



PRESSURE CONTROL

Part Number: 0830004

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: 0830004

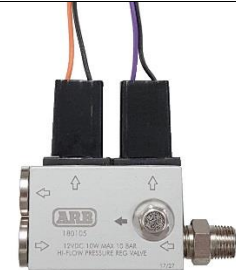
2.

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.



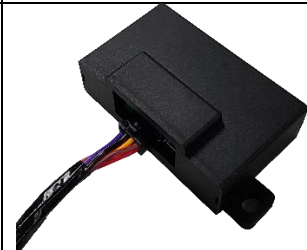
4.

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.

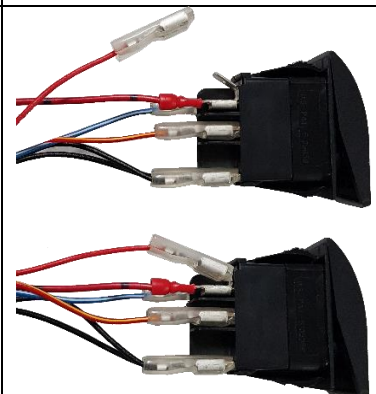
Connect the ring terminal (black wire) to a body ground.

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.





PRESSURE CONTROL

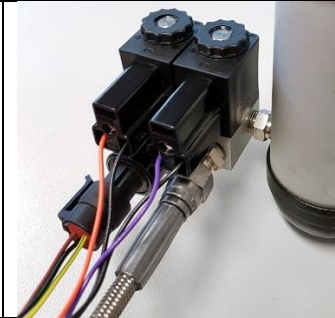
Part Number: 0830004

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: 0830004

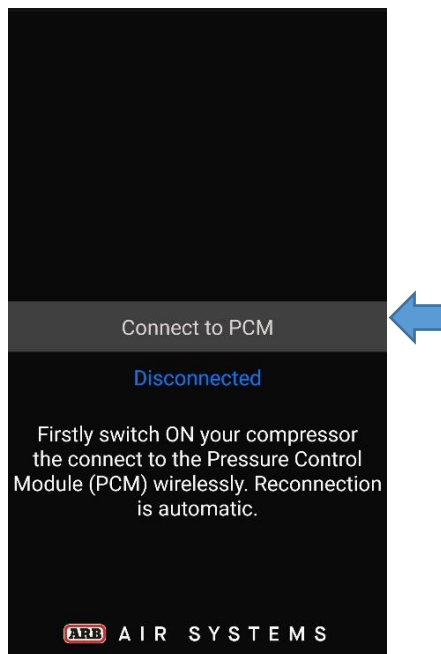
Smartphone App

The ARB Compressor Connect App can be downloaded from the Google Play Store or Apple App Store. Search for “Compressor Connect”.

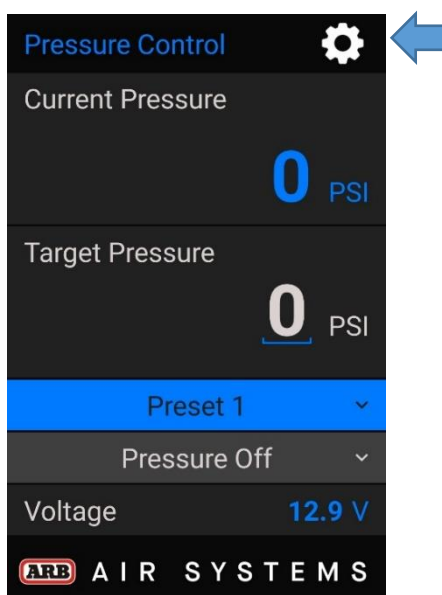
To connect to the PCM it must be powered on. Therefore, if wired as described earlier, turn on your vehicle ignition and switch on the compressor.

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 **Connect to PCM** button and follow the instructions. Make sure your PCM is the only one turned ON within about 20m. The app will scan for your PCM and when found will display the unique name of your PCM (eg LINXPCM 1234). Tap **Connect to PCM** to complete connection. If more than one PCM was found, a list will be shown, but since you won't yet know the name of your PCM you may need to tap **Cancel** and try again making sure only one PCM is turned ON.



Once connected to the PCM the main app screen will be shown. To configure the app for the first time, tap the settings gear icon.





PRESSURE CONTROL

Part Number: 0830004

The settings screen features are as follows:

Connected Device - Tap the underlined device name to customise it to something like 'Tyre Inflation'. This allows you have multiple PCMs for tyre inflation and air suspension, or on multiple vehicles, and easily choose between them.

Device Management - If you do have multiple PCMs use this section to add or remove them from your device list.

For example, if you are connected to your Pressure Control kit for tyre inflation and also have an Air Suspension Control kit that you want to add:

1. First rename PCM (in this example we've named it Tyre Inflation).
2. Tap **Add New Device** and the app will search for other PCMs to connect to (make sure they are switched ON and within range).
3. The available PCMs will be listed in a pop-up as shown in the centre below image. The first PCM in the list is new one (LINXPCM 7B24 in this case), and the second PCM is the one we previously renamed TYRE INFLATION. Select the new PCM to connect to it.
4. After connecting to it and renaming it something appropriate like 'Suspension' the settings page will look like that shown in the right below image. In this case the **Connected Device** is Tyre Inflation and the **Other Device** that can be connected to is Suspension.

Other Devices - Switch between devices by simple tapping the name of the one you want to connect to. Note that the Compressor Connect app is only connected to one device at a time. Each time you switch devices it quickly connects to the newly selected device.

Rename Presets - Tap underlined text to enter custom preset names.

Set Pressures - Tap underlined numbers to enter pressures.

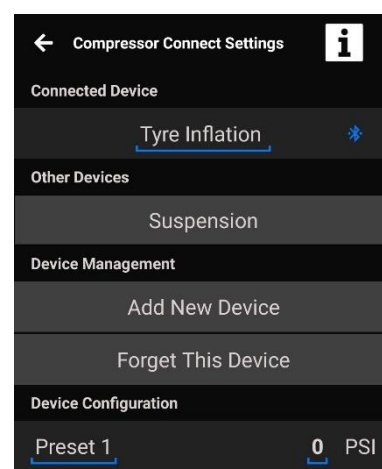
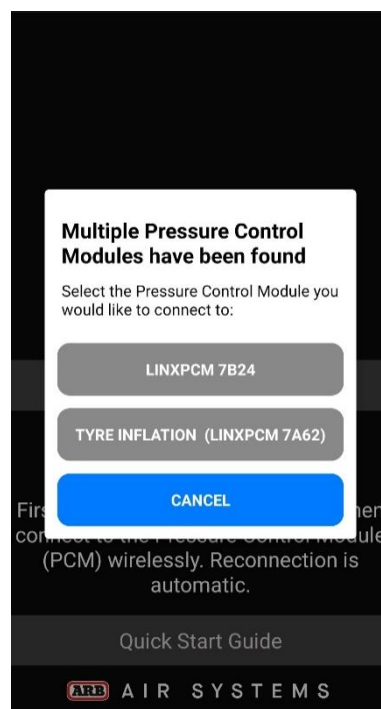
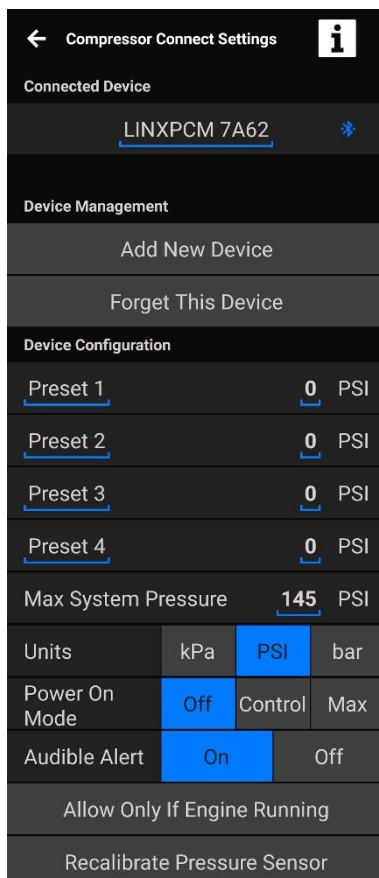
Units - Change pressure readout units.

Power On Mode - Select the pressure control mode that the PCM starts in each time it is powered on.

Audible Alert - Turn the audible alert on and off (sounds each time a pressure adjustment is complete),

Allow Only If Engine Running - Selecting this feature only allows the pressure to be adjusted if the vehicle engine is running. This is based on a minimum measured voltage threshold.

Recalibrate Pressure Sensor - Carefully follow the apps instructions to recalibrate the pressure sensor zero point.





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Part Number: 0830004

The main app features are:

Current Pressure - Live pressure readout

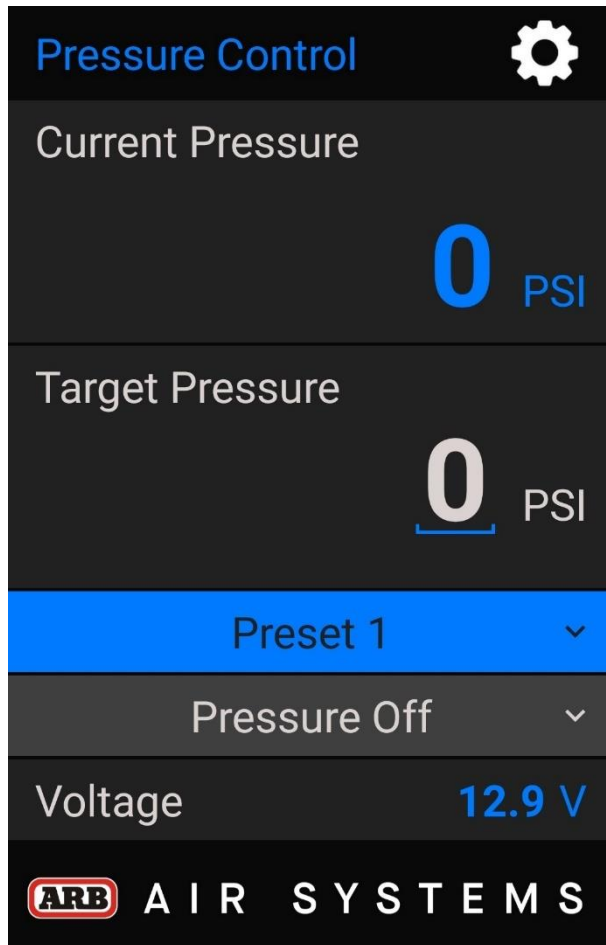
Target Pressure - For Pressure Control mode. Set this by tapping on the underlined text, or by selecting from the pressure preset list.

Presets - Tap the pressure preset list to select from your 4 available pressure presets.

Mode - Tap the mode list to choose the mode of operation:

1. **Pressure Off** closes the PRV
2. **Pressure Control** operates the PRV to inflate/deflate to the target pressure
3. **Pressure Max** allow air to flow through the PRV for uncontrolled inflation or using an air blow gun accessory

Voltage - 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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Contact Information

ARB Corporation Limited
Trading as ARB 4X4 Accessories
42-44 Garden St, Kilsyth, Victoria, Australia
www.arb.com.au

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.