



AIR SUSPENSION CONTROL

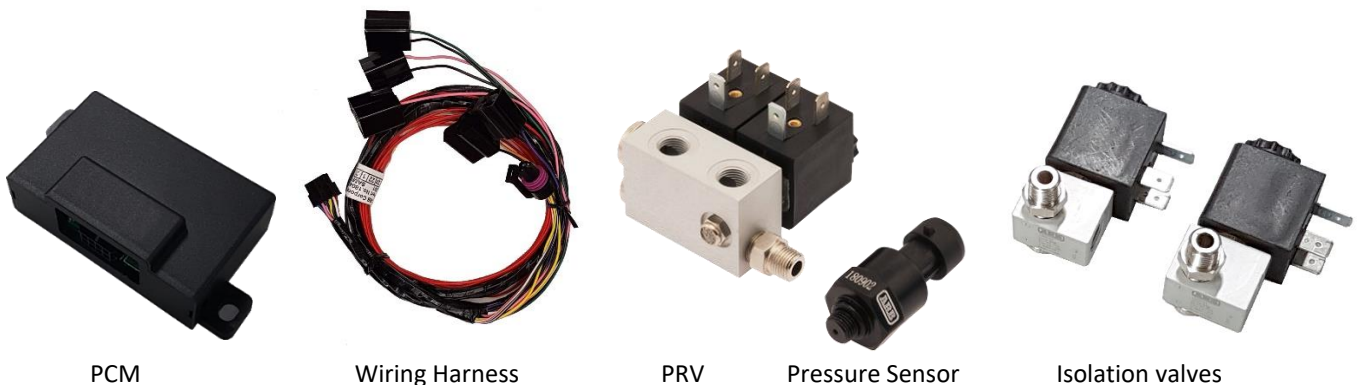
Part Number: 0830002

QUICK START GUIDE

ARB Air Suspension Control provides the capability to easily adjust the pressure in a pair of rear suspension air bags. It can be quickly and easily fitted to an ARB compressor, and can be controlled using the ARB Compressor Connect 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 of the connected air bags.
- ARB PRV (Pressure Regulating Valve)
- ARB isolating valve x 2
- ARB pressure sensor
- wiring harness



To use in conjunction with the optional OME Air Bag Purge Control kit, part number OMEABK001 should be purchased separately.

Note: The air lines and fittings required to connect with the air bag suspension are not provided in this kit as they will be specific to the air bag suspension and should be determined by the air bag supplier.

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 and metalised surfaces 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 nipple pre-installed with sealant. Apply sealant to the other end of the nipple and 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.





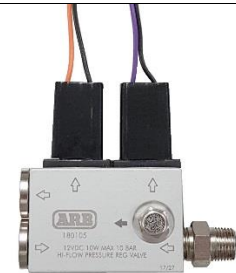
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2. Install the pressure sensor into a **regulated output** port (outward pointing arrows) of the PRV. Any of the PRV **regulated output** ports may be used, select the **regulated output** port that best suits your installation configuration.



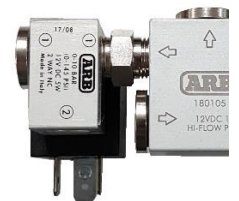
3. Attach the wiring harness connectors with the yellow/orange stripe wire and purple wire to the two solenoid coils of the PRV. The connector with the purple wire should be attached to the deflate valve coil (shown on the right directly opposite to the exhaust fitting). The connector with the yellow/orange stripe wire should be attached to the other valve. Retain the connectors using the supplied screws.



4. Attach the sensor connector of the wiring harness to the pressure sensor by inserting it until the locking tab clicks into place.



5. Attach the first isolation solenoid. Apply sealant to the pre-installed nipple and screw into a PRV output port as shown.

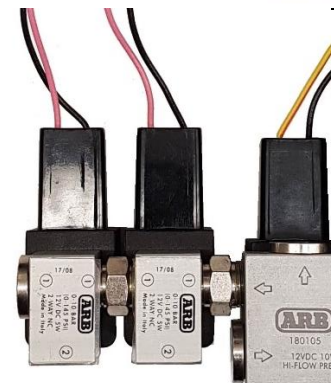


6. The second isolation solenoid must be connected inline with the first. To do this, remove the pre-installed threaded plug from the first isolation solenoid port 1, and screw the nipple of the second isolation solenoid port 1 into it.



Note: when fitting the isolation solenoid, the solenoid coil, with the electrical terminals sticking out, can be turned around so that all connectors are facing the same direction.

7. Attach the two wiring harness connectors with pink wires to the isolation valves. Retain the two connectors with the supplied screws.





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7.

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.



8.

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

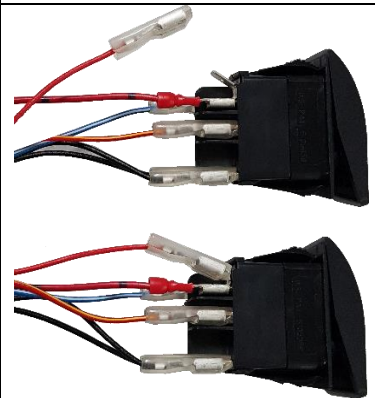
9.

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 reconnect 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.



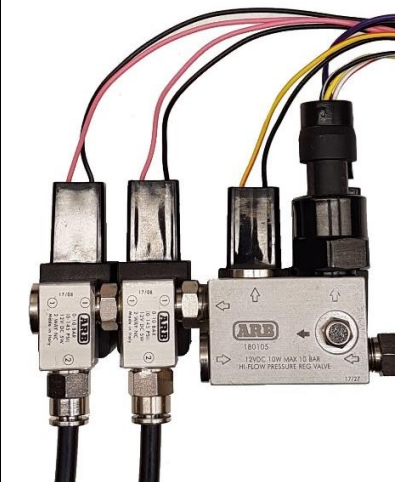
10.

Connect the air suspension fittings and airlines into the isolation solenoids outputs (port 2). The threaded isolation valve ports are 1/8 BSPP.

Note: The air lines and fittings required to connect with the air bag suspension are not provided in this kit as they will be specific to the air bag suspension and should be determined by the air bag supplier.



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



11. (Optional)

If the optional OME Air Bag Purge Control kit is installed it should be attached to the wiring harness connector with the green wire.



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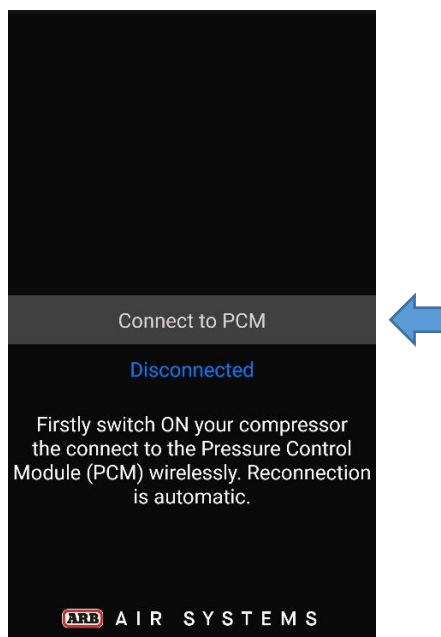
Smartphone App

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

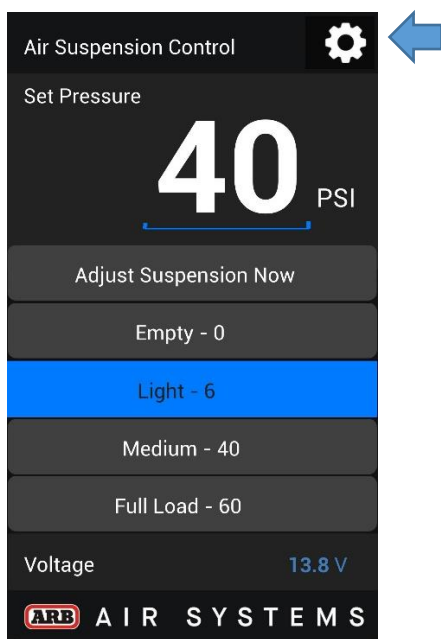
To connect to the PCM it must be powered on. Therefore, if wired as described earlier, turn on your vehicle ignition and switch on the compressor.

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 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.





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The settings screen features are:

- tap underlined text to enter preset names and pressures,
- set the minimum pressure specified by the airbag supplier, or the minimum pressure you want to be able to adjust to
- set the maximum pressure specified by the airbag supplier,
- change pressure readout units,
- tap **Disable System** immediately empties airbags and disables adjustments so they can be removed or serviced,
- **Purge Valve is Installed** tells the App and PCM that an OME Purge Control Kit (#OMEABK001) has been installed. The PCM will then control the purge valve kit for pressure adjustments, and purge the airbags to atmosphere for presets that are zero pressure.

Important, for the system to function correctly:

- this button **must not be turned on if OMEABK001 isn't installed**,
- it **must be turned on if OMEABK001 is installed**.
- tap **Recalibrate Pressure Sensor** if the zero pressure reading is incorrect, then follow the apps instructions,
- tap **Forget Wireless Connection** disconnects and forgets the wireless connection with the PCM. The App will restart to allow for a new wireless connection.
- tap the back arrow to return to the main screen.

← Air Suspension Control Settings

Mode 1	0 kPa
Mode 2	0 kPa
Mode 3	0 kPa
Mode 4	0 kPa
Minimum Set Pressure	0 kPa
Maximum Set Pressure	0 kPa
Units	kPa PSI bar
Disable System (deflate to zero)	
Vent Valve is Installed	
Re Calibrate Pressure Sensor	
Forget Wireless Connection	

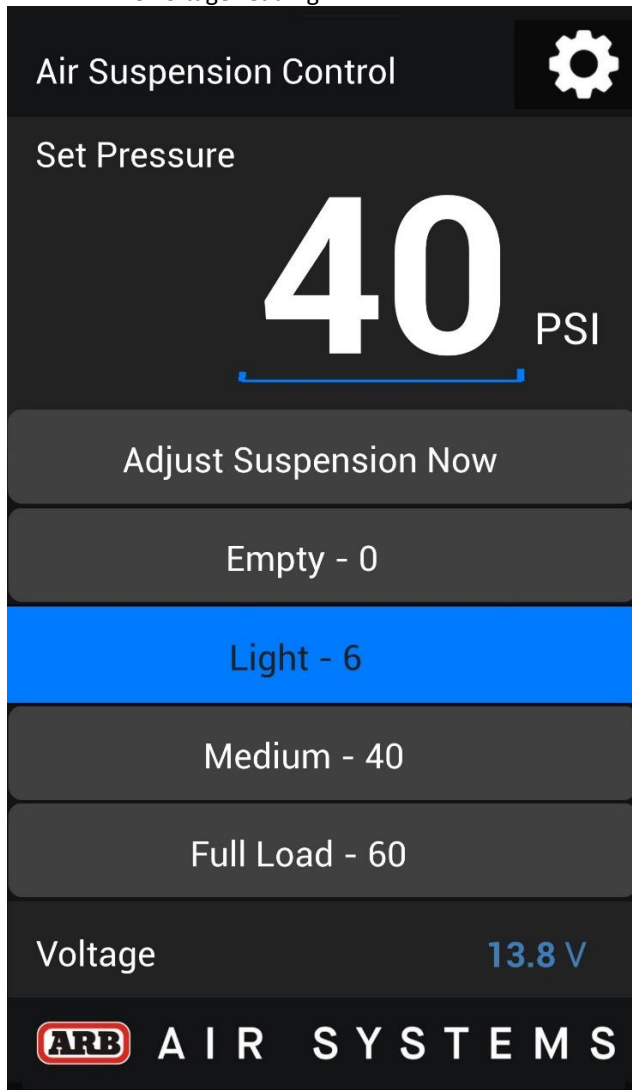


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The main app features are:

- 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** allows air to flow through the PRV for uncontrolled inflation or using an air blow gun accessory.
- Live voltage reading





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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.