



# Standard Pneumatic Products, Inc.

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[www.stdpneumatics.com](http://www.stdpneumatics.com) “Saving the planet, one compressor at a time”

## **INSTRUCTIONS FOR 3-WAY LEAD/LAG OPERATION** **AUTOSYNC-3 MANUAL CONTROLLER**

Congratulations on your purchase of the AutoSync 3 Manual compressor sequencer. The 3-Way Autosync Controller is designed to manually switch lead and lag cycling between 3 compressors using 4 selectable compressor sequences.

The concept of the Auto Sync 3 is simple: Our controller switches the existing compressor pressure switches on all 3 compressors, allowing different pressure switches (with different pressure settings) to be MANUALLY switched between other compressors attached to the AutoSync 3 controller. With a routine maintenance schedule for manual switching, all compressors share the main load of air delivery on a scheduled basis.

### **INSTALLATION –**

#### **MOUNTING**

Mount the Auto Sync 3 on the compressor frame or any suitable mounting surface near the compressors. The Autosync 3 DOES NOT contain any knock outs or penetrations for compressor wiring. These must be customer located and configured due to the many different mounting and wiring configurations on the Autosync 3

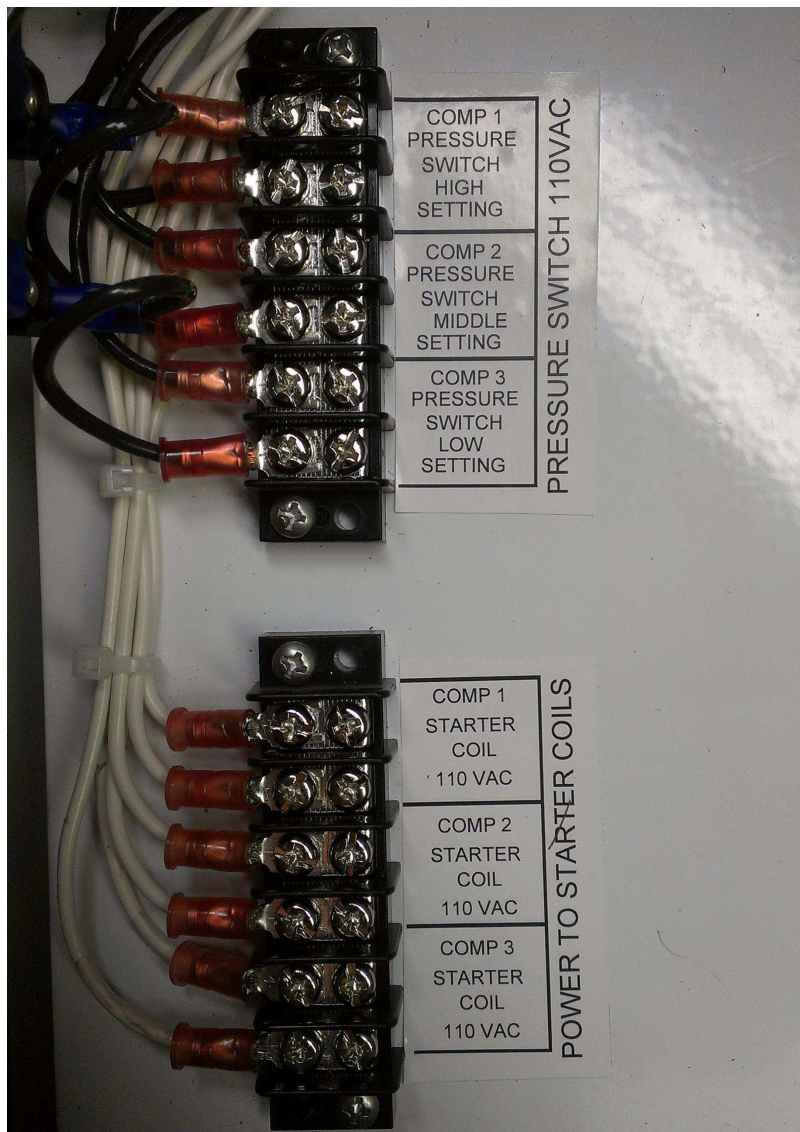
#### **ELECTRICAL**

There are Two 6 Position Barrier blocks inside the Auto Sync 3 allowing connections for 3 pressure switches (110VAC Hot & Neutral) and 3 connections for pressure switch power to the Motor starter coils (110VAC Hot & neutral) Assign which compressor will be Compressor 1, 2 and 3

Break the existing connection between the compressor pressure switches and the starter coils AT THE STARTER COIL (typically terminals A1 & A2 on the starter),

Typically the easiest way to accomplish the retrofit to the Auto Sync 3 is to remove the 2 existing wires from the coil on the starter, (typically A1 & A2) and route those 2 wires to the “pressure switch” connections on the Autosync 3 terminal block. After completing these connections, run 2 NEW wires from the Autosync 3 “power to Comp starter coils” terminals back to the starter coil terminals A1 & A2 through the existing electrical conduit. What you are accomplishing is breaking the connection between the compressor starters and the pressure switches, allowing them to control the other compressors. **The AutoSync 3 DOES NOT supply power to the Starter Coils during operation.** This power is supplied by the existing pressure switches that previously fed power to the starter coils on all starters.

It is recommended that in-line fuses (minimum 3A 250VAC be installed on 1 leg of the coil connection between the barrier strip and the A1 coil terminal, inside the Auosync console



**Terminal Block Wiring:**

**Term Block 1 Position 1 & 2** -(From Pressure Switch Comp 1 Power 110 VAC)

**Term Block 1 Position 3 & 4** – (From Pressure Switch Comp 2 Power 110 VAC)

**Term Block 1 Position 5 & 6** -(From Pressure Switch Comp 3 Power 110 VAC)

**Term Block 2 Position 1 & 2** – (Power to Comp 1 Starter Coil)

New wire run. Connect these terminals to Starter coil terminals A1 & A2

**Term Block 2 Position 3 & 4** -(Power to Comp 2 Starter Coil)

New wire run. Connect these terminals to Starter coil terminals A1 & A2

**Term Block Position 5 & 6** – (Power to Comp 3 Starter Coil)

New wire run. Connect these terminals to Starter coil terminals A1 & A2

## PRESSURE SETTINGS

Before setting pressures on the compressors, **BOTH TOGGLE SWITCHES MUST BE IN THE “UP” POSITION** on the Auto Sync Front panel. This switch setting will force the individual compressor’s pressure switches to control the same compressor. **Moving toggle switches to the center detent (OFF) position turns OFF all compressors, as it breaks the connection between the pressure switches and the starter coils.**

After verifying this switch position, proceed as follows:

Dump pressure to all compressors to verify shutoff pressures of compressors

On compressor 1, set the pressure to the highest shop air setting you wish to achieve. Our example here would be to set this pressure switch to 125PSI

On compressor 2, set the pressure switches shutoff 10 PSI LOWER than compressor 1, or in this case, shutoff at 115 PSI.

On compressor 3, set the pressure switches shutoff 10 psi LOWER than compressor 2, or 20Psi lower than compressor 1. This setting would then be 105PSI.

Test startup on all compressors. If the pressure switches are set properly, AND BOTH AUTOSYNC 3 FRONT PANEL SWITCHES ARE IN THE “UP” POSITION all compressors should startup. Compressor 3 will shut off at 105PSI, Compressor 2 will shut off at 115 PSI, and Compressor 1 will shut off at 125 PSI.

## FRONT PANEL CONTROLS – AUTOSYNC 3

Refer to the front panel switch position chart to change which compressor will be the Lead, primary lag, and secondary lag compressor. There are 4 possible combinations

In **MODE 1** position (both switches in the “up” position) the compressors will function as follows:

COMPRESSOR 1 – Shutoff at 125PSI

COMPRESSOR 2 – Shutoff at 115PSI

COMPRESSOR 3 – Shutoff at 105PSI

In **MODE 2** position (both switches in the “down” position) the compressors will function as follows:

COMPRESSOR 3 – Shutoff at 125PSI

COMPRESSOR 1 – Shutoff at 115PSI

COMPRESSOR 2 – Shutoff at 105PSI

In **MODE 3** position (Left hand switch up, right hand switch down) the compressors will function as follows:

COMPRESSOR 1 – Shutoff at 125PSI

COMPRESSOR 3 – Shutoff at 115PSI

COMPRESSOR 2 – Shutoff at 105PSI

In **MODE 4** position (Left hand switch down, right hand switch up) the compressors will function as follows:

COMPRESSOR 2 – Shutoff at 125PSI

COMPRESSOR 1 – Shutoff at 115PSI

COMPRESSOR 3 – Shutoff at 105PSI

## WARRANTY

### General Provisions

Standard Pneumatic Products, Inc. (the Seller) warrants to each Purchaser products of the Seller's own manufacture against defects in material and workmanship. With respect to products not manufactured by the Seller, the Seller will, if practical, pass along the warranty of the original manufacturer.

The Seller's sole obligation under this warranty shall be, at its option, to repair, replace, or refund the purchase price of any product or part thereof which is deemed to be defective, provided the Purchaser meets all of the applicable requirements of this warranty and none of the limitations apply.

### Warranty Periods

#### Units

The Models AD and ADSE are warranted for one (1) year from date of manufacture or 15 months from shipment.

### Replacement Parts

Seller warrants repaired or replaced parts against defects in material and workmanship under normal use and service for ninety (90) days, or for the remainder of the warranty on the product being repaired, whichever is longer.

Normal maintenance items and procedures are not warranted unless found to be defective in material or workmanship, e.g., a clogged 3-way valve.

### Limitations

Notice of the alleged defect must be given to the Seller in writing with all identifying details, including serial number, model number, type of equipment and date of purchase within thirty (30) days of discovery

of same during the warranty period. If requested by Seller, such product or product thereof must be promptly returned to Seller, freight collect for inspection. No models are eligible for travel expense.

The above warranties shall not apply and Seller shall not be responsible or liable for:

- a. Consequential, collateral or special losses or damages.
- b. Equipment conditions caused by fair wear and tear, abnormal conditions, accident, neglect or misuse of equipment, improper storage or damages resulting during shipment.
- c. Deviation from specifications, or other terms of sales.
- d. Labor charges, loss or damage resulting from improper operation, maintenance or repairs made by person(s) other than Seller or Seller's authorized service provider.
- e. Improper application, wiring, or installation of product.

### Disclaimer

In no event shall Seller be liable for any claims, whether arising from breach of contract or warranty or claims of negligence or negligent manufacture, in excess of the purchase price.

**This warranty is the sole warranty of Seller and any other warranties, express, implied in law or implied in fact, including any warranties of merchantability and fitness for particular use, are hereby specifically excluded.**

**Please do not hesitate to call us at Standard Pneumatic Products for assistance when wiring in an AutoSync 3 CONTROLLER. The price of a phone call is far less costly than a mis-wired controller.**