

# AirStar Tandem Installation Kit

## Part Number 85694

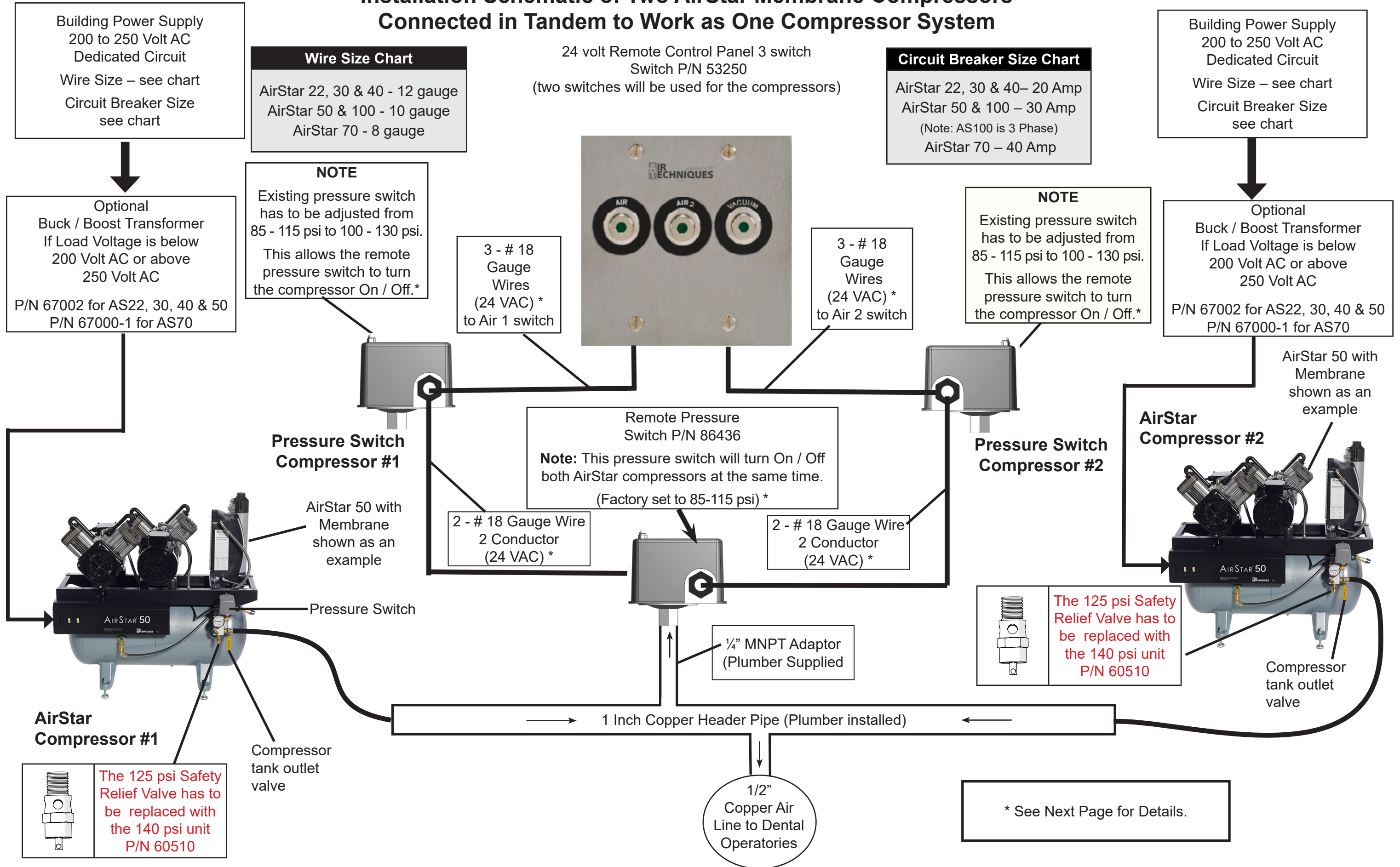
### Kit Parts Supplied

Part No.	Description	Quantity
60510	140 PSI Safety Relief Valve	2
86436	AirStar Pressure Switch 85-115 psi	1
85686	Installation Schematic for two Tandem AirStar compressors	1

System Configuration to be Installed	Use Pages
Two AirStar Compressors with Membrane Dryer.	2 & 3
One AirStar Compressor with Membrane Dryer and One AirStar Compressor with Desiccant Dryer.	4 & 5
Two AirStar Compressors with Desiccant Dryer.	6 & 7
Adjustment Procedure for Pressure Switch, P/N 86429 and P/N 86436	8

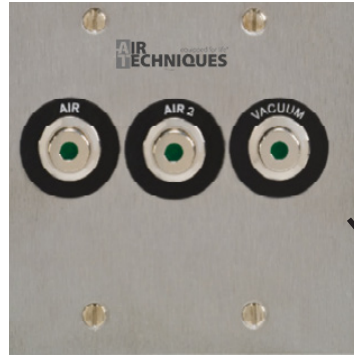


## Installation Schematic of Two AirStar Membrane Compressors Connected in Tandem to Work as One Compressor System

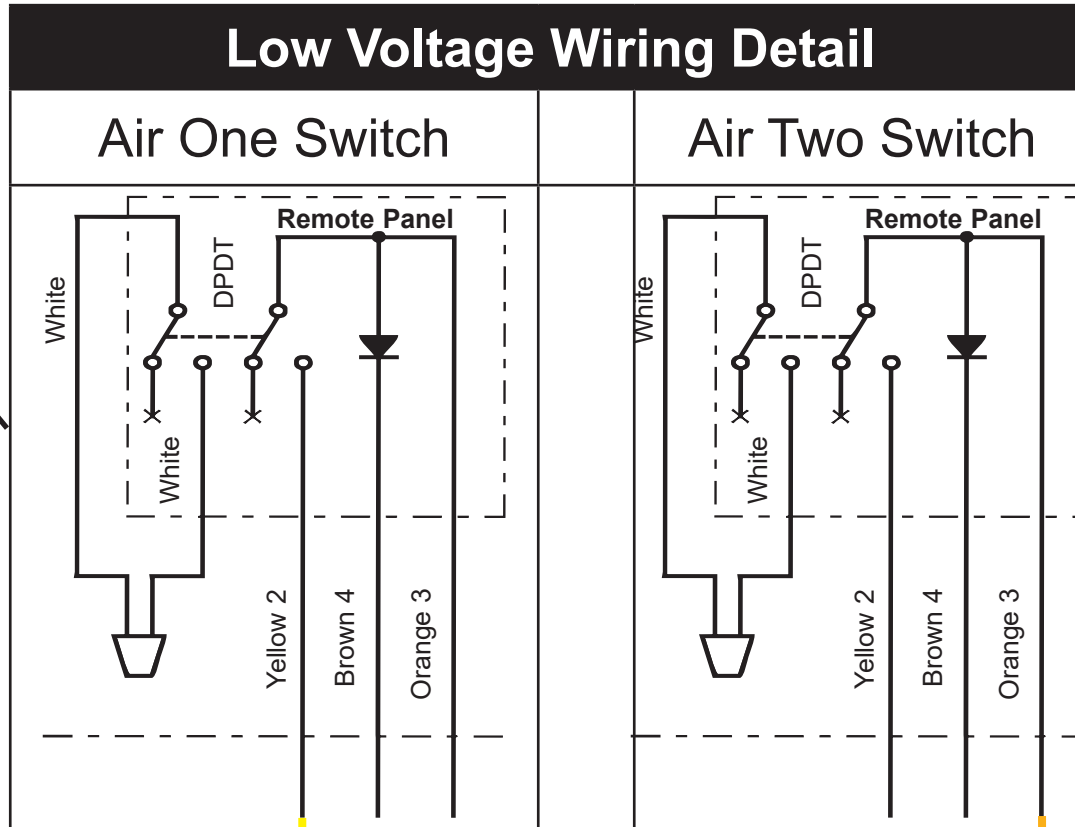


# Installation Schematic of Two AirStar Membrane Compressors Connected in Tandem to Work as One Compressor System

24 volt 3 Switch Remote Control Panel P/N 53250 (Shown as example)



**NOTE**  
Existing pressure switch has to be adjusted from 85-115 psi to 100 - 130 psi. This allows the remote pressure switch to turn the compressor On / Off. Increase pressure by turning the screw clockwise.

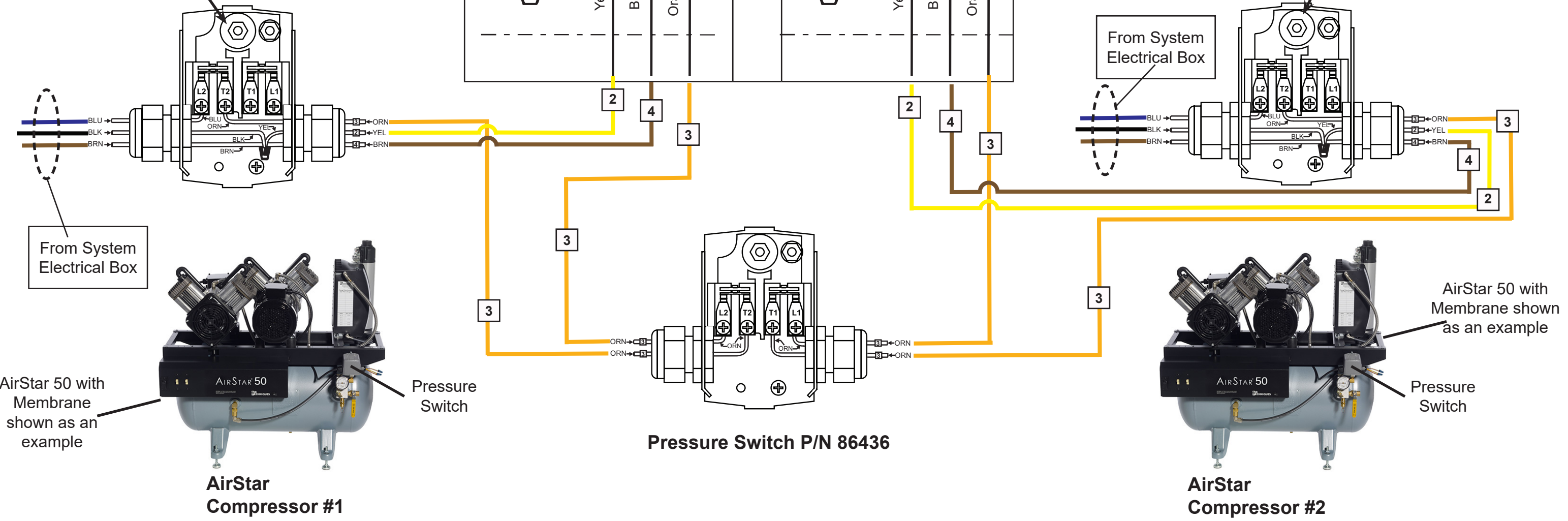


Wire Color Chart	
2	= Yellow
3	= Orange
4	= Brown

**NOTE**  
Existing pressure switch has to be adjusted from 85-115 psi to 100 - 130 psi. This allows the remote pressure switch to turn the compressor On / Off. Increase pressure by turning the screw clockwise.

Pressure Switch Compressor #1

Pressure Switch Compressor #2



AirStar 50 with Membrane shown as an example

AirStar Compressor #1

Pressure Switch

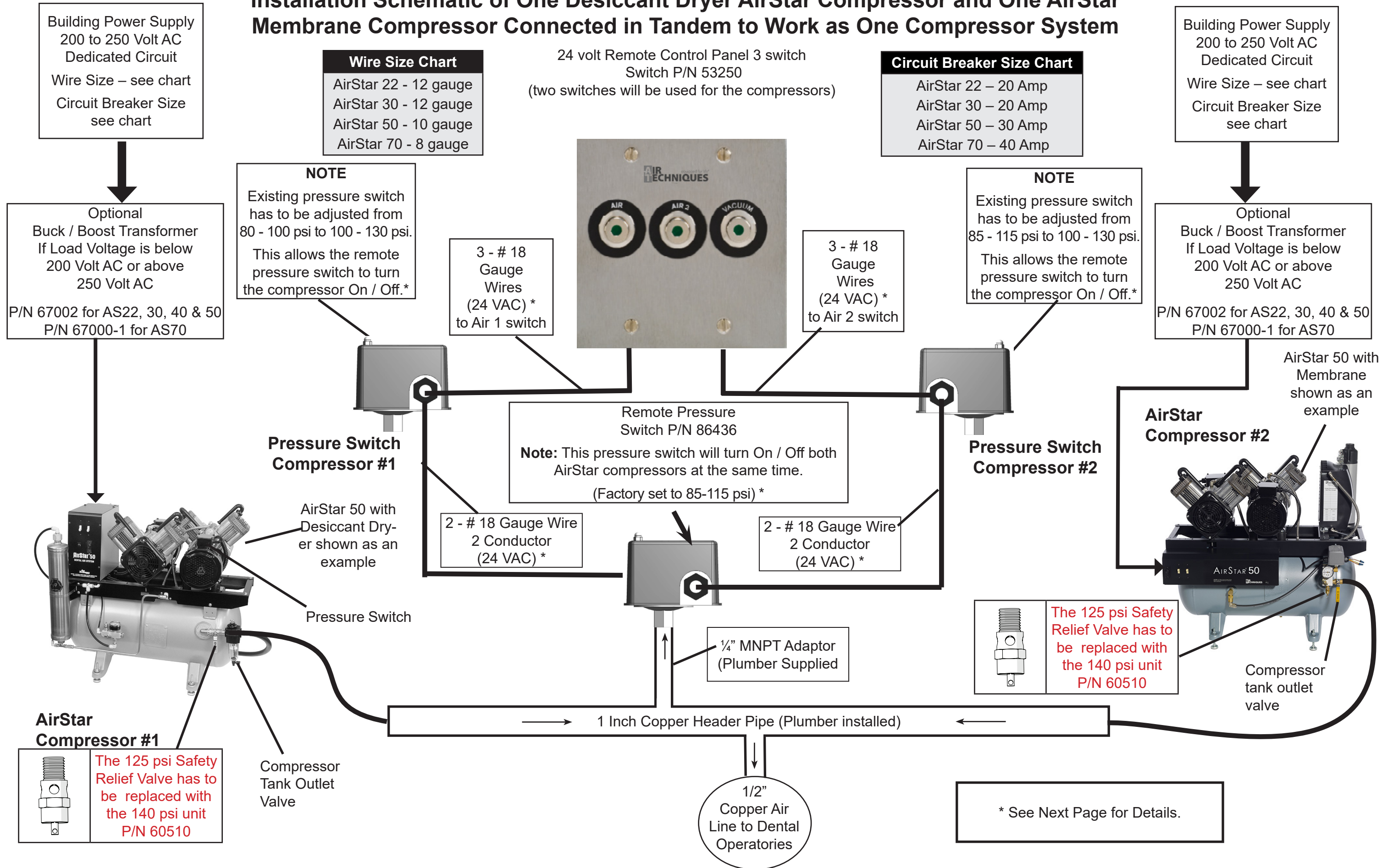
Pressure Switch P/N 86436

AirStar 50 with Membrane shown as an example

AirStar Compressor #2

Pressure Switch

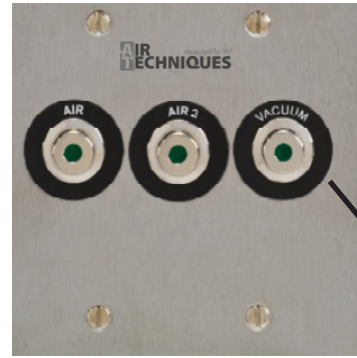
# Installation Schematic of One Desiccant Dryer AirStar Compressor and One AirStar Membrane Compressor Connected in Tandem to Work as One Compressor System



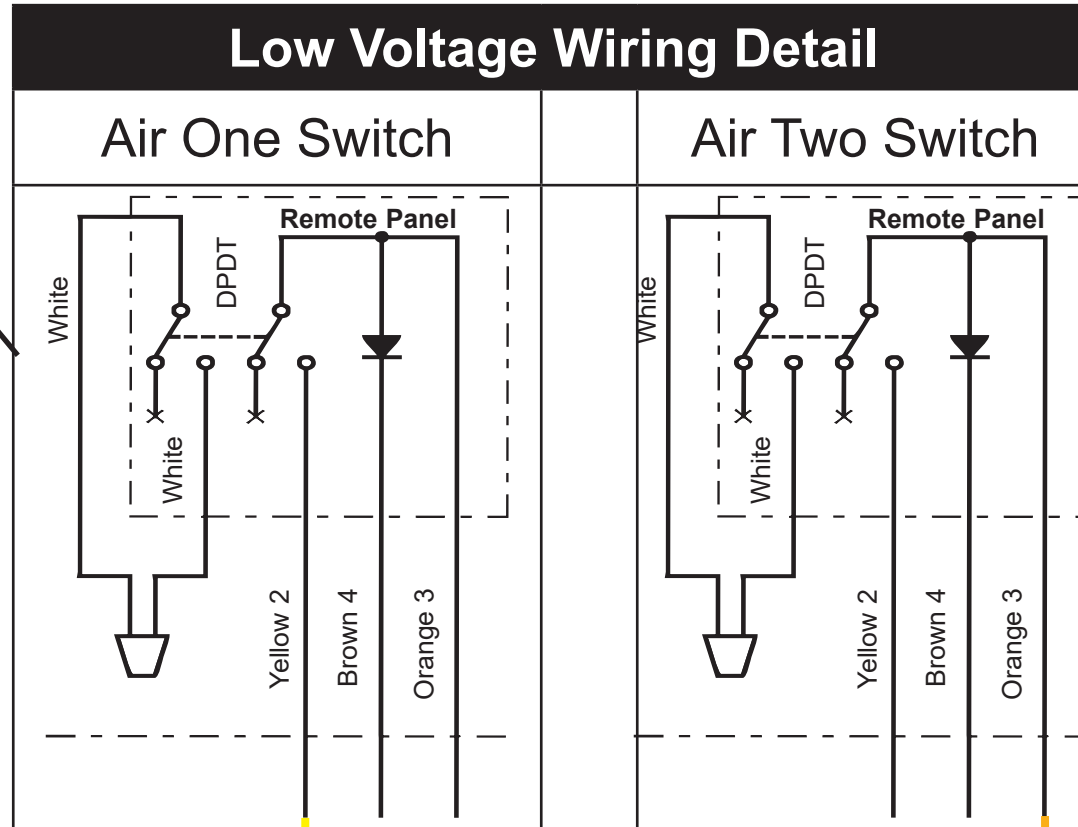
# Installation Schematic of One Desiccant Dryer AirStar Compressor and One AirStar Membrane Compressor Connected in Tandem to Work as One Compressor System

24 volt 3 Switch Remote Control Panel P/N 53250 (Shown as example)

**NOTE**  
Existing pressure switch has to be adjusted from 80-100 psi to 100 - 130 psi. This allows the remote pressure switch to turn the compressor On / Off. Increase pressure by turning the screw clockwise.



**NOTE**  
Existing pressure switch differential pressure has to be adjusted from 20 psi to 30 psi. This is done by adjusting the small black screw



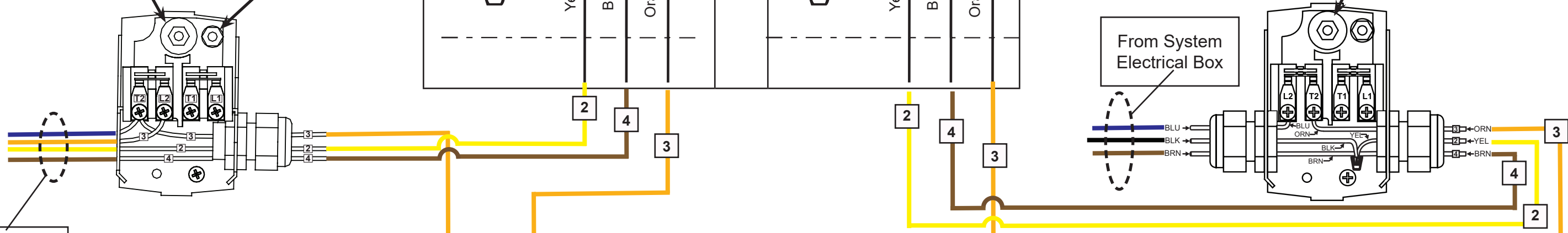
**Wire Color Chart**

2	=	Yellow
3	=	Orange
4	=	Brown

**NOTE**  
Existing pressure switch has to be adjusted from 85-115 psi to 100 - 130 psi. This allows the remote pressure switch to turn the compressor On / Off. Increase pressure by turning the screw clockwise.

**Pressure Switch Compressor #1**

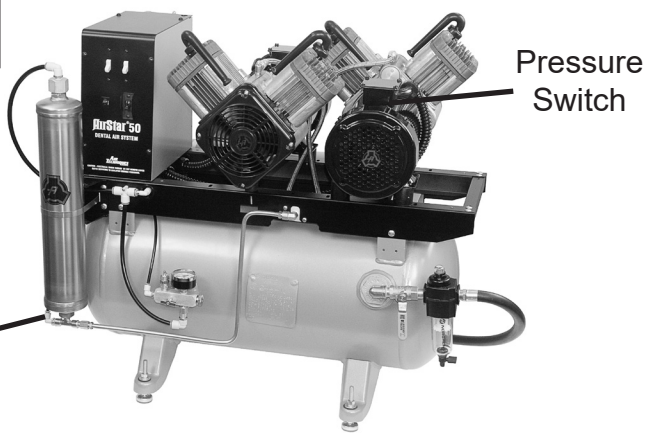
**Pressure Switch Compressor #2**



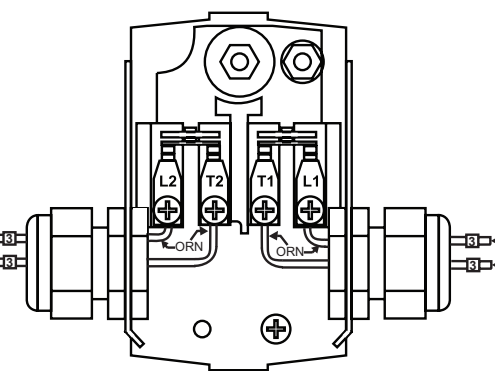
From System Electrical Box

From System Electrical Box

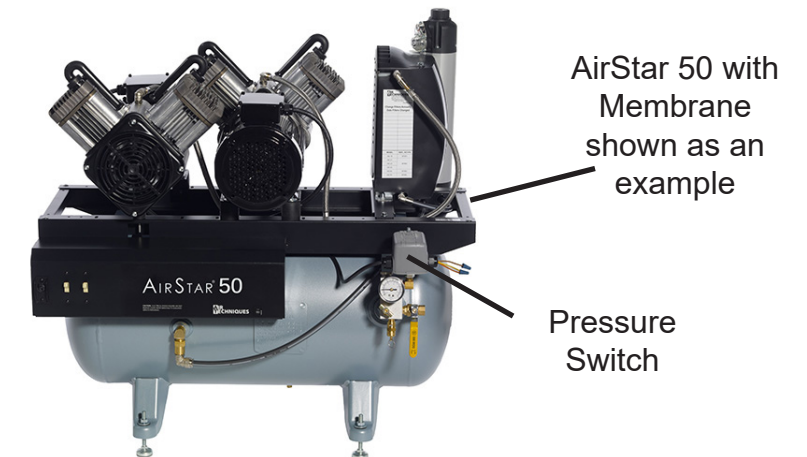
AirStar 50 with Desiccant Dryer shown as an example



**AirStar Compressor #1**

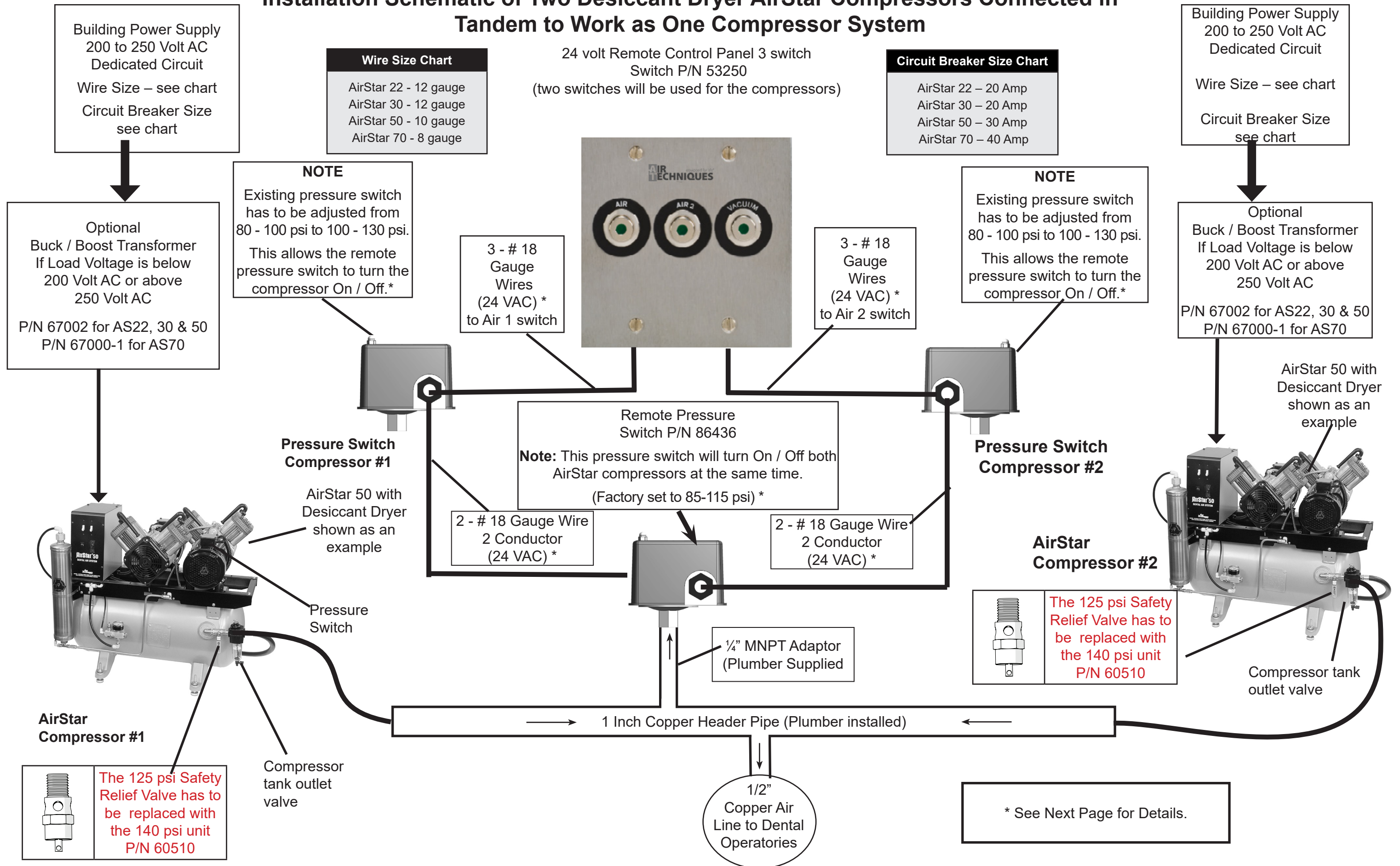


**Pressure Switch P/N 86436**



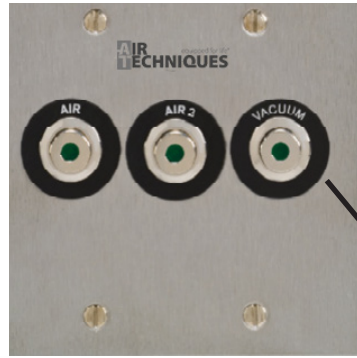
**AirStar Compressor #2**

# Installation Schematic of Two Desiccant Dryer AirStar Compressors Connected in Tandem to Work as One Compressor System



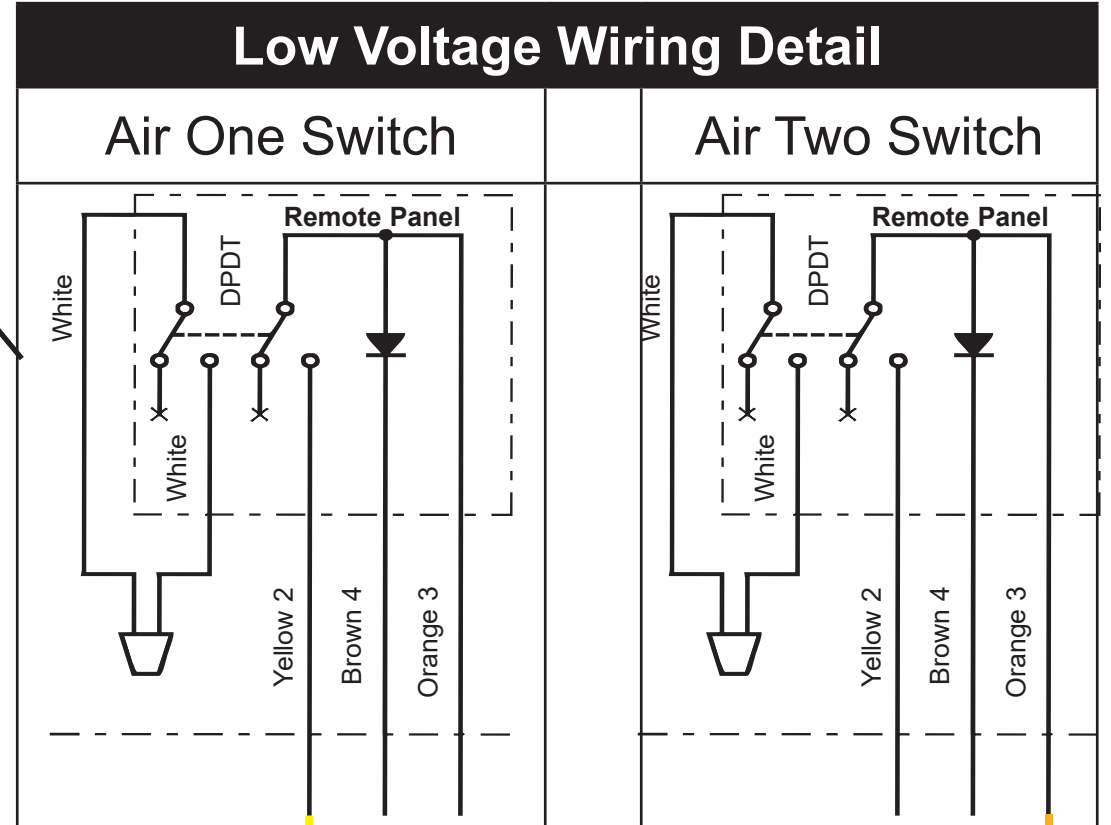
# Installation Schematic of Two Desiccant Dryer AirStar Compressors Connected in Tandem to Work as One Compressor System

24 volt 3 Switch Remote Control Panel P/N 53250 (Shown as example)



**NOTE**  
Existing pressure switch has to be adjusted from 80-100 psi to 100 - 130 psi. This allows the remote pressure switch to turn the compressor On / Off. Increase pressure by turning the screw clockwise.

**NOTE**  
Existing pressure switch differential pressure has to be adjusted from 20 psi to 30 psi. This is done by adjusting the small black screw



**NOTE**  
Existing pressure switch has to be adjusted from 80-100 psi to 100 - 130 psi. This allows the remote pressure switch to turn the compressor On / Off. Increase pressure by turning the screw clockwise.

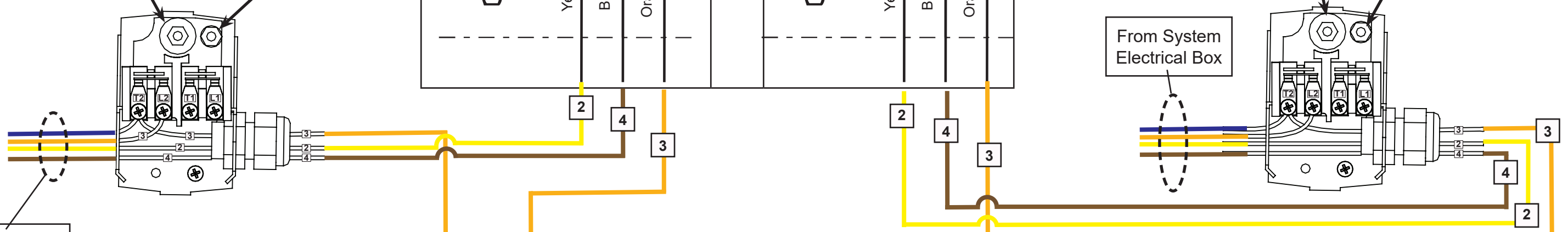
**Wire Color Chart**

2	= Yellow
3	= Orange
4	= Brown

**NOTE**  
Existing pressure switch differential pressure has to be adjusted from 20 psi to 30 psi. This is done by adjusting the small black screw

Pressure Switch Compressor #1

Pressure Switch Compressor #2



From System Electrical Box

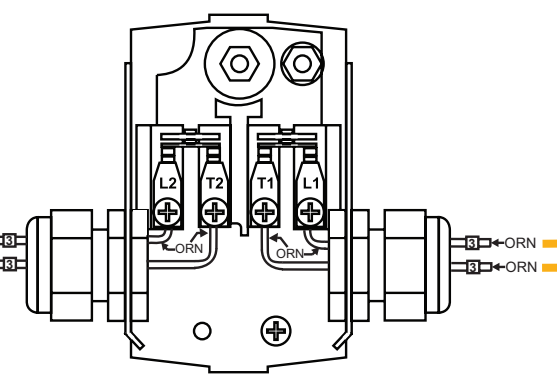
From System Electrical Box

AirStar 50 with Desiccant Dryer shown as an example



**AirStar Compressor #1**

Pressure Switch



**Pressure Switch P/N 86436**

Pressure Switch



**AirStar Compressor #2**

AirStar 50 with Membrane shown as an example

**Caution:** To avoid damage, do not exceed maximum allowable system pressure.  
Always check the pressure switch operation after re-setting.

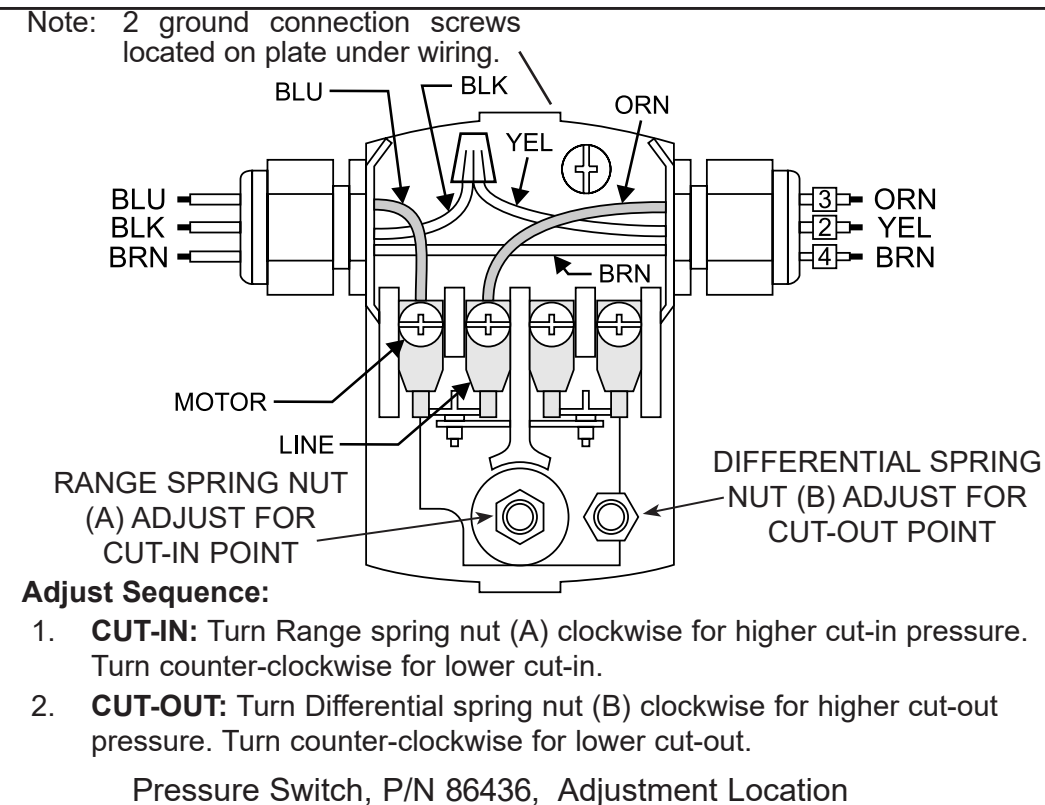
**Pressure Adjustment**

Adjusting the operating pressure range of the Pressure Switch, P/N 86436, is accomplished by the Range and Differential spring nuts located under the pressure switch cover. The Range spring nut controls the cut-in or turn on pressure set point, while the Differential spring nut sets the operation cut-out or turn off pressure set point. Since the range adjustment changes both the high and low operating points, it is recommended to always adjust the Range spring nut first.

**Adjustment Instructions**

Set the switch pressure range by first removing the nut securing the pressure switch cover and remove the cover from the switch to access the adjustment spring nuts. Refer to the illustration shown to the right and adjust the pressure switch as follows:

- Range** – Adjust Range spring nut (A) until the desired operating point (cut-in) of 85 psi (5.8 bar) on falling pressure is obtained. Turning the Range nut (A) clockwise will increase the setting. Keep in mind the range adjustment changes both the high and low operating points but should always be adjusted for the low operating point.
- Differential** – Set the operating point (cut-out) on rising pressure to maximum by adjusting the Differential spring nut (B). Turning the nut (B) clockwise increases the pressure difference between the high and low operating points by increasing the high operating point only.



**Caution:** To avoid damage, do not exceed maximum allowable system pressure.  
Always check the pressure switch operation after re-setting.

**Pressure Adjustment**

Adjusting the operating pressure range of the Pressure Switch, P/N 86429, is accomplished by the Range and Differential spring nuts located under the pressure switch cover. The Range spring nut controls the cut-in or turn on pressure set point, while the Differential spring nut sets the operation cut-out or turn off pressure set point. Since the range adjustment changes both the high and low operating points, it is recommended to always adjust the Range spring nut first.

**Adjustment Instructions**

Set the switch pressure range by first removing the nut securing the pressure switch cover and remove the cover from the switch to access the adjustment spring nuts. Refer to the illustration shown to the right and adjust the pressure switch as follows:

- Range** – Adjust Range spring nut (A) until the desired operating point (cut-in) of 80 psi (5.5 bar) on falling pressure is obtained. Turning the Range nut (A) clockwise will increase the setting. Keep in mind the range adjustment changes both the high and low operating points but should always be adjusted for the low operating point. .
- Differential** – Set the operating point (cut-out) on rising pressure to 20-psi (1.4 bar) maximum by adjusting the Differential spring nut (B). Turning the nut (B) clockwise increases the pressure difference between the high and low operating points by increasing the high operating point only.

