LINX

VEHICLE ACCESSORY INTERFACE

OPERATION GUIDE

LX100 Vehicle Accessory Interface Kit | 28.02.20

ARB

WHAT IS LINX?

WHAT IS LINX?

LINX is a sleek touchscreen interface that enables total control of both new and existing 4X4 Accessories. Gone are the days where the only option for installing aftermarket switches meant drilling multiple holes into the dashboard.

INTRODUCING TOTAL CONTROL

LINX is a unique modern controller that declutters the dashboard and centralises the command of vehicle accessories by replacing classic switches, gauges and monitors with one sleek and smart driver interface. Built on an expandable platform, LINX will continue to evolve your on and off road driving experience both now and into the future.

The mobile touchscreen display integrates seamlessly into the vehicle cabin and mounts to a magnetic gimbal that's installed within easy reach of the driver. This connects to the LINX Controller which is the brains behind the system, and is conveniently installed out-of-sight either underneath the dash or the seat.

STAY IN THE LOOP
For the latest details, updates and list of accessories, head over to:
www.linx.arb.com.au

TABLE OF CONTENTS

Get to know the basic in's and out's of your brand new LINX - the next generation of 4x4 Accessories.

COMPLIANCE INFORMATION

LINX ARB
VEHICLE ACCESSORY INTERFACE

KIT CONTENTS

Each and every component to get your new LINX up and running.

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LINX ARB
VEHICLE ACCESSORY INTERFACE

01.

WHAT'S IN THE BOX?

Congratulations on the purchase of your brand new LINX. Inside the box, you'll find each of the components required to get the system up and running for your next 4x4 adventure.

05 WIRING LOOMS (x3)

06 DIN RAIL 180MM

01 LINX CONTROLLER

03 LINX DISPLAY GIMBAL MOUNT

USB CABLE **04**
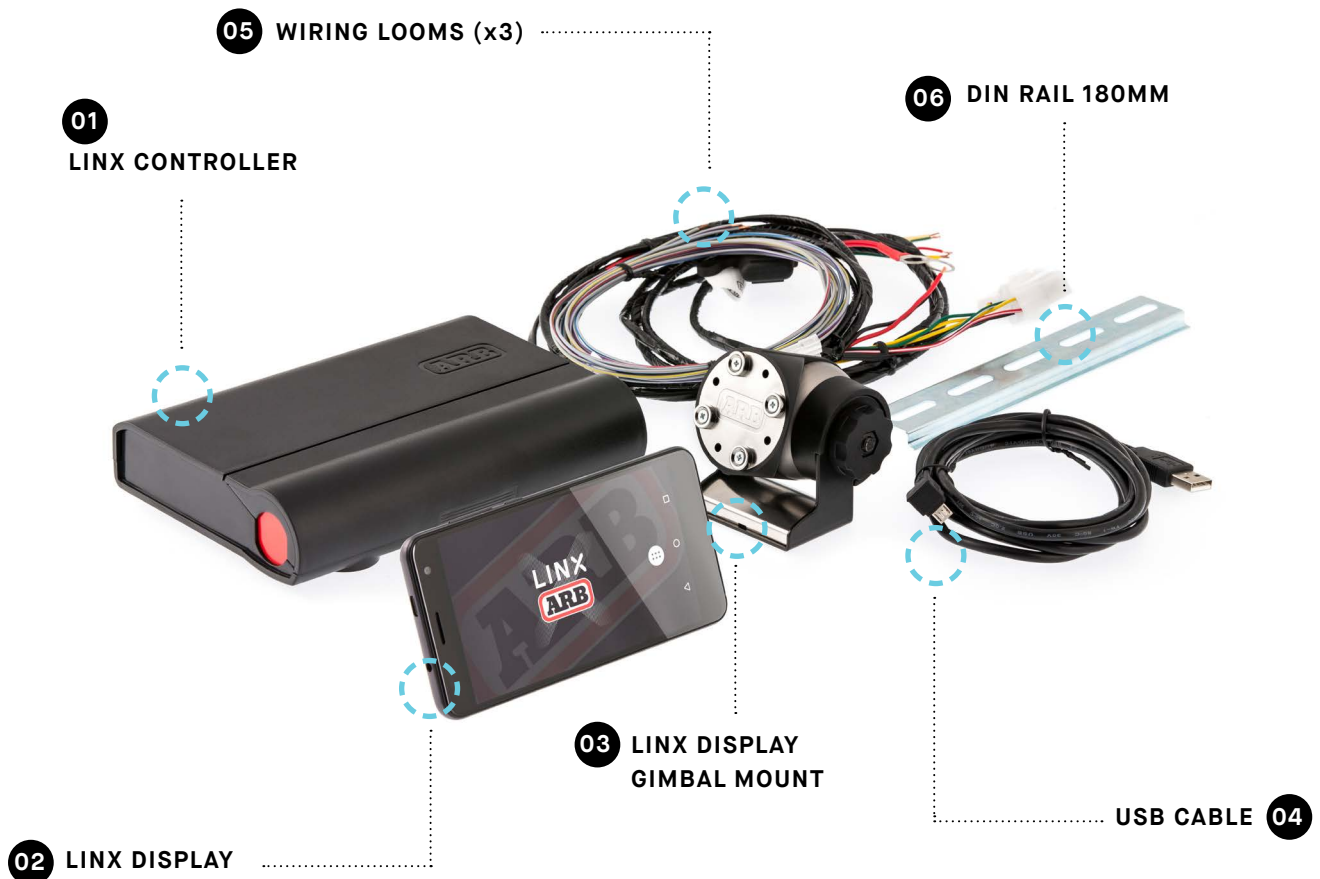
02 LINX DISPLAY

NOTES

- The **LINX Display** **02** was specifically designed to withstand the extremes of heat and cold. It has a metal coupling on the back to connect it to the magnets on the **LINX Display Gimbal Mount** **03**.

- The **LINX Controller** **01** and **wiring looms** **05** are normally mounted under the dash, however this may vary depending on the vehicle.

- The **DIN rail** **06** comes assembled to the back of the **LINX controller** **01** and is used for securing the unit.

- The USB connection can be used to power and charge the LINX Display, and provide the communications channel between the LINX Controller and LINX Display.

OVERVIEW

Out of the box, LINX offers total control of six pre-installed modules: Front & Rear Traction, Compressor & Pressure Control, Battery Monitoring, Speedometer, Air Suspension Control and an Accessory Switchboard.

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02

COMPATIBLE ARB ACCESSORIES

There's a range of ARB accessories that can be controlled and monitored by LINX.

ARB DRIVING LIGHTS

ARB offers a large range of LED, HID and Halogen driving lights and light bars to suit your every driving need. Designed to perform in the most extreme conditions, they'll keep the road ahead brightly lit and the rear visible wherever you go.

AIR LOCKERS

Designed and manufactured in Australia, ARB Air Lockers will enhance the traction of your 4×4 in just about any terrain, whether it's rock, clay, gravel, sand, snow or mud.

ARB DUAL BATTERY SYSTEMS

Allowing you to power additional accessories without the risk of flattening the main battery, an ARB Dual Battery System also provides peace of mind in the event of a main battery failure.

ARB AIR COMPRESSORS

ARB Air Compressors provide many advantages; including inflating tyres and camping accessories, running air tools, activating Air Lockers and even re-seating a tyre onto a wheel.

OPTIONAL ACCESSORIES

A range of products are available to complement the LINX Vehicle Accessory Interface.

Please refer to the LINX Installation Guide or your nearest ARB Store or Stockist for further information.

FIND YOUR NEAREST STORE

A-PILLAR BRACKET

LINX A-Pillar Brackets are designed to provide a vehicle specific mount that puts the LINX Display in safe and easy reach of the driver. They are available for a large range of popular 4WD vehicles.

PRESSURE CONTROL KIT
(7450107)

Offering 'set & forget' simplicity to either tyre inflation or remote control over your air suspension, the optional LINX Pressure Control Kit (coupled with an ARB air compressor) allows you to take full advantage of LINX's Pressure Control Module.

Note: Separate pressure control kits are required for tyre inflation and air suspension.
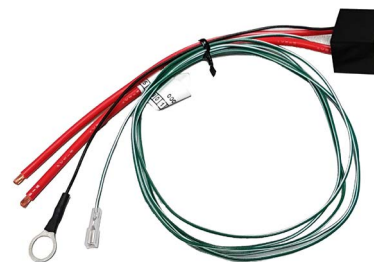
RELAY KIT
(180422)

A pre-wired relay base used for connecting accessories that don't come with a relay in its wiring loom. Most ARB wiring looms already come with a relay.

AIR SUSPENSION ISOLATION KIT
(7450109)

Adding an Air Suspension Isolation Kit allows owners with air suspension to take full advantage of LINX's Air Suspension Module, providing the ability to independently adjust the pressure and ride height in each air bag.

LINX TERMINAL KIT
(7450105)

LINX already comes with a packet of terminals, enough to do a complete install. This kit is if you require any extra terminals.

LIN✗ **ARB**
VEHICLE ACCESSORY INTERFACE

INITIAL SETUP

It's time to get your LINX device up and running!

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SETTING UP YOUR LINX

The time taken to connect and configure accessories such as compressor, Air Lockers and driving lights will vary depending on whether the accessory was fitted before or after your next LINX installation. LINX is fully customisable to suit your vehicle, please contact your local ARB distributor to discuss your individual requirements and provide a quote for your installation.

LINX SETUP PROCESS

- Mounting of the LINX Controller.

- Connection of the power loom to the LINX Controller.

- Updating LINX software.

- Connection of 4 input wires from accessory power, parker/low beam headlamps, high beam headlamps and reverse lamp to the LINX Controller.

- Installation of the LINX Display Gimbal Mount and/or optional vehicle specific LINX A-Pillar Bracket.

- Connection of the USB cable from the LINX Controller or optional USB power source to the LINX Display.

05.

GETTING STARTED

The LINX Display receives power from the LINX Controller via the USB charge cable provided.

The LINX Display's on-board battery will take around 1 hour to fully charge from flat condition and provide approximately 4 hours of non-connected run time. It is normal practice to leave the display on all the time and connected when in the vehicle. When outside the vehicle, the display communicates with the LINX Controller via a Bluetooth connection up to 10m away.

03 LINX CONTROLLER

01 LINX DISPLAY

06 POWER BUTTON

07 VOLUME

05 CLIP ON COVER

02 LINX DISPLAY GIMBAL MOUNT

04 USB CABLE

LINX ARB
VEHICLE ACCESSORY INTERFACE
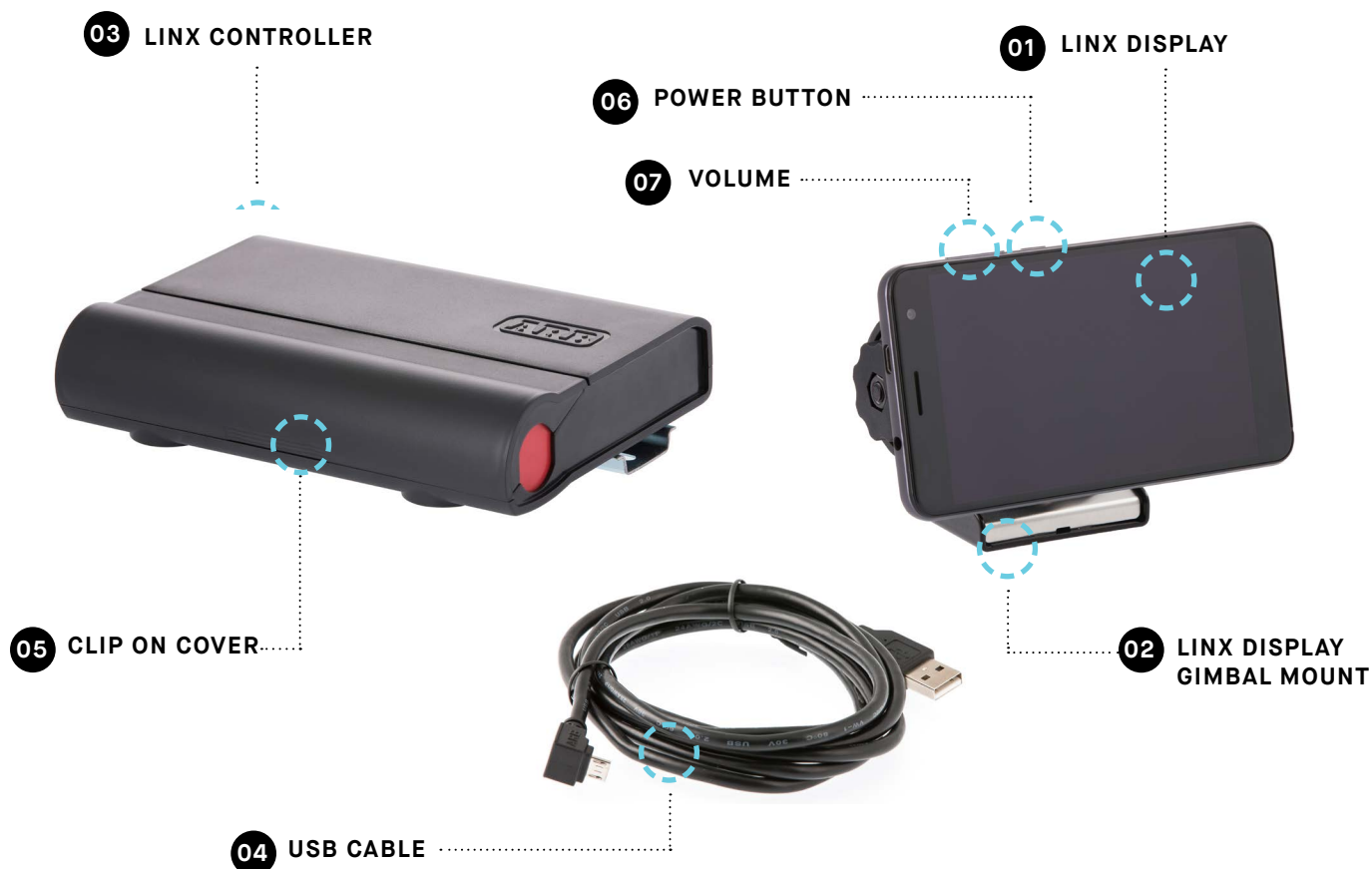
SWITCHING ON/OFF

To switch on the Display, press & hold the **power button** 06 for approximately two (2) seconds.

With the unit powered on, you can increase or decrease the volume by pressing the **volume buttons** 07

To switch off the Display, press & hold the power button then tap **Power off** then **OK**.

07 VOLUME BUTTONS

06 POWER BUTTON
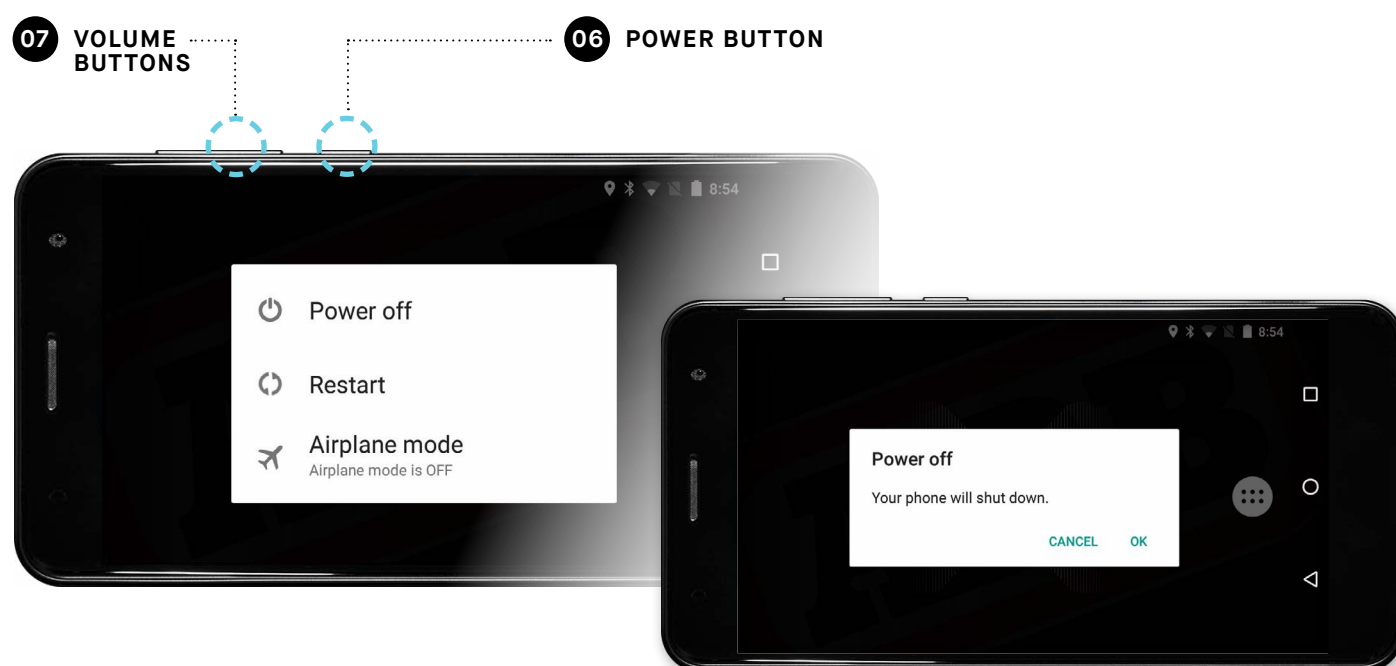
For more information on installing the LINX system and associated equipment on your vehicle, please refer to the LINX Installation Guide and your nearest ARB outlet.

UPDATING LINX SOFTWARE

Once the LINX Controller has been connected to power it is important to check for and perform a LINX software update before doing any further wiring.

To do this, you will need to turn on the LINX Display, connect to the internet (via wifi for mobile data) and then connect to the LINX Controller using the provided USB cable.

The LINX Display may take up to 1 minute to turn on and start the LINX App. When it starts you may briefly see the 'connecting screen' shown below.

Connecting to the controller

Please wait...

App version

When the LINX Display and LINX Controller are connected, the display should change to 'split screen mode', displaying Speedometer module and Battery module which are activated by default.

Speed		Battery 1	
	0 km/h		**12.7** v
Altitude		Battery 2	
	0 m		**0.0** v
Bearing		Battery 3	
	--		**0.0** v

Swipe from left to right across the screen to show the LINX Main Icon Screen. Then tap on the **settings** icon.

Front Traction	Rear Traction	Compressor	Switchboard
Battery	Speedometer	Air Suspension	Inclinometer (PITCH)
Inclinometer (ROLL)	Clock	Fridge 1	Fridge 2

The settings page will be displayed. Tap **LINX Update**.

Vehicle Input Status

Auto Night Mode

• Accessory Power

• Low Beam   Units

• High Beam   Theme Colour

• Reverse   LINX Update

Calibrate Vehicle   Console

1. Upon selecting **LINX Update** the screen will display:

2. If a new version is available, tap **Download** and follow the instructions to install.

When LINX re-connects after the update, it will determine if the LINX Controller firmware also needs to be updated and show the following screen. Tap **Update Now** and follow the instructions.

LINX **ARB**
VEHICLE ACCESSORY INTERFACE
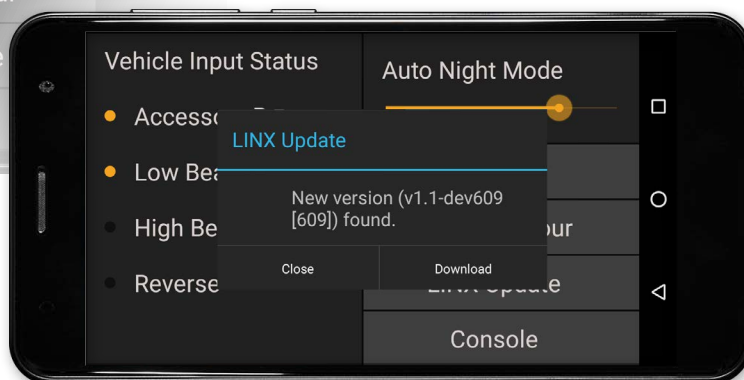
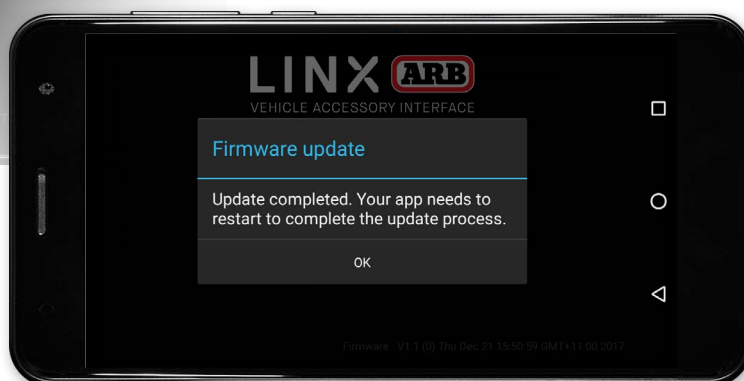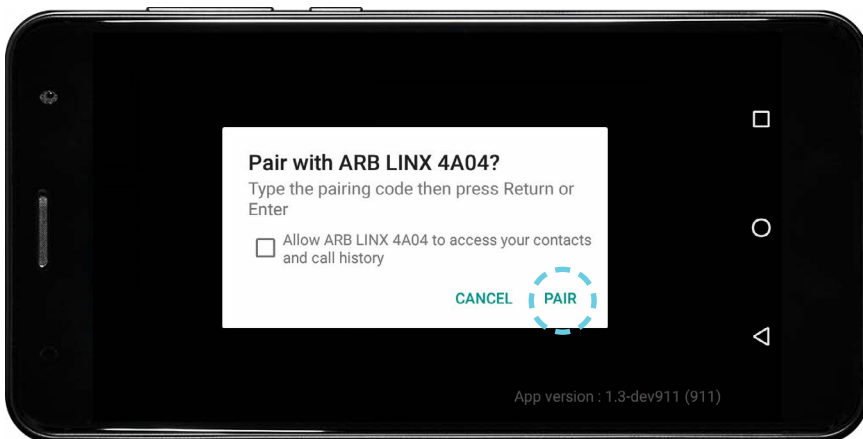## BLUETOOTH PAIRING THE DISPLAY WITH CONTROLLER

The LINX Display and LINX Controller can communicate using either the USB or Bluetooth connection. But before Bluetooth communication can be used, first they have to be paired.

AUTO PAIRING

The easiest way to pair the display and controller is to first connect them via USB and perform a software update as described in the section above. Then simply unplug the USB cable and when the LINX Display will request permission to pair, as shown below.

Tap **PAIR** to accept the pairing. The LINX Display and LINX Controller are now paired and will connect via Bluetooth whenever in range.

Pair with ARB LINX 4A04?
Type the pairing code then press Return or Enter
☐ Allow ARB LINX 4A04 to access your contacts and call history

CANCEL   PAIR

App version : 1.3-dev911 (911)

Note: Once the LINX Display and LINX Controller have been Bluetooth paired, the LINX Controller will become invisible to all other Bluetooth devices. The LINX Controller Bluetooth visibility can only be reset by resetting the LINX Controller, by disconnecting/reconnecting it to power.

MANUAL PAIRING

If the LINX system installation is already complete and USB cable hasn't been used to connect the LINX Display and LINX Controller, and the LINX Controller is difficult to access, then the display and controller can be manually paired via the Bluetooth settings.

Access the **BLUETOOTH SETTINGS** by:

1. Open up the **APP DRAWER**

2. Tap **SETTINGS** and select **BLUETOOTH**
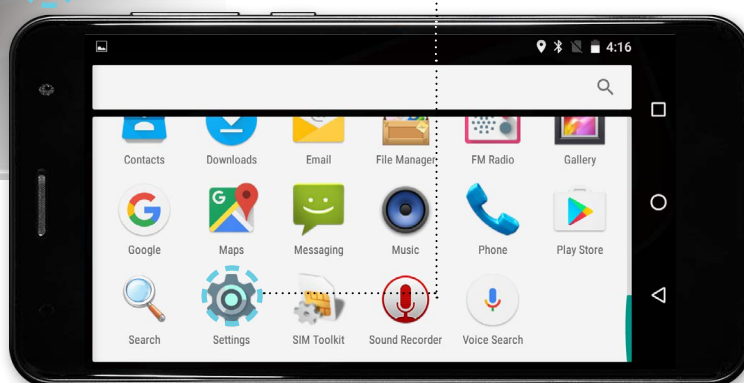
To pair with LINX:

1. Tap 'ARB LINX' from the available devices.

2. Once paired, the LINX Display should change to 'split screen mode', and be displaying the vehicle's battery voltage

LINX **ARB**
VEHICLE ACCESSORY INTERFACE

OPERATING LINX

Learn how to navigate your LINX device.

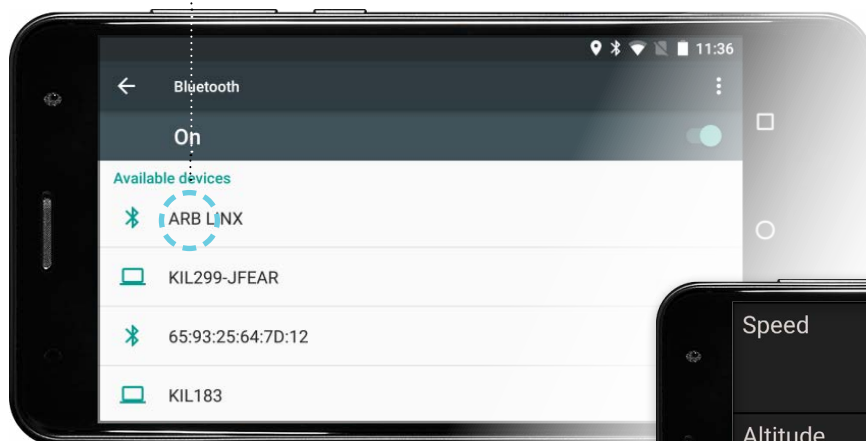BACK TO TABLE OF CONTENTS

LINX
ARB
VEHICLE ACCESSORY INTERFACE

06.

LINX DISPLAY

The LINX Display is the user interface that enables the driver to access and customise the settings that control the 4X4 equipment installed on the vehicle and connected to the LINX Controller.

It uses a capacitive touch screen and is based on the Android 6.0 operating system. It has been designed to withstand the rigor of 4x4 driving including operating temperatures from -20°C to 80°C.

The LINX Display supports USB, Bluetooth, WiFi and GPS connectivity and complies with FCC, CE and RCM certifications.

07 POWER

06 VOLUME

09 SPEAKER

05 CAMERA

04 MICRO USB PORT

08 MICROPHONE

03 AUDIO JACK

DISPLAY SCREEN **01**

02 LIGHT SENSOR

LIN✗ **ARB**
VEHICLE ACCESSORY INTERFACE
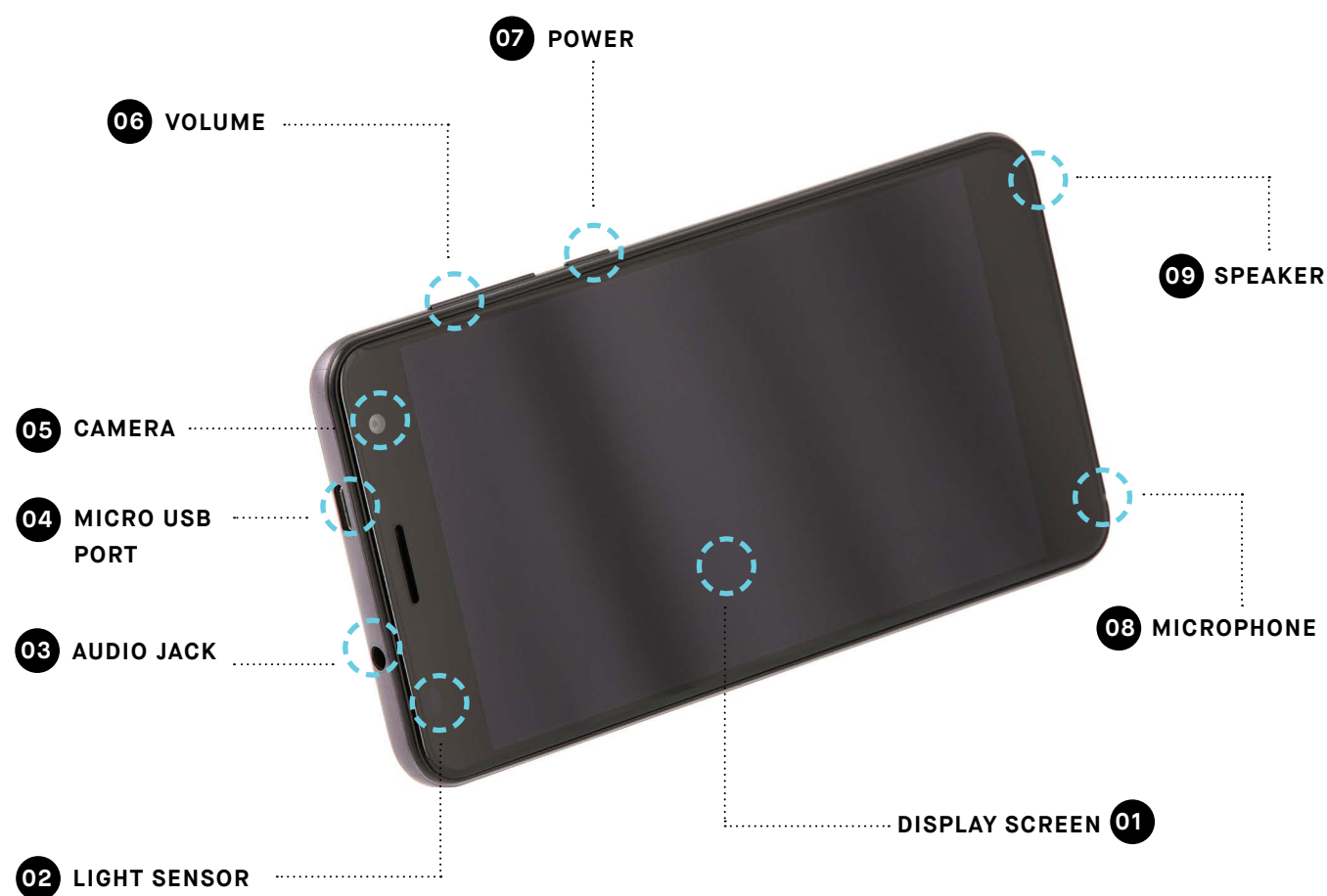
07.
HOME SCREEN

Upon start-up, the LINX Display shows the ARB LINX home screen and then enters 'split screen mode'.

The status bar contains several icons positioned across the top of the display which indicate the status of the unit. Items which are active/on are bright. Items which are inactive/off are greyed out.

Settings that should remain on all the time include GPS (for the LINX Speedometer module to operate), Bluetooth (for LINX Controller communications when the LINX Display is disconnected from the USB cable) and WiFi as this is used by the LINX Display to communicate with the Internet during LINX updates.

SD CARD 04
(none)

03 WIFI
(on)

BATTERY 05
(full)

02 BLUETOOTH
(on)

01 GPS
(on)

TIME 06

LINX ARB
VEHICLE ACCESSORY INTERFACE

10 APP DRAWER ··

LINX HOME **08**

09 BACK ···
(Tap twice to return to Home Screen)

RECENT **07**

🌐 ✳ 🔻 ▱ 🔋 2:28
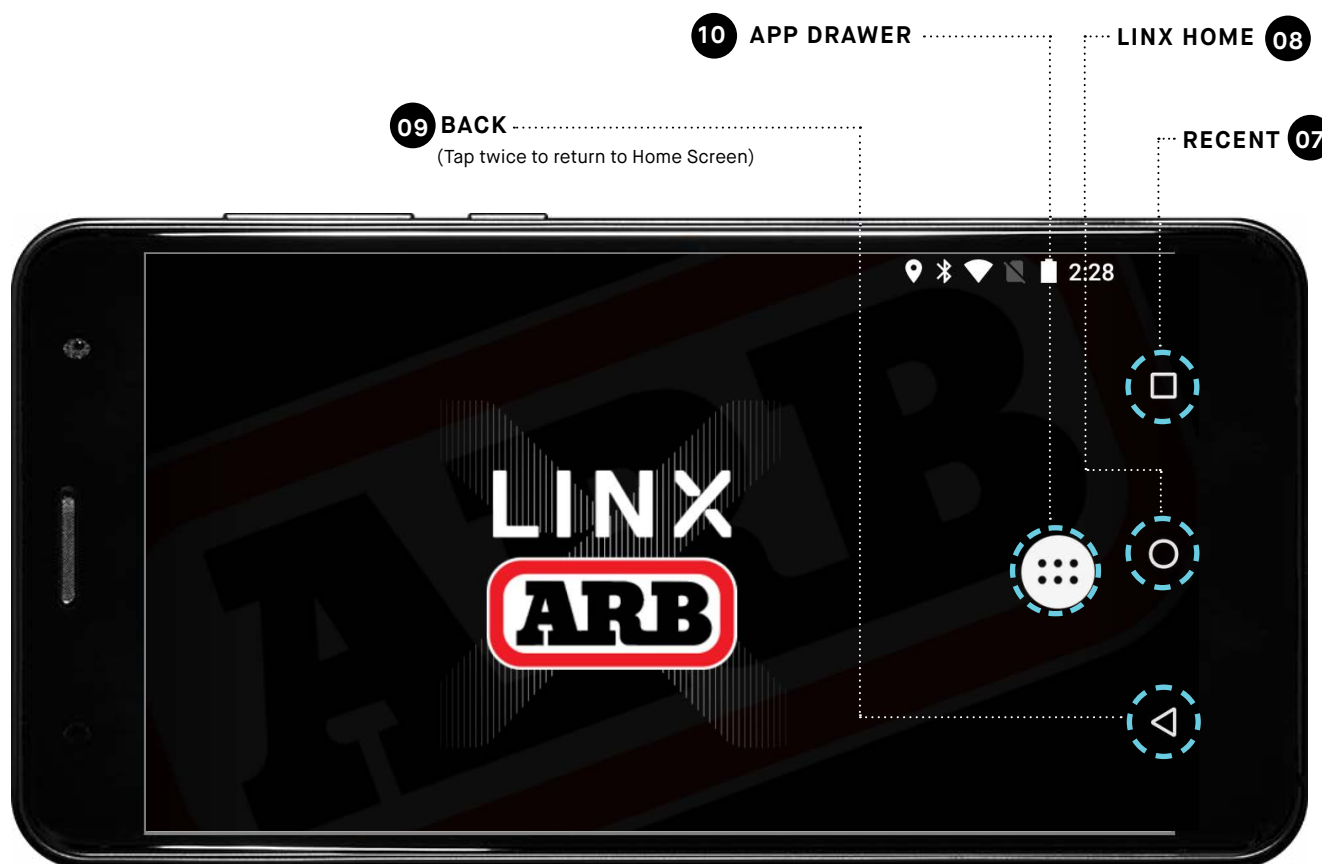
NOTES

- Tap **Recent** **07** to display a list of recently selected Apps. Scroll up/down and tap an item to return to it. To remove an item from the list tap the X button for that item.

- Tap **APP drawer** **10** to display all Apps installed on your LINX Display.

- Tap **LINX home** **08** to return to the LINX home screen.

- Tap **Back** **09** to return to the previous screen. (When in LINX 'split screen mode', tap and hold 🔵² to save the current module view as Favourite. To show the Favourite view at any time, tap **Back** **09** again.

LINX ARB
VEHICLE ACCESSORY INTERFACE

SETTINGS MENUS

QUICK SETTINGS MENU

Quick Settings is used to change frequently accessed items. With two fingers, swipe down from the top of the screen to open the Quick Settings menu. To toggle something on or of, simply tap the appropriate icon.
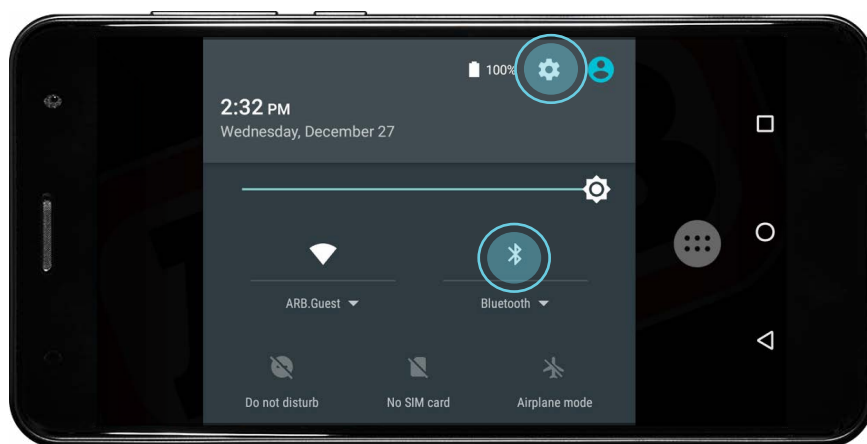
MAIN SETTINGS MENU

The Main Settings menu is used to control core Android settings.
To open, tap the settings icon at the top right of the Quick Settings menu.
Alternatively, from the Home Screen, tap **App drawer**, then tap **Settings** from the list.
Swipe up or down to view setting options.
Tap an item to select it. Tap **Back** to return to the previous menu, or **Home** to return to the LINX home screen.
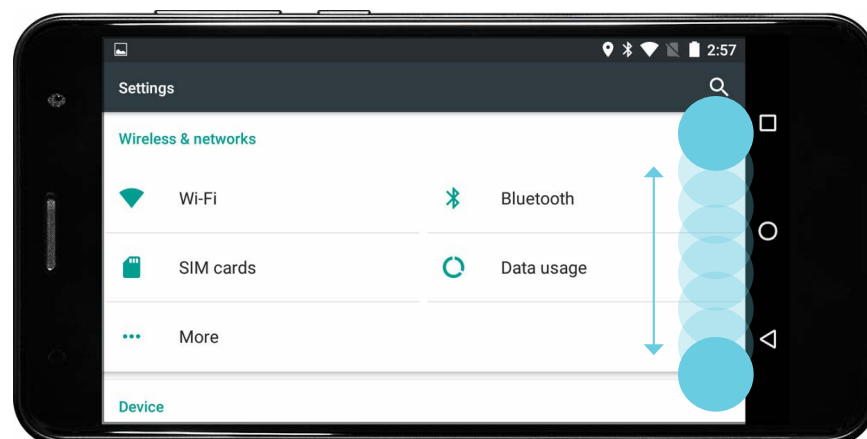
LINX USER INTERFACE

The LINX system offers a Graphical User Interface (GUI) similar to that found on most smart phones and tablets.

In order to fast track your use of the LINX interface, please acquaint yourself with these basic methods of interacting with LINX.

SINGLE TAP a module or button to select it or turn it on/off.

DOUBLE TAP a module to toggle between full / split screen display.

PRESS & HOLD a module to go to its settings menu.

PRESS & HOLD an underlined value or text to edit it.

Battery 1   **32** PSI

SWIPE UP/DOWN in split screen mode with one finger to scroll to the next Module.

SWIPE LEFT/RIGHT in 'split screen mode' to return to the LINX Main Icon Screen.

BUTTON COLOUR STATUS

SELECTABLE (but turned off)	SELECTABLE (and turned on)	NON-SELECTABLE (disabled)
Front Traction	Front Traction	Front Traction

AUTOMATION TRIANGLE on a button indicates a LINX automated state of the control.

Front Traction
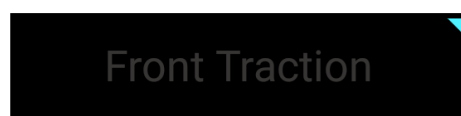
THEMED COLOURED VALUE is a real-time display, as opposed to a set value.

12.7 V

LINX DISPLAY SCREENS

MAIN ICON SCREEN

SPLIT SCREEN
(independently scroll)

FULL SCREEN

TEXT ENTRY

NUMERIC ENTRY

INFORMATION SCREEN

LINX **ARB**
VEHICLE ACCESSORY INTERFACE

10.
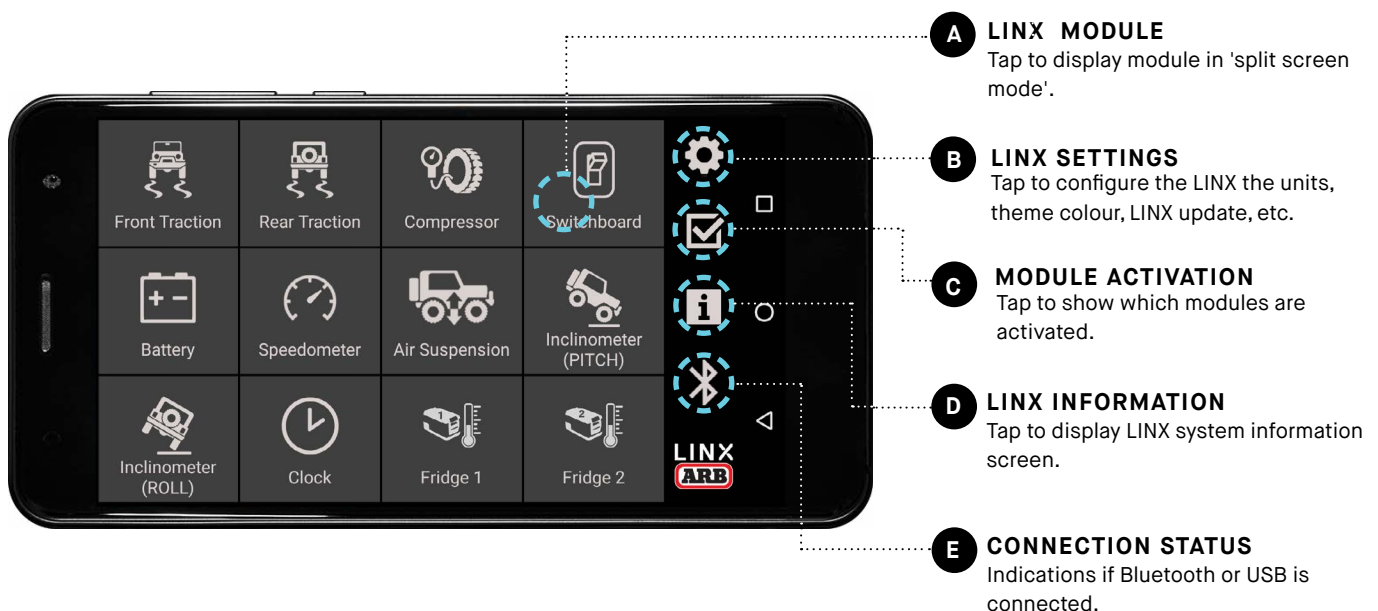# LINX MAIN
ICON SCREEN

The LINX Main Icon Screen contains a list of the software modules installed on your LINX Display. It provides direct access to each of the LINX modules, the LINX settings, LINX module activation and LINX system information.

A **LINX MODULE**
Tap to display module in 'split screen mode'.

B **LINX SETTINGS**
Tap to configure the LINX the units, theme colour, LINX update, etc.

C **MODULE ACTIVATION**
Tap to show which modules are activated.

D **LINX INFORMATION**
Tap to display LINX system information screen.

E **CONNECTION STATUS**
Indications if Bluetooth or USB is connected.

LINX information screen contains the LINX systems software versions and disclaimer.

LINX **ARB**
VEHICLE ACCESSORY INTERFACE

Copyright © 2017 ARB Corp Ltd
Software Version 1.1-dev585
Firmware version 1.0 (1)

Terms and Conditions

LINX is intended as a driving aid only.
Distraction may cause accidents.
Always concentrate on driving.
Do not operate this unit unless it is firmly affixed to the mount, and unless the mount is firmly affixed to the veh

With **Module Activation** **C** selected. Tap individual checkboxes ☑ to activate/de-activate individual modules (remember to scroll up to see any additional modules).

ACCESSING EACH MODULE

The LINX Display is supplied with pre-installed software modules. These provide access to modules like: Front and Rear Traction, Compressor, Switchboard (for lights), Battery monitor, Speedometer and Air Suspension.

Scroll down or up to see which modules are installed.

When a module is selected, the display automatically enters 'split screen mode'. The screen is then divided into two columns. Each screen can then be scrolled vertically independent of the other.
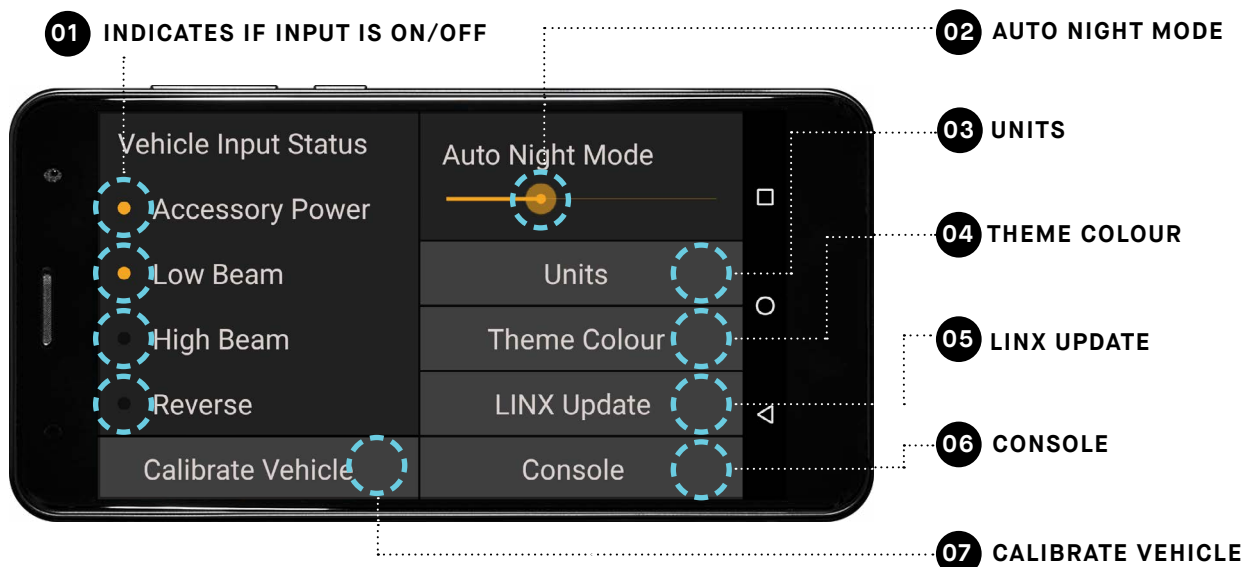

RETURNING TO LINX MAIN ICON SCREEN

Access to the LINX Main Icon Screen is gained by swiping left or right from 'split screen mode'.

LINX **ARB**
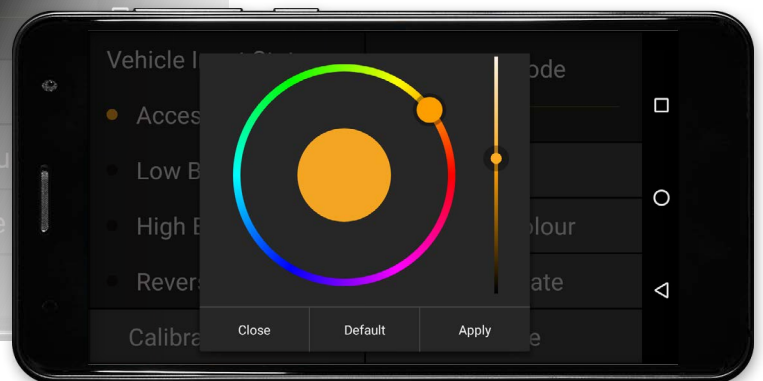VEHICLE ACCESSORY INTERFACE

LINX SETTINGS SCREEN

The LINX system's **Auto Night Mode** integrates with the vehicles headlights and enables the user to customise the display brightness for specific driving conditions. The **Units** for speed, distance, temperature and pressure can also be set individually. The interface **Theme Colour** may be adjusted and a **LINX Update** will update the LINX software to ensure the system is running the latest version of LINX (**Note:** Run a LINX Update when first installed).

01 INDICATES IF INPUT IS ON/OFF

02 AUTO NIGHT MODE

03 UNITS

04 THEME COLOUR

05 LINX UPDATE

06 CONSOLE

07 CALIBRATE VEHICLE

Vehicle Input Status
Accessory Power
Low Beam
High Beam
Reverse
Calibrate Vehicle

Auto Night Mode
Units
Theme Colour
LINX Update
Console

UNITS SELECTION SCREEEN

Vehicle Input Status
Acces
Low B
High B
Revers
Calibra

Speed & Distance
● km/h, m   ○ mph, ft
Temperature
● °C   ○ °F
Pressure
○ kPa   ○ bar   ● PSI
Angle

Close

THEME COLOUR SCREEN

Vehicle Input Status
Acces
Low B
High B
Revers
Calibra

Close   Default   Apply

NOTES

- The **Vehicle Input Status** area **01** will show a coloured dot next to activated input connections on the controller.

- Use the slide control on **Auto Night Mode** **02** to customise the brightness level of the LINX Display for a specific driving condition. E.g. For night driving you may want to switch your low beam lights on, then adjust the brightness down to a level you want active when the low beam lights are next in operation.

- Tap **Units** **03** to bring up the units menu and tap the combination of units required.

- Tap **Theme Colour** **04**. Press and drag or slide to match your vehicle's instrumentation colours.

- Run a **LINX Update** **05** to check if you have the latest software build and features on your device.

- Tap the **Console** button **06** to enter configuration commands.

- Tap **Calibrate Vehicle** **07** then follow the instructions to calibrate the controllers orientation within the vehicle.

LINX ARB
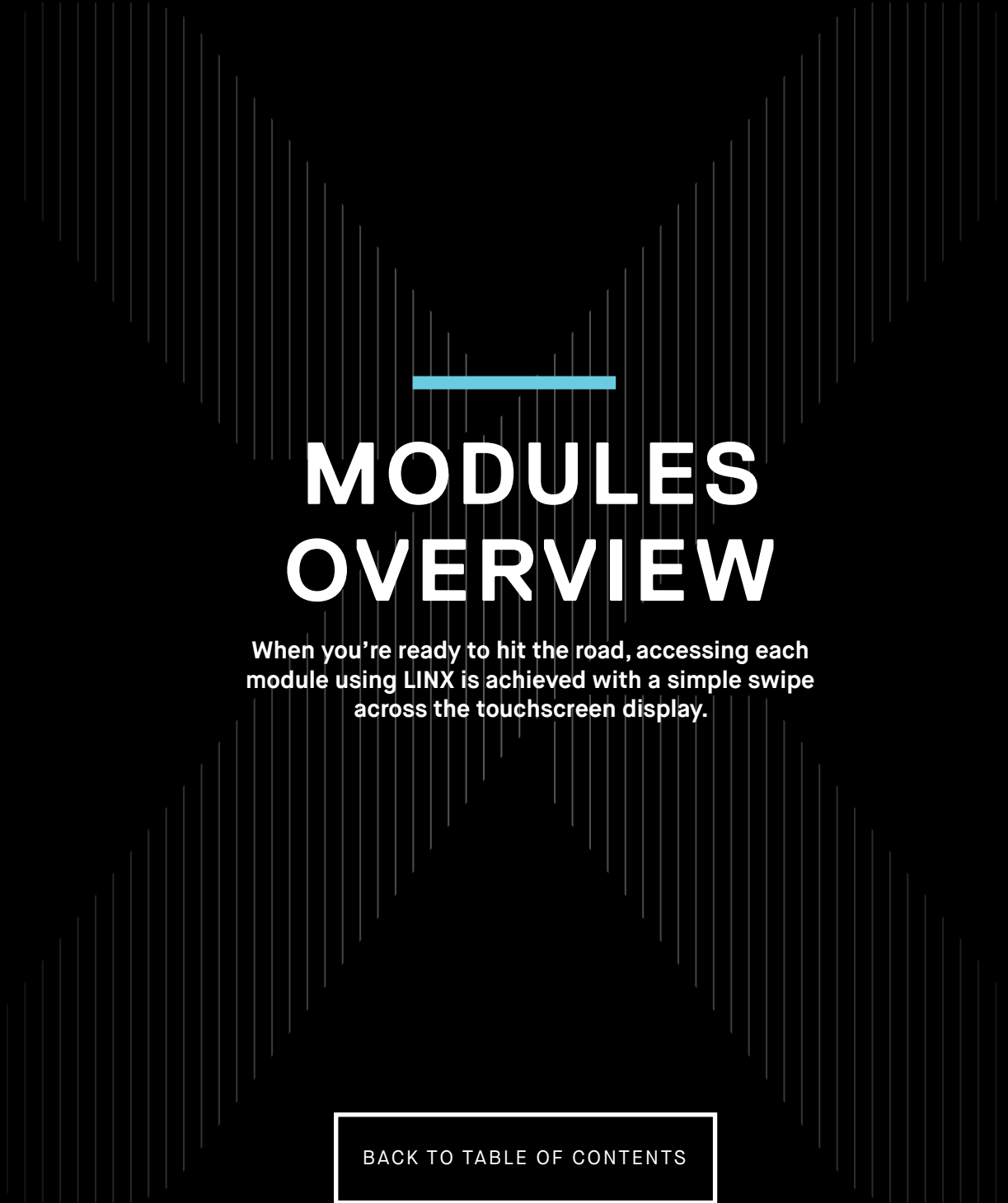VEHICLE ACCESSORY INTERFACE

11. UPDATING LINX

The LINX system can check for new updates whenever connected to the Internet by tapping 'LINX Update'.

1. Upon selecting **LINX Update** the screen will display:

2. If a new version is available, tap **Download** and follow the instructions to install.

When LINX re-connects after the update, it will determine if the LINX Controller firmware also needs to be updated and show the following screen. Tap **Update Now** and follow the instructions.

LINX **ARB**
VEHICLE ACCESSORY INTERFACE
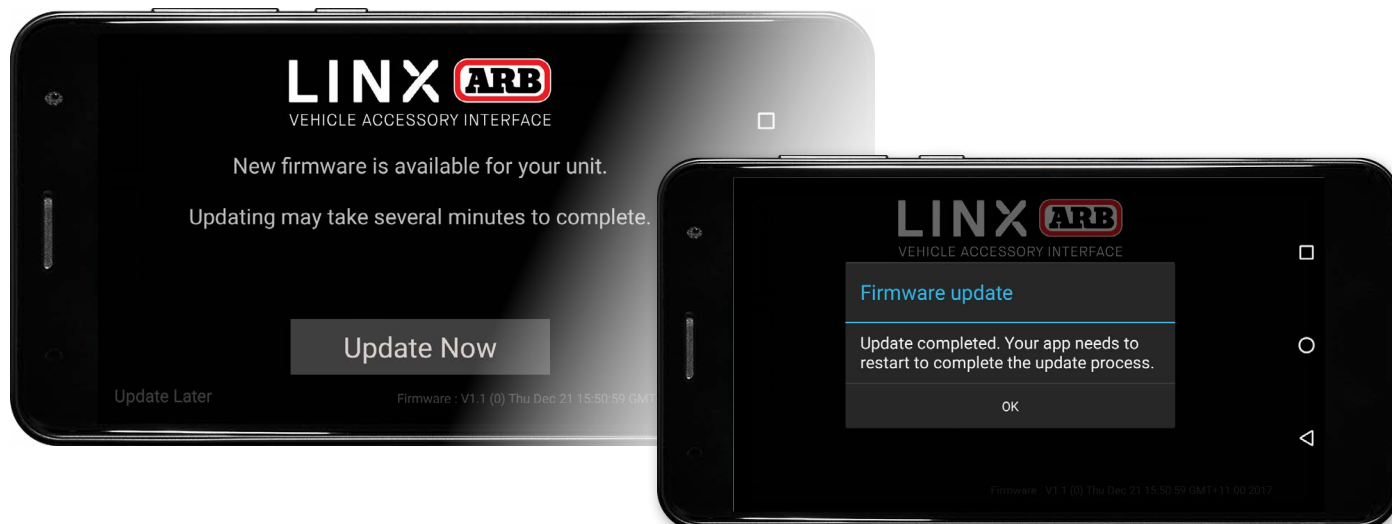
MODULES OVERVIEW

When you're ready to hit the road, accessing each module using LINX is achieved with a simple swipe across the touchscreen display.

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VEHICLE ACCESSORY INTERFACE

12. FRONT AND REAR TRACTION MODULES

The LINX Front Traction and Rear Traction modules are used to control and setup the Air Lockers installed on your vehicle and when selected will automatically turn on the air compressor where required to engage them.

1. Double tapping the **Front Traction** (or Rear Traction) module brings up 'full screen mode' for the Traction module.

2. Now in 'full screen mode'.

To engage the rear Air Locker, simply tap the button once. Tap again to switch off the rear Air Locker.

1. Single tap on **Rear Traction.**

2. **Rear Traction** is now engaged/locked.

LINX **ARB**
VEHICLE ACCESSORY INTERFACE
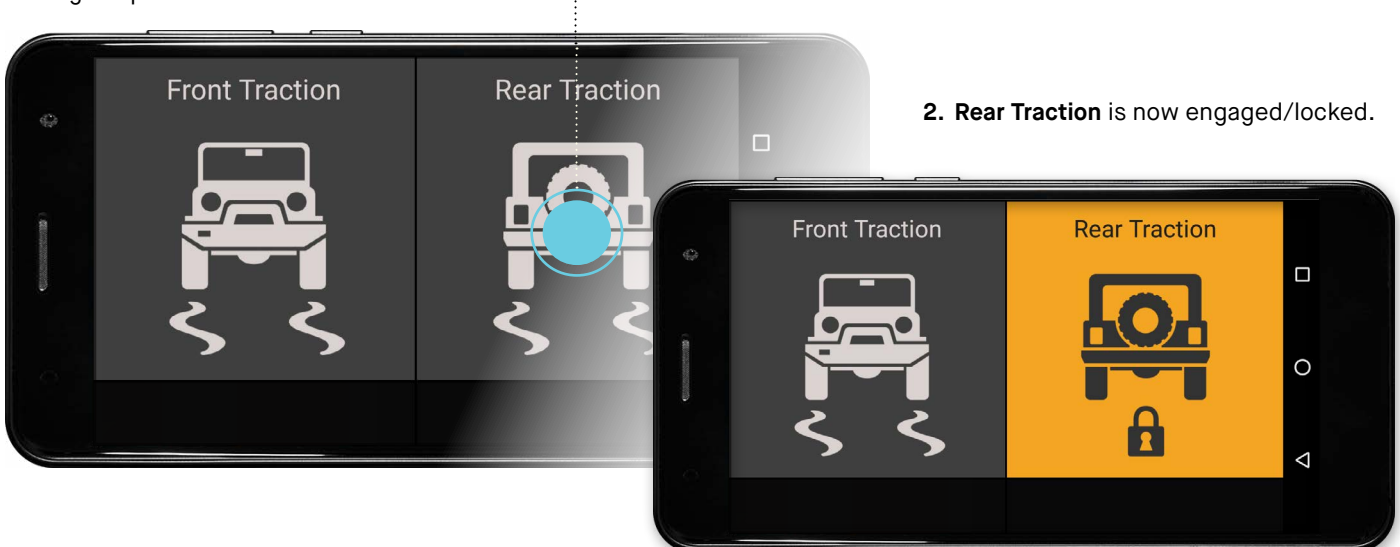
CONFIGURING TRACTION MODULES: AIR LOCKER SETUP

To enter settings for the Traction modules, press and hold the module. This will show the traction settings page. Simply tap the option you wish to set. Tap again to unset it.

1. Press and hold **Front Traction**

2. Front Traction settings page. **Front Axle Second** is selected by default.

The Front Traction module can be setup to operate in two ways: 'front axle second', and 'front independent of rear'.

FRONT AXLE SECOND

'Front axle second' is the default mode in which the LINX system is supplied. It automatically greys-out the **Front Traction** button making it unselectable until the **Rear Traction** button is made active. This is a traditional safety feature of Air Lockers that was factory hard wired in conventional installations.

FRONT INDEPENDENT OF REAR

'Front independent of rear' mode is available when **Front Axle Second** is deselected. It allows the front and/or rear Air Lockers to be switched on or off independently of the other at any time.

EXTERNAL LOCK SWITCH INSTALLED

When **External Lock Switch** is selected, this allows you to control the Traction module with an Air Locker dashboard switch. LINX will display the lock / unlock state of the dashboard switch and the LINX Display button will be unselectable.

TRACTION LAYOUT OPTIONS

When **Combined** is selected, both the Front and Rear Traction buttons will be combined onto one tile (if they are both installed). This reduces each traction button size but frees up the other half of the display for another module.
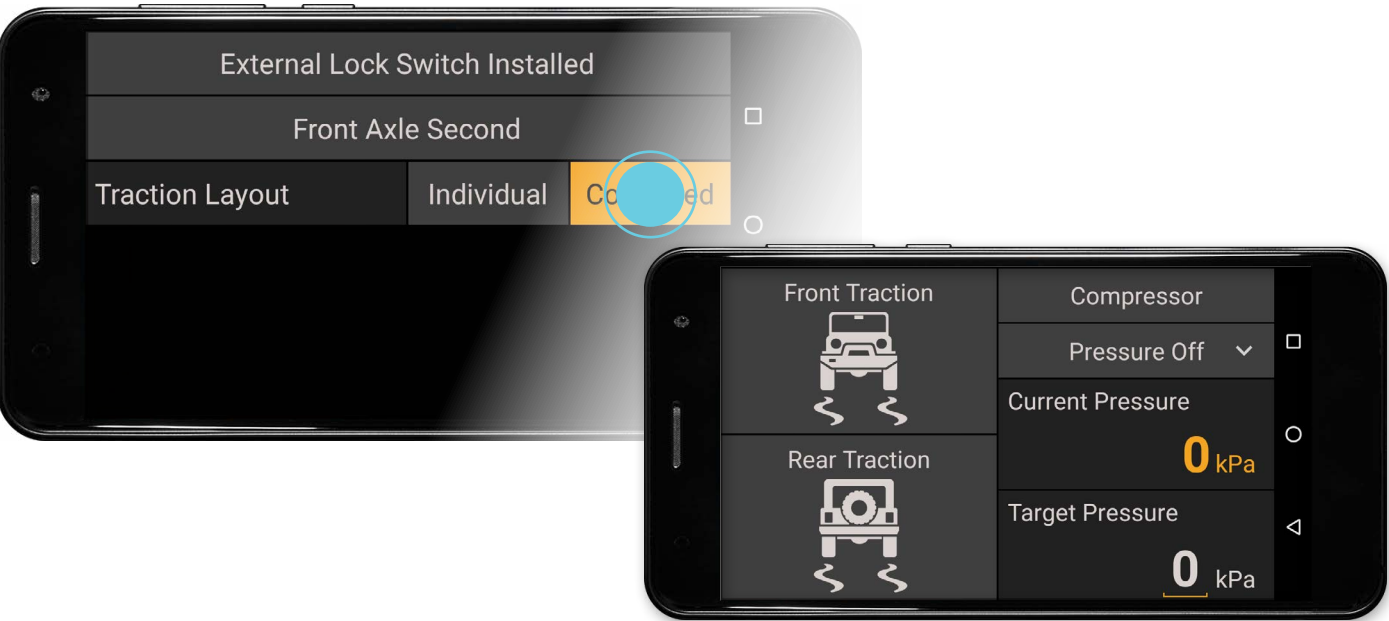
COMPRESSOR MODULE

AND OPTIONAL PRESSURE CONTROL MODULE

The LINX Compressor module is used to configure and operate your air compressor. 'Pressure Control' is an optional upgrade that is used in conjunction with the LINX Pressure Control Kit (7450107) to inflate or deflate your tyres to a target pressure.

SWITCHING ON COMPRESSOR

To switch the **Compressor** on, tap the button once. Tap again to switch it off.
Note: Vehicle accessory power must be on before Compressor can be turned on.

1. Single tap on **Compressor** button.

2. Compressor highlighted indicates it is on.
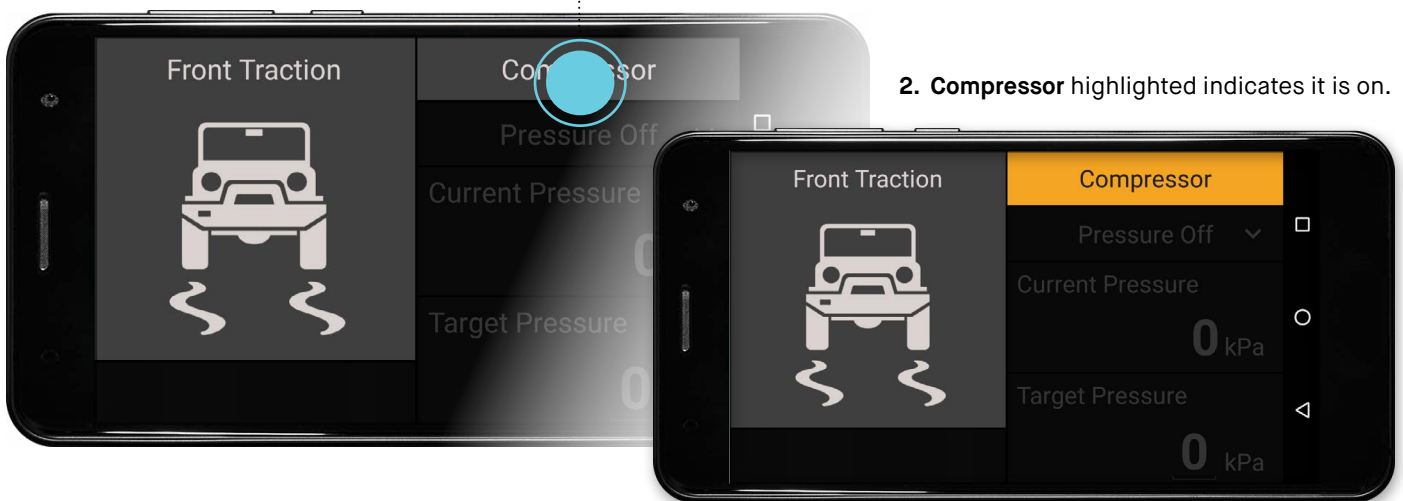
The blue automation triangle appears in the top right corner of the Compressor button to indicate that LINX has changed the state of the Compressor, such as the vehicles accessory power turning off, or Front Traction turning on.
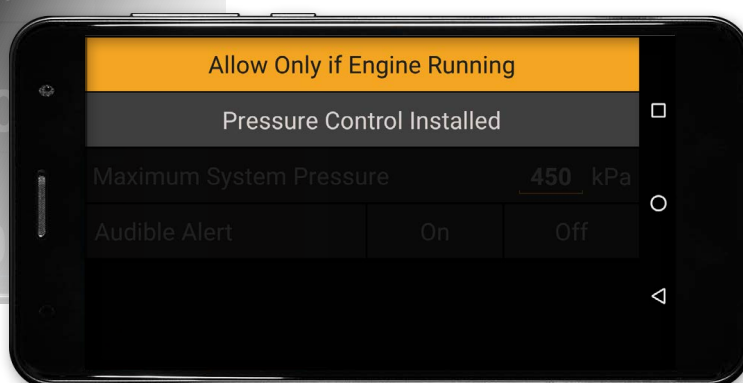
CONFIGURING COMPRESSOR MODULE

To configure the Compressor module, press and hold anywhere on the module, this will show the compressor settings page. Tap the option you wish to set.
Tap again to unset it.

1. Press and hold anywhere on the Compressor module.

2. Compressor settings page (**Allow Only if Engine Running** is set by default)

'Allow Only if Engine Running' ensures that the compressor will only run when the voltage is 12.8V or more, this prevents any damage to the compressor motor or blown fuses if the battery levels are too low to operate it.

CONFIGURING PRESSURE CONTROL

To activate the optional Pressure Control feature, tap the **Pressure Control Installed** button then set the **Maximum System Pressure** to set the upper limit that can be used when inflating your items.

This must be less than the minimum limit of your compressor's pressure switch (e.g. For an ARB CO35 100psi pressure switch set it to 65psi, for an ARB 180901 150psi pressure switch set it to 130 psi).

1. Tap **Pressure Control Installed**
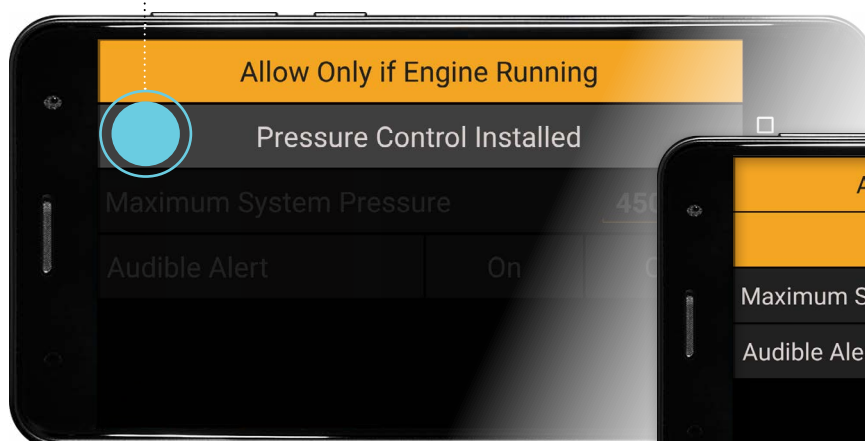
**2.** Then set the **Maximum System Pressure**
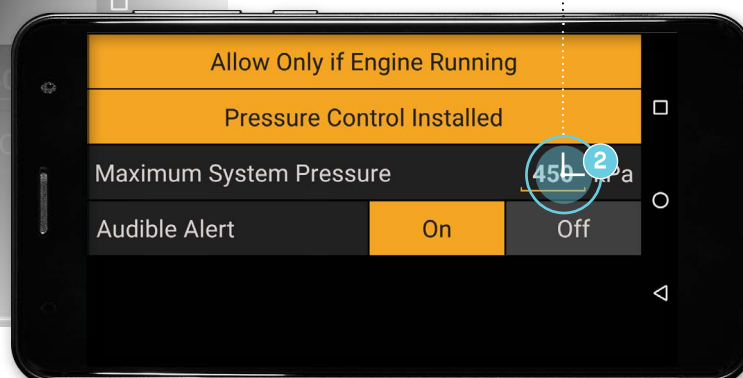
Turn on the **Audible Alert** and a chime will sound when inflation or deflation is complete. Simply tap the **On** or **Off** buttons to turn it on or off.

Tap **Back** to return to 'split screen mode'. The Display will now show the **Current Pressure** in the air line connected to the Pressure Control Kit, and user definable **Target Pressure**.

1. To change the **Target Pressure** press & hold the underlined value '33' to bring up the keypad entry.

2. Use the keypad to input the required value, then tap the **tick** to set it.
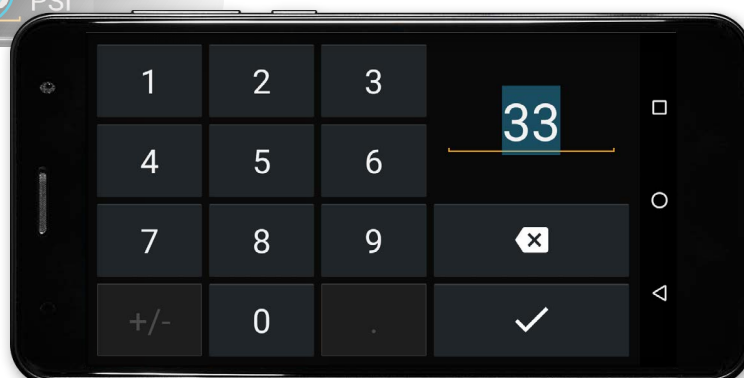
PRESSURE CONTROL MODE LIST

With pressure control installed the Current Pressure and Target Pressure fields are activated along with the **Pressure Control Mode** list. Tap on the dropdown list to select from the 3 different modes.

1. Tap the 'dropdown list' to view the list of modes.

2. Tap the desired **Pressure Control Mode** to select it.

PRESSURE CONTROL MODES

Pressure Off means no air flow from the compressor, but residual pressure may still be in the air line.

Pressure Control will turn on the compressor and the Pressure Control Valve will try to inflate/deflate to achieve the **Target Pressure** to a value less than or equal to the **Maximum System Pressure** setting.

Pressure Max will turn on the compressor, and open the Pressure Control Valve, thereby opening up a straight connection between the compressor and air line which is useful when using a blow gun on the air line.

Cancel is used to back out of the menu (ie same as tapping the **Back** button).

NOTES

- Parameters that may be set by the user are shown underlined.
- Theme coloured parameters (e.g. **Current Pressure** value) are monitored by the system.
- The **Maximum System Pressure** will automatically override any **Target Pressure** entered in excess of it.
- **Current Pressure** is the pressure monitored by the LINX system in whatever is connected to the LINX Pressure control Kit.
- **Target Pressure** is the pressure that the user may set to either inflate or deflate their tyres.
- The LINX Display uses Bluetooth to communicate with the LINX Controller and may be disconnected from the USB cable then removed from the mount and taken outside of the vehicle to monitor and control your tyre pressures dynamically at the side of your vehicle.

WARNING

Tyre pressures vary by manufacturer, type, vehicle load, speed and driving conditions. Over inflating your tyres can lead to excessive tread wear and shorten their overall life expectancy. Please consult the tyre manufacturer for the appropriate pressure settings for your tyres and driving conditions. Always remember to re-inflate your tyres to the correct pressure immediately upon returning to sealed roads. Failure to do so could seriously affect vehicle handling and possibly result in tyre failure

SWITCHBOARD MODULE

The LINX Switchboard module can be used to control up to six (6) optional switched accessories connected to your LINX Controller.

Each accessory can be given a unique name (up to 16 characters) and then be customised to switch on or off; by user input, or an one of the 'vehicle inputs': accessory power, parker/low beam headlamps, high beam headlamps or reverse lamp.

They can also be turned off automatically when a user defined setting for low voltage cut out has been detected by LINX to protect your vehicle from a flat battery. All settings are saved back to the LINX Controller and remain active 24/7 even if the LINX Display is off or is removed from the vehicle.

CONFIGURING SWITCHBOARD MODULE

1. Press and hold on an individual accessory button to show its settings page.
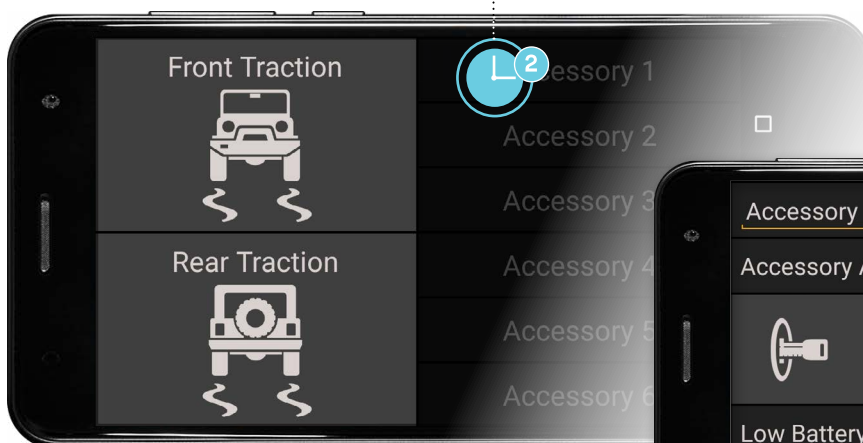
2. Tap the checkbox in the right hand corner to activate the accessory.

LINX **ARB**
VEHICLE ACCESSORY INTERFACE
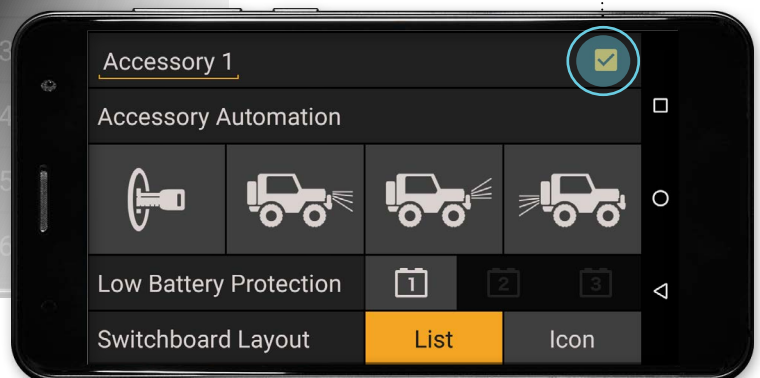
RENAMING ACCESSORIES

To rename 'Accessory 1' to suit your vehicle accessory setup:

1. Press and hold the underlined text to show the keyboard.

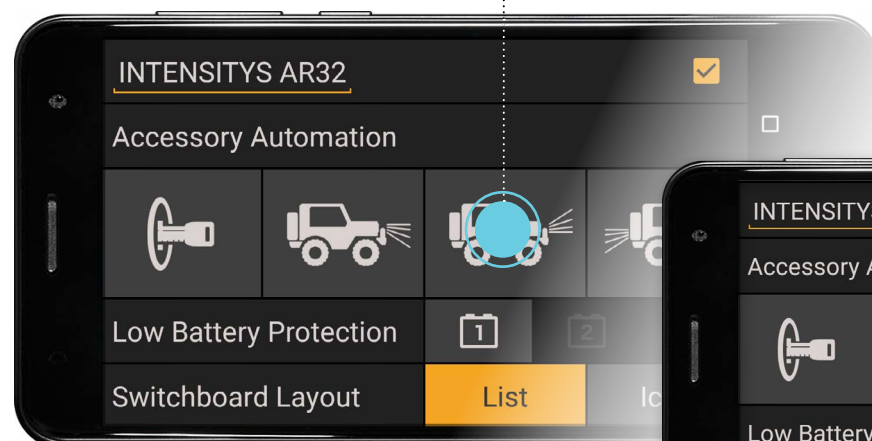**2.** Then, enter a name relating to its function and tap **DONE** when complete.

E.g. To setup your front flood or spot lights you could enter 'INTENSITYS AR32'
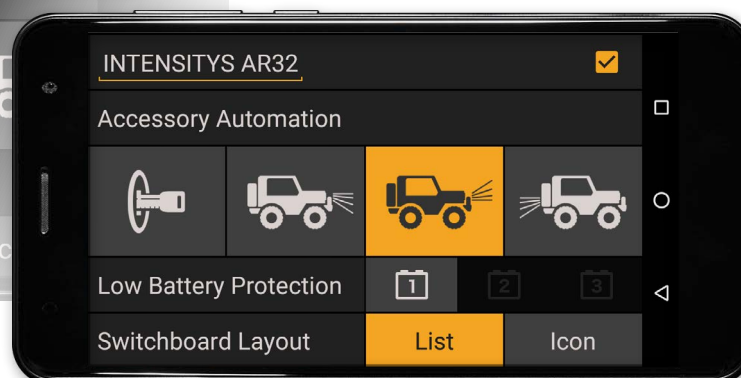
AUTOMATING ACCESSORIES

To automate the 'INTENSITYS AR32' to turn on or off with the vehicle's high beams, simply tap the **high beam** button in the **Accessory Automation** menu.

1. Tap the **high beam** button to select it.

2. The button will change colour when selected.

NOTE

· All automation functions are user over-ridable. In the example above, LINX will automate the 'INTENSITYS AR32' to come on whenever the high beams are activated, but the 'INTENSITYS AR32' can still be switched off by the user at any time.

LOW BATTERY PROTECTION

To assign **Low Battery Protection** to switch off the 'INTENSITYS AR32' based on **Battery 1**'s set **Low Voltage Alarm** level:

Tap the **Battery 1** button to activate it.

(Refer to the section on the Battery module for customising the battery settings and entering a **Low Voltage Alarm** level)

SWITCHBOARD LAYOUT OPTIONS

There are two layout choices for the switchboard. There is a 1 x 6 button list layout, and there is also a 2 x 3 square icon button layout.

NOTE

- In the example shown above, the **Low Battery Protection** on **Battery 1** will ensure that the 'INTENSITYS AR32' are switched off (even though your high beam lamps are still switched on) once the battery level drops below limit set by **Low Voltage Alarm** in the Battery module settings.

To select between the layout options tap the **List** or **Icon** button in the setting page of any accessory. Then the icon graphic for each accessory is selected in the each accessorys settings page.

1. First tap the button with the icon graphic.
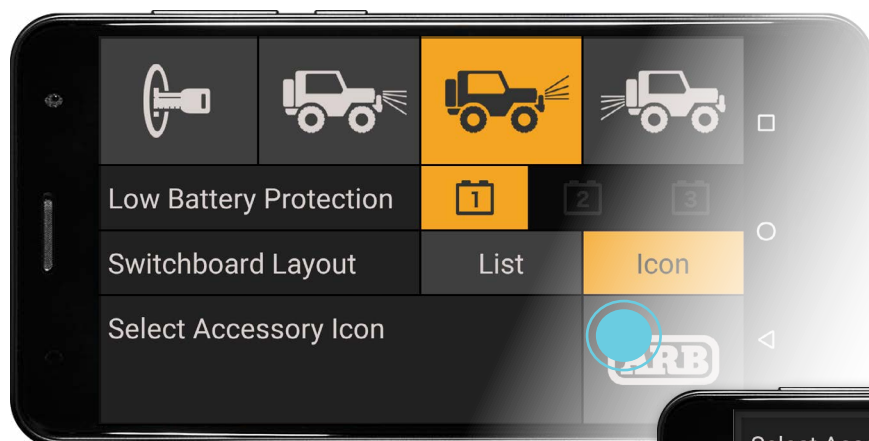
2. Tap the desired icon for the that accessory. Repeat for each accessory button.
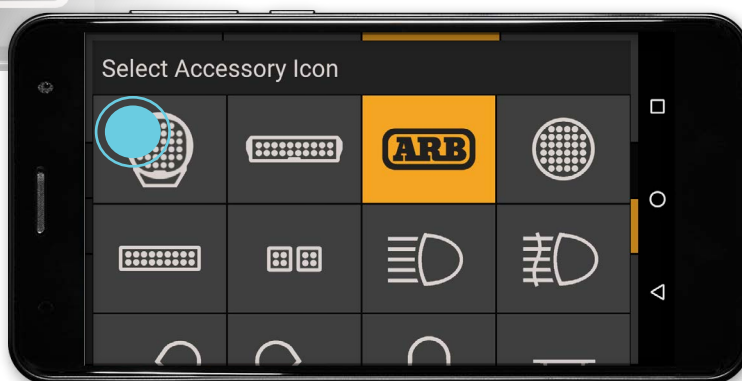
SWITCHING ON/OFF AN ACCESSORY

To switch the accessory on, tap the button once. Tap again to switch off.

Switchboard buttons can also used as a momentary contact switch for an application such as a horn or linear actuator. To momentarily switch the accessory on, tap and hold the button with two fingers at the same time. Then simply release the button to switch off.

BATTERY MODULE

The LINX Battery module can be used to monitor and display the charge state of up to three (3) independent batteries simultaneously.

Each battery can be given a unique name (up to 16 characters) and then be configured to operate with your Switchboard accessory via the Switchboard module. (Refer to the section on the Switchboard module for further details).

CONFIGURING BATTERY MODULE

1. Press and hold **Battery 1** to show its settings page.

2. Activate each battery by tapping the checkbox in the top right corner.

Note: The greyed-out checkbox indicates that **Battery 1** is the battery the LINX Controller is connected to for power. Hence it is active by default and cannot be de-activated.

RENAMING BATTERIES

To rename 'Battery 1' to suit your vehicle accessory setup:

1. Press and hold the underlined text to show the keyboard.

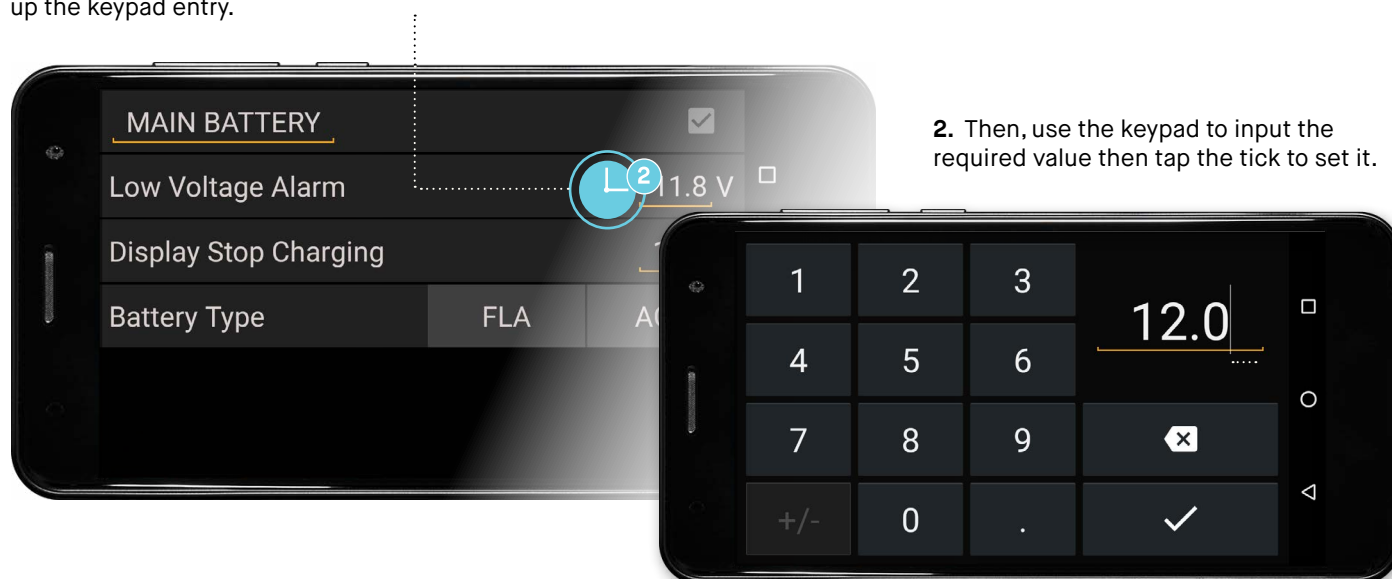**2.** Then, enter a name relating to its function, then tap **DONE**

EXAMPLE: To setup your main vehicle battery rename it to 'MAIN BATTERY'.

LOW VOLTAGE ALARM

To set the **Low Voltage Alarm** level:

1. Press & hold the underlined value '11.8' in the menu to bring up the keypad entry.

2. Then, use the keypad to input the required value then tap the tick to set it.

A **Low Voltage Alarm** when triggered will highlight in RED. For example, Battery 2 (renamed to "AUX BATTERY") has its **Low Voltage Alarm** level set to "11.5V" and the batteries actual voltage is 11.4V which now highlights in RED

Tap **BACK** return to Battery module screen.
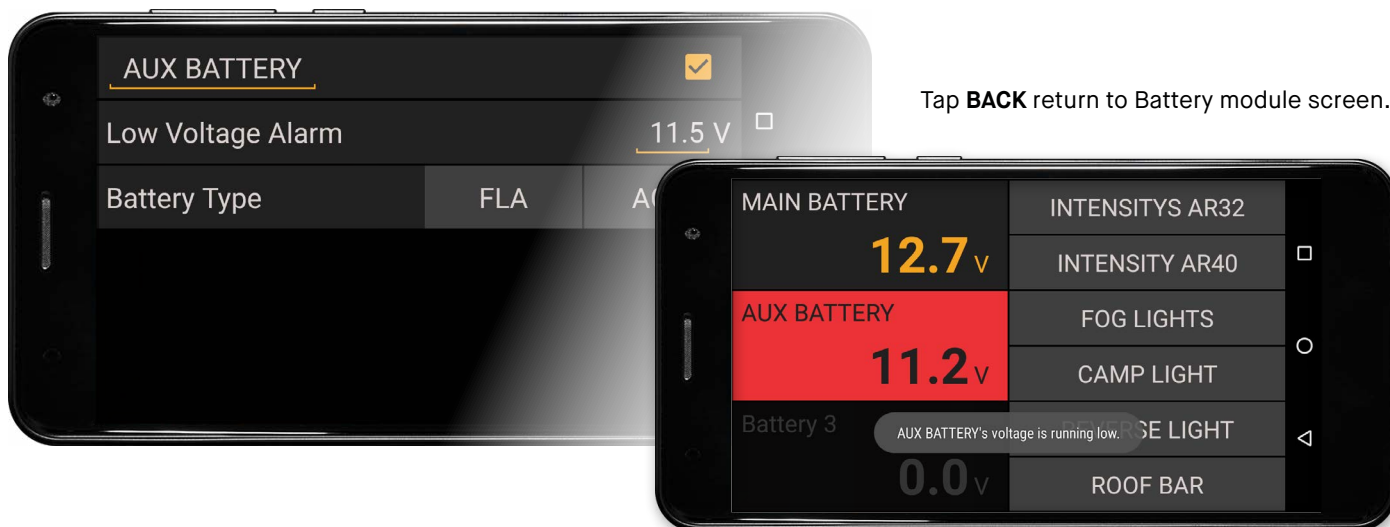
DISPLAY STOP CHARGING

The LINX Controller can switch on and off the USB charging port, to maintain optimum LINX Display battery condition and charging efficiency, reducing LINX overall power consumption. Additionally when the vehicles battery voltage is below the the **Display Stop Charging** value, the LINX Controller will switch off the USB charging port to further reduce draw on the vehicle battery. To set the value:

1. Press & hold the underlined value '12.4' in the menu to bring up the keypad entry.

2. Then, use the keypad to input the required value then tap the tick to set it.

NOTES

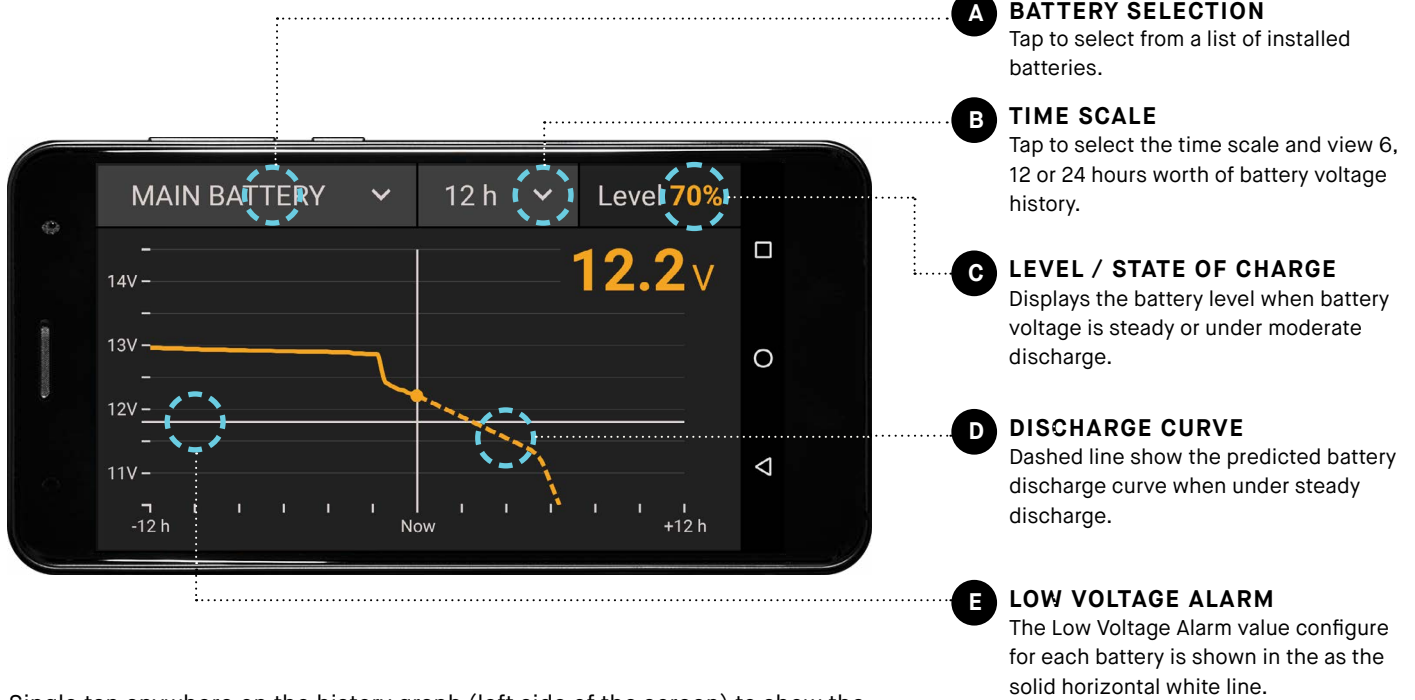- The maximum setting for **Low Voltage Alarm** and **Display Stop Charging** is 15.0V
- Parameters that may be set by the user are shown underlined (e.g. **Low Voltage Alarm** value).
- Higher **Display Stop Charging** values (e.g. 12.7) will reduce LINX power consumption when the vehicle is not used for long periods.
- Theme coloured parameters (e.g. battery voltage 12.7v) are displayed in real time.

BATTERY MONITORING IN FULLSCREEN

The battery module in fullscreen contains a battery voltage history graph. When the battery type has been configured in settings, as Flooded Lead Acid (FLA) or Absorbed Glass Mat (AGM), then the battery monitor also estimates the battery level (state of charge) and shows a dashed line for the predicted battery discharge curve when there is a steady load/discharge.

A **BATTERY SELECTION**
Tap to select from a list of installed batteries.

B **TIME SCALE**
Tap to select the time scale and view 6, 12 or 24 hours worth of battery voltage history.

C **LEVEL / STATE OF CHARGE**
Displays the battery level when battery voltage is steady or under moderate discharge.

D **DISCHARGE CURVE**
Dashed line show the predicted battery discharge curve when under steady discharge.

E **LOW VOLTAGE ALARM**
The Low Voltage Alarm value configure for each battery is shown in the as the solid horizontal white line.

Single tap anywhere on the history graph (left side of the screen) to show the battery voltage data for that point in time.
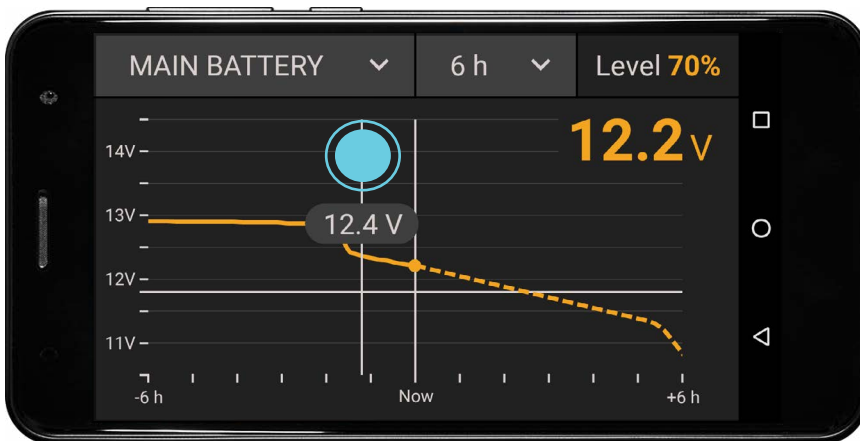
NOTE

• It will take up to 10 minutes of steady discharge to calculate and show the battery **Level** and predicted discharge curve.

16.

SPEEDOMETER MODULE

The LINX Speedometer module works by GPS (Global Positioning System) to show the current speed, altitude and bearing of your vehicle.

The Speedometer module operates independently of tyre size or level of inflation of your tyres, thus providing better accuracy than an uncalibrated vehicle speedometer. The Speedometer module enables the user to assign a speed limit such that a warning is issued if the limit is exceeded by the driver. Greyed-out values indicate poor GPS reception.
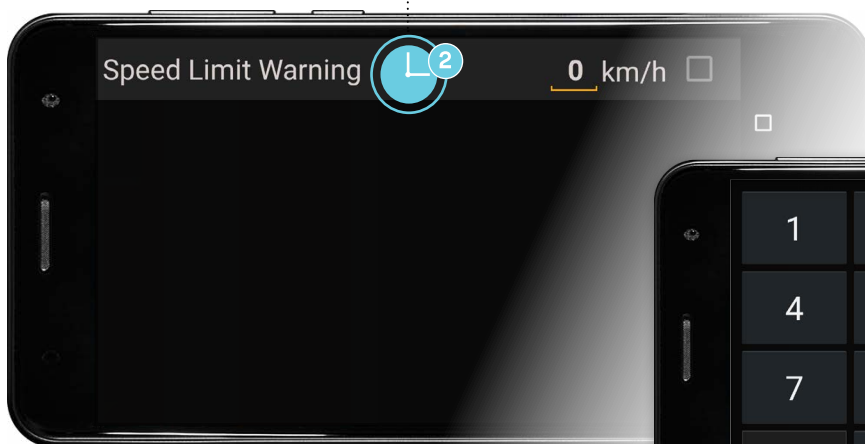
CONFIGURING SPEEDOMETER

1. Press and hold anywhere on the **Speed** display, to show its settings page.

Speed	Battery 1
km/h	**12.7** v
Altitude	Battery 2
104 m	**0.0** v
Bearing	Battery 3
N	**0.0** v

SETTING SPEED LIMIT WARNING

To set the speed limit:

1. Press & hold the underlined value ('0 km/h') next to **Speed Limit Warning** to bring up the keypad entry.

Speed Limit Warning   0 km/h

2. Use the keypad to input the required value, then select the tick to set it.

1	2	3	80
4	5	6	
7	8	9	⌫
+/-	0	.	✓

1. Tap the tick box in the top right corner to activate the **Speed Limit Warning**.

Speed Limit Warning   80 km/h ☑

2. Tap the **BACK** to return to Speedometer module screen.

Speed	Battery 1
0 km/h	**12.7** v
Altitude	Battery 2
104 m	**0.0** v
Bearing	Battery 3
N	**0.0** v

LINX will now monitor the vehicles' speed and let the driver know when the limit has been exceeded by changing the displayed speed colour to RED.

NOTES

- Parameters that may be set by the user are shown underlined (e.g. **Speed Limit Warning** value).
- Theme coloured parameters (e.g. **Altitude, Bearing** and **Speed**) are monitored by the system.
- The GPS in your LINX Display requires good outdoor signal reception from at least three satellites to pinpoint your location for accuracy of operation. Greyed-out values indicate no GPS reception and are not real time (e.g. When driving through a tunnel).

AIR SUSPENSION MODULE

The LINX Air Suspension module (when fitted with an optional compressor, airbags and LINX Pressure Control Kit (7450107) gives you the ability to control up to 4 airbags either as pairs to level the vehicle from front to rear, or independently to cater for uneven loads from one side to the other.

Independent air bag control requires the optional LINX Airbag Suspension Isolation Kit (7450109). The user can customise the pressure of the airbags then save these mode settings under unique names (up to 16 characters long) to suit different towing and vehicle load conditions then at the press of a button retrieve the settings suited for the day's journey. For example, your modes might be named 'DAILY RIDE', 'BOAT TRAILER', 'CARAVAN' or 'QUAD TRAILER' based on the vehicle loads or range of equipment you have to hook up to your vehicle.

CONFIGURING AIR SUSPENSION

1. Press and hold anywhere on the **Air Suspension** module to show its settings page.

There are three options that can be set for the Front and/or Rear airbags as follows:

None will leave the Air Suspension inactive.

Joined will control them as pairs (e.g. to level the vehicle from Front to Rear).

Split will control each side of the vehicle independently of the other to compensate for uneven vehicle loads.

The range of control options will be dependent on the hardware and LINX accessories you have configured on your vehicle.

SET OPERATIONAL CONTROL STATE

To set the front and/or rear airbags hardware configuration:

1. Single tap on **Joined** or **Split.**

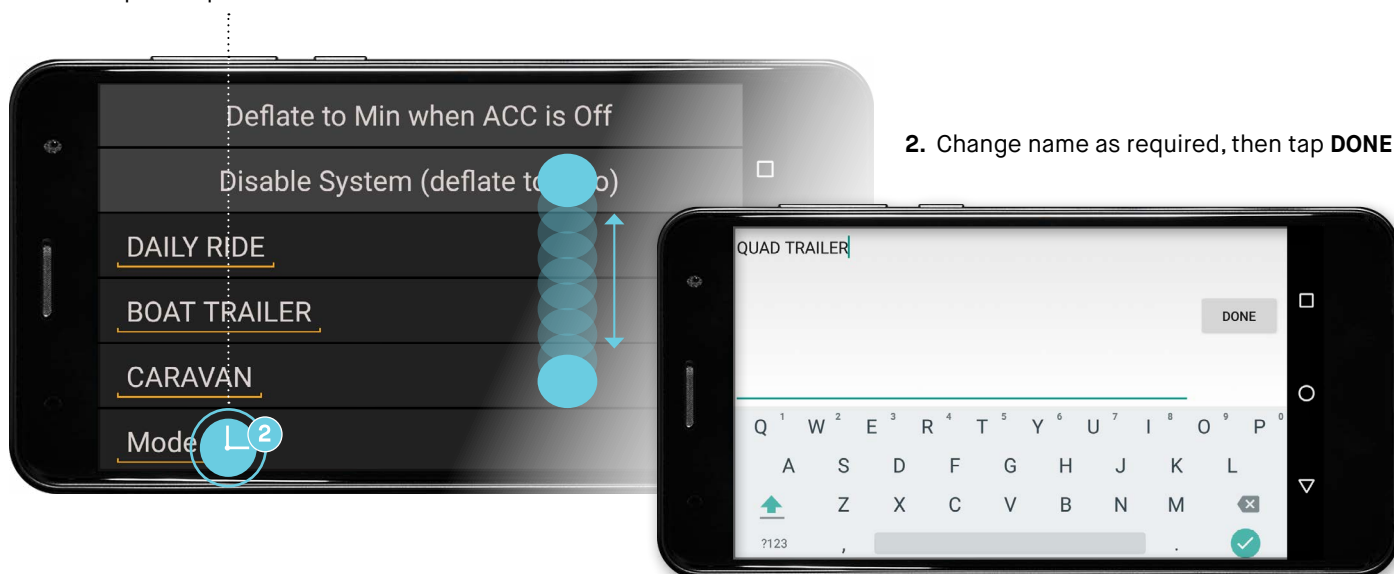## SET MINIMUM AND MAXIMUM AIRBAG OPERATING PRESSURES
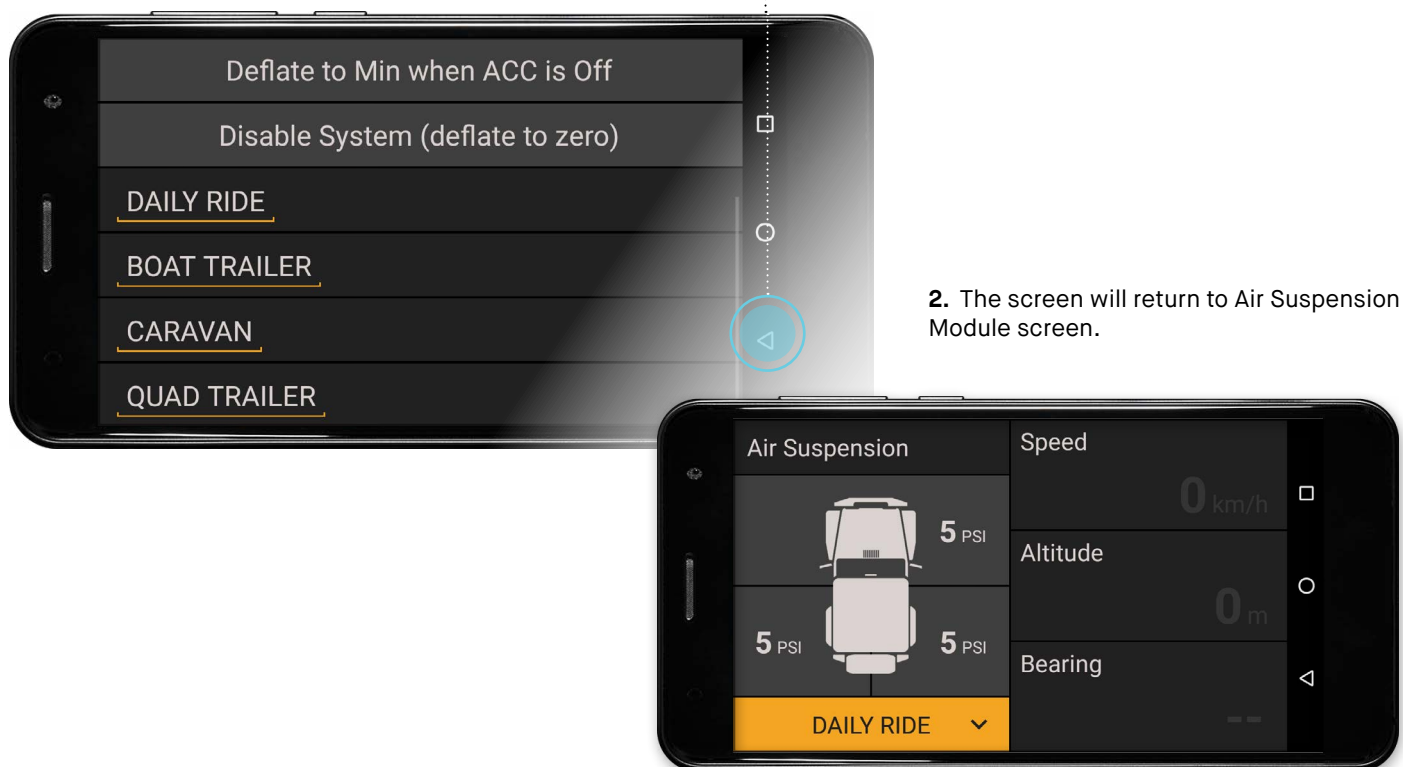
1. Press & hold on the underlined values.

RENAMING MODES

## RENAMING MODES

1. Scroll up, then press and hold 'Mode 4'.

Deflate to Min when ACC is Off

Disable System (deflate to zero)

DAILY RIDE

BOAT TRAILER

CARAVAN

Mode

2. Change name as required, then tap **DONE**.

QUAD TRAILER

DONE

1. Tap the **BACK** button to return to Air Suspension module Screen.

Deflate to Min when ACC is Off

Disable System (deflate to zero)

DAILY RIDE

BOAT TRAILER

CARAVAN

QUAD TRAILER

2. The screen will return to Air Suspension Module screen.

Air Suspension

Speed

0 km/h

5 PSI

Altitude

0 m

5 PSI   5 PSI

Bearing

DAILY RIDE

--

ADJUSTING AIR PRESSURE

1. Tap the pressure value of one or more values requiring adjustment (tap near '5PSI'). Tap again to deselect them.
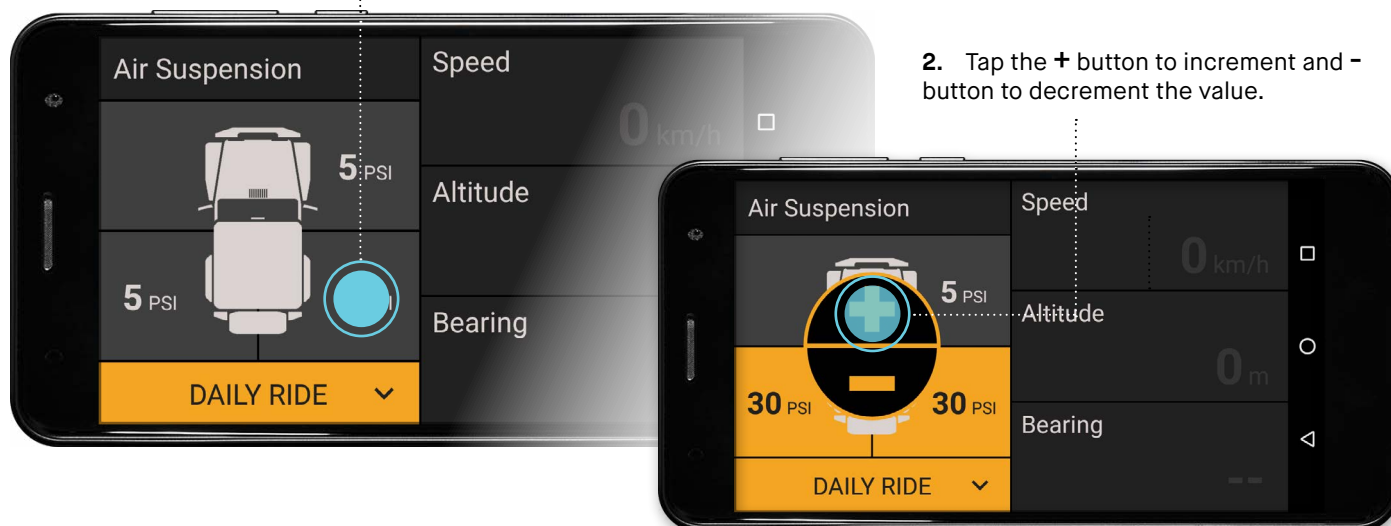
2. Tap the **+** button to increment and **-** button to decrement the value.

Tap the value again to deselect it and it will be saved in the current mode such as "DAILY RIDE'.

CHANGING MODES

Select from the different modes by tapping on the drop down menu**.**

AUTO ADJUST WITH VEHICLE START

When the vehicle is started, if it is close to level (inclinometer pitch and roll readings of less than 3 deg) and stationary, then LINX will automatically check the air susension pressures and if required re-adjust them to the current pressure setting. For this feature to function correctly the vehicle must first be calibrated via the LINX Settings Screen by tapping the **Calibrate Vehicle** button.

NOTES

- Parameters on the settings page that may be set by the user are shown underlined (e.g. the values next to **Min** and **Max**, and the mode names).
- Refer to your airbag manufacturer's datasheet for the recommended Min and Max operating pressures
- **Disable System** option is normally used by technicians when working on and installing the system.

18.

INCLINOMETER MODULE

The LINX Inclinometer module monitors and displays the roll and pitch of the vehicle independant of the LINX Display. The inclinometer can be configured to sound and display and alarm to warn you of approaching your vehicle roll or pitch limit.

For the inclinometer to function correctly the vehicle must first be calibrated via the LINX Settings Screen by tapping the **Calibrate Vehicle** button.

1. Double tapping the **Inclinometer** (ROLL or PITCH) module brings up 'full screen mode' for the Inclinometer module.


**2.** Now in 'full screen mode'.
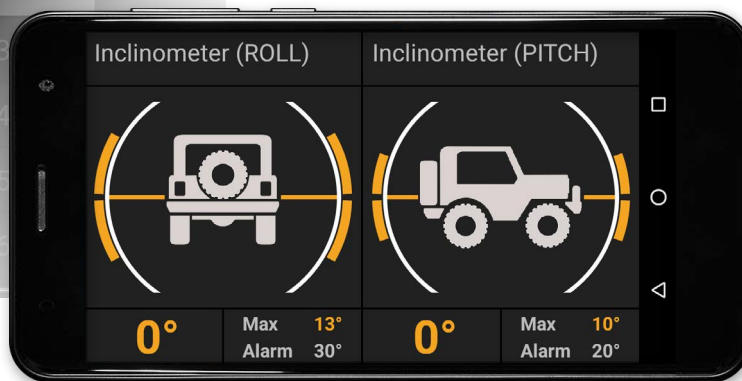
CONFIGURING THE INCLINOMETER

To enter settings for the Inlinometer modules, press and hold the module. This will show the Inclinometer settings page. To edit the Limit Alarm value, press and hold the value. Simply tap the option you wish to set. Tap again to unset it.

1. Press and hold **Inclinometer** module.

2. Audible Alarm and Vehicle displayed from the rear are selected by default.
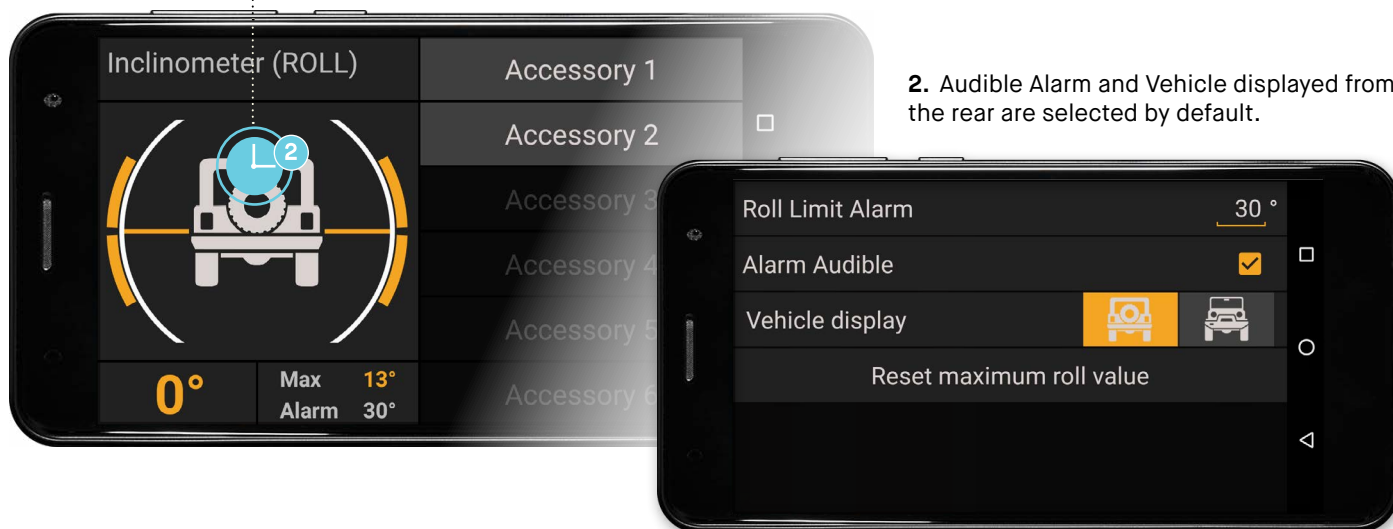
LIMIT ALARM

A Roll / Pitch Limit Alarm when triggered will highlight in RED. For example, Roll has its Roll Limit Alarm set to 30° and the vehicles roll is at 33° which now highlights in RED. An audible alarm will also sound if selected in the settings.
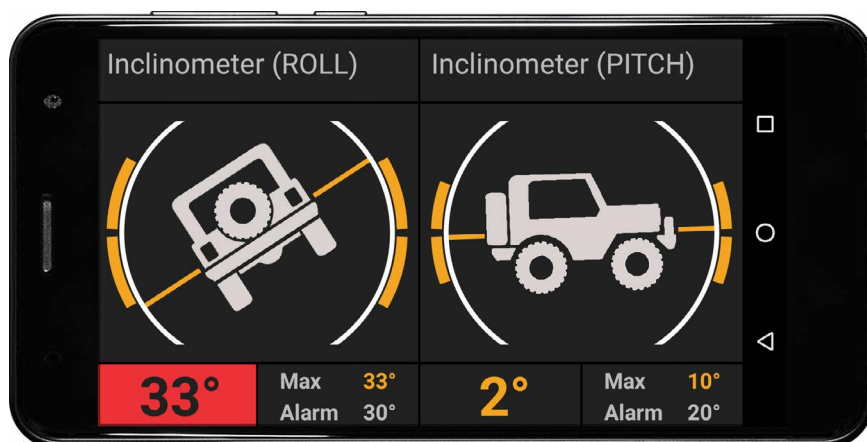
19. CLOCK MODULE

The LINX Clock module includes a range of time related functions such as local and world time, date, timer, alarm, and stop watch.

The date and local time will be automatically set whenever the LINX Display is able to receive GPS signal or a SIM card is used to connect it to a telecommunications network. Alternatively the date and time can be manually set in the Android main setting menu. For help finding the Android settings menu refer to section 8.

1. To access each of the Clock functions tap on the drop down list and tap again to select.
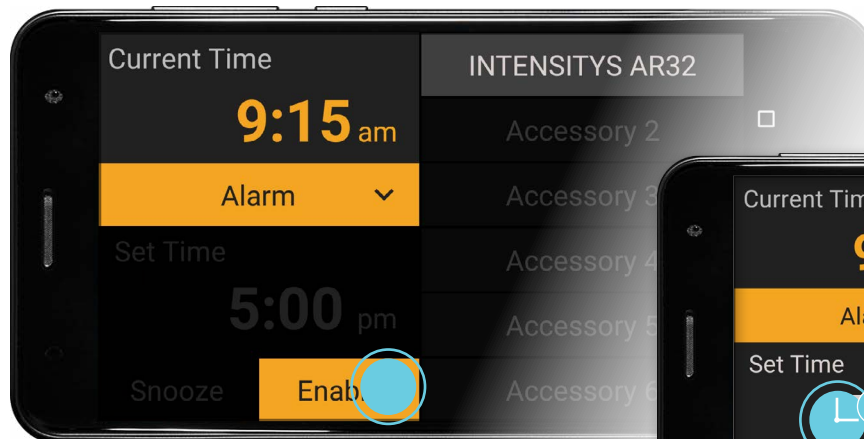

TIMER FUNCTION

**1.** Tap and hold on the underlined values to set the timer.

2. With the timer set you can now tap the **Start** button. When the timer has counted down to zero an audile notification will sound once.

LINX ARB
VEHICLE ACCESSORY INTERFACE

ALARM FUNCTION

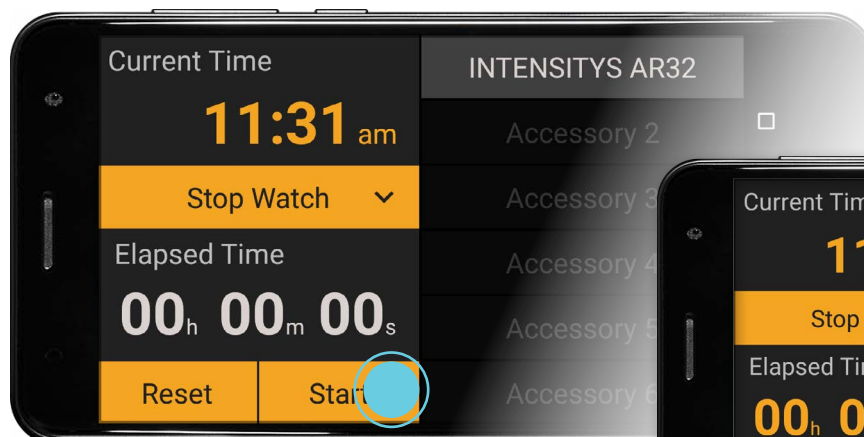**1.** To edit the alarm time, first tap the **Enable** button.

2. Tap and hold the underlined value to set the alarm time. At the alarm time an audible alarm will sound, tap Disable to turn the alarm off, or tap Snooze to add 9 minutes to the alarm time.
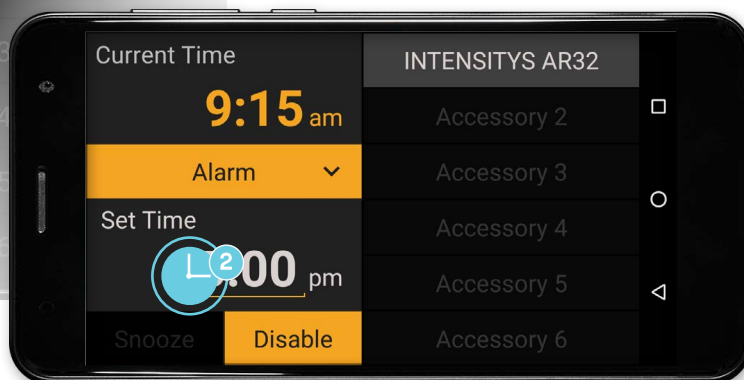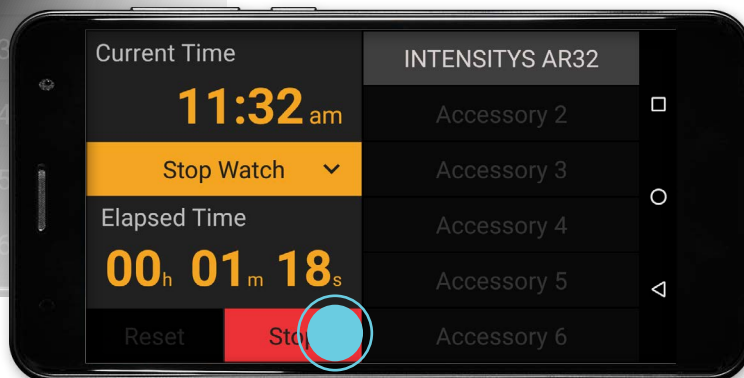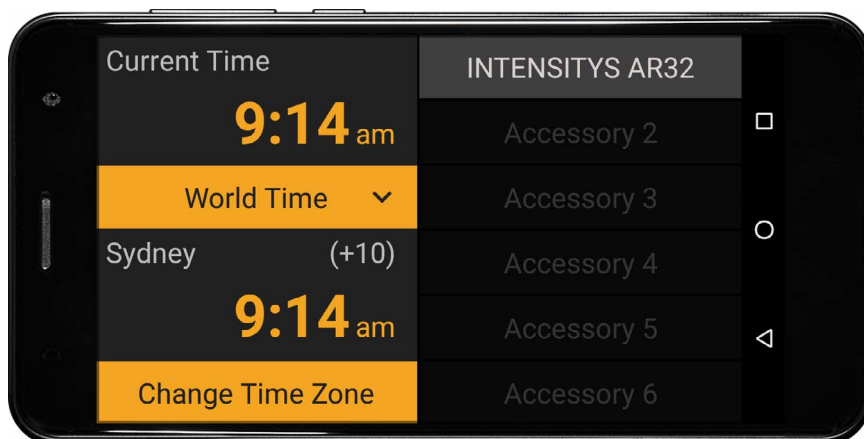

STOP WATCH FUNCTION

1. Tap **Start** to begin.

2. Tap **Stop** to end.

WORLD TIME FUNCTION

1. Tap **Change Time Zone** to select from a list of timezones.

FRIDGE MODULE

The LINX Fridge module can monitor/control the ARB Zero Fridge Freezer range and compatible ARB Classic and Elements Fridge Freezers that have been fitted with an ARB Fridge App Connect module (ARB #10900041).

When connected to an ARB Zero Fridge or Series 2 ARB Fridge the module can be used to monitor and control the Fridge. Series 1 ARB Fridge Freezer manufactured post 2014 allow monitor function only.
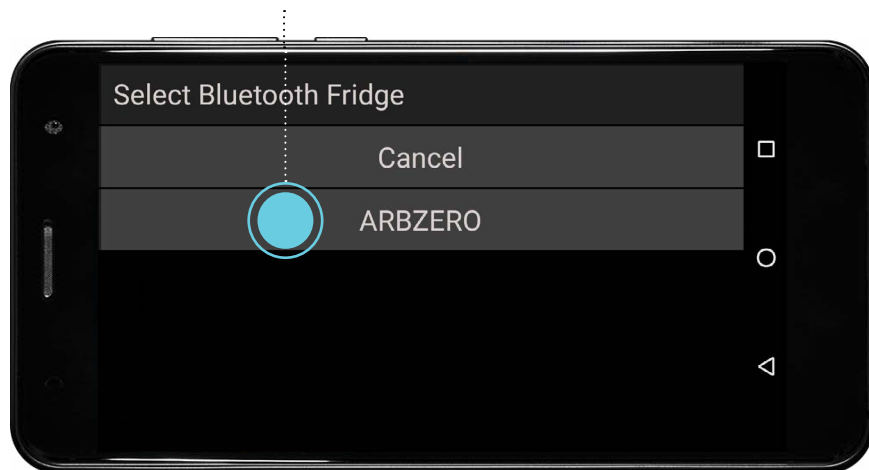
CONNECTING TO THE FRIDGE

1. Tap and hold the Fridge module to enter settings.

2. Tap the **Connect to fridge** button to search for nearby fridges.

ZERO FRIDGES

3. Tap to select 'ARB ZERO' from the list. No pin code is required to connect.

Select Bluetooth Fridge

Cancel

ARBZERO

ARB CLASSIC OR ELEMENTS FRIDGE WITH 'FRIDGE APP CONNECT MODULE'

3. Tap to select your fridge from the list. Ensure that the name matches that printed on the underside of the Fridge App Connect module.

Select Bluetooth Fridge

Cancel

LINXF A59F
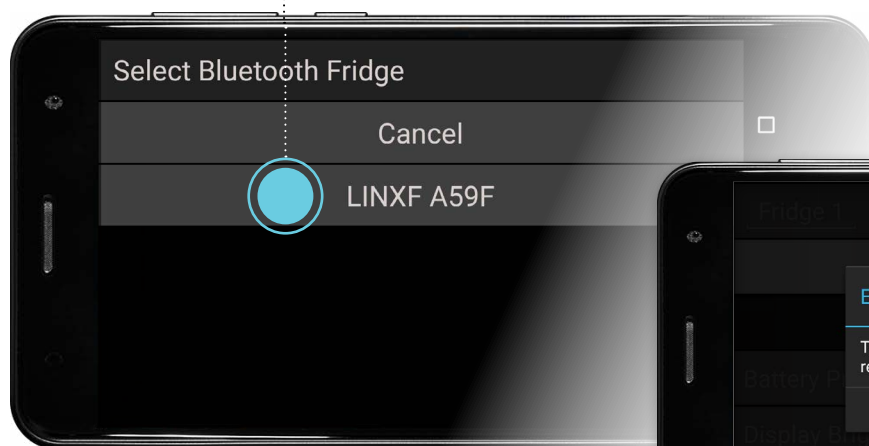
4. You will then be asked to enter a security pin code to connect to the fridge, this is also printed on the underside of the Fridge App Connect module.

Enter pin code

To connect to this fridge you are required to enter a security pin code.

Cancel   OK

LINX ARB
VEHICLE ACCESSORY INTERFACE
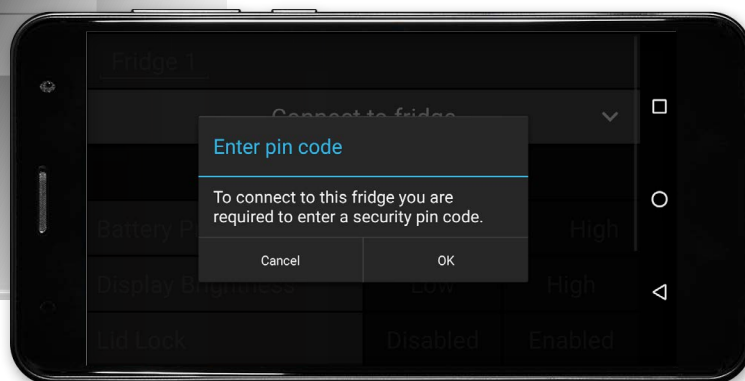
CONFIGURING FRIDGES WITH TWO WAY COMMUNICTION

LINX auto detects which ARB fridge model it is connected to and only enables the relevant features for that model. For example:
- ARB Classic and Elements fridges, only monitor the settings and current status.
- Series 2 ARB Classic and Elements fridges with 2 way communication, monitor the status and also control the set temperature, Battery Protection level, Display Brightness, set 3 temperature mode names and values. Additionally Elements lock can be controlled.
-ARB Zero Fridge, monitor status and control the set temperature, Boost mode, Battery Protection level, set 3 temperature mode names and values.
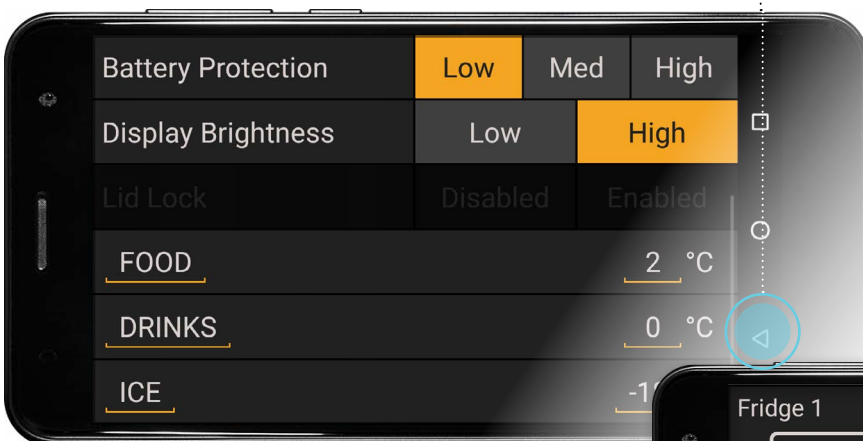
1. To change the Battery Protection or Display Brightness on the fridge, simply tap your selection.

2. To change the temperature mode names and values, scroll up then press and hold the underlined text to show the keyboard. Change the name/value as required and then tap **DONE**.

Fridge 1

Connected to: LINXF A59F

Disconnect fridge

Boost	Normal	Bo
Battery Protection		Med
Display Brightness	Low	H

Battery Protection	Low	Med	High
Display Brightness	Low	High	
Lid Lock	Disabled	Enabled	
			0 °C
Mode 2			0 °C
Mode 3			0 °C

3. Tap the **BACK** button to return to Fridge module screen.

Battery Protection	Low	Med	High
Display Brightness	Low	High	
Lid Lock	Disabled	Enabled	
FOOD		2 °C	
DRINKS		0 °C	
ICE		-1	

4. The screen will return to Fridge module screen.

Fridge 1

0 °C

Set   **2** °C

FOOD ⌄

14.2 V   IDLE

AR32	AR40
FOG	CAMP
REVERSE	ROOF BAR

CHANGING MODES

1. To select different temperature modes, or turn the fridge on standby, tap the dropdown list.

2. Then tap your selection from the list to change modes.

WARNINGS

The fridge lid open icon highlights RED when the lid is open.

If the fridge has a check status, such 'Low Battery Voltage', a pop-up will be displayed with an explanation. Tap **OK** to clear the pop-up.

Tap the Check symbol to view the pop-up message again.

Fridge 1 - Low Battery Voltage

The fridge will resume cooling once the battery voltage rises above the restart voltage. Refer to Service Manual for further information.

OK

COMPLIANCE INFORMATION

BACK TO TABLE OF CONTENTS

21 COMPLIANCE INFORMATION

EUROPE - EU DECLARATION OF CONFORMITY

This declaration of conformity is issued under the sole responsibility of the manufacturer.

This declaration relates to these products:
LINX 1.0

The products are in conformity with the following standards or standardized documents:

ETSI EN 301 489-17 V3.1.1:2017
ETSI EN 301 489-1 V2.1.1:2017
ETSI EN 300 328 V2.1.1:2016
EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013
IEC 60950-1:2005 (Second Edition) + Am 1:2009 + Am 2:2013

According to the provisions of the directives:

2014/53/EU (Radio Equipment Directive)
2014/30/EU (Electromagnetic Compatibility Directive)
2014/35/EU (Low Voltage Directive)

Technical file at:
ARB Corporation Ltd, 42-44 Garden St, Kilsyth, Victoria, Australia

Signed for and on behalf of ARB Corporation Ltd

Andrew Brown
Managing Director
Melbourne, March 2018

USA - FCC STATEMENT

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

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

FCC CAUTIONS
Changes or modifications made to this device that are not expressly approved by ARB Corporation Ltd may void the user's authority to operate the equipment. This device must not be co-located or operated in conjunction with any other antenna or transmitter.

FCC RADIATION EXPOSURE STATEMENT
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 cm between the radiator and your body.

ENVIRONMENTAL PROTECTION

Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your local authority or retailer for recycling advice.

INTERNATIONAL OFFICES

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OTHER REGIONS
Please contact our
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Email: exports@arb.com.au

ARB STORES

VICTORIA
Bairnsdale (03) 5152 1226
Ballarat (03) 5336 4605
Bendigo (03) 5445 7100
Brighton (03) 9557 1888
Dandenong (03) 9793 0002
Echuca (03) 5480 2600
Geelong (03) 5272 2611
Hoppers Crossing (03) 9749 5905
Keilor Park (03) 9331 7333
Kilsyth (03) 9761 6622
Pakenham (03) 5940 5500
Shepparton (03) 5822 1877
Somerton (03) 9460 9988
Traralgon (03) 5174 9190

SOUTH AUSTRALIA
Elizabeth (08) 8252 1599
Morphett Vale (08) 8186 6101
Regency Park (08) 8244 5001

ACT
Fyshwick (02) 6280 7475
NEW SOUTH WALES
Albury (02) 6021 2477
Artarmon (02) 9438 4484
Broken Hill (08) 8087 9250
Brookvale (02) 8507 3073
Dubbo (02) 6885 5777
Moorebank (02) 9821 3633
Newcastle (02) 4953 9555
Orange (02) 6369 0700
Penrith (02) 4731 1266
Port Macquarie (02) 6581 2500
St Peters (02) 9565 2455
Tamworth (02) 6762 0541
Thornleigh (02) 9980 8855
Wagga Wagga (02) 6925 8777
Wentworthville (02) 9631 7889

WESTERN AUSTRALIA
Canning Vale (02) 9455 4366
Geraldton (08) 9921 8077
Mandurah (08) 9583 3200
Osborne Park (08) 9244 3553
Wangara (08) 9409 5764
Welshpool (08) 9358 3688

NORTHERN TERRITORY
Alice Springs (08) 8953 0572
Darwin (08) 8947 2262

QUEENSLAND
Biggera Waters (07) 5537 8800
Bundaberg (07) 4153 2929
Burleigh Heads (07) 5535 9223
Caboolture (07) 5499 1955
Capalaba (07) 3823 5900
Cairns (07) 4035 3350

Caloundra (07) 5491 4500
Coopers Plains (07) 3277 2020
Jindalee (07) 3715 6400
Nundah (07) 3266 3255
North Lakes (07) 3491 9600
Springwood (07) 3493 3030
Mackay (07) 4998 6888
Maroochydore (07) 5475 4011
Rockhampton (07) 4922 7788
Toowoomba (07) 4632 1122
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