

USER MANUAL



4X4 ACCESSORIES

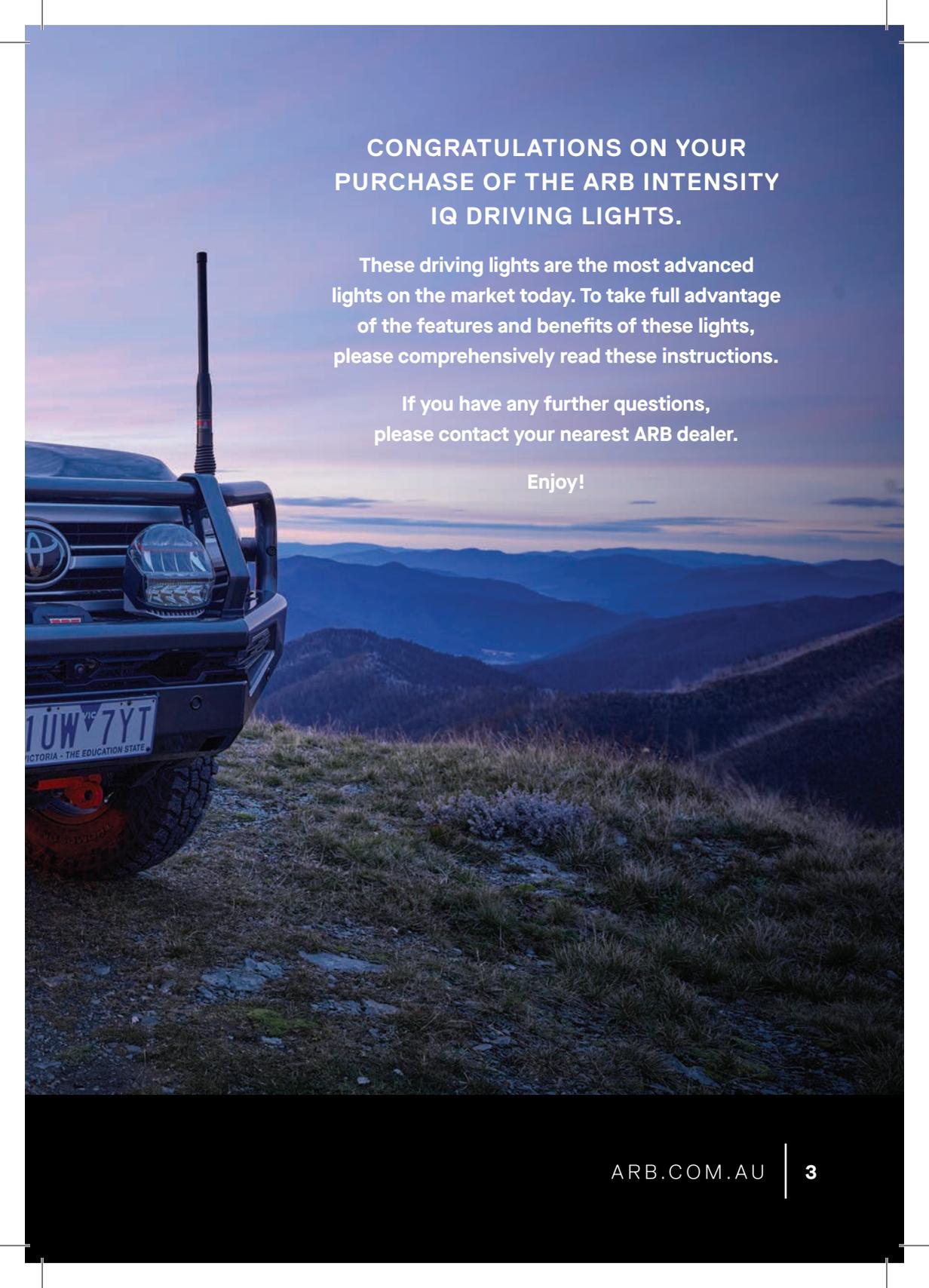


ARB INTENSITY IQ

DRIVING LIGHTS



ARB 4X4 ACCESSORIES

A Toyota 4x4 vehicle is shown from the front-left side, parked on a grassy mountain ridge. The vehicle features a black bull bar with a large, clear ARB driving light mounted on it. A black antenna is visible on the roof. The license plate is white with black text, reading '1UW VIC 7YT' and 'VICTORIA - THE EDUCATION STATE' below it. The background consists of rolling mountains under a twilight sky with soft colors of blue and purple.

**CONGRATULATIONS ON YOUR
PURCHASE OF THE ARB INTENSITY
IQ DRIVING LIGHTS.**

**These driving lights are the most advanced
lights on the market today. To take full advantage
of the features and benefits of these lights,
please comprehensively read these instructions.**

**If you have any further questions,
please contact your nearest ARB dealer.**

Enjoy!

Care and Maintenance

- Clean only with warm soapy water and a sponge or soft brush. DO NOT use solvents, scourers or hard bristle brushes. DO NOT use harsh wash chemicals as these will remove the protective clear coat from the lens.
- There are no serviceable components inside the light – DO NOT disassemble.
- Ensure all electrical connectors and the wiring loom are secured away from sharp edges and hot surfaces.
- Regularly check all mounting and adjusting bolts to ensure they are secure and tight.
- If your light requires further service or repair, return it to your local ARB distributor.

Compliance

- CE
- IP68
- UNECE R10
- CISPR25 CL3
- RCM
- UNECE R149 (when set to Euro mode)
- FCC
- RoHS
- UKCA

Specifications and Features

Input	11-32V
Power	170W @ 13.2V
Current Draw	12.9A @ 13.2V
Super Spot	4 x Cree XLamp® XP-P
Spot	2 x Cree XLamp® XM-L3, 3 x XLamp® XP-P
Flood	18 x Cree XLamp® XT-E
Mid Range	4 x Cree XLamp® XM-L3

Output – Raw

Max Spot	7,070 lumens
Max Flood	14,060 lumens

Output – Effective

Max Combo	6,265 lumens
Max Spot	6,613 lumens
Max Flood	6,666 lumens

Distance @ 1 Lux (Pair Lights)

Max Combo	1,105m @ 1 lux
Max Spot	1,350m @ 1 lux
Max Flood	900m @ 1 lux

Spread Customisable

Input Cable Length 450mm

Operating Temperature

-40°C to +80°C
(-40°F to +176°F)

Colour Temperature 5,700-6,200k

Weight 3.8kg (8.4lbs)

3-pin Connector Dimensions

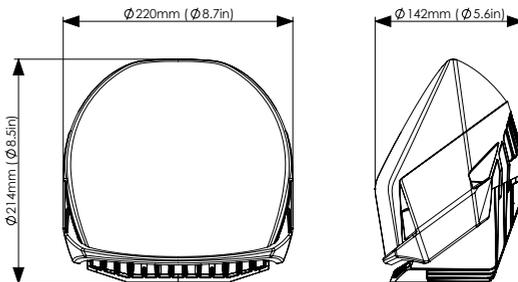
High Amp, waterproof
Width x Height x Depth
220mm x 215mm x 142mm
(8.7in x 8.5in x 5.6in)

Operated by Functions

Switch, LINX or smartphone
Work light
Courtesy light
Light fading
Euro mode (UNECE R149)

Warranty

3 years



Supplied Parts



Lights (x 2)



Light Control Module (LCM)



Mounting Brackets (x 2)



Wiring Harness



Switch



Fasteners

Additional Parts (Sold Separately)



Extension Cable (#ARBVX08)



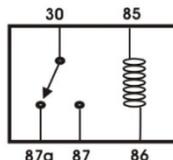
Y Splitter Cable (#ARBVX07)

Harness Installation

Refer to **Figure 1** for the harness drawing referenced in this instruction.

1. Remove the negative (-ve) cable from the vehicle battery (or batteries if applicable).
2. Lay out the harness in the engine bay and mount the four fuse holders in a convenient location. Please note, if required, the three blade fuses can be stacked together.
3. Feed the LCM connector on the harness through a grommet on the firewall and pull through into the vehicle cabin. To assist, it is recommended to fold back the cable and pull the connector through tail first. If required, apply lubricant.
4. Securely mount the LCM behind the vehicle dashboard with cable ties or fasteners.
5. Connect the LCM connector with the harness connector.
6. Mount the switch in a convenient location on the vehicle dashboard. Ensure the dashboard surface is flat and smooth. ARB recommends using 3M Primer 94 to prepare the dashboard surface for good adhesion. Various mounting options are available for this switch:
 - a. The switch cable can be rotated rearwards for hidden cable installation. A hole in the dashboard is required for the cable.
 - b. The switch cover can be removed and the ARB button rotated for reverse installation. This will place the QS1 and QS2 buttons at the top rather than at the bottom of the switch.
 - c. Removing the switch cover gives access to screw holes inside the switch for screwing onto the mounting surface.
7. Connect the switch connector with the LCM connector.
8. Connect high beam trigger connector with the vehicle high beam wire. This connector suits ARB plug-and-play headlight connectors (purchased separately). If the vehicle has alternative headlight connectors, cut the connector and join the yellow wire with the vehicle high beam wire.
9. For all negatively switched headlamp vehicles, complete this step. Otherwise, continue to Step 10. On the harness, cut and remove the connector from the high beam trigger connector (yellow) wire. Obtain a switching relay and connect the relay terminals as per below:

Relay Terminal	Connection
85	Vehicle positive high beam wire
86	Vehicle negative high beam wire
87	High beam trigger wire (yellow)
87a	-
30	Vehicle ignition circuit



10. The system active trigger wire can be connected to either the vehicle ignition circuit or vehicle illumination circuit. When the vehicle has automatic headlights, ARB recommends connecting to the vehicle ignition. When the vehicle has manually operated headlights, ARB recommends connecting to the vehicle illumination circuit (parker). Note, this wire switches on the LCM and when switched off, activates the driving lights courtesy feature.
11. Connect the driving light connectors to the harness connectors.
12. Connect the driving lights terminal and LCM terminal to the battery positive terminal.
13. Connect the ground terminals to a suitable ground point on the vehicle body or chassis. Do not connect directly to battery negative.
14. Secure all cables, check all connections.
15. Ensure the vehicle headlamps are switched OFF and reconnect the negative (-ve) cable to the battery.
16. Check full operation of the driving lights including the below.
 - a. Vehicle ignition or headlights on and off should turn switch on and off. When turning ON, the switch should flash to indicate LCM reboot. When turning OFF, the courtesy feature should operate.
 - b. Vehicle high beams on and off should turn driving lights on and off.
 - c. Pressing the switch button on and off (ARB logo) should turn the switch on and off.
 - d. Scrolling through the switch positions (1-6, QS1 and QS2) should change the light output.
 - e. With a smartphone, connect with the LCM to confirm connection.

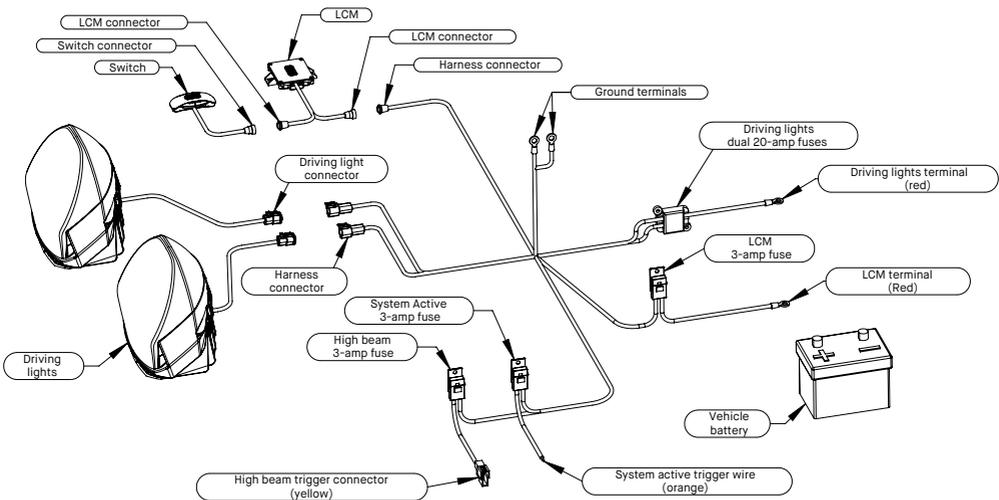


Figure 1

Light Installation

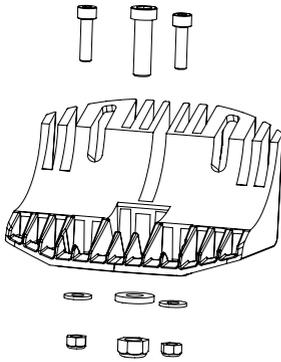


Figure 2

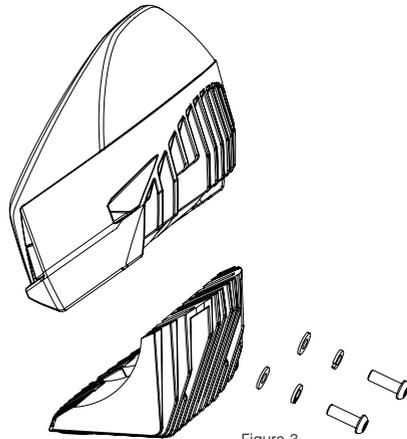


Figure 3

Step 1

Remove light from mount (discard paper washers) and place the mount onto the bull bar or flat mounting surface. Align with suitable mounting holes on the bull bar. Where no holes are available, use mount to mark new holes and drill accordingly. Add rust prevention to drilled holes.

Locate mount hardware provided in kit. For the two outside holes, use two M8×30 socket head cap screws, M8 washers and M8 nyloc nuts. For the centre hole, use M12 screw, M12 washer and M12 nyloc nut (**Figure 2**).

Insert the centre screw into the mount and keep loose to allow for adjustment. Align the mount forward facing and ensure the light will illuminate straight down the road. Insert the remaining two screws and tighten all screws to the torque specified in **Table 1**.

Step 2

Feed light cable through mount and bull bar hole. Place the light into the mount as shown in **Figure 3**.

Align the mount and light housing holes. Insert two M8×30 security fasteners with M8 washers and M8 spring washers. Loosely tighten to allow for adjustment.

Please note, the lights are factory set with light numbers 1 and 2. How the lights are installed (left or right) is not crucial, however ARB recommend #1 is left and #2 is right to match the app layout. A sticker is affixed to each light stating its factory set light number.

Step 3

Point the vehicle toward a flat wall and switch the driving lights on.

For vertical adjustment, measure the light output height on the wall and compare with the driving light height on the vehicle. The two measurements should be similar depending on user preference.

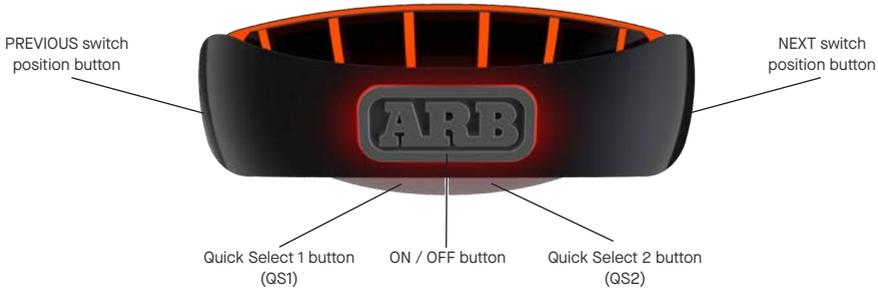
Once satisfied with the height position, use the security tool provided to tighten the two security fasteners fixing the light to the mount.

Table 1
Torque Settings

M8 bolts	22 Nm (16 lbf)
M12 bolt	77 Nm (57 lbf)

Using the Switch

The driving lights are fully customisable where the four internal optics can be controlled with either the switch, smartphone app or ARB LINX. The switch has factory settings pre-installed that provide a variety of light outputs depending on the switch position selected. The factory settings are listed in **Table 2**.



Lights ON and OFF

To turn the driving lights ON and OFF, press the ARB button at the centre of the switch.

Please note, the driving lights are linked with the vehicle high beam lights and will only operate when the vehicle high beam lights are ON. Likewise, the system is active (the switch will operate and the app will communicate) when the vehicle ignition or illumination is ON depending on how the harness was installed.

Adjusting the Light Output

The switch has eight light output options pre-installed (**Table 2**). The six switch positions (1 to 6) can be selected by pressing the previous and next buttons on the switch. The two switch positions (QS1 and QS2) can be selected by pressing the QS1 and QS2 buttons respectively.

Courtesy Feature

The courtesy feature illuminates the driving lights for an amount of time when the vehicle ignition or headlights are turned OFF. Using the app, the courtesy feature can be customised to cycle through the switch positions for a selected amount of time. The courtesy feature can be deactivated by pushing and holding the ARB button while pressing the previous button three times. The switch LEDs will flash three times to indicate the courtesy change has occurred.

Euro Mode

Various countries require a certain light output for legal operation of driving lights. The driving lights have a Euro mode that is compliant to UNECE R149 for legal operation in these countries. The Euro mode can be activated and deactivated by pushing and holding the ARB button while pressing the previous button four times. The Switch LEDs will flash four times to indicate the Euro change has occurred. When Euro mode is active, the two outside LEDs on the switch will illuminate.

Factory Reset

To restore all factory settings, press and hold both the previous and next buttons for five seconds. The switch LEDs will flash six times to indicate the reset has occurred.

Using the ARB App

The driving lights are customisable using the app. This app is a free download from the iOS App Store or Google Play, search "ARB IQ". The app supports iOS version 13 or later and Android version 6.0 or later. Once installed, the app can customise the switch settings with various parameters to you suit any driving requirements.

Light Network

Unless there are multiple networks available, the app will connect automatically. Otherwise, the network must be selected. Go to the configuration page, tap the gear wheel top right of page (see **Figure 4**). On the configuration page, select "Network" (see **Figure 5**). This will open a new page where the light network can be found by tapping the magnifying glass and selecting the network (see **Figure 6**). The app will download all information from this network to the smartphone app.

Advanced Mode

The app is designed with two user modes, standard and advanced. The standard mode uses slide bars to adjust the optics and brightness, whereas advanced mode uses grid table numbers to determine the optical brightness. Additionally, the advanced mode can control individual light numbers. To select the advanced mode, go to the configuration page and select "Advanced" (see **Figure 5**). This will open a new page where the advanced mode can be selected.

Save and Undo Settings

To edit the settings on the home page, first select the required switch position and then tap the edit button (notepad image) at the top of page. This will allow access to make adjustments to the settings (see **Figure 7**). Once all changes are complete, to save the changes to the switch, tap the save button (tick image) at the base of page. To restore the settings, without saving, tap the undo button (undo image) at base of page.



Figure 4

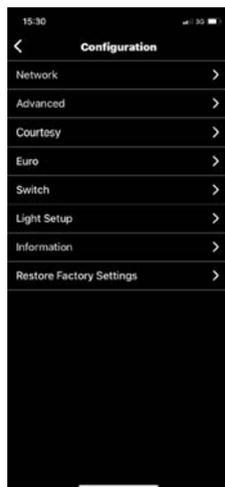


Figure 5

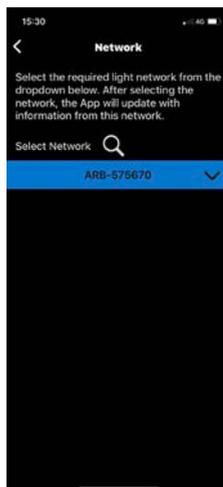


Figure 6



Figure 7

Adjusting the Optic Brightness

The standard app home screen contains two slide bars (see **Figure 7**). To increase or decrease the overall brightness of the lights, slide the brightness slide bar left and right respectively. To decrease or increase the light spread (spot and flood), slide the spread slide bar right and left respectively.

The advanced app home screen contains a grid table (see **Figure 8**). Here the brightness of each optic and each light number can be individually adjusted. Tapping the light name (top row of table) will select all optics with that light number, tapping the optic (first column of table) will select that optic for all light numbers, tapping the multilight image (top left image in table) will select all optics and all light numbers, and tapping individual optics (cell within table) will select that optic only. Once the correct selection is made, the increase and decrease brightness buttons can be tapped to increase and decrease the brightness in 5% increments. Please note, the lights cannot operate all optics at full brightness due to heat limitations, thus the light current draw is limited to 13 amps. If a selection is made beyond this limit, the non-selected optics will decrease in brightness to keep the light output below this limit. The current draw is shown beneath each light number for reference.

Fade Feature

The driving lights are designed with a fade feature. With this feature, the lights will change to the switch position brightness slowly depending on the fade time set. Each switch position can have a fade time set. To adjust the fade time, select and edit the requested switch position, then tap the fade time (see **Figure 9**). Make the required adjustment to the fade time and save changes.

Courtesy Feature

The driving lights are designed with a courtesy feature. With this feature, the lights will illuminate as per the switch positions after the vehicle ignition (or illumination depending on the install) is turned OFF. The courtesy will operate from switch position 1 to switch position QS2 in sequence. Each switch position can have a courtesy time set on the home page. To adjust the courtesy time, select and edit the requested switch position, then tap the courtesy time (see **Figure 9**). Make the required adjustment to the courtesy time and save changes. To remove a switch position from the courtesy sequence, set the courtesy time to zero. Any switch positions with zero time are not included in the courtesy sequence.

The two spot optics are restricted to 10% brightness or less when using the courtesy feature. The app will ensure this limit is not exceeded.

Override Feature (Work Light)

The driving lights are designed with an override feature. With this feature, the lights can be illuminated as per the chosen switch position without the vehicle high beam lights being on. This feature can only be used for switch positions QS1 and QS2. To set the override, select and edit the requested switch position, then tap the Override ON button (see **Figure 9**).

ARB recommends changing the optical brightness to suit a work light luminescence.

The high beam trigger to operate driving lights is a legal requirement in most countries, thus the override feature must not be operated on public roads and/or areas.

The two spot optics are restricted to 10% brightness or less when using the override feature. The app will ensure this limit is not exceeded.

Using the App (cont)



Figure 8



Figure 9

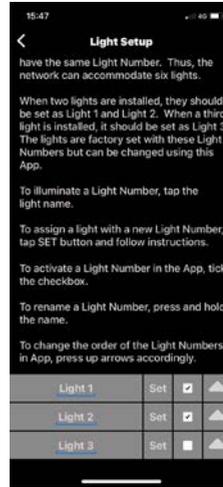


Figure 10

Courtesy Enabled/Disabled

The courtesy feature can be disabled using the app. This will disable the courtesy feature even when courtesy times are allocated to switch positions. To enable/disable the courtesy feature, go to the configuration page and select “Courtesy” (see **Figure 5**). This will open a new page where the courtesy feature can be enabled/disabled.

Euro Mode

Various countries require a certain light output for legal operation of driving lights. The driving lights have a Euro mode that is compliant to UNECE R149 for legal operation in these countries. To activate/deactivate the Euro mode, go to the configuration page and select “Euro” (see **Figure 5**). This will open a new page where Euro mode can be activated/deactivated.

Switch Response Time

While scrolling through the various switch positions, the app can implement a delay before the selected switch position is activated. This avoids unwanted flashing of each switch position until the required position is selected. To adjust the time delay between switch positions, go to the configuration page and select “Switch” (see **Figure 5**). This will open a new page where the switch response time can be adjusted.

Restore Factory Settings

The driving lights have factory settings pre-installed. All settings can be restored to the original factory settings using the app. To complete the factory reset, go to the configuration page and select “Restore Factory Settings” (see **Figure 5**). This will open a new page where the factory restore can be completed. Please note, after the factory reset all customised settings will be lost.

The factory settings are listed in **Table 2**.

Table 2

Switch Position	Super Spot Brightness	Spot Brightness	Flood Brightness	Mid Range Brightness	Override (App Only)	Fade	Courtesy	Application
1	75	75	45	100	-	-	-	Full Combo
2	100	0	0	0	-	-	-	Super Spot
3	0	100	0	0	-	-	-	Spot
4	0	0	100	0	-	-	-	Flood
5	0	0	0	100	-	-	-	Mid Range
6	5	5	10	5	-	3 sec	10 sec	Courtesy
QS1	0	0	100	100	-	-	-	Full Flood
QS2	100	100	0	0	-	-	-	Full Spot

Light Numbers

Each individual light is assigned with a light number, where the light numbers have unique customised settings. There are up to three light numbers available in the app and a maximum of two lights can have the same light number. Thus, the network can accommodate six lights total. The driving lights can behave differently depending on their light number.

When two lights are installed, they should be set as Light 1 and Light 2. When a third light is installed, it should be set as Light 3. The lights are factory set with these light numbers but can be changed using the app.

The app can illuminate all lights set with a certain light number. Go to the configuration page and select "Light Setup" (see **Figure 5**). To illuminate all lights of a certain light number, turn the driving lights ON and tap the light number (see **Figure 10**). Only the lights with that light number will illuminate for a period of time.

The light numbers can be renamed in the app. To rename, press and hold the light number.

The light numbers can be hidden on the app home page (advanced mode). When certain light numbers do not have any lights allocated, the light number should be hidden to simplify the home page. Check the tick boxes for light numbers where lights are allocated, and uncheck where no lights are allocated.

The order of the light numbers on the home page can be adjusted. The light number to be listed first should be at the top of the list. The light number to be listed last should be at the bottom of the list. To reorder the list, tap the up arrows adjacent the light number to raise that light number in the hierarchy.

To change a light to a different light number, follow the below procedure:

1. Turn the vehicle ignition and headlights OFF.
2. Disconnect all lights from the harness.
3. Connect only the light that requires the light number change to the harness (one light only).
4. Turn the vehicle ignition and headlights ON.
5. In the app, go to the configuration page and select "Light Setup".
6. Choose the required light number from the list and tap "Set" for that light number.
7. Follow the instructions to complete the light number change in the app.
8. Turn the vehicle ignition and headlights OFF.
9. Reconnect all lights to the harness again.
10. Turn the vehicle ignition and headlights ON.
11. Complete steps 1 to 10 for each light requiring a light number change.

Troubleshooting

Symptom	Possible Cause	Solution
The switch does not turn ON, ARB logo is not illuminated.	The system active trigger does not have 11-32V supply.	Check vehicle ignition and headlights are ON. Check voltage at the system active trigger wire. Check fuses.
	The LCM terminal does not have 11-32V supply.	Check the LCM terminal wire has 11-32V. Check voltage at the system active trigger wire. Check fuses.
	The switch is not connected to the LCM.	Connect switch to LCM.
	The LCM is not connected to the harness.	Connect LCM to harness.
All driving lights do not turn ON.	The high beam wire does not have 11-32V supply.	Check high beam lights are ON. Check voltage at the high beam trigger wire. Check fuses.
	The switch is OFF.	Press the ARB button to turn the switch ON.
	System reboot is required.	Turn vehicle ignition and headlights OFF. Wait five seconds. Turn vehicle ignition and headlights ON.
	The light settings have no brightness.	Check different switch positions. With app, check brightness of selected switch position.
Some driving lights do not turn ON.	System reboot is required.	Turn vehicle ignition and headlights OFF. Wait five seconds. Turn vehicle ignition and headlights ON.
	The light settings have no brightness (0%).	With app, check brightness of selected switch position.
The app does not connect with the light network.	The vehicle ignition and headlights are OFF.	Turn vehicle ignition and headlights ON.
	Smartphone version is not supported.	Obtain phone with version supported by app (iOS 13 or later, Android 6.0 or later).
	The app requires updating.	Uninstall app from smartphone. Download and install latest app.
	The light network has failed.	Disconnect IQ ground terminals from vehicle and reconnect.
	Another device is already connected.	Relocate the vehicle (and LCM) to a new location where the other device will disconnect.
Some optics in the lights are not illuminated.	The light settings have no brightness.	With app, check brightness of all optics for the selected switch position.
The lights will not turn OFF.	High beam override feature is ON.	With app, check Override feature is not ON for the selected switch position.
	Courtesy feature is operating.	With App, for all Switch positions, check the courtesy time allocated.
	The high beam wire has constant 11-32V supply.	Check voltage at the high beam trigger wire.
The system is not responsive.	The system requires a master restart.	Turn vehicle ignition and headlights OFF, disconnect the LCM terminal from the vehicle battery and reconnect.
The system response is slow.	Switch response time.	With app, check switch response time is set to an acceptable time.
	Fade feature is operating.	With app, check fade feature time is set to an acceptable time.



4X4 ACCESSORIES

WARRANTY

ARB Products Warranty Against Defects

ARB warrants the ARB Products against defects in workmanship and materials for the Warranty Period. If defective workmanship or materials become apparent in the Warranty Period, ARB will replace or repair the defective Product. The benefits to the customer given by this warranty are in addition to other rights and remedies of the customer under a law in relation to the goods or services to which the warranty relates.

1. In this warranty:
 - a. ARB means ARB Corporation Limited (ABN 31 006 708 756) of 42-44 Garden St, Kilsyth Victoria 3137
 - b. ARB Outlet means an outlet that has been authorised by ARB to sell and fit ARB Products
 - c. ARB Product means products that ARB manufactures or for which ARB is the exclusive supplier
 - d. Product Information means the information about the relevant ARB Product that may be contained in any of:
 - documentation provided with the ARB Product, owner's manual, operating manual, service manual or the manufacturer's manual or labels attached to the ARB Product
 - e. Warranty Period means, in respect of an ARB Product, the period that this warranty against defects applies and which is set out in paragraph 8.
 - f. Commercial Use means use in industry or commerce including (without limitation) use in the mining industry or as a hire vehicle.
2. To be entitled to claim the warranty, the customer must:
 - a. Have the ARB Product fitted in accordance with the Product Information
 - b. Carry out normal care and maintenance of the ARB Product, including any required by the Product Information
 - c. Provide proof of purchase of the ARB Product
 - d. Make the claim in the Warranty Period.
3. The warranty will not apply in circumstances where the defect is caused by:
 - a. Unusual, improper or negligent use or misuse of the ARB Product
 - b. Incorrect fitting of the ARB Product other than at an ARB Outlet
 - c. Use of non-genuine ARB components in or with the ARB Product
 - d. Use of the ARB Product outside of the requirements of the Product Information.
4. The procedure for the customer to claim the warranty is:
 - a. Return the ARB Product to the nearest ARB Outlet or contact ARB to arrange a time to bring a vehicle fitted with the ARB Product to an ARB Outlet for inspection. Contact details are in paragraph 7 below if further information is required regarding local outlet details
 - b. Bring proof of purchase of the ARB Product to the ARB Outlet
 - c. ARB will review the ARB Product and advise whether the conditions of this warranty have been met
5. Where ARB accepts a customer's warranty claim, ARB will rectify any defective workmanship or materials at its own expense.
6. Expenses incurred by the customer in claiming the warranty are to be borne by the customer.
7. This warranty is given by:

ARB Corporation Limited, 42-44 Garden Street, Kilsyth VIC 3137, Australia.
 Phone: +61 (3) 9761 6622
 Fax: +61 (3) 9721 9090
 arb.com.au
8. The period within which a defect in the ARB Products must appear if the customer is to be entitled to claim the warranty is three (3) years starting on the date of purchase unless:
 - a. The ARB Product is used in Commercial Use. In this case, the Warranty Period is one (1) year.
9. The warranty against defects contained in this document replaces any other warranty against defects or voluntary warranty given in relation to the Products.

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonable foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.



4X4 ACCESSORIES

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