



# Operation Manual

## e-Level™: TouchPad™ Controller

### Congratulations!

Thank you for purchasing the revolutionary e-Level™ system by AccuAir.

This system manages the height of up to 4 Air Springs and offers never before seen accuracy in all applications by constantly learning your vehicle's characteristics. Through the use of advanced height monitoring techniques, this system automatically corrects for changes in load, whether driving or parked, minimizing user input and maximizing accuracy throughout your driving experience. To enhance the entire system's performance and reliability, the AccuAir e-Level™ also manages your Air Compressor(s) to keep onboard air at an ideal pressure for your application.

To maximize functionality, the AccuAir e-Level™ allows you to select from three distinct vehicle heights through a TouchPad™ Controller:

- 1.) **Ride Height** (The height that you will typically drive your vehicle at).
- 2.) **Low/Cruise** (Typically set at 10% of your total suspension travel).
- 3.) **High/Extra Clearance** (Typically set at 90% of your total suspension travel to increase mobility and clear driving obstacles).

At AccuAir, we pride ourselves on thorough customer service, quality products, and a better driving experience through technologically superior design. Please visit our website or call us toll free to let us know if there is any way that we can help improve your AccuAir experience.

**(877) AIR-DOWN**  
**247-3 6 9 6**

**[www.accuaircs.com](http://www.accuaircs.com)**



## Table Of Contents

<u>Description</u>	<u>Page Number</u>
--------------------	--------------------

**Terms & Conditions**

**3**

**Service Disable & General Understanding**

**4**

**General Operation**

**5-6**

**Setup Programming**

**7-19**

**Operation Trouble Indication & Diagnosis**

**20-23**

**System Diagram**

**24-25**

## Terms & Conditions:

AccuAir Control Systems, L.L.C. is hereby referred to as **ACCUAIR**. The Purchaser, end-user, or installer is hereby referred to as **CUSTOMER**.

### Warranty

**ACCUAIR** will repair or replace any failed components for the life of the vehicle given that the components were installed and operated as intended by **ACCUAIR**. Upon the return of a failed component(s), **ACCUAIR** will determine the cause of failure. If it is due to improper installation, or misuse of the system, a repair charge will be assessed and the customer will be contacted before work is performed or replacement parts are shipped. If the failure is due to faulty parts, then **ACCUAIR** will repair or replace the failed components at their own discretion and in a timely manner.

### Repairs and Returns

A Return Merchandise Authorization Number (RMA) is required for ALL shipments to AccuAir Control Systems. This number should be written in large letters on the shipping box. Call AccuAir to receive an RMA number and send items to:

**AccuAir Control Systems, L.L.C.**  
**Attn: Service Department/RMA # \_\_\_\_\_**  
**1241 Johnson Ave. #355**  
**San Luis Obispo, Ca, 93401**  
**USA**

### Legal Disclaimer

- **ACCUAIR's** products must be installed by a qualified professional installation facility as recommended by **ACCUAIR**.
- System operation and installation is at the **CUSTOMER's** own risk. **ACCUAIR** accepts no liability for damage of property or persons caused by its products, components, accessories, installation instructions or otherwise.
- **ACCUAIR** accepts no responsibility for systems, products or components provided by other manufacturers for use with or around the **ACCUAIR** system. For components other than **ACCUAIR's**, follow the manufacturer's instructions for installation and operation.



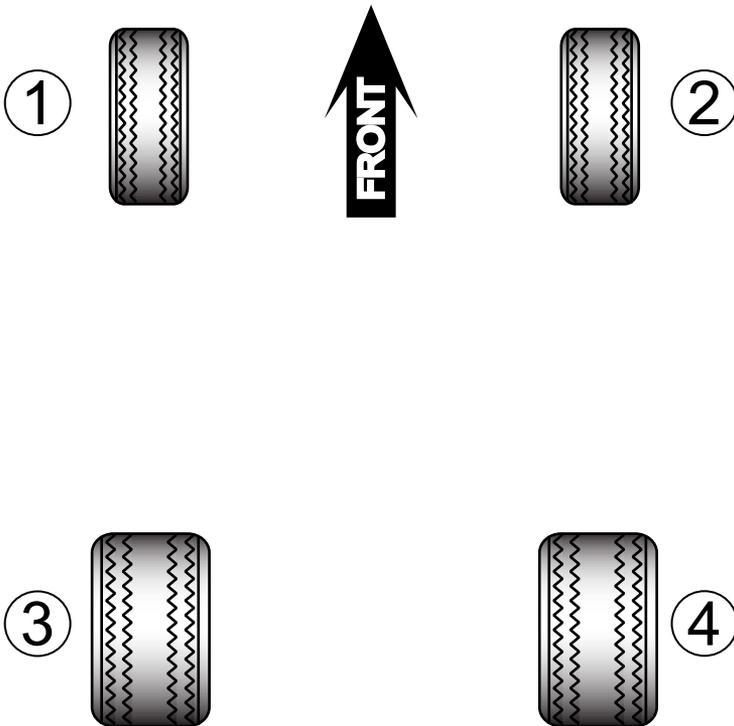
**WARNING: No part of the vehicle should be able to contact the ground when all air is out of the air springs.**

## Service Disable:

 **CAUTION:** For all under vehicle maintenance, you must first disable the air system by removing the main system fuse located near the battery.

## General Understanding:

For simplicity of use and understanding we refer to the four wheels of a vehicle by number. Instead of using “Left Front”, or “Right Front” etc. Refer to the following diagram for labeling:





THE SYSTEM  
MUST BE  
CALIBRATED  
BEFORE USE  
SEE PAGE 7.

## General Operation:



### **Position #3:** ***(Usually Raised/Extra Clearance)***

While driving or parked, you may choose to press the **Position #3** “” **Button momentarily.**

The Position #3 “” Indicator Light will flash while adjusting to **Position #3** and become solid once achieved.



### **Position #2: *(Ride Height)***

**NOTE:** *This is also the height that “Lift-On-Start” adjusts to when enabled.*

While driving or parked, you may choose to press the **Position #2** “” **Button momentarily.**

The Position #2 “” Indicator Light will flash while adjusting to **Position #2 (Ride Height)** and become solid once achieved.



### **Position #1: *(Usually Low/Cruise)***

While driving or parked, you may choose to press the **Position #1** “” **Button momentarily.**

The Position #1 “” Indicator Light will flash while adjusting to **Position #1** and become solid once achieved.



THE SYSTEM  
MUST BE  
CALIBRATED  
BEFORE USE  
SEE PAGE 7.

## General Operation:



### **All-Down:**

While parked, you may choose to automatically lower all four Air Springs to zero height.

**Press the All-Down “” Button for 3 seconds.**

The All-Down “” Indicator Light will flash while adjusting and turn off once complete.

## Setup Programming:

### Automatic System Calibration: (Suggested)

**⚠ WARNING:** Do NOT use this procedure for **KELDERMAN** Systems because suspension damage will occur. Use the procedure on the next page.

**Maximum Height will be determined by your mechanical suspension limits. (For Manual Range Setting Use Next Page)**

Your system must be calibrated to learn your vehicle's characteristics before the automatic leveling features can be used. This process should be repeated if any system components are changed or replaced in the future.

**⚠ NOTE:** Your system was shipped with the **Tank Pressure Mode** set at **150 PSI**. If you have High Pressure Compressor(s) you can change the **Tank Pressure Mode** to **175 PSI** or **200 PSI** using the Procedure on page 18, before calibrating below.

**⚠ CAUTION:** The system will automatically **Raise/Lower** the vehicle in the next procedure. Remove all obstructions and keep clear of vehicle before proceeding.

**The vehicle needs to be on level ground with the wheels pointed straight ahead. Leave the vehicle running to power the Compressor(s) during this procedure.**



#### Automatic Calibration:

**With the Ignition ON hold the Program “” Button & the Position #2 “” Button for 5 seconds until all of the Position Indicators strobe up and down.**

The system will then begin adjusting the vehicle throughout its total travel. This process requires no user interaction and should take no more than 15 minutes depending on the size of your Compressor(s) and Tank(s).

All of the Position Indicators will continue to strobe throughout calibration. The Position #2 “” Indicator will be on solid when calibration is complete, indicating that the system is at **Ride Height (Position #2)**.

When calibration is complete the positions will be saved as follows:

- Position #1=10% of total suspension travel.
- Position #2=50% of total suspension travel.
- Position #3=90% of total suspension travel.

To re-save these heights to your preference, see page 9.

## Setup Programming:

### Manual Range System Calibration (Alternative to Automatic Calibration):

**Maximum Height will be determined by you; instead of your mechanical suspension limits! This procedure should only be used on suspensions that are likely to over extend.**

Your system must be calibrated to learn your vehicle's characteristics before the automatic leveling features can be used. This process should be repeated if any system components are changed or replaced in the future.

**⚠ CAUTION: The system will automatically *Raise/Lower* the vehicle in the next procedure. Remove all obstructions and keep clear of vehicle before proceeding.**

***The vehicle needs to be on level ground with the wheels pointed straight ahead. Leave the vehicle running to power the Compressor(s) during this procedure.***

With the Ignition ON, use the Manual Rocker Switches to **Raise/Lower** all four corners until each corner is at your preferred **MAXIMUM TRAVEL** and the vehicle is level from side to side.

#### Manual Range Teach Calibration:

**With the Ignition ON hold the Program “” Button & the Position #3 “” Button for 5 seconds until all of the Position Indicators strobe up and down.**

The system will then begin adjusting the vehicle throughout its total travel. This process requires no user interaction and should take no more than 15 minutes depending on the size of your Compressor(s) and Tank(s).

All of the Position Indicators will continue to strobe throughout calibration. The Position #2 “” Indicator will be on solid when calibration is complete, indicating that the system is at **Position #2 (Ride Height)**.

When calibration is complete the positions will be saved as follows:

- Position #1=10% of total suspension travel.
- Position #2=50% of total suspension travel.
- Position #3=90% of total suspension travel.

To re-save these heights to your preference, see page 9.



## Setup Programming:

### Manually Raise/Lower:

### Manual Adjustment to a New Height:

In order to save a ***New Favorite Ride Height***, you must first manually adjust each Air Spring to the height that you wish to save using the procedure outlined below. This procedure should be done with the vehicle sitting on flat, level ground. For the best results, make sure that the fender to ground clearance is less than 1/8" different from side to side. (For racing applications, corner weight scales may be used. Visit [www.accuaircs.com](http://www.accuaircs.com) for more details). Once you have achieved the desired height on all corners, see "***Saving A New Ride Height***" on the page 11.



To Adjust Front Air Springs Together (1&2):  
**Press the Combination #1 & #2 UP "  "**  
**Button to FILL both Air Springs #1 & #2 together.**

**Press the Combination #1 & #2 DOWN "  "**  
**Button to EMPTY both Air Springs #1 & #2 together.**



To Adjust Rear Air Springs Together (3&4):  
**Press the Combination #3 & #4 UP "  "**  
**Button to FILL both Air Springs #3 & #4 together.**

**Press the Combination #3 & #4 DOWN "  "**  
**Button to EMPTY both Air Springs #3 & #4 together.**

## Setup Programming:

### Manually Raise/Lower, Cont.:

To Adjust Air Spring #1:  
Press the #1 UP “

Press the #1 DOWN “

To Adjust Air Spring #2:  
Press the #2 UP “

Press the #2 DOWN “

To Adjust Air Spring #3:  
Press the #3 UP “

Press the #3 DOWN “

To Adjust Air Spring #4:  
Press the #4 UP “

Press the #4 DOWN “

- Page 10 -

## Setup Programming:

### Saving New Heights Into Memory:

Once you have manually adjusted each Air Spring to the height that you wish to save, hold the **Position Button #1, #2, or #3** (the Position # that you want the current height saved as), for 3 seconds until the Position Indicator flashes, then becomes solid.

**NOTE: This process can be repeated as often as desired.**



#### Re-Saving Position #3:

Press & hold the Position #3 “” Button for 3 seconds.

The Position #3 “” Indicator Light will flash, then become solid when saving is complete.



#### Re-Saving Position #2: (Ride Height)

Press & hold the Position #2 “” Button for 3 seconds.

The Position #2 “” Indicator Light will flash, then become solid when saving is complete.



#### Re-Saving Position #1:

Press & hold the Position #1 “” Button for 3 seconds.

The Position #1 “” Indicator Light will flash, then become solid when saving is complete.

## Setup Programming:

To check or change any of the programmed settings during operation, press the Program “

**NOTE: Program Mode will exit after 5 seconds or can be exited by pressing the Program Button again and your changes will be saved.**

### Setup Programming:

Setting Indication	White	Red
Ride-Height-On-Start ON/OFF. (Description on Pg. 13)	ON: 	OFF: 
RideMonitor™ Mode ON/OFF. (Description on Pg. 14 & 15)		
ActiveStart™ ON/OFF. (Description on Pg. 17)	ON: 	OFF: 
Tank Pressure Mode: 150 psi = White only 175 psi = White & Red alternating 200 psi = Red only (Description on Pg. 18)		
	150	175      200

RideMonitor™ Mode Accuracy Level Setting	
Active Adjustment Accuracy #3. (Most Accurate, Most Adjustments) (Description on Pg. 15 & 16)	
Active Adjustment Accuracy #2. (Factory) (Description on Pg. 15 & 16)	
Active Adjustment Accuracy #1. (Least Accurate, Fewest Adjustments) (Description on Pg. 15 & 16)	

## Setup Programming:

### Turning Ride-Height-On-Start ON/OFF:

Your system was shipped with **Ride-Height-On-Start** enabled (ON). You may choose to disable (OFF) or re-enable (ON) this feature. When this feature is ON, the system will automatically re-level the vehicle to **Position #2 (Ride Height)** every time that the IGN is switched ON. When this feature is OFF, the system will remain at the last height the vehicle was at when the IGN is switched ON.



To Turn Ride-Height-On-Start (ON)/(OFF):  
**With the Ignition ON, press the Program “” Button. Next press the #1 UP “” Button to turn Ride-Height-On-Start ON or the #2 UP “” Button to turn Ride-Height-On-Start OFF.**

When the #1 UP “” Arrow is White:  
**Ride-Height-On-Start is ON.**

When the #2 UP “” Arrow is Red:  
**Ride-Height-On-Start is OFF.**

**NOTE: Program Mode will exit after 5 seconds or can be exited by pressing the Program Button again and your changes will be saved.**



## Setup Programming:

### Turning RideMonitor™ Mode ON/OFF:

Your system was shipped with **RideMonitor™ Mode** enabled (ON). You may choose to disable (OFF) or re-enable (ON) this feature. When **RideMonitor™ Mode** is ON, the system will Monitor the vehicle's height whenever the IGN is ON and make adjustments for changes in load when deemed necessary. When this feature is OFF, the system will only adjust when prompted by pressing the height selection switch – It will not Monitor the vehicle's height and will not make adjustments for changes in load automatically.



NOTE: **RideMonitor™ Mode** should be left ON for maximum accuracy. The only case that it should be turned OFF is if you feel that the system is adjusting too often or inaccurately while driving. In this case, first try re-calibrating the system using the instructions on Page 7. If this does not solve the problem, turn the **RideMonitor™ Mode** OFF and contact AccuAir for further assistance.

To Turn Monitor Mode (ON)/(OFF):

**With the Ignition ON, press the Program “” Button. Next press the #1 DOWN “” Button to turn RideMonitor™ Mode ON and the #2 DOWN “” Button to turn RideMonitor™ Mode OFF.**



When the #1 DOWN “” Arrow is White:  
**RideMonitor™ Mode** is ON.

When the #2 DOWN “” Arrow is Red:  
**RideMonitor™ Mode** is OFF.

NOTE: **Program Mode will exit after 5 seconds or can be exited by pressing the Program Button again and your changes will be saved.**

## Setup Programming:

### **RideMonitor™ Mode Accuracy Level:**

**RideMonitor™ Mode Accuracy Level** will determine the acceptable variation from saved height for your vehicle (in other words, the distance away from saved height that it will not make a correction for). If you decide that you would prefer that the system was more or less accurate, you can use the procedure on the following page to either increase the accuracy by 8% (Level 3), or decrease the accuracy by 15% (Level 1).

 **NOTE:** *The only time that this setting should be changed is if you feel that the system is adjusting too often, or not often enough in it's factory setting (Level 2).*

- 1 = Lower Accuracy & Fewest Adjustments.**
- 2 = Moderate Accuracy & Moderate Adjustments (Factory Setting).**
- 3 = Higher Accuracy & Most Adjustments.**



## Setup Programming:

### Adjusting Active Accuracy Level:



**LEVEL 1** = Lower Accuracy & Fewest Adjustments:

With the Ignition ON, press the Program “” Button. Next press the Position #1 “” Button to turn RideMonitor™ Mode to Accuracy Level 1.

The Position #1 “” Indication will turn on solid.

**NOTE:** *Program Mode will exit after 5 seconds or can be exited by pressing the Program Button again and your changes will be saved.*



**LEVEL 2** = Moderate Accuracy & Moderate Adjustments:

With the Ignition ON, press the Program “” Button. Next press the Position #2 “” Button to turn RideMonitor™ Mode to Accuracy Level 2.

The Position #2 “” Indication will turn on solid.



**LEVEL 3** = Higher Accuracy & Most Adjustments:

With the Ignition ON, press the Program “” Button. Next press the Position #3 “” Button to turn RideMonitor™ Mode to Accuracy Level 3.

The Position #3 “” Indication will turn on solid.

## Setup Programming:

### Turning ActiveStart™ Mode ON/OFF:

Once a general height adjustment has been made, the e-Level™ will begin to monitor this position and make corrections if necessary (when **RideMonitor™ Mode** is ON). The first 5 seconds of **RideMonitor™ Mode** is called **ActiveStart™**. For the **ActiveStart™ Mode**, the system holds a tighter tolerance than regular parked mode and makes precise adjustments if necessary. For the most accurate leveling, this feature should be left ON. For applications where this feature could be a nuisance due to frequent starts and stops and where super accurate leveling is not such a concern, this feature can be turned OFF.



To Turn ActiveStart™ Mode (ON)/(OFF):

**With the Ignition ON, press the Program “” Button. Next press the #3 UP “” Button to turn ActiveStart™ Mode ON and the #4 UP “” Button to turn ActiveStart™ Mode OFF.**

When the #3 UP “” Arrow is White:  
**ActiveStart™ Mode is ON.**

When the #4 UP “” Arrow is Red:  
**ActiveStart™ Mode is OFF.**

**NOTE: Program Mode will exit after 5 seconds or can be exited by pressing the Program Button again and your changes will be saved.**



## Setup Programming:

### Tank Pressure Mode:

Your system was shipped with the **Tank Pressure Mode** set at **150 PSI**. If you have High Pressure Compressor(s) you can change the **Tank Pressure Mode** to **175 PSI** or **200 PSI** using the following Procedure:



**NOTE:** The new Tank Pressure setting will **NOT** take affect until the system is **RE-CALLIBRATED** using the procedure on page 7 or 8.

To Change The Tank Pressure Mode:

With the Ignition ON, press the Program “

The diagram shows the AccuAir TouchPad controller with the #2 DOWN button (the second button from the top in the left column) being pressed. The screen displays '150' and '175' with arrows pointing to the #3 DOWN and #4 DOWN buttons respectively.

When the #3 DOWN “

When the #3 DOWN “

**150 Mode:**  
• 110 psi ON / 150 psi OFF  
**175 Mode:**  
• 135 psi ON / 175 psi OFF  
**200 Mode:**  
• 160 psi ON / 200 psi OFF

When the #4 DOWN “

The diagram shows the AccuAir TouchPad controller with the #4 DOWN button (the bottom-most button in the right column) being pressed. The screen displays '200' with an arrow pointing to the #4 DOWN button.

**NOTE:** Program Mode will exit after 5 seconds or can be exited by pressing the Program Button again and your changes will be saved.

## Setup Programming:

### Changing TouchPad™ Backlighting Brightness:

The TouchPad™ Controller's backlighting will turn on automatically when the system is on. The Backlighting will change to Nighttime Mode when the headlights are ON. The Brightness of both Modes can be adjusted with the procedure below:

NOTE: With the headlights OFF you will be adjusting Daytime Mode with the following procedure. With the headlights ON you will be adjusting Nighttime Mode with the following procedure.



**NOTE: The TouchPad™ Backlighting brightness will adjust UP & DOWN as you change the settings.**

To Adjust The Backlighting UP or DOWN:

**With the Ignition ON, press the Program “” Button. Next press the Combination #1 & #2 UP “” Button to make the Backlighting BRIGHTER.**

**With the Ignition ON, press the Program “” Button. Next press the Combination #1 & #2 DOWN “” Button to make the Backlighting DARKER.**



**NOTE: Program Mode will exit after 5 seconds or can be exited by pressing the Program Button again and your changes will be saved.**

## Operation Trouble Indication/Diagnosis:

In the unlikely case of a system component failure during operation, the Position “1”, “2”, & “3” Indications will flash simultaneously and sequentially to indicate the trouble codes outlined below.

**NOTE: This is the ONLY time that all 3 of the Position Indications will flash simultaneously during use.**

### Warning Indication:

Sensor Warning	Number Of Flashes between the 2 second pause	
<b>Tank pressure is not increasing after the ECU turns the Compressor(s) ON.</b> <ul style="list-style-type: none"> <li>•Verify Compressor circuit wiring connections.</li> <li>•Check Compressor fuse F2.</li> <li>•Verify Compressor plumbing connections.</li> <li>•Check for Compressor relay failure.</li> <li>•Check for Compressor failure.</li> <li>•Check for Pressure Sensor failure.</li> </ul>	2	
<b>Ride Height Sensors travel is found to be too small during calibration.</b> <ul style="list-style-type: none"> <li>•Verify Sensor Mechanical Linkage Connections.</li> <li>•The Ride Height Sensor needs to be remounted to a point in the suspension with more travel.</li> </ul>	3	
<b>Pressure Sensor is not reading.</b> <ul style="list-style-type: none"> <li>•Verify wiring to Pressure Sensor.</li> <li>•Check Pressure Sensor for failure.</li> </ul>	4	
<b>Sensor Corner Association Error.</b> <ul style="list-style-type: none"> <li>•Check for the Correct Wiring Harness Orientation at each Ride Height Sensor.</li> </ul>	5	

## Operation Trouble Indication/Diagnosis:

In the unlikely case of a Ride Height Sensor failure during operation, any pair of the UP “” & DOWN “” Arrow Legends will turn RED to indicate the corner that has failed or become electrically disconnected.

**NOTE:** *This is the ONLY time that a pair of the UP “” & DOWN “” Arrow Legends will light up RED during use.*

### Warning Indication:

Ride Height Sensor Warning		
Ride Height Sensor #1 is NOT reading.		Ride Height Sensor #2 is NOT reading.
Ride Height Sensor #3 is NOT reading.		Ride Height Sensor #4 is NOT reading.

## Operation Trouble Indication/Diagnosis:

In the unlikely case of a solenoid valve failure during operation, any of the UP “” or DOWN “” Arrow Legends will flash RED sequentially to indicate the corner number and direction that has failed.

**NOTE:** *This is the ONLY time that any one of the UP “” or DOWN “” Arrow Legends will flash sequentially and RED during use.*

### Warning Indication:

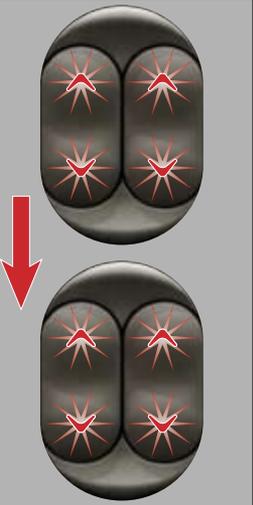
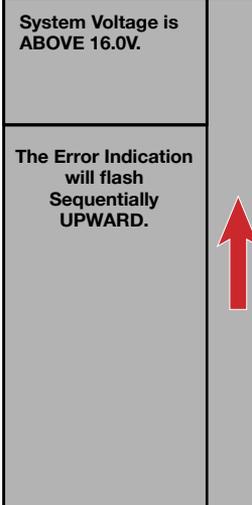
Valve Operation Warning		
Valve #1 UP is not responding.		Valve #2 UP is not responding.
Valve #1 DOWN is not responding.		Valve #2 DOWN is not responding.
Valve #3 UP is not responding.		Valve #4 UP is not responding.
Valve #3 DOWN is not responding.		Valve #4 DOWN is not responding.

## Operation Trouble Indication/Diagnosis:

If the vehicle system voltage drops below 10.5 volts during operation, the e-Level™ will automatically turn the compressor(s) OFF and show the trouble indication below. The e-Level™ will go back to normal operation once the vehicle system voltage reaches 12.5 volts or the ignition is cycled.

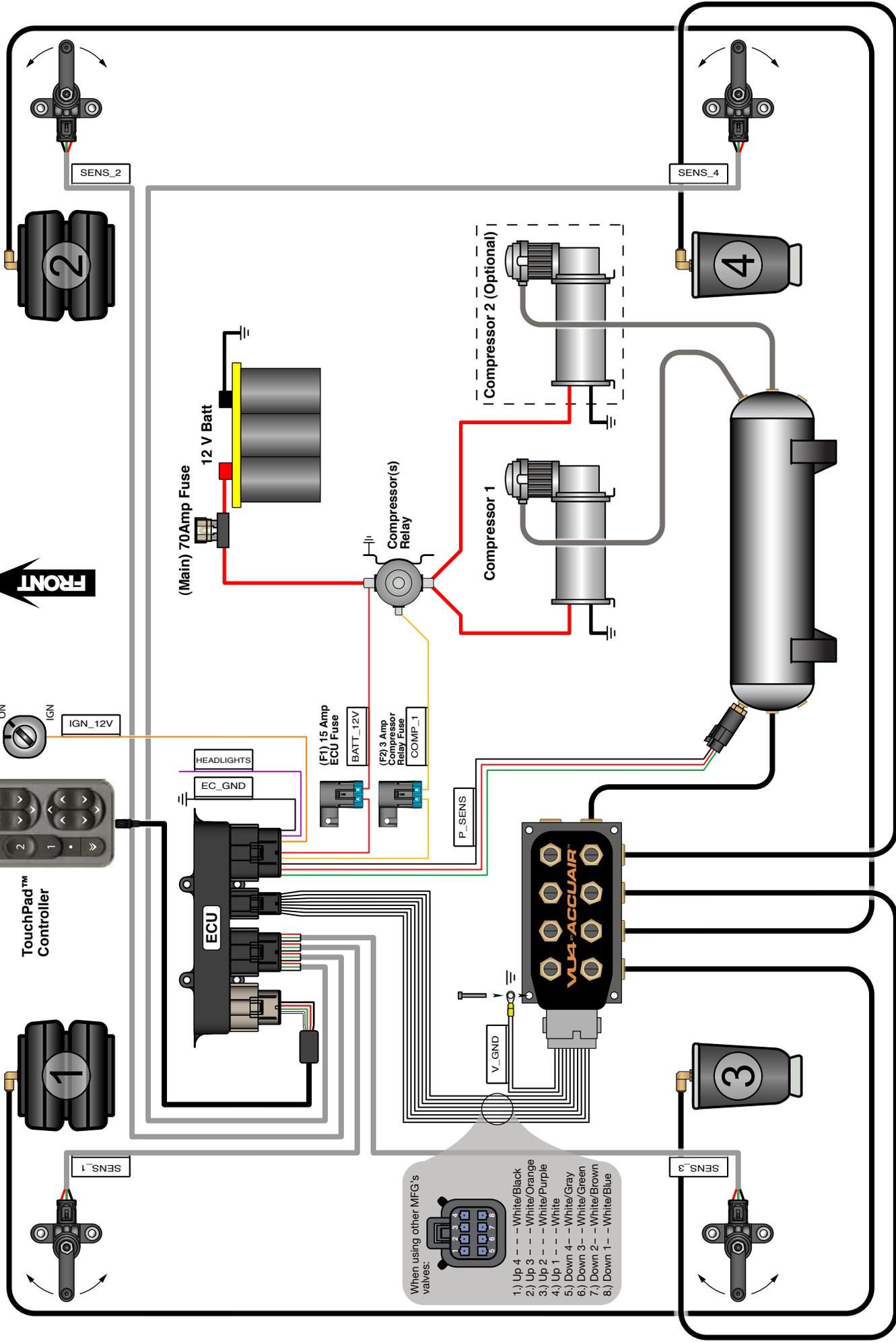
In the very unlikely case that the vehicle system voltage raises above 16.0 volts during operation, the e-Level™ will show the trouble indication below, but continue to operate like normal. Prolonged usage in this state may cause damage to system components.

### Warning Indication:

Low Voltage Warning		High Voltage Warning	
System Voltage is BELOW 10.5V.		System Voltage is ABOVE 16.0V.	
The Error Indication will flash Sequentially DOWNWARD & the Compressor(s) will turn OFF.		The Error Indication will flash Sequentially UPWARD.	



TouchPad™  
Controller



When using other MFG's valves:

- 1) Up 4 - - - White/Black
- 2) Up 3 - - - White/Orange
- 3) Up 2 - - - White/Purple
- 4) Up 1 - - - White
- 5) Down 4 - - White/Gray
- 6) Down 3 - - White/Green
- 7) Down 2 - - White/Brown
- 8) Down 1 - - White/Blue