

# AIRBAG SUSPENSION SYSTEM GUIDE

Welcome to the GO Industries user guide for your caravan air suspension system. This comprehensive guide contains essential information on how to effectively utilise and maintain your system. By adhering to the instructions outlined in this manual, you can ensure long-lasting and hassle-free performance for years to come.



# TABLE OF CONTINUAL STATES

# **Important Information**

# **Operation**

**Features** 

**GO Industries System Panel** 

**Remote Mode Operation** 

**Automatic Mode Selection** 

**Airbag Operating Height** 

**Onsite Site Levelling** 

**How to Change a Flat Tyre** 

**Putting your System into Long Term Storage** 

# Maintenance

**General System Care** 

**System Supply Voltage** 

**Pressure Retention Check** 

**Tank Drain** 

**Compressor Filter** 

**Maintenance Warnings** 

# **Trouble Shooting**

# **After Sales Service**

**General Advice & Assistance** 

**Spare Parts** 

Warranty

# **IMPORTANT** INFORMATION



To ensure the safe and proper usage of your caravan air suspension system, it is crucial that the owner and operator are familiar with it's operation. It is advised to keep this System Guide alongside the caravan at all times. Before using the system or towing the caravan, please read this guide thoroughly.



For servicing and maintenance, it is highly recommended to entrust the product to an experienced repairer. Please contact the caravan manufacturer or their service representative for details of your nearest repairer.



Always adhere to the weight ratings specified for your caravan. These ratings, including the overall caravan weight (ATM), can be found on the VIN plate attached to the caravan. To determine if you are within the weight limits, it is advisable to weigh your fully loaded vehicle and caravan combination on an authorised weighbridge while ensuring the surface is level.



Take utmost care when loading your caravan, ensuring that the load is positioned correctly. An improperly loaded caravan can significantly impact safety and stability, potentially causing chassis twisting, stress, axle overload, and resulting in injuries or damage.



During the operation of your air suspension system, make sure that no one is underneath or in close proximity to the caravan to avoid any risk of entrapment or injury.



Before towing the caravan, familiarise yourself with its operation and functionality to ensure a smooth towing experience.



The Lowered and Raised positions on the remote control should only be used when the caravan is stationary.



The compressor must remain on at all times. Do not turn your compressor off, unless you are putting your caravan into long-term storage.



Please note that incorrect use of the air suspension product may lead to damage to the airbag, associated components, or the vehicle itself. Such damage is not covered under warranty, so it is essential to use the system correctly and as instructed in this guide.



# **OPERATION**

# **Features**

The air suspension and control system equipped in this caravan provides both manual and automatic height adjustment capabilities. Regardless of the load, the system ensures that the caravan maintains the correct suspension height for optimal stability, road handling, and driving comfort.

This air suspension and control system utilises Automatic and Remote modes, which can be selected using the auto / remote selector switch, on the pneumatic control panel.

When the vehicle is stationary, the Remote mode allows users to adjust the height of the airbags, with the wireless remote controller, using the 'Lowered / Raised' function. Both the left and right airbags can be controlled independently, to level the caravan on unlevel ground. This can also be useful for allowing easier occupant access, and to allow for better ground clearance when travelling off-road.

The Automatic Mode is only used to revert the caravan back to its original towing position, or 'Ride' position. The vehicle must be stationary when this mode is in operation, and only operates momentarily, before reverting to Remote mode for travel.

# **GO Industries System Panel**

Use the Compressor switch to turn the compressor On when using the controls for Remote or Automatic adjustment. Once setup on site in Remote Mode the Compressor can be turned Off to eliminate compressor activation.



# Compressor 'On'

Select the top button (AIR COMPRESSOR), and ensure the light is on, when using the control system for adjustment.

# Airbags 'On'

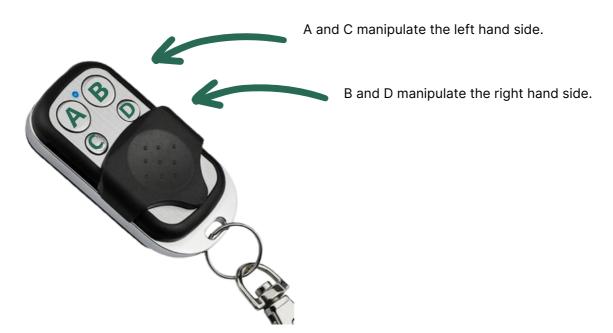
Select the bottom button (AIRBAGS), and ensure the light is on, when making any adjustments to the airbags.

# Airbags 'Off'

Select the bottom button (AIRBAGS), and ensure the light is off, for **all** travel conditions.

# **Remote Mode Operation**

Remote Mode offers a flexible way to adjust suspension heights, useful for either levelling the vehicle on uneven terrain or for changing the height while the vehicle is stationary. To make these adjustments, activate the Air Compressor and Airbags switches, then use the remote control to alter the suspension height on the specific side of the vehicle as needed. If you're lowering or raising both sides simultaneously, make gradual adjustments to ensure a balanced position. When aiming to level the van, adjust the necessary side incrementally.



When towing, it's crucial to maintain the airbag, included in this kit, within the range of 225mm - 275mm. This specified Airbag Operating Height can be attained by selecting the Auto height option.



Do not Inflate the airbags above **100PSI maximum**. Do not Deflate the airbags below **5PSI minimum**.

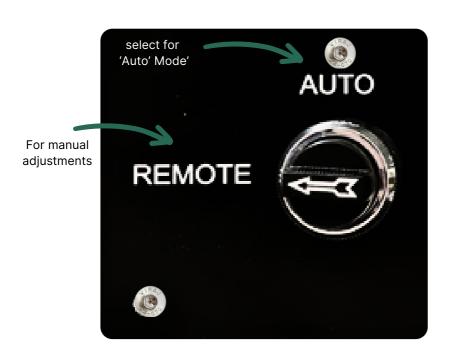
**Note:** In new applications, it is critical to prevent the airbag from deflating to the point where the rubber crumples. Certain applications may necessitate maintaining the pressure above 5PSI during initial use to prevent any crumpling.



Adjusting the suspension away from the correct towing height is suitable for stationary or slow towing only.

# AUTOMATIC MODE SELECTION

Automatic Mode offers a hassle-free way to reset the suspension to the proper towing height. When the van is parked on even ground with the Air Compressor and Airbags switch on, simply rotate the switch to Automatic Mode. Give the suspension up to 20 seconds to readjust to the appropriate towing height.





# **Height Control Valves (HCV)**



This adjustment relies on levelling valves (HCV) installed beneath the caravan that are connected to the suspension arm.

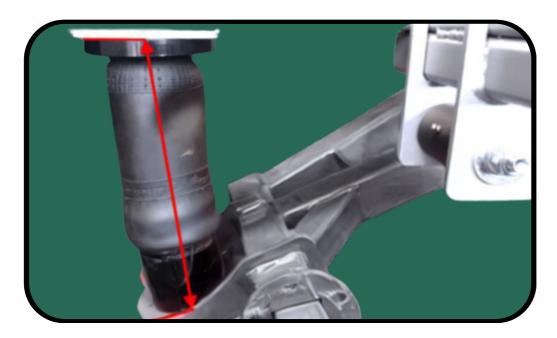
If the system encounters difficulty reaching the chosen mode, inspect for any obstructions and safely clear them before attempting the adjustment.



# **Airbag Operating Height - Towing Position**

One of the significant benefits of equipping your caravan with Air Suspension is the flexibility to modify the height according to the terrain you're travelling on.

Below, we have outlined the suggested settings available for various travel conditions.



Towing Range = **225mm-275mm** 

225mm Setting (manually set): Suitable for high-speed towing, such as on freeways, to reduce wind resistance and enhance fuel efficiency.

250mm Setting (automatically set): Ideal as a versatile, general-purpose height, and the default setting for 'Auto Mode'.

275mm Setting (manually set): Recommended for slower, off-road towing to provide increased ground clearance.

# **Onsite Site Levelling**

When conducting site levelling, it is advisable to start by deflating the high side first from the Towing position, ensuring that the pressure remains above the 5psi minimum threshold. If necessary, you can then inflate the low side for additional adjustments, keeping the pressure between the minimum (5) and maximum (100) PSI thresholds. Once you have achieved the desired site-level position, you can turn off the Air Compressor and Airbags switches, to prevent any unnecessary compressor operation during the setup process.

# How to Change a Flat Tyre

To change a tyre on the tow vehicle and caravan safely, follow these steps:

- 1. Bring the tow vehicle and caravan to a secure and level location.
- 2. Apply the park brake(s) on both the tow vehicle and caravan.
- 3. Ensure that the control system is set to the 'Remote Mode'.
- 4. Follow the tyre change procedure recommended by the caravan manufacturer.
- 5. After successfully changing the tyre and ensuring the tow vehicle and caravan are safe to resume travel, hand brake is off and make sure the air control system is set to the Towing position before continuing your journey.

**Note:** To ensure safe servicing and prevent any unintentional adjustments or potential damage to components or individuals, it is essential that the control system is set to Remote Mode when the caravan is completely jacked, hoisted, raised off the ground, or being transported.

# **Putting your System into Long Term Storage**

When storing the caravan for an extended period, follow these steps:

- 1. Select the Remote Mode.
- 2. Lower the suspension to a Low position, on both sides.
- 3. Turn the Air Compressor and Airbag switches off.

**Note:** During long-term storage, it is typical for the airbags to gradually lose some air pressure. This process is normal and should be expected.



# **MAINTENANCE**

# **General System Care**

Regularly inspecting your air suspension system is recommended to ensure proper operation, secure attachment, identifying potential damage, and assessing component integrity. Similar to your vehicle's tyres, an airbag is a pneumatic device that bears the weight of the vehicle. Air leaks can develop in the system over time, and it's important to note that these leaks are generally not covered under warranty.

If you encounter an air leak, it is advisable to get in touch with the caravan manufacturer or their nearest service representative for assistance. While it is unlikely, airbags may be punctured due to impact damage, improper inflation, incorrect installation, or misuse. To minimise the risk of punctures, it is strongly advised to inspect the airbags and surrounding components regularly and remove any accumulated sand, gravel, or other road debris.

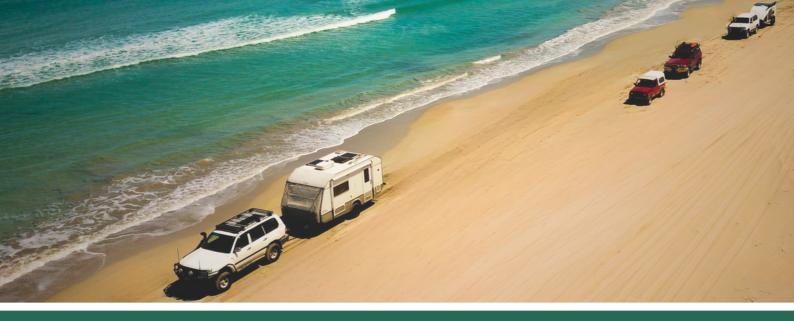
# **System Supply Voltage**

To ensure optimal system performance, it is advisable to maintain the system voltage above 12.0 volts at all times. Low voltage can negatively impact system operation, leading to prolonged compressor operation and increased time for each height adjustment.

# **Pressure Retention Check**

During extended periods of caravan storage, it is common for air pressure to gradually decrease, resulting in a lowering of the suspension height. This decrease in pressure can occur at varying rates among the airbags within the system due to the nature of the airbag material. Even after many years of leak-free service, a system air leak can develop during regular operation. Such a leak will lead to increased frequency and/or runtime of the air compressor.

Any detected system air leak should be promptly addressed, as it can negatively impact the compressor's lifespan. In the event of an airbag puncture while traveling, evidenced by a loss of height, it's important to safely park in a suitable location and contact the caravan manufacturer or their service representative for assistance.



# MAINTENANCE



The air suspension air tank serves as a reservoir for the compressed air generated by the air compressors, which is subsequently utilised in your suspension system. When air is compressed, it generates heat, resulting in the stored air being typically warmer than the surrounding room temperature. As your air tank cools during periods of system inactivity, the air inside can also cool, leading to the accumulation of moisture within the tank.

At GO Industries, we strongly advise draining your air tank regularly to maintain optimal performance. Under normal usage conditions, it's recommended to drain the tank once a month. However, if you reside in a humid climate or use your system more frequently, a bi-weekly draining schedule is advisable. Moisture build up in the air tank can void warranty, if care has not been taken to regularly drain.

To drain the tank, hold the 'Tank Drain' switch, on the panel, for 5 seconds.



# **Compressor Filter**

You should check the air filter of the compressor every 6 months or after every 10,000km, coinciding with your caravan's routine maintenance schedule.

If needed, clean the filter using compressed air, directing the airflow from the intake side, outward.

Sometimes, a complete replacement of the filter might be necessary. Replacement filters are available from your Caravan Dealer or Service Centre.



# MAINTENANCE WARNINGS



To ensure safe servicing and prevent any unintentional adjustments or potential damage to components or individuals, it is essential that the control system is set to Remote Mode and the Airbags switch is set to 'off', when the caravan is completely jacked, hoisted, raised off the ground, or being transported.



It is strongly advised that only individuals who are properly qualified should be entrusted with the installation of the product and the removal and refitting of any of its components.



Under no circumstances should an airbag assembly be inflated without proper restraint or restrictions. Misuse or overinflation can potentially lead to property damage or serious personal injury.



Never alter the airbag or its associated components through cutting, welding, or modification without obtaining approval from the caravan manufacturer.



Avoid using aerosol tyre repair products in airbags. If there is a hole, it is imperative to replace the airbag.



Refrain from applying any type of tyre patch on an airbag. In the event of a hole, the appropriate course of action is to replace the airbag. Additionally, never weld in close proximity to an unprotected airbag, as they are highly susceptible to damage from weld-related UV rays and heat.

# TROUBLE SHOOTING



# Airbags will not inflate:

- 1. Check the battery voltage and connections.
- 2. Inspect the system power supply and ensure the compressor fuse is installed and intact.
- 3. Verify that the Air Compressor and Airbag switches are in the ON position.
- 4. Select Auto Mode and wait for 2 minutes. If the system still doesn't lift, confirm that you're not exceeding the manufacturer's weight ratings.



# Airbags deflate on their own:

- 1. Ensure the 'AIRBAGS' switch is in the appropriate position.
- 2.If Auto Mode is selected when the suspension is in a 'High position,' the airbags will automatically deflate.
- 3.If the caravan is losing height from the Towing position when stationary, park safely and contact the caravan manufacturer or their service representative.



### The compressor is running continuously:

- 1. When the compressor is ON, avoid selecting any buttons on the control interface to minimise air usage.
- 2. If the compressor runs continuously for more than 5 minutes without any system adjustment, park in a safe location, switch the compressor switch off and contact the caravan manufacturer or their service representative.



# The caravan is not level for towing:

- 1. Ensure both the tow vehicle and caravan are on level ground, and the tow coupling height is correct
- 2. Check for obstructions or components that might be restricting the suspension. Ensure the Towing position is achieved before traveling.



# The caravan is not levelling on site:

- 1. Select Remote Mode and ensure Air Compressor and Airbags switches are in the 'on' position, with their lights illuminated.
- 2. Choose the higher ground side and deflate while maintaining pressure above 5psi.
- 3.If necessary, select the lower ground side and inflate while maintaining pressure below 100psi.
- 4.If the available adjustment isn't sufficient for the site variation, use traditional levelling methods to make up the difference. Remote Mode can then be employed to complete the levelling process.

# AFTER SALES SERVICE

# **General Advice & Assistance**

GO Industries takes pride in providing top-quality products and exceptional customer service. If you have any concerns or issues with this system, we encourage you to get in touch with the caravan manufacturer or their authorised service representative for assistance and support. Your satisfaction and safety are our priorities.

# **Spare Parts**

Spare parts for all components within this system can be obtained from the caravan manufacturer. For additional details on the airbag or air system replacement and installation process, please reach out to GO Industries. Our contact details can be found on the last page of this System Guide.

If you are in need of spare parts, we recommend contacting the caravan manufacturer or their nearest service representative for assistance in acquiring the necessary components. They will be able to guide you through the process of obtaining the required parts.

# Warranty

The system comes with a 12-month warranty, starting from the date of the initial new sale. This warranty is transferable during this period. It's important to note that our warranty complements and does not limit or alter any rights or remedies you may already have under the Australian Consumer Law or any other applicable laws related to this product. Our products are covered by guarantees that cannot be excluded under the Australian Consumer Law.

If you believe that the product provided has not performed as expected and you suspect it may fall within the category of consumer protection, we recommend contacting the caravan manufacturer for assistance. They will be able to guide you through the appropriate steps and ensure your rights and protections are upheld under Australian law.



# **NOTES**

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