DRIVE RITE
AIR SUSPENSION SYSTEMS

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REAR HAND HELD CONTROLLER USER INSTRUCTIONS



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TABLE OF CONTENTS

1.0 AIR SUSPENSION SYSTEM DESCRIPTION AND USE 3
1.1 AUTOMATIC HEIGHT SELECTION 3
1.1.1 RAISED HEIGHT  3
1.1.2 STANDARD HEIGHT  3
1.1.3 LOWERED HEIGHT  3
1.2 AUTOMATIC KNEEL HEIGHT SELECTION 4
1.3 MANUAL MODE  4
1.4 SERVICE MODE  5
2.0 PROGRAMMING HEIGHTS 6
2.1 CALIBRATION 6
2.2 TO SAVE A NEW AUTOMATIC HEIGHT (Applies to GEN III systems only) 6
2.3 TO SAVE A NEW KNEEL HEIGHT 7
3.0 FAULT (Applies to GEN III systems only) 8
3.1 FAULT FLASH CODES PROVIDED 8

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AIR SUSPENSION SYSTEMS

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1.0 AIR SUSPENSION SYSTEM DESCRIPTION AND USE

The air suspension on this vehicle ensures the vehicle is constantly driven at the designed ride height of the vehicle while improving road handling and ensuring headlight alignment. It offers greater ride comfort when compared to the original leaf or coil sprung suspension while increasing stability.

The system offers three selectable heights and a manual control feature via the hand held. The three selectable heights are selectable at any time as long as the speed of the vehicle is appropriate for the height and/or handbrake applied, depending on the installer's settings. The manual control is available while the vehicle is not moving.

1.1 AUTOMATIC HEIGHT SELECTION

Raised height , Standard height  and Lowered height  are the automatic height selections. When a button is pressed, the system will achieve the height as long as the conditions are met.

- The button will be lit once a height is achieved.
- The button blinks while achieving the height.

These heights can be programmed via the hand held during manual mode. See section 2 for programming.

1.1.1 RAISED HEIGHT 

Raised height is designed to increase the clearance for rough roads or speed bumps. The vehicle speed signal is linked in to prevent driving at high speed at the raised height. When speed goes above the preset limit, the vehicle will return to standard height automatically.

1.1.2 STANDARD HEIGHT 

Standard Height is designed to be the primary operating position of the vehicle. This mode allows maximum up and down travel of the suspension. This height is for driving.

1.1.3 LOWERED HEIGHT 

Lowered Height is designed to be used for loading, or ease of boarding and exiting the vehicle. The vehicle cannot be driven at this height and it is linked to the handbrake or speed sensor for safety so it can automatically return to standard height.

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1.2 AUTOMATIC KNEEL HEIGHT SELECTION

The rear kneel height must be programmed first to enable it. See section 2 for programming.

The rear kneel height  is available while the vehicle is stationary and the handbrake is applied.

This height can be selected while the vehicle is at one of its automatic heights. Once selected, the button will flash until the height is achieved.
To exit and return to automatic mode, the rear kneel button must be pressed again or the handbrake released.

If the ignition is turned off while at this height, the system will return to automatic height once the ignition is switched on again.

For some vehicles, it may be difficult to achieve the rear kneel height while the handbrake is on. If this is the case for your vehicle, lightly apply the handbrake first, then rear kneel the vehicle before applying the hand brake fully.

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1.3 MANUAL MODE 

Note: Handbrake must be applied to enter manual mode.
To enter manual mode, the Manual button must be pressed for 5 seconds.

The  buttons will light to indicate that a manual button is ready for selection.

Select the rear manual button 

Use the up  and down  arrows to move the vehicle up and down.

To exit manual mode, the Manual  button must be pressed for 5 seconds.
It will also automatically exit when the handbrake is released. The vehicle will return to the previous automatic height upon exit.

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If the ignition is turned off while this mode, the system will return to automatic height once the ignition is switched on again.

1.4 SERVICE MODE 

Press and hold the service button for 8 seconds to put the vehicle in service mode. To come out of service mode, the button must be pressed and held again.

There is also a hardwired service switch which serves as the master service switch. This switch is located in the main harness and is typically located under the dash. *This switch over-rides the hand held.*



CAUTION: The Air Suspension System MUST be turned off (using the Master Service switch) when the vehicle, suspension, or electronic control system is serviced. This includes situations where the vehicle is jacked, hoisted, towed, jump-started, raised off the ground or transported. This is to avoid unnecessary operation of the system and/or possible damage to individual components and/or persons.

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2.0 PROGRAMMING HEIGHTS

2.1 CALIBRATION

The mm/V (i.e. mm of travel expressed in terms of voltage change generated by the height sensor) is preset to allow for a general calibration. This value can only be set via the PC Tool. The preset is set at 85mm/V to allow a height calibration. For a more precise calibration, the PC Tool must be used. If your vehicle is compatible with the setting of 85mm/V, the handheld can be used to calibrate the heights as described below.
Note: It is not possible to calibrate the horizon levelling feature using the handheld. The PC Tool must be used.

2.2 TO SAVE A NEW AUTOMATIC HEIGHT (APPLIES TO GEN III SYSTEMS ONLY)

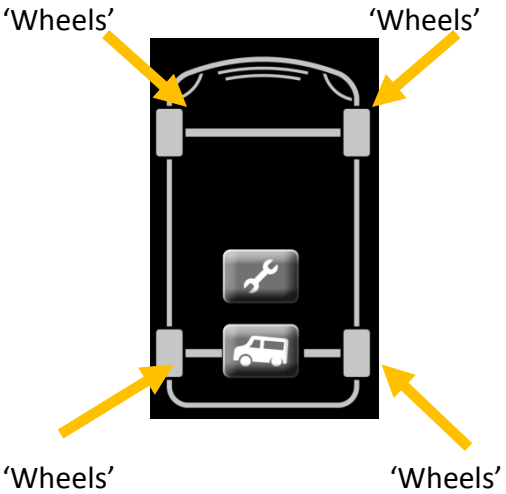
First press the manual button  then select rear kneel,  .
Adjust with the up/down manual control buttons.

Enter service mode. Press and hold for 10 seconds ***the automatic height you want to save***

Raised height  Standard height  Lowered height  .

The height button will light, then the 4-'wheels' on the hand held (see below) will light up to indicate the height has been saved. Only then can the button be released.

Note: To repeat the process, you must exit service mode and re-enter manual mode to save the other heights.



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When a raised height is saved, the programming will automatically set the maximum suspension position just above raised height by 10mm. **NOTE: This will overwrite the previous Max height setting.**

When a lowered height is saved, the programming will automatically set the minimum suspension position just below the lowered height by 3mm. **NOTE: This will overwrite the previous Min height setting.**

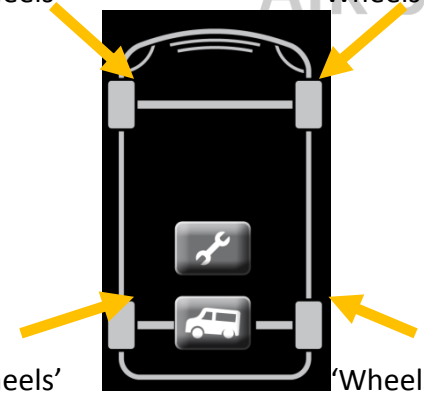
2.3 TO SAVE A NEW KNEEL HEIGHT

First press the manual button  then select rear kneel height, . Adjust with the up/down manual control buttons. Press and hold the rear kneel height to save the height.

The 4 'wheels' on the hand held (see below) will light up to indicate the height has been saved. Only then can the button be released.

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'Wheels' 'Wheels'



'Wheels' 'Wheels'

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3.0 FAULT (APPLIES TO GEN III SYSTEMS ONLY)

A system fault is indicated by the three height buttons and service button flashing and/or the height selection switch. When this occurs, the system should be placed in its service mode  to display the fault code on the manual buttons.

3.1 FAULT FLASH CODES PROVIDED

The listing below shows the fault flash codes issued by the Electronic Control Unit.

The system should return to normal operation if any of the faults are removed.

Flash Code (the number of times the service button flashes)	Flash Code title
3	Left Rear Height Sensor
4	Right Rear Height Sensor
5	Pressure Sensor
6	Height Change Fault Target Not Reachable
7	Valve Manifold
8	Compressor Relay Compressor Fault
9	ASECU Low Voltage Detected

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