



PRESSURE CONTROL MODULE

Part Number: 0830001

QUICK START GUIDE

ARB Pressure Control provides the capability to inflate/deflate tyres and other inflatable accessories to a user settable pressure. It can be quickly and easily fitted to an ARB compressor, and can be controlled using the ARB Pressure Control App, which is available for download from Google Play and Apple App store.

The kit contains:

- ARB PCM (Pressure Control Module). This is the brains of the kit, communicating with the smartphone app, pressure sensor and activating the solenoid valves to control the inflation/deflation.
- ARB PRV (Pressure Regulating Valve)
- ARB pressure sensor
- wiring harness



PCM



Wiring Harness



PRV

Pressure Sensor

To connect an ARB hose for tyre inflation the following hardware is also required:

- ARB Remote Hose Coupling Mount Kit (#171314)
- Reinforced hose (range of lengths from 0.3 to 3.0m, #0740201 – 06)
- 1/8 BSP to JIC-4 adapter fitting (#0740105), for connecting the reinforced hose to the PRV.

Installation

The PRV can be screwed directly into the compressor manifold 1/8 BSP port. Or it can be remotely mounted from the compressor on a manifold kit (#171503). The PCM should be positioned high in the engine bay, or inside the vehicle cabin, within 1m [3ft] of the PRV for wiring connection. Avoid very hot areas such as the exhaust. The PCM is water resistant, but should be orientated with the opening facing downwards to avoid water accumulating inside the module. Also avoid very confined spaces that might impact on the Bluetooth connection with the smartphone app.

1.

One of the PRV **input** ports (inward pointing arrows) comes with a 1/8 BSP fitting pre-installed with sealant, screw it into one of the 1/8 BSP ports on your compressor manifold, or alternate compressed air supply. If desired the pre-installed nipple can be relocated to the other input port on the opposite side of the PRV.

Note: Always use thread sealant or PTFE tape to seal all tapered threaded joints. O-ring sealed parallel threaded joints do not require sealant or tape.





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Part Number: 0830001

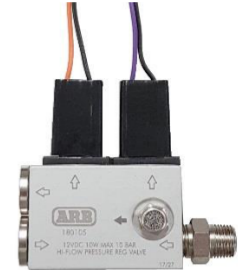
2.

Install the pressure sensor into a **regulated output** port (outward pointing arrows) of the PRV. Any of the PRV **regulated output** ports may be used, select the **regulated output** port that best suits your installation configuration.



3.

Attach the two connectors of the wiring harness to the two solenoid coils of the PRV. Note that the connector with the purple wire should be matched only with the deflate valve coil (shown on the right directly opposite to the exhaust fitting). Retain the connectors using the supplied screws.



4.

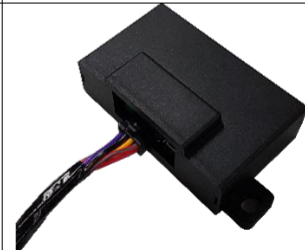
Attach the sensor connector of the wiring harness to the pressure sensor by inserting it until it clicks in.



5.

Route the wiring harness to the desired PCM mounting location, and plug in the connector until it clicks. Secure the wiring with cable ties making sure not to leave the wires under tension.

Fix the PCM in position using the screw tabs provided. Fixing with double sided tape or cable ties would also be acceptable.



6.

Connect the ring terminal (black wire) to a body ground.

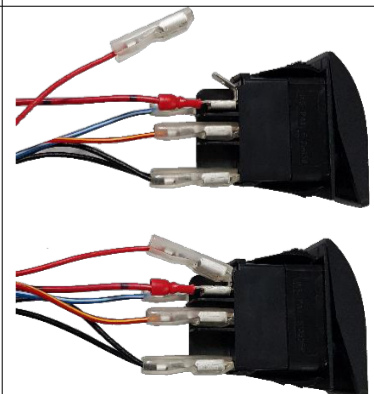
7.

The PCM red wire is intended to be connected to the ARB compressor switch so that the PCM is powered only when the compressor switch is turned on.

To do this, remove the compressor harness red wire terminal from the rear of the compressor switch, and connect the PCM piggyback quick connect terminal in its place. Then re connect the compressor harness red wire terminal to the PCM piggyback terminal.

Alternatively, it can be connected to the pressure switch terminal with the red wire. Protect this 12V wire with split conduit and secure with cable ties.

Note: the red wire provides 12V power to the PCM. Connect it to a 12VDC circuit that is powered on when the compressor is switched on. The circuit must also be off when the vehicle key is in the off position, hence not a permanent battery connection or else the module will continue to draw power from the vehicle battery when the vehicle is turned off.





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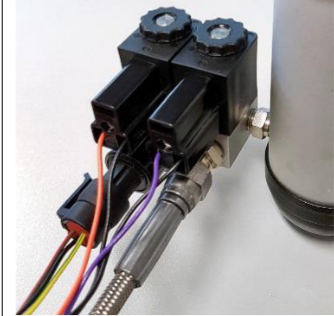
Part Number: 0830001

8.

Connect the Remote Hose Coupling Mount Kit (171314) to a **regulated output** port of the PRV. Any of the PRV **regulated output** ports may be used, select the **regulated output** port that best suits your installation configuration.



If the PRV is installed and connected as described above, the finished assembly should look like this.





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Part Number: 0830001

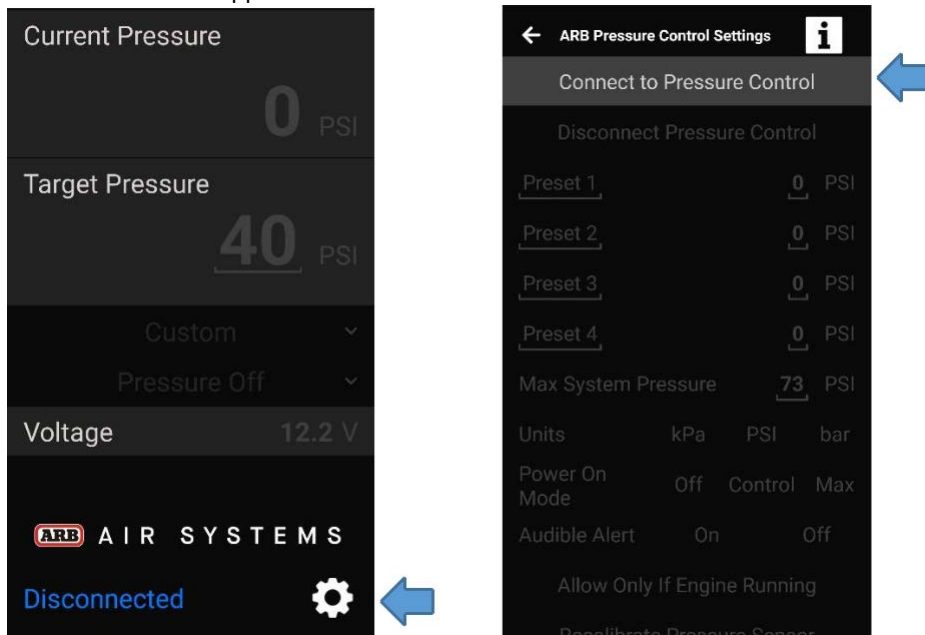
Smartphone App

The ARB Pressure Control App can be downloaded from the Google Play Store or Apple App Store. Search for "Pressure Control".

To connect to the PCM it must be powered on. So if wired as described earlier, turn on your vehicle ignition and switch on the compressor.

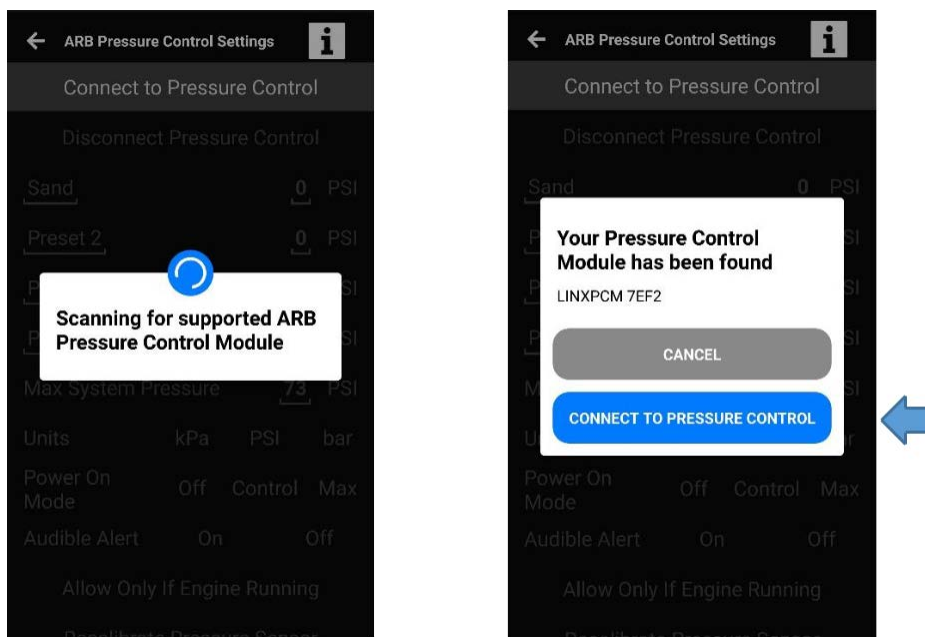
Follow these steps to connect the app to the PCM for the first time.

After opening the app the first step is to connect to your PCM. Tap the settings icon. Tap "Connect to Pressure Control" When the app is disconnect from the PCM most features are unavailable and are greyed out.



The app will search for your PCM. When found tap "CONNECT TO PRESSURE CONTROL MODULE".

When more than one PCM is found, if you know the name of your PCM then select it before tapping "CONNECT TO PRESSURE CONTROL MODULE". Otherwise make sure your PCM is the only one with about 20m that is turned on, then try again.





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Part Number: 0830001

When connect the app appearance will change, allowing interaction with all the features.

The settings screen features are:

- tap underlined text to enter preset names and pressures,
- change pressure readout units,
- select 'Power On Mode' (the pressure control mode that the PCM starts in each time it is powered on),
- turn the audible alert on and off (sounds each time a pressure adjustment is complete),
- select the 'Allow Only If Engine Running' setting,
- or 'Recalibrate Pressure Sensor' (make sure to follow the apps instructions),
- tap the back arrow to return to the main screen.

 **ARB Pressure Control Settings** 

Connect to Pressure Control

Disconnect Pressure Control

<u>Preset 1</u>	<u>0</u>	PSI	
<u>Preset 2</u>	<u>0</u>	PSI	
<u>Preset 3</u>	<u>0</u>	PSI	
<u>Preset 4</u>	<u>0</u>	PSI	
Max System Pressure	<u>73</u>	PSI	
Units	kPa	PSI	bar
Power On Mode	Off	Control	Max
Audible Alert	On	Off	

Allow Only If Engine Running

Recalibrate Pressure Sensor



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Part Number: 0830001

The main app features are:

- Current pressure readout
- Target pressure for Pressure Control mode. Set this by tapping on the underlined text, or by selecting from the pressure preset list
- Tap the pressure preset list to select from your 4 available pressure presets.
- Tap the mode list to choose the mode of operation:
 - **Pressure Off** closes the PRV,
 - **Pressure Control** operates the PRV to inflate/deflate to the target pressure,
 - **Pressure Max** allow air to flow through the PRV for uncontrolled inflation or using an air blow gun accessory.
- Live voltage reading



Operation without smartphone App

When a smartphone isn't available to operate the PCM (eg. Your smartphone has flat batteries) there are still a couple of ways the PCM can be used.

The first method is by configuring the 'Power On Mode' setting. This determines which mode the PCM starts in when it is powered on. This is set to **Pressure Off** by default, but if you select **Pressure Control** then the PCM will start in that mode and begin adjusting the pressure to last target pressure. If you select **Pressure Max** then the PCM will start in that mode allowing air to flow through the PRV for uncontrolled inflation or using an air blow gun accessory.

The second method is using a special sequence with the compressor switch to change the PCM to **Pressure Max**. If you turn the compressor switch on, then quickly turn it off and on again 3 times (within 3 about seconds), then the PCM will change mode to **Pressure Max**.



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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:

- ARB means ARB Corporation Limited (ABN 31 006 708 756) of 42-44 Garden St, Kilsyth Victoria 3137
- ARB Outlet means an outlet which has been authorised by ARB to sell and fit ARB Products
- ARB Product means products which ARB manufactures or for which ARB is the exclusive supplier
- Product Information means the information about the relevant ARB Product which 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
- 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.

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: 03 9761 6622. Fax: 03 9721 9090. www.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 3 years starting on the date of purchase unless:

The ARB Product is used in Commercial Use. Commercial Use means use in industry or commerce including (without limitation) use in the mining industry or as a hire vehicle. In this case, the Warranty Period is 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 Customer Law. You are

entitled to a replacement or refund for a major failure and compensation for any other reasonably 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.

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.