saved before, the save as dialog suggests saving with "Copy of" prepended before the name. For each subsequent save, it suggests saving with an incremental numerical value appended to the name.

6.3.6 Upgrade the firmware

1. Tap the **Application** menu button



2. Tap **Upgrade**.

The screen displays "Entering Firmware Upgrade Mode. Please Wait...".

If the connected modules are up-to-date, the Upgrade screen displays FIRMWARE UP-TO-DATE with a list of connected modules and their respective versions.

Modules that need upgrading display under NEW FIRMWARE AVAILABLE.

3. If no modules require updating:
 - Tap the **Done** button (top-left, navigation bar) to finish.

Otherwise:

- Tap a single module to upgrade it, or
- Tap the **Upgrade All** button (top-right, navigation bar).
During a module upgrade, a progress bar displays.
Once the upgrade has completed, its status displays (succeed or fail).
- Tap **Done** to finish.

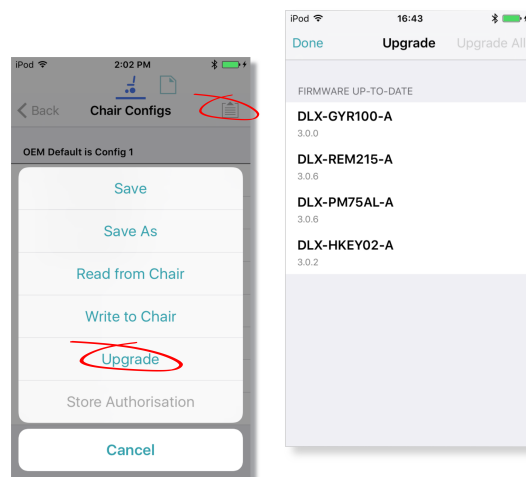


Figure 38: Upgrading the firmware

6.3.7 Tune the gyro

Note

A gyro module must be connected and enabled in the current drive function before continuing. Gyro tuning is available only in live edit. For more information on gyro tuning, refer to the LiNX Systems Installation Manual (GBK54036).

1. From the **Home** screen, tap **Chair Setup**.
2. Tap **GYR 100**.
3. Tap **Go to Gyro Turn Calibration**.
4. Follow the instructions on the screen.

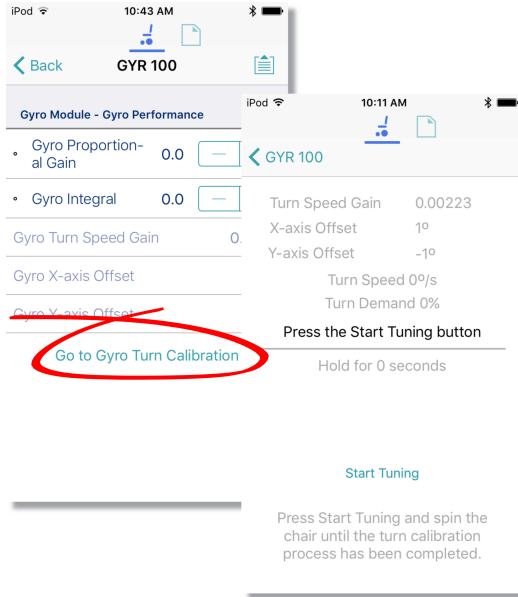


Figure 39: Tuning the gyro

6.3.8 Tune Adaptive Load Compensation (ALC)

Note

Adaptive Load Compensation (ALC) must be enabled before tuning. To enable ALC:

1. From the **Home** screen, tap **Chair Setup**.
2. Select **Modules**.
3. Tap **Power Module**.
4. Scroll down to **Load Compensation**, enable **Bulk Edit**, and switch on **Adaptive Load Comp Enabled**.
5. Tap **Write to Chair**.

To tune the adaptive load compensation:

1. From the **Home** screen, tap **Chair Setup**.
2. Select the **Modules** tab.
3. Tap **Power Module**.
4. Scroll down to **Power Module – Load Compensation**, and tap **Go to ALC Calibration**.
5. Follow the instructions on the screen.

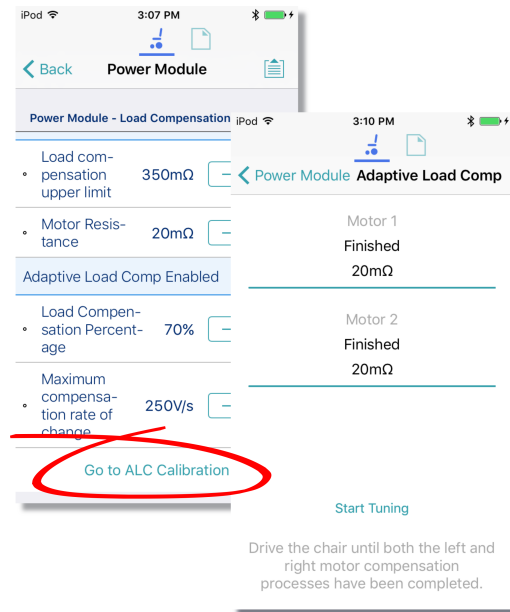


Figure 40: Tuning Adaptive Load Compensation

6.3.9 Calibrate sip and puff

 **Note**

An input module must be connected and Sip and Puff enabled in the module before calibrating. To enable Sip and Puff:

1. From the **Home** screen, tap **Chair Setup**.
2. Select **Modules**.
3. Tap **IN 5xx**.
4. Tap **User Input Configuration**, unlock Bulk Edit, and select Sip and Puff from the **User Input Configuration** drop-down menu.
5. Tap **Write to Chair**.

6.3.9.1 Open sip and puff calibration

1. From the **Home** screen, tap **Chair Setup**.
2. Select the **Modules** tab.
3. Tap **IN 5xx**.
The IN5XX screen opens.
4. Ensure *Sip and Puff* is selected in **User Input Configuration**.
5. Tap **Go to Sip and Puff Calibration**.
6. Calibrate *sip*, *puff* and *test* as required.

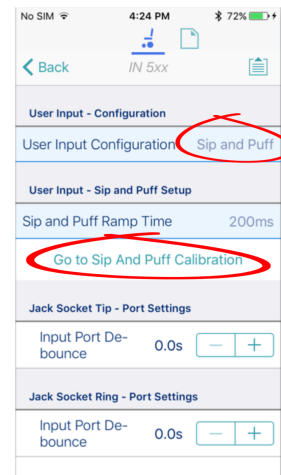


Figure 41: Open sip and puff calibration

6.3.9.2 Calibrate sip

1. Tap the **Sip** tab.
2. Use the sliders on the right of the screen to set the sip levels as required.

6.3.9.3 Calibrate puff

1. Tap the **Puff** tab.
2. Use the sliders on the right of the screen to set the puff levels as required.

6.3.9.4 Test sip and puff

1. Tap the **Test** tab.
2. Use the **Test** screen to test your sip and puff calibrations.

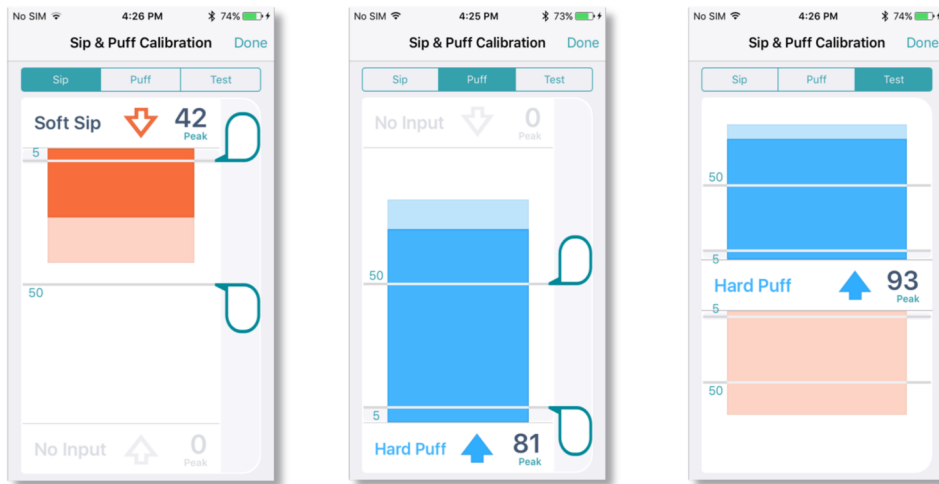


Figure 42: Sip and Puff calibration and test screens

Note

Refer to the LiNX System Installation Manual (GBK54036) for technical details on how to calibrate sip and puff.

6.3.10 Store the Access Level Certificate

The Access Level Certificate determines how you view and edit offline programs (*.lci files) when in file context.

If you do not store your certificate, you get read-only access to your stored .lci files.


The certificate is taken from a connected LiNX Access Key and provides access to your files on one of two levels:

- Distributor – access to a limited number of parameters
- Manufacturer – access to all parameters

To edit files with distributor's access requires an Access Level Certificate from a distributor-level LiNX Access Key (DLX-HKEY01-A).

To edit files with manufacturer's access requires an Access Level Certificate from a manufacturer-level LiNX Access Key (DLX-HKEY02-A).

To store an Access Level Certificate:

1. Connect to a LiNX system.
2. Tap the **Application** menu button .
3. Select **Store Authorisation**^{†1}.
4. Tap **Store** to continue^{†2} or **Don't Store** to cancel.

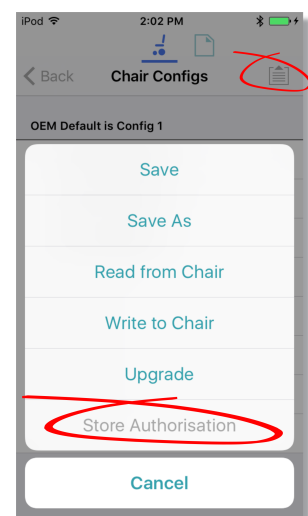


Figure 43: Store authorisation

After storing a certificate, you can edit your stored files.

 **Notes**

‡1 A message displays showing how many authorisations remain and asking if you want to continue. LiNX Access Keys only permit ten Store Authorisation operations. Once ten authorisations have occurred, the menu item is grayed out.

‡2 If the LiNX Access iOS tool application is removed from your iOS device, the Access Level Certificate will be lost.

 **Note**

Once a certificate has been stored on your iOS device, the access level granted by the stored certificate does not have to be the same as the access level granted by subsequent LiNX Access Keys. You can mix the access levels of LiNX Access Keys and stored Access Level Certificates.

With mixed access levels, the higher level takes precedence when editing parameters. That is, if either the Access Level Certificate or the LiNX Access Key is at manufacturer-level access, you can edit parameters at manufacturer level: a manufacturer's LiNX Access Key (DLX-HKEY02-A) overrides a stored distributor-level certificate, and a stored manufacturer's-level certificate overrides a distributor's LiNX Access Key (DLX-HKEY01-A).

6.4 File context actions


The following tasks are only relevant when in file context. (For tasks related to the connection context, see 6.3 *Connection context actions*.)

Find out here how to:

- *Open and close a file*
- *Modify a file*
- *Convert configuration*
- *Save a file*
- *Write a file to a wheelchair*
- *Delete a file*
- *Share a file*

6.4.1 Open and close a file

6.4.1.1 Open a file

1. Select the file context button:  (in the *navigation bar*).
2. Tap a file from the list in the **Load From File** screen.

 **Note**

If you already have a file open, click **Close** (at the top-left of the screen) to return to the **Load from File** screen.

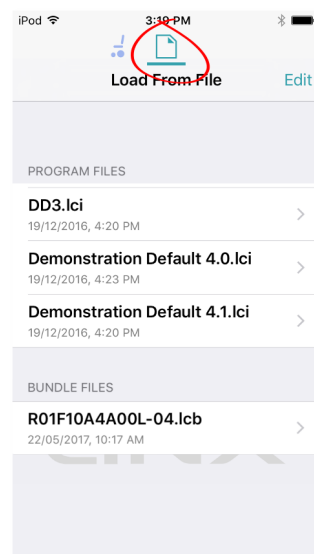


Figure 44: Load from file

6.4.1.2 Close a file

Click **Close** at the top left of the Home screen.

If all data is saved, the tool returns to the *Load from file* screen.

If any data is unsaved, the *Unsaved Changes* options (shown on the right) display.

Warning

Click **Close** in the *Unsaved Changes* option and any unsaved data is lost.

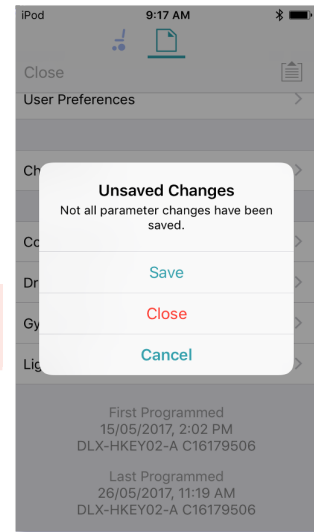


Figure 45: Unsaved changes in file

6.4.2 Modify a file

Values and parameters in a file can be edited:

- *textually*
- *numerically*
- *graphically*

(**Note:** Use *Save* or *Save As* after editing a file.)

6.4.2.1 If the file cannot be modified

If the file cannot be edited, or certain parameters are not available, check:

- **the Access Level Certificate has been stored**
The Access Level Certificate from your LiNX Access Key has to be stored on your iOS device before you can edit files. (See section [6.3.10 Store the Access Level Certificate](#).)
- **the access level**
Editing is limited by the stored Access Level Certificate.
 - Manufacturers (using the DLX-HKEY02-A Access Key) can edit the full range of available parameters.
 - Distributors (using the DLX-HKEY01-A Access Key) can edit a limited range.


To view the access level: open the *System Summary* and view *Access Level* at the bottom of the screen.

6.4.3 Convert configuration

If you have a file with an invalid configuration you will be able to open it but not write it to the chair.

An invalid configuration dialog appears when you open it.

The convert configuration option allows some invalid files to be converted to a valid configuration.

1. Tap the Application menu button .
If your file can be converted the Convert Configuration option will be enabled.
2. Tap **Convert Configuration** and follow the screen prompts.

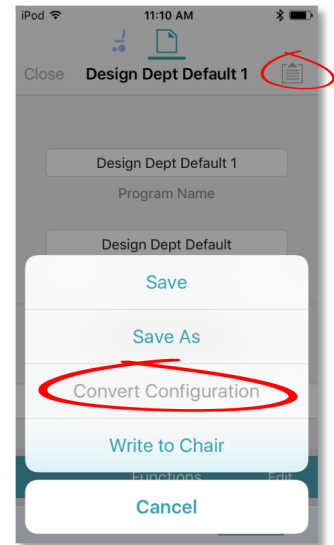


Figure 46: Convert configuration


6.4.4 Save a file

Save a file using:

- Save
- Save as

6.4.4.1 Using Save

To save the current program as a file to an iOS device:

1. Tap the Application menu button .
2. Tap **Save**.
After saving the program, the tool displays a message that the save was successful and with the file's name.
3. Tap **Dismiss** to remove the message and continue.

Note

All files are saved with a .lci extension.

- If the program name has been set, the file can be saved with the program name.
- If the program name has not been set, the file can be saved with a date / time stamp: YYYYMMDD-HHMMSS.lci where: YYYY = year; MM = month; DD = day; HH = hour; MM = minutes; SS = seconds.

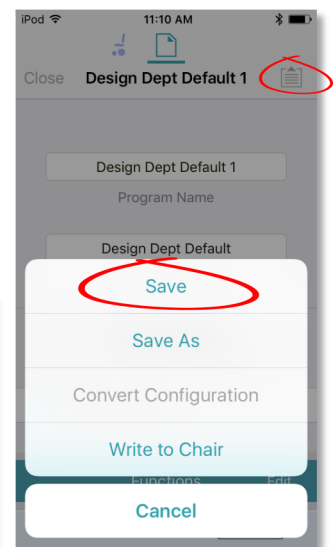



Figure 47: Using Save

6.4.4.2 Using Save As

To save the current program as a file with a different name:

1. Press the Application menu button .
2. Select **Save As**.
A dialog displays asking for the new file name.
3. Enter the new file name.
4. Tap **Save**.
After saving the program, the tool displays a message showing the file's name and that the save was successful.
5. Tap **Dismiss** to remove the message and continue.

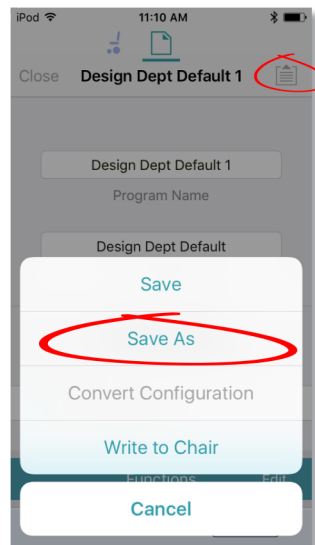


Figure 48: Save As

Note

All files are saved as with a .lci extension.

- If the file has not been saved before, and if the program name has been set, the save as dialog suggests saving the file with the program name.
- If the program name has not been set, the file can be saved with a date / time stamp: YYYYMMDD-HHMMSS.lci where: YYYY = year; MM = month; DD = day; HH = hour; MM = minutes; SS = seconds.
- If the file has been saved before, the save as dialog suggests saving with "Copy of" prepended before the name. For each subsequent save, it suggests saving with an incremental numerical value appended to the name.

6.4.5 Write to the wheelchair

Note

This feature is only available when a wheelchair is connected.

There are two options to write a program to a connected wheelchair:

- The Write button (when in bulk edit)
- The Application menu

The Write button

When in bulk edit, tap the **Write** button at the bottom of the screen.

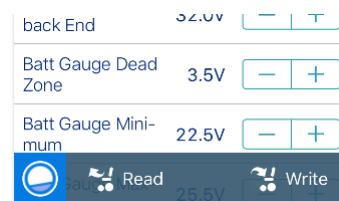



Figure 49: Read/write a file

The Application menu

1. Tap the Application menu .
2. Select **Write to Chair**.

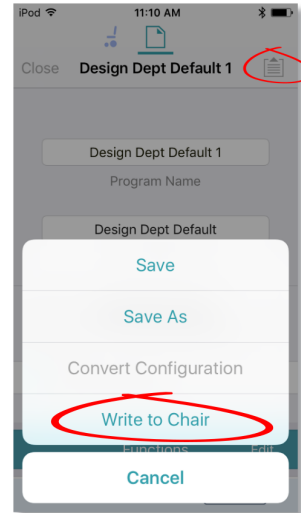


Figure 50: Write to chair



Note

After writing to the wheelchair, the tool power-cycles the system and then automatically reconnects to the system when the power returns.



Warning

When you write to the wheelchair from File context, the data on the wheelchair is over-written.

6.4.6 Delete a file

To delete a file:

1. Select **Edit** from the **Load From File** screen (top-right).
2. Select one or more files from the file list displayed.
3. Tap the trash can (bottom-left of the screen).
4. Tap **Done** to leave the screen.



Warning

Files are deleted immediately when you tap the trash can.

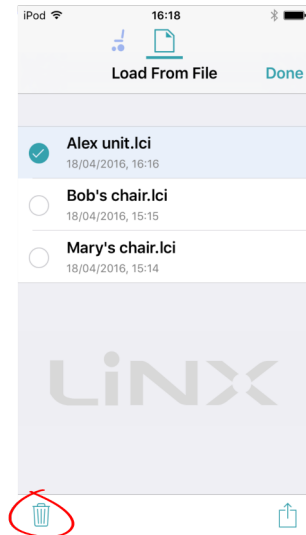


Figure 51: Deleting files


6.4.7 Share a file

You can:

- *share a .lci or .lcb file from the iOS tool* (including by email)
- *import a .lci or .lcb file into the iOS tool*

6.4.7.1 Share a .lci or .lcb file from the LiNX Access iOS tool

To share one or more files with other people:

1. Select **Edit** from the **Load From File** screen (top-right navigation bar).
2. Select one or more files from the file list displayed.
3. Tap the **Share** icon  at the bottom-right of the screen.
A standard range of Share options displays.
4. Select the Share option you require (Mail, for example).
Selected program files will be added as attachments to the selected option.
5. Follow the prompts to share or send the files.

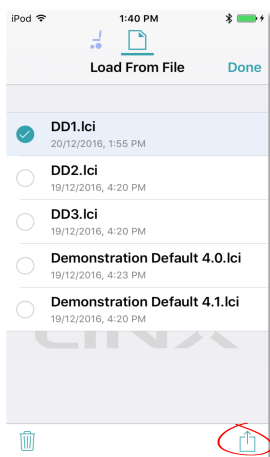


Figure 52: Selecting the share options

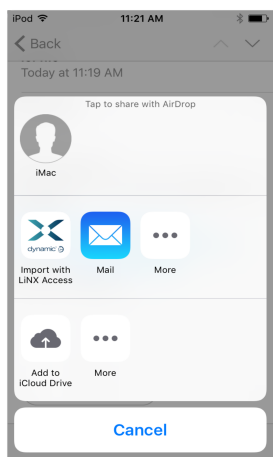


Figure 53: Share options

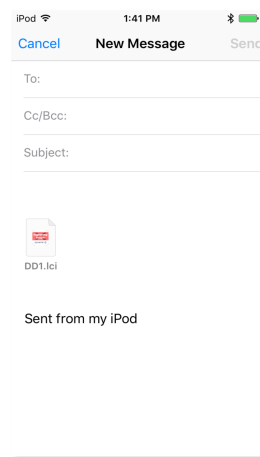


Figure 54: Sending a file via Mail

6.4.7.2 Import a .lci or .lcb file into a LiNX Access iOS tool

To import a .lci or .lcb file into the tool:

1. Email the file (as an attachment) to the email app on your iOS device.
2. Tap the file attachment in your email app.
A range of Share options displays (see *Figure 53: Share options* above).
3. Select the 'Import with LiNX Access' option.
The file displays in the **Load from File** screen's file list.

6.5 Modify parameters

Note

When you edit a parameter's value, its background colour changes from white to yellow to indicate it has changed from its previous value. Once the value is written to the controller or file, the background reverts to white. In live edit, it might be difficult to see the parameter background changing since live edits can be very rapid.

You can modify parameters:

- *textually*
- *numerically*
- *graphically*

6.5.1 Modify parameters textually

Functions and profiles can have their names changed when in bulk edit mode. To do this:

1. Unlock bulk edit.
2. Tap inside the name you wish to edit.
A cursor appears in the field.
3. Edit the name as required.
4. Click the **Return** button.
The new name appears with a yellow background behind the name text field.
5. Continue editing the program, or write or save it, as required.

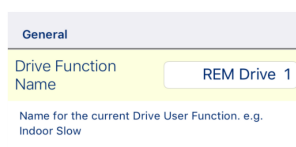


Figure 55: A function name after editing (and before saving or writing)

6.5.2 Modify parameters numerically

1. Tap a parameter's name.
Its details, including the default, low and high values and summary, display.
 2. Either:
 - Increment and decrement the parameter with the plus (+) and minus (-) buttons, respectively.
Tap these buttons to change the value in discrete steps, or tap and hold to change them more quickly.
- Or:
- Set the parameter value by tapping the low, default or high button.

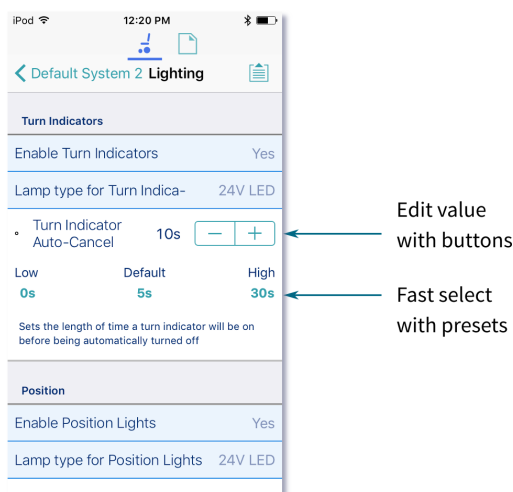


Figure 56: Modifying parameters numerically

6.5.3 Modify parameters graphically

A number of parameters can be edited graphically.

These parameters are grouped according to the access level (manufacturer or distributor):

OEM Drive Limits

- Emergency Deceleration
 - Emergency Deceleration
- OEM Forward
 - OEM Forward Speed
 - OEM Forward Acceleration
 - OEM Forward Deceleration
- OEM Reverse
 - OEM Reverse Speed
 - OEM Reverse Acceleration
 - OEM Reverse Deceleration
- OEM Turn
 - OEM Turn Speed
 - OEM Turn Acceleration
 - OEM Turn Deceleration
- OEM Stability
 - Turn at Max Speed
 - OEM Turn Transition
 - Max Speed in Turn

Gyro OEM Drive Limits

- OEM Forward Gyro
 - Gyro OEM Forward Speed
 - Gyro OEM Forward Acceleration
 - Gyro OEM Forward Deceleration
- OEM Reverse Gyro
 - Gyro OEM Reverse Speed
 - Gyro OEM Reverse Acceleration
 - Gyro OEM Reverse Deceleration
- OEM Turn Gyro
 - Gyro OEM Turn Speed
 - Gyro OEM Turn Acceleration
 - Gyro OEM Turn Deceleration
- OEM Stability Gyro
 - Gyro Turn at Max Speed
 - Gyro OEM Turn Transition
 - Gyro Max Speed in Turn

Distributor Drive Function

- Forward
 - Max Forward Speed
 - Forward Acceleration
 - Forward Deceleration
- Reverse
 - Max Reverse Speed
 - Reverse Acceleration
 - Reverse Deceleration
- Turn
 - Max Turn Speed
 - Turn Acceleration
 - Turn Deceleration
- Stability
 - Turn Transition

6.5.3.1 Where to graphically edit a screen

To edit parameters graphically, tap a drive setting from the **Home** screen.

They include:

- Drive functions in the profiles
- Drive Limits (manufacturer only)
- Gyro Limits (manufacturer only)

Graphically, you can edit:

- *speed settings*
- *acceleration/deceleration settings*
- *stability settings*

Speed graphs are at the top of the drive parameter lists.

Acceleration/deceleration and stability graphs are accessed from the speed graph.

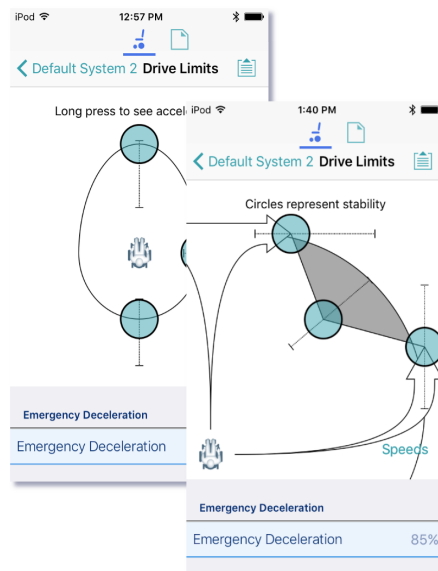


Figure 57: Modifying parameters graphically

6.5.3.2 Edit speed settings

The speed graph allows you to adjust:

- Maximum Forward Speed
- Maximum Turn Speed
- Maximum Reverse Speed

Tap and drag the blue circles inwards or outwards to decrease or increase parameter values respectively.

For example, if you tap and drag the top blue circle in *Figure 58* towards the centre of the graph, the Maximum Forward Speed value decreases.

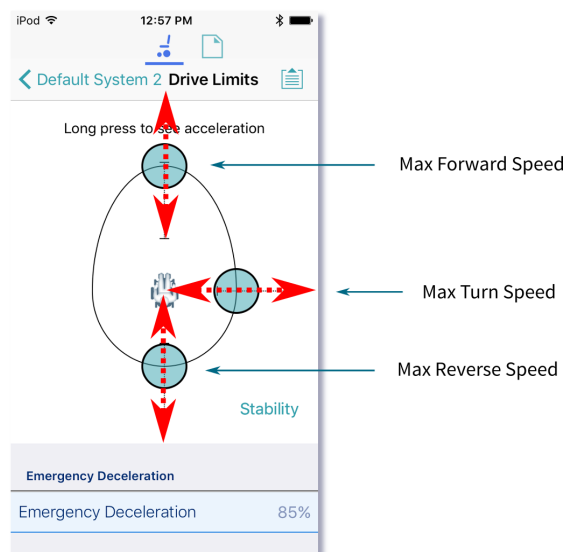


Figure 58: Editing speed settings

Note

The exact value for each parameter is shown at the top of the screen when adjusting the parameter, and is also displayed in the parameter list.

Note

If a gyro module is enabled, the graphic in the centre of the graph changes from a person in a wheelchair to a gyroscope to indicate that the parameters being changed are gyro-specific.

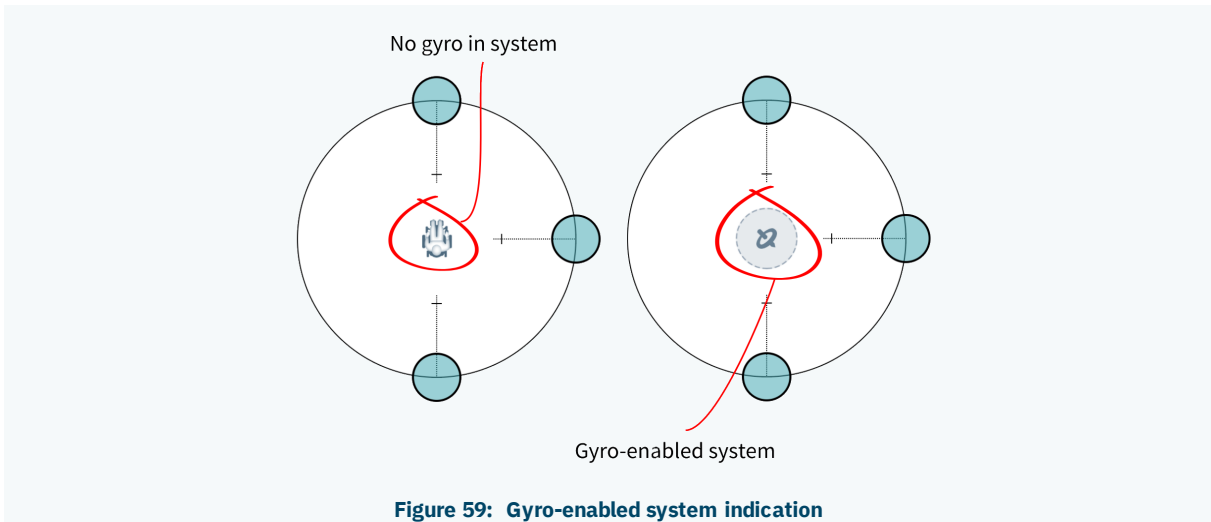


Figure 59: Gyro-enabled system indication

6.5.3.3 Edit acceleration / deceleration settings

Acceleration / deceleration parameters are accessible through the speed graph. To edit acceleration or deceleration settings, press and hold one of the blue circles in the speed graph screen (as detailed below).

- Press and hold the Max Forward Speed blue circle to be taken to the Forward Acceleration and Forward Deceleration screen.
- Press and hold the Max Turn Speed blue circle to be taken to the Turn Acceleration and Turn Deceleration screen.
- Press and hold the Max Reverse Speed blue circle to be taken to the Reverse Acceleration and Reverse Deceleration screen.

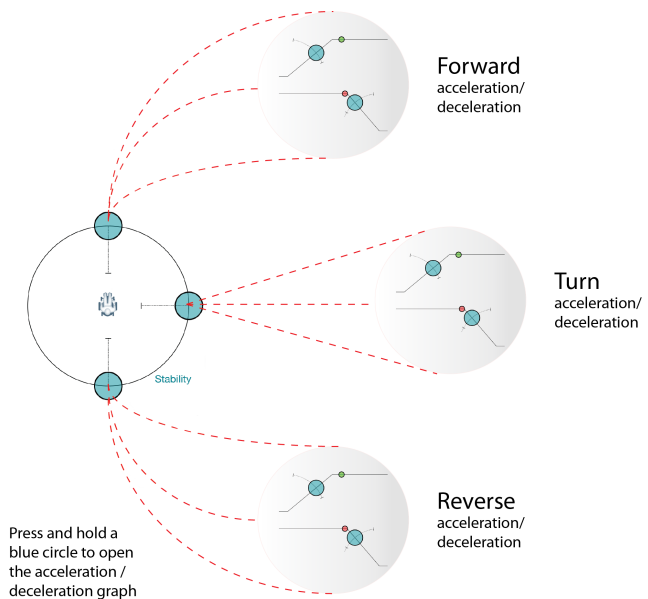


Figure 60: Selecting acceleration / deceleration settings

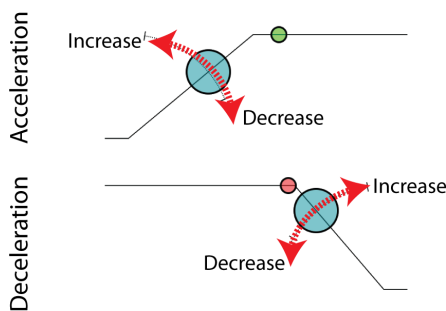


Figure 61: Editing acceleration / deceleration settings

For each acceleration / deceleration parameter (forward, turn and reverse), the acceleration value can be edited with the upper graph, and the deceleration value can be edited with the lower graph. (See [Figure 61](#).)

Press and drag the blue circles to decrease or increase the parameter value. All changes to the acceleration / deceleration values are displayed at the top of the screen.

6.5.3.4 Edit stability settings

To edit the stability settings, access the stability settings screen.

To access the stability settings screen:

- Tap the word 'Stability' shown at the lower-right of the speed setting graph.

To return to the speed settings screen:

- Tap the word 'Speeds' in the stability setting graph.

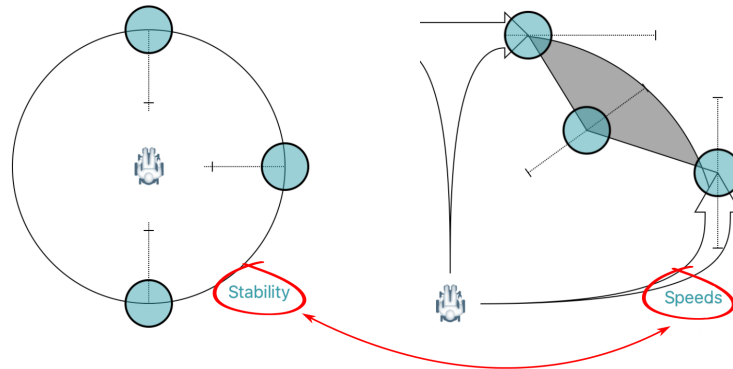


Figure 62: Selecting stability settings

Tap and drag the blue circles, in or out, to decrease or increase parameter values respectively.

In the **Drive Limits** stability graph, the following settings can be set (by the manufacturer only):

- Turn at Max Speed
- OEM Turn Transition
- Max Speed in Turn

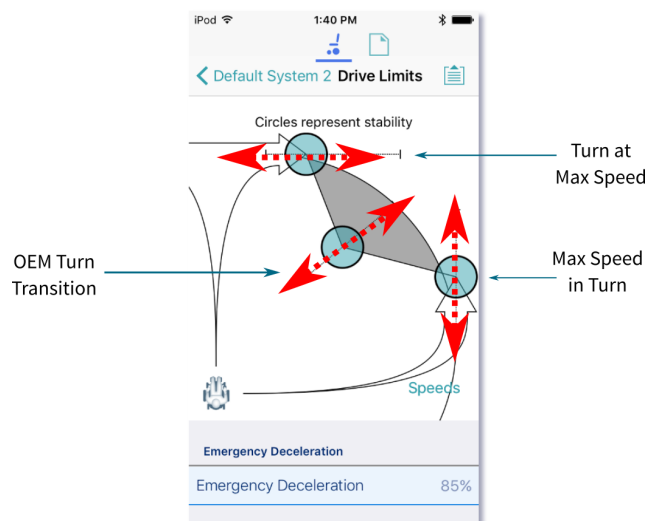


Figure 63: Editing stability settings

6.6 Modify profiles and functions

Functions are grouped in profiles. You can:

- *add and delete profiles*
- *add, delete and move functions*

To access this functionality, tap **Edit** in the Functions title bar on the home screen. (Doing this automatically opens the edit screen in bulk edit.)

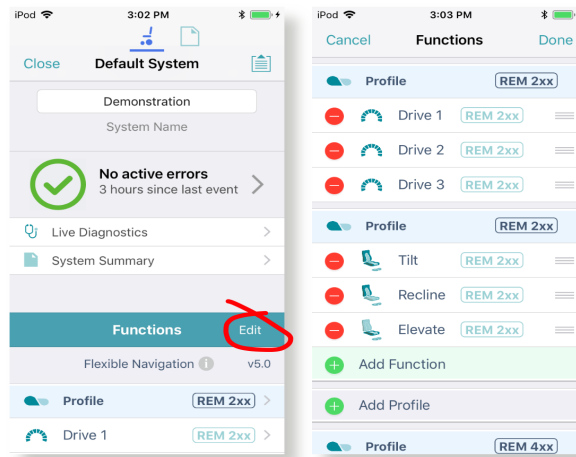


Figure 64: Edit functions

Note

To edit the contents of functions and profiles, open them from the home screen.

Just below the *Functions* title bar, you will see the navigation restriction information and the configuration version.

Click on the information link to reveal what navigation restrictions are placed on the system. The information displayed depends on the modules in the system. See the *LiNX Systems Installation Manual* for more information about navigation restrictions.

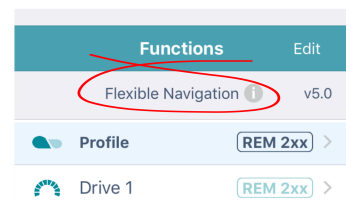


Figure 65: Link to open navigation restriction information

The text to the right of the navigation restriction information link, displays the version of the system's current configuration.

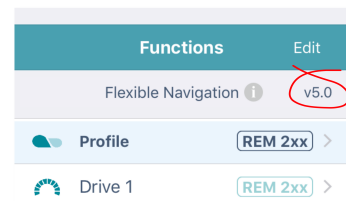


Figure 66: Configuration version

6.6.1 Add and delete profiles

6.6.1.1 Add a profile

1. Tap the **Add Profile** button.
2. Give your profile a name.
3. Select the required **User Input**.
4. Tap **Done** to return to the **Functions** Edit screen.
5. *Add functions to your profile.*
6. Tap **Done** (top right of the screen) to return to the home screen.
7. From the home screen, tap the **Write** button to write the program to the chair; or, on the Application menu, save your changes to a file.

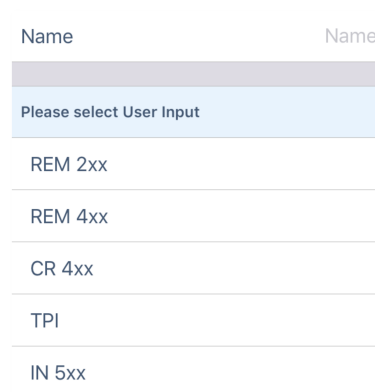


Figure 67: Add profile

Note

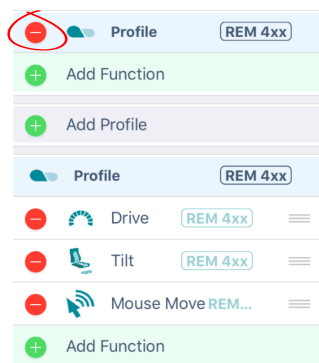
A profile cannot be written to the wheelchair until it contains functions (see *Add a function*).

6.6.1.2 Delete a profile

Note

A profile cannot be deleted until all its component functions have been deleted. (See *Delete a function*.)

1. Tap the red **Delete** button to the left of the profile name.



2. Tap the **Delete** button that appears.



The profile is deleted.

3. Continue editing, or tap **Done** (top right of the screen) to return to the home screen.
4. From the home screen, tap the **Write** button to write the program to the chair; or, on the Application menu, save your changes to a file.

6.6.2 Add, delete and move functions

- *Add a function* (including duplicate a function)
- *Delete a function*
- *Move a function*

6.6.2.1 Add a function

There are three ways to add a function:

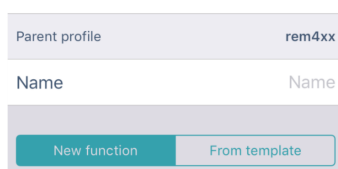
- *Add a new function*
- *Copy a function template* (A function template is a preset function.)
- *Duplicate an existing function*

Add a new function

1. Tap the **Add function** button.



2. Tap the **New function** button.



3. Select the **Function type** you require.
4. Select a **User input**.^{#1}
5. Tap **Done** (top right of the screen).
6. Continue editing, or tap **Done** again to return to the home screen.
7. From the home screen, tap the **Write** button to write the program to the chair; or, on the Application menu, save your changes to a file.

Note

^{#1}If you select a user input of "Follow Profile", then when you change the user input at the profile level the function also updates. A function with a user input set to "Follow Profile" displays with a box around its user input.

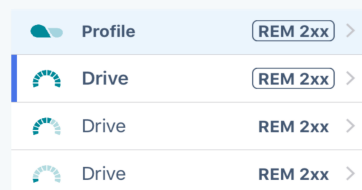


Figure 68: Follow profile

Copy a function template

1. Tap the **Add function** button.



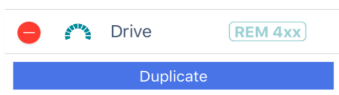
2. Tap the **From template** button.



3. Select the template you require.
4. Tap **Done** (top right of the screen).
5. Continue editing, or tap **Done** again to return to the home screen.
6. From the home screen, tap the **Write** button to write the program to the chair; or, on the Application menu, save your changes to a file.

Duplicate an existing function

1. Tap a function.
A blue **Duplicate** button appears.

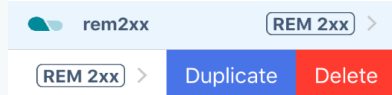


2. Tap the blue **Duplicate** button. An identical copy of the function is added below it.
Note: The duplicate will have the same name as the original. To give the new function a new name, access it at the functions list on the home screen.
3. Continue editing, or tap **Done** (top right of the screen) to return to the home screen.
4. From the home screen, tap the **Write** button to write the program to the chair; or, on the Application menu, save your changes to a file.

Note

You can also duplicate a function from the home screen. To do this:

1. Swipe a function to the left.
Duplicate and **Delete** buttons appear.



2. Tap **Duplicate**.
An identical copy of the function is added below it.
3. Give the new function a new name.

6.6.2.2 Delete a function

1. Tap the red **Delete** button to the left of a function name. A **Delete** button appears on the right.



2. Tap the **Delete** button. The function is deleted.

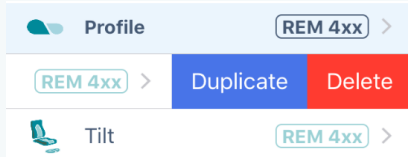


3. Continue editing, or tap **Done** (top right of the screen) to return to the home screen.
4. From the home screen, tap the **Write** button to write the program to the chair; or, on the Application menu, save your changes to a file.

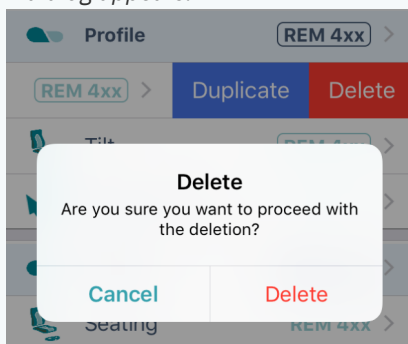
Note

You can also delete a function from the home screen. To do this:

1. Swipe a function to the left.
Duplicate and **Delete** buttons appear.



2. Tap **Delete**.
A dialog appears.



3. Tap **Delete** in the dialog.

6.6.2.3 Move a function

1. Tap and hold the three horizontal lines on the right of a function.
2. Drag the function to a new location and release.

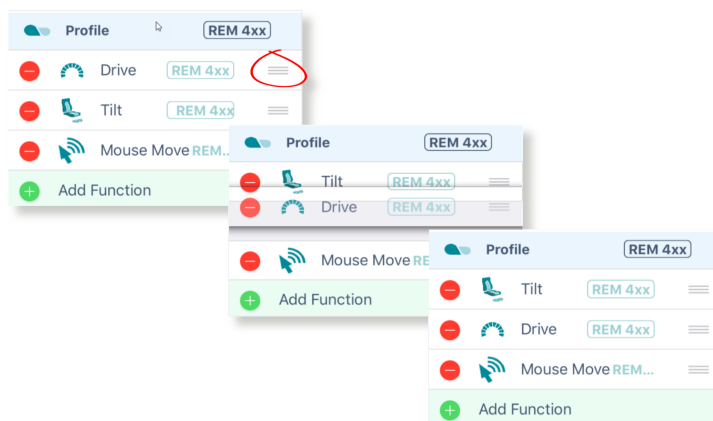


Figure 69: Move a function

3. Continue editing, or tap **Done** (top right of the screen) to return to the home screen.
4. From the home screen, tap the **Write** button to write the program to the chair; or, on the Application menu, save your changes to a file.



Note

A function can be moved to a new location in a profile or to a new profile.

6.6.3 Edit function icons

The drive and seating function icons are dynamic to reflect the activity in each function.

6.6.3.1 Drive icon

The drive icon indicates the percentage of maximum speed selected for a drive function.

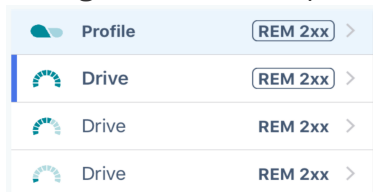


Figure 70: Dynamic drive function icons

The icon changes when you edit the speed graph.

6.6.3.2 Seating icon

The seating icon can be edited to indicate what part of the seat the function is for.

To do this:

1. From the home screen, open a seating function.
2. Scroll to **Axis**.
3. Open **Motion**.
4. Unlock bulk edit.
5. From the **Motion** drop-down menu, select the motion you require. The function icon changes to the icon of the selected motion.

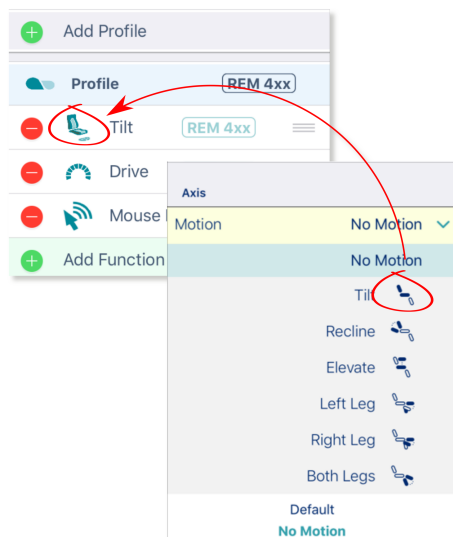


Figure 71: Edit a function seating icon

6. Tap the **Write** button on the home screen to write the icon edit to the chair.

7 Index

A

Access Level Certificate 45
Access level of LiNX Access Key 23
Adding a chair configuration 39
ALC calibration 21
Application menu 20, 26

B

Battery usage 24
Bulk edit 18
Bulk edit mode 19

C

Chair configs 39
Chair Configs 20
Chair configs screen 39
Chair setup 20
Changing the program and system
name 40
Configuration 10
Connected modules 23
Connecting 14
Connecting and disconnecting 38
Connection context 18-19, 37
Connection context actions 37
Context switch 37
Core features 20

D

Deleting a chair configuration 40
Deleting files 50
Diagnostic information 10
Diagnostic screens 20, 22
Chair log 22
Chair statistics 22
Live diagnostics 22
System summary 22
Disconnecting from the connected
wheelchair 38
Distributors 14, 40
DLX-HKEY01-A 14, 40
DLX-HKEY02-A 14, 40, 45

Drive limits 20
Drive statistics 24
Dynamic Controls 10
Website 10

E

Edit mode
Live edit 10
Editing speed settings 54
Editing stability settings 56
Email 51

F

File context 18-19, 37
File context actions 46
Firmware 15
Function states
Function available 21
Function inoperable 21
Function not available 21

G

Go to Gyro Turn Calibration 43
Gyro 43
Gyro-enabled system indication 55
Gyro calibration 21
Gyro limits 20

H

Home 20
Home screen 20

I

Installing 14

L

LAK 38
Lighting 20
LiNX Access Application
Connecting 14
Installing 14
System requirements 14
LiNX Access iOS tool 14

LiNX Access Key 14

Distributor 14

DLX-HKEY01-A 14

DLX-HKEY02-A 14

Firmware 15

Upgrade 15

Inserting 15

Manufacturer 14

Versions 14

Live edit 10, 18

Live edit mode indicator 18

Load from file 46

M

Manufacturers 14, 40

Maximum Forward Speed 54

Maximum Reverse Speed 54

Maximum Turn Speed 54

Modifying a program 40

Modifying files 47

Modifying parameters 52

Modifying parameters graphically 53

Modifying parameters numerically 52

Module serial numbers 23

Module software versions 23

Modules 20

Motion 20

N

Navigation bar 20, 26

Notifications 14

O

Opening files 46

P

Parameter editing screens 20

Profiles / Functions 20

Program Name 20

R

Read 19

Read from chair 26

Reset battery usage 24

Reset drive statistics 25

Restore To Default Config 20

S

Save 26, 41, 48

Save As 26, 41, 49

Saving programs 41

Search for LAKs 38

Selecting a chair configuration 39

Selecting a LAK 38

Selecting stability settings 56

Selecting the context 36

Sending emails 51

Sip and Puff calibration 22

Store 45

Store authorisation 26, 45

Storing the LAK certificate 45

System requirements 14

System summary 23

T

Trash can 50

Tuning Adaptive Load Compensation
(ALC) 43

Tuning the gyro 43

U

Unlock 19

Updates 14

Upgrade 26

Upgrading the firmware 42

User preferences 20

Utility screens 20-21

Adaptive load compensation
calibration 21

Gyro calibration 21

Sip and puff calibration 21

V

Versions 10, 14

LiNX Access iOS tool 10

LiNX System 10

Viewing active errors 23

Viewing chair statistics 24

Viewing event log 23
Viewing system summary 23

W

Write 19
Write to chair 26, 50
Writing to the wheelchair 49

X

XLR socket 15

EUROPE

Ph: +44-1562-826-600
Fax: +44-1562-824-694

eusales@dynamiccontrols.com

ASIA

Ph: (Taiwan): +886-955-335 243
Ph: (China): +86-512-6289 2847
Fax: +886-2-2598 1562

asiasales@dynamiccontrols.com

AUSTRALASIA

CORPORATE OFFICE

Ph: +64-3-962-2519
Fax: +64-3-962-2966

sales@dynamiccontrols.com

USA

Ph: +1-440-979-0657
Fax: +1-440-979-1028

usasales@dynamiccontrols.com



Dynamic Controls is the world's leading manufacturer of electronic controls for power wheelchairs and scooters.

Dynamic Controls was established in 1972 and is headquartered in New Zealand.

Regional centres are located in Europe, United States, Asia, and Australasia.

ISO 13485 certified – Dynamic Controls goes above and beyond industry standard expectations to ensure customers receive the best products possible.

dynamic[™]

www.dynamiccontrols.com