2940 AIR ADJUST RESIDUE MANAGER
USING A HYDRAULIC COMPRESSOR

OPERATOR'S MANUAL
PART IDENTIFICATION
2565-779_REV_D ● 01/16

*Patented

YETTER MANUFACTURING CO.
FOUNDED 1930

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YETTER

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BOLT TORQUE

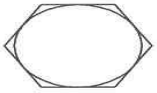
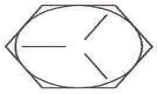
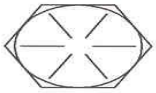
Mounting bolts and hardware

All hardware used on the 2940 Air Adjust is Grade 5 unless otherwise noted. Grade 5 cap screws are marked with three radial lines on the head. If hardware must be replaced, be sure to replace it with hardware of equal size, strength and thread type. Refer to the torque values chart when tightening hardware.

Important: Over tightening hardware can cause as much damage as when under tightening. Tightening hardware beyond the recommended range can reduce its shock load capacity.

The chart below is a guide for proper torque. Use it unless a specified torque is called out elsewhere in the manual. Torque is the force you apply to the wrench handle or the cheater bar, times the length of the handle or bar. Use a torque wrench whenever possible.

The following table shows torque in ft. lbs. for coarse thread hardware.

BOLT DIA. AND THREADS PER INCH	 GRADE 2	 GRADE 5 OR  A–325	 GRADE 8
3/8–16	25	35	50
7/16–14	35	55	80
1/2–13	55	85	125
9/16–12	75	125	175
5/8–11	105	170	235
3/4–10	185	305	425
7/8–9	170	445	690
1–8	260	670	1030
1 1/8–7	365	900	1460
1 1/4–7	515	1275	2060
1 3/8–6	675	1675	2700
1 1/2–6	900	2150	3500
1 3/4–5	1410	3500	5600

FOREWORD

You've just joined an exclusive but rapidly growing club.

For our part, we want to welcome you to the group and thank you for buying a Yetter product.

We hope your new Yetter products will help you achieve both goals-increase your productivity and increase your efficiency so that you may generate more profit.

This operator's manual has been designed into four major sections: Foreword, Safety Precautions, Installation Instructions and Parts Breakdown.

This **SAFETY ALERT SYMBOL** indicates important safety messages in the manual. When you see this symbol, be alert to the possibility of **PERSONAL INJURY** and carefully read the message that follows.

The word **NOTE** is used to convey information that is out of context with the manual text. It contains special information such as specifications, techniques and reference information of a supplementary nature.

The word **IMPORTANT** is used in the text when immediate damage will occur to the machine due to improper technique or operation. Important will apply to the same information as specified by note only of an immediate and urgent nature.

It is the responsibility of the user to read the operator's manual and comply with the safe and correct operating procedure and to lubricate and maintain the product according to the maintenance schedule in the operator's manual.

The user is responsible for inspecting his machine and for having parts repaired or replaced when continued use of the product would cause damage or excessive wear to the other parts.

It is the user's responsibility to deliver his machine to the Yetter dealer who sold him the product for service or replacement of defective parts, which are covered by the warranty policy.

If you are unable to understand or follow the instructions provided in this publication, consult your local Yetter dealer or contact:

YETTER MANUFACTURING CO.
309/776-4111
800/447-5777
309/776-3222 (FAX)
Website: www.yetterco.com
E-mail: info@yetterco.co

WARRANTY

Yetter Manufacturing warrants all products manufactured and sold by it against defects in material. This warranty being expressly limited to replacement at the factory of such parts or products as shall appear to be defective after inspection. This warranty does not obligate the Company to bear cost of labor in replacement of parts. It is the policy of the Company to make improvements without incurring obligations to add them to any unit already sold. No warranty is made or authorized to be made, other than herein set forth. This warranty is in effect for one year after purchase.

DEALER: _____

Yetter Manufacturing warrants its own products only and cannot be responsible for damages to equipment on which mounted.

SAFETY

A brief description of signal words that may be used in this manual:

CAUTION: Used as a general reminder of good safety practices or to direct attention to unsafe practices.

WARNING: Denotes a specific potential hazard.

DANGER: Denotes the most serious specific potential hazard.

SAFETY PRECAUTIONS

You can make your farm a safer place to live and work if you observe the safety precautions given. Study these precautions carefully and insist that those working with you and for you follow them.

Finally, remember this: an accident is usually caused by someone's carelessness, neglect or oversight.

WARNING

Never clean, lubricate or adjust a machine that is in motion. Always lower or block the implement before performing service.

If the machine must be serviced in the raised position, jack or block it up to prevent it from accidentally falling and injuring someone.

Do not allow riders on the tractor or implement.

Use speeds and caution dictated by the terrain being traversed. Do not operate on any slope steep enough to cause tipping or loss of control.

Be sure all personnel are clear of the immediate area before operating.

Read and understand the operator's manual and require all other persons who will operate the equipment to do the same.

Be familiar with all tractor and implement controls and be prepared to stop engine and implements quickly in an emergency.

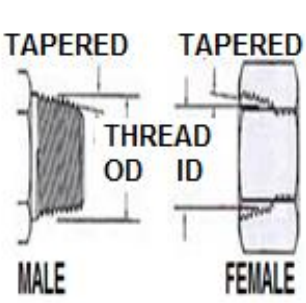
CAUTION

Consult your implement and tractor operator's manual for correct and safe operating practices.

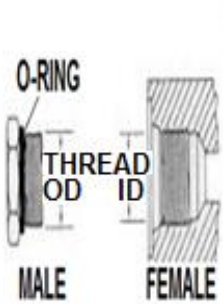
Beware of towed implement width and allow safe clearance.

FAILURE TO HEED MAY RESULT IN PERSONAL INJURY OR DEATH.

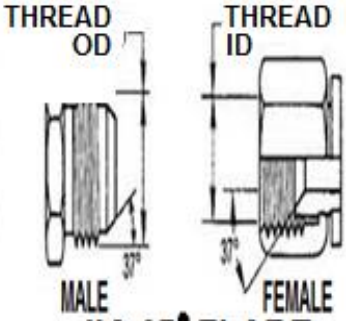
Hydraulic Fittings Identification Chart



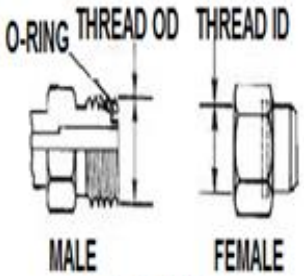
NPT



SAE ORB



JIC 37° FLARE



ORFS

Nominal Size	Dash Size	Nominal Thread	Male Thd OD	Female Thd ID	Nominal Thread	Male Thd OD	Female Thd ID	Nominal Thread	Male Thd OD	Female Thd ID	Nominal Thread	Male Thd OD	Female Thd ID
1/8	02	1/8-27	0.41	0.38	5/16-24	0.31	0.27	5/16-24	0.31	0.27		NOT AVAILABLE	
3/16	03		NOT AVAILABLE		3/8-24	0.38	0.34	3/8-24	0.38	0.34		NOT AVAILABLE	
1/4	04	1/4-18	0.54	0.49	7/16-20	0.44	0.39	7/16-20	0.44	0.39	9/16-18	0.56	0.51
5/16	05		NOT AVAILABLE		1/2-20	0.50	0.45	1/2-20	0.50	0.45		NOT AVAILABLE	
3/8	06	3/8-18	0.68	0.63	9/16-18	0.56	0.51	9/16-18	0.56	0.51	11/16-16	0.69	0.63
1/2	08	1/2-14	0.84	0.77	3/4-16	0.75	0.69	3/4-16	0.75	0.69	13/16-16	0.82	0.75
5/8	10		NOT AVAILABLE		7/8-14	0.88	0.81	7/8-14	0.88	0.81	1-14	1.00	0.93
3/4	12	3/4-14	1.05	0.98	1 1/16-12	1.06	0.98	1 1/16-12	1.06	0.98	1 3/16-12	1.19	1.11
7/8	14		NOT AVAILABLE		1 13/16-12	1.19	1.10	1 13/16-12	1.19	1.10		NOT AVAILABLE	
1	16	1-11 1/2	1.32	1.24	1 5/16-12	1.31	1.23	1 5/16-12	1.31	1.23	1 7/16-12	1.44	1.36
1 1/4	20	1 1/4-11 1/2	1.66	1.58	1 5/8-12	1.63	1.54	1 5/8-12	1.63	1.54	1 11/16-12	1.69	1.61
1 1/2	24	1 1/2-11 1/2	1.90	1.82	1 7/8-12	1.88	1.79	1 7/8-12	1.88	1.79	2-12	2.00	1.92
2	36	2-11 1/2	2.38	2.30	2 1/2-12	2.50	2.42	2 1/2-12	2.50	2.42		NOT AVAILABLE	

-Due to common threads, mismatching can happen and could result in leaks and pressure loss
-Be sure to verify which style and use dash sizes when ordering replacement parts

Thread Styles

-**NPT** is easily recognizable as tapered National Pipe Thread. It is not recommended for hydraulic systems but does exist on some agriculture equipment. Teflon tape is required.

-**SAE ORB** is recommended by the NFPA for optimal leakage control in medium and high pressure hydraulic systems. The male fitting has a straight thread and O-ring. The female port has a straight thread, a machined surface (minimum spot face) and a chamfer to accept the O-ring. The seal takes place by compressing the O-ring in the chamfer. The threads hold the connection mechanically.

-**JIC 37 Degree Flare** fittings have a 37° cone seat on the female adapter and a 37° flare on the male adapter. This cone seat and flare allows for a complete mechanical seal between the male and female fitting. Teflon tape on threads is not required.

-**ORFS (O-Ring Face Seal)** adapter fittings use a straight thread and have a machined groove in the face of the male fitting to accept the O-ring. This O-ring is compressed against the flat face of the female fitting for a leak proof connection. ORFS are one of the newest types of hydraulic fittings.

Components, Kits, Accessories, & Ordering Numbers

Residue Manager Kits

2940-001	Pneumatic Residue Manager (RM) Assembly with choice of wheel kit (JD 1700 & 7200, White 9000)
2940-002	Pneumatic Narrow RM Assembly with choice of wheel kit (JD 1700 & 7200, White 9000)
2940-003	Pneumatic RM Assembly with choice of wheel kit (CNH 800 – 1200)
2940-004	Pneumatic Narrow RM Assembly with choice of wheel kit (CNH 800 – 1200)
2940-005	Pneumatic RM Assembly with choice of wheel kit (JD 7000, White 6000 & 8000, Kinze 2000, 3000, & 4900)
2940-006	Pneumatic Narrow RM Assembly with choice of wheel kit (JD 7000, White 6000 & 8000, Kinze 2000, 3000, & 4900)
2940-007-Y15	Pneumatic RM/Coulter Combo with choice of wheel kit & coulter blade (JD 7000, White 6000 & 8000, Kinze)
2940-010-Y15	Pneumatic RM/Coulter Combo with choice of wheel kit & coulter blade (JD 1700 & 7200, White 9000)
2940-018	Coulter Less RM Less Blade for JD 7000, Agco 6000 & 8000, Kinze 2000, 3000, & 4900
2940-019	Coulter Less RM Less Blade for JD 1700, 7200, Agco 9000

Control Box, Air Lines, & Wiring Kits

2940-053	Pneumatic Control Box
2940-053-LM	Pneumatic Control Box Less Yetter Monitor
2940-054	Pneumatic Control Box & Auxiliary Control Box
2940-054-LM	Pneumatic Control Box & Auxiliary Control Box Less Yetter Monitor
2940-055	Pneumatic Compressor Kit Hydraulic
2940-061	20/30FT ISOBUS Hydraulic Wiring and Tubing Kit
2940-062	40/44FT ISOBUS Hydraulic Wiring and Tubing Kit
2940-063	48/60/66FT ISOBUS Hydraulic Wiring and Tubing Kit
2940-064	80/90/120FT ISOBUS Hydraulic Wiring and Tubing Kit
2940-072	Split Row Kit
2940-073	Center Tube Extension Kit
2940-075	20/30FT Non ISOBUS Hydraulic Wiring and Tubing Kit
2940-076	40/44FT Non ISOBUS Hydraulic Wiring and Tubing Kit
2940-077	48/60/66FT Non ISOBUS Hydraulic Wiring and Tubing Kit
2940-078	80/90/120FT Non ISOBUS Hydraulic Wiring and Tubing Kit

Mounting Kits

2940-082	5X7 and 7X7 Bar Mount Kit (for 2940-103 Control Box)
2940-083	8X16 and 8X12 Bar Mount Kit (for 2940-103 Control Box)
2940-084	Universal Hand Rail Mount Kit (for 2940-103 Control Box)
2940-085	Two Point or Universal Hydraulic Compressor Mount Kit
2940-086	Draft Tube or Universal Hydraulic Compressor Mount Kit
2940-090	8X12 Bar Hydraulic Compressor Mount Kit
2940-091	8X16 Bar Hydraulic Compressor Mount Kit

Part Numbers & Descriptions

2940-049 Air Adjust Mount Ext. Kit (For JD HD scrapers)-→

2940-087 Rear ISOBUS Kit (John Deere Only)

2940-088 Hydraulic Hose and Fitting Kit (Planter)

2940-089 Hydraulic Hose and Fitting Kit (Stand Alone)

2940-100 Data Panel/Cab Controller----------→

2940-103 Control Box for Hydraulic Compressors----------→

2940-105 Auxiliary Control Box with 2nd PQE (2940-054 Kit)

Components, Kits, Accessories, & Ordering Numbers

2940-106 Hydraulic Compressor Unit----------→

2940-112 VDM 12 Volt Controller----------→

2940-113 RAM Cab Controller Mount Kit----------→

2940-114 Stand Alone Hyd. Comp Control Kit----------→

2940-117 Hydraulic Manual Kit ISOBUS

2940-118 J1 hydraulic conversion harness----------→

2940-123 Hydraulic Manual Kit (Yetter Monitor)

2940-126 Pneumatic Combo Sub-Assembly (2940-010)

2940-128 Mounting Bolt Bag – 2940-007 & 2940-010

2940-130 Pneumatic Combo Sub-Assembly (2940-007)

2940-135 Pressure on Valve for 2940-103----------→

2940-136 Dump Valve Kit----------→

2940-142 Mounting Bolt Bag-2940-001, 002, 005, & 006

2940-144 Mounting Bolt Bag-2940-100 Cab Controller

2940-145 Mounting Bolt Bag-2940-003 & 2940-004

2940-147 Package of 10 Tees----------→

2940-148 Package of Zip Ties (100) ----------→

2940-152 Hitch to Cab Controller CAN Cable----------→

2940-153 Cab Controller IGN/GRD Supply Harness--→

2940-154 30 ft. Dump Valve Harness Black----------→

2940-155 30 ft. Dump Valve Harness White----------→

2940-156 15 ft. Dump Valve Harness Black

2940-157 15 ft. Dump Valve Harness White

2940-158 3 in. Y Harness Black----------→

Components, Kits, Accessories, & Ordering Numbers

2940-159 3 in. Y Harness White----------→

2940-160 5 ft. Dump Valve Harness White

2940-161 5 ft. Dump Valve Harness Black

2940-162 Dump Valve Harness at Compressor-------→

2940-164 5 ft. CAN AUX to Air Harness----------→

2940-165 10 ft. CAN AUX to Air Harness

2940-166 VDM Power Cable with 40 Amp Breaker---→

2940-167 10 ft. VDM Power Cable Extension----------→

2940-168 20 ft. VDM Power Cable Extension

2940-169 10 ft. Cab to Hitch Extension----------→

2940-170 10 ft. CAN AUX to Air Harness Extension -→

2940-171 30 ft. CAN AUX to Air Harness Extension

2940-174 Spare Fitting Bag

2940-179 Aux PQE Harness 10FT (2940-054 Kits)

2940-181 Hyd. Compressor Solenoid/Switch Harness→

2940-182 20Ft Hyd. Compressor Control Harness-----→

2940-183 Hardware Bolt Bag for 2940-083 kit

2940-184 Hardware Bolt Bag for 2940-084 kit

2940-185 Hardware Bolt Bag for 2940-085 kit

2940-186 Hardware Bolt Bag for 2940-086 kit

2940-189 10Ft Hyd. Compressor Control Harness

2940-190 Pneumatic RM Assembly (2940-001 - 004)

2940-192 Pneumatic RM Assembly (2940-005 - 006)

2940-209 Mount Adaptor, CASE----------→

2940-215 Air Adjust Wide Stem W.A. ---------- →

2940-216 Air Adjust Narrow Stem W.A. ----------→

Components, Kits, Accessories, & Ordering Numbers

2940-336 MAC Dump Valve (no fittings) ----------→ 

2940-337 3/8 Push to Connect (PTC) elbow 1/8 NPT-→ 

2940-338 3/8 Push Connect Tee----------→ 

2940-341 Air Tubing Cutter----------→ 

2940-342 Ball Valve ----------→ 

2940-345 Black 3/8 Air Tubing 100ft rolls----------→ 

2940-346 Blue 3/8 Air Tubing 100ft rolls----------→ 

2940-352 3/8 PTC Plug (package of 5) ----------→ 

2940-358 3/8 PTC Union, Straight----------→ 

2940-367 25ft Roll 250psi Working Pressure Tubing--→ 

2940-374 Tee-1)¼”NPT male, 2)¼”NPT female -------→ 

2940-376 Updated Water Separator Drain Valve Kit--→ 

2940-377 Hydraulic Compressor Pressure Switch---- → 

2940-379 PQE Inlet Elbow ¼ NPT to 3/8PTC---------- → 

2940-380 3/8PTC X 1/8BSPP O-ring Straight Fitting-→ 

2940-381 3/8PTC X 1/8BSPP O-ring Elbow Fitting---→ 

2940-382 Shop Air Adapter----------→ 

Components, Kits, Accessories, & Ordering Numbers

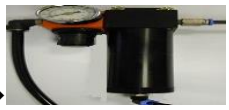
2940-383 3/8 PC WYE Fitting----------→ 

2940-386 Shorter Air Bag----------→ 

2940-388 Larger Air Bag----------→ 

2940-402 Full PQE Unit----------→ 

2940-408 3/8PTC Elbow Fitting 1/4NPT----------→ 

2940-415 Water Separator/Regulator Assembly--------→ 

2940-416 150PSI Tank Safety Relief Valve

2940-430 20 ft. CAN Aux to Air Harness Extension-----→ 

2940-439 0 – 160psi Hydraulic Compressor Gauge--- → 

2940-441 Pressure Transducer---------- → 

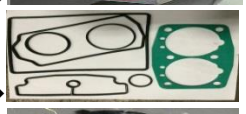
2940-506 Hyd. Comp. Solenoid Coil Only

2940-519 Hydraulic Compressor Fan---------- → 

2940-543 Hyd. Comp. Cartridge Valve (solenoid)

2940-545 Rol-Air Compressor Pump Unit----------→ 

2940-546 Hydraulic Control Block----------→ 

2940-547 Hyd. Compressor Gasket Kit----------→ 

2940-548 Hydraulic Motor Seal Kit----------→ 

2940-549 Hydraulic Compressor Air Filter----------→ 

2940-550 Rol-Air Synthetic Compressor Oil 1Liter----→ 

2940-598 Plug Cap for Receptacle Protection---------→ 

2940-599 Plug Cap for Receptacle Protection (metal)→ 

Introduction

The Yetter Hydraulic Air Compressor converts hydraulic power into compressed air. Yetter Hydraulic Compressor units are durably constructed and designed for easy integration to operate the Yetter 2940 Air Adjust System. The Yetter Hydraulic Air Compressor builds 145psi, the 2940-415 water separator/regulator assembly allows120psi of clean, dry air to enter the 2940-103 control box & as the operator commands pressure on the cab controller, the row cleaners adjust on the go with no planting delay or downtime leading to more planting hours per day. The precise adjustments give the row units and planter a more even ride leading to more accurate seed placement & seed depth resulting in even emergence. **IF USING THE YETTER COMPRESSOR TO SUPPLY AIR TO OPERATE ANOTHER PNUEMATIC SYSTEM, INSTALL A REGULATOR PRIOR TO AIR ENTERING THAT SYSTEM WITH THE PROPER REGULATED AIR SETTINGS RECOMMENDED BY THE OEM PRODUCT.**

System Requirements

-The Yetter hydraulic compressor requires 4 gallons per minute maximum hydraulic flow to operate.

-OEM ELECTRIC COMPRESSORS ON PLANTERS ARE NOT AN ADEQUATE SOURCE OF AIR TO OPERATE THE YETTER 2940 AIR ADJUST SYSTEM!

-Lubrication of the pump requires a Grade 111 synthetic or PAO synthetic compressor oil. **THE PUMP IS SHIPPED EMPTY & NEEDS OIL BEFORE OPERATING!** **SEE PAGE 25 FOR FILLING DETAILS!**

-Hydraulic oil flow is required to operate the hydraulic compressor's hydraulic motor. Different variables will determine the best way to connect into a hydraulic circuit to power the hydraulic motor. Connecting directly to a tractor's open SCV port, teeing into the planter frame lift/lowering circuit, or teeing into the bulk tank blower circuit are examples of supplying hydraulic flow to the compressor. Check OEM tractor and planter manual for hydraulic GPM output to make sure an adequate source is selected. If plumbing into a planter circuit, plumb between the tractor SCV and the hydraulic block usually located under the bulk fill tanks. The planter circuit that is plumbed into must have constant hydraulic flow. **PTO DRIVEN AND POWER BEYOND HYDRAULIC CIRCUITS ARE NOT AN ADEQUATE SOURCE TO OPERATE THE YETTER HYDRAULIC COMPRESSOR!**

-Case Drain connection is required to carry the motor case internal leakage directly to the tractor hydraulic reservoir (sump) with zero pressure. This oil serves to lubricate and cool motor components not directly exposed to the working oil. It is normal to have seepage from this fitting when disconnected from the tractor to protect the motor seals from thermal expansion. Plumb the case drain so that the hydraulic oil returns to the same reservoir used for the pressure and return. If the tractor is not equipped with a female flat face case drain coupler, then a Case Drain Kit must be sourced through a dealer or hydraulic supplier. **DO NOT PLUMB THE CASE DRAIN OF THE HYDRAULIC COMPRESSOR INTO A RETURN CIRCUIT!**

Power Supply

The 2940-100 Cab Controller uses the tractor's switched power source. The 2940-153 will need connected to a switched power source. **THE CIGARETTE LIGHTER POWER SOURCE IS NOT A SWITCHED POWER SOURCE AND SHOULD NOT BE USED!** (Connector to the tractor not included)

SWITCHED POWER SOURCE CONNECTOR PART #'S:

JOHN DEERE P/N: **RE67013**

CNH P/N: **187103A1**

CAT P/N: **AG233356**

The 2940-112 VDM (Valve Drive Module) inside the 2940-103 Control Box uses 12V from the tractor battery.

Fuse Protection

To protect the VDM inside of the 2940-103 Control Box from damage always ensure the integrity of the integrated 40 amp breaker on the 2940-166 where connected to the tractor battery in case of short or over-circuit. When connected correctly, the tractor has a fuse to protect the cab controller located in the tractor's fuse panel.

Hydraulic Compressor Maintenence

To prolong the life expectancy of the Yetter 2940-106 or the OEM hydraulic compressor, clean filter **DAILY** during use by removing the element from the filter housing, and tapping it, exposed side down. This will empty the pleats of the filter of collected dust. If the dust has been wet or will not clean out, call Yetter to order a new element, part number 2940-549 or if using an OEM hydraulic compressor, call your local dealer. You may lightly blow out the compressor housing using a blow gun, however, **DO NOT** blow out the filter element. The housing and filter should be cleaned **DAILY** during field operation, or more if conditions are very dusty. Hydraulic compressors create a good amount of moisture & should be drained on a daily basis when in use. **See pages 78-79 for further maintenance.**

2940 Air Adjust System Information

The 2940 Air Adjust Residue Manager control system consists of five primary components and kits; Residue Manager(RM) or RM/Coulter Combo Kit, Yetter Cab Controller or the JD 2630 if using the ISOBUS kit, Hydraulic Air Compressor Assembly (either Yetter or OEM), Control Box Kit, & the Harnessing, Air Lines, & Fittings Kit.

Residue Manager

RM/Coulter Combo

Each of these kits will include the required brackets, wheel assemblies, & mounting hardware for installation to the row unit.

Cab Controller

2940-100

The Cab Controller will use the RAM mount provided for installation in cab. Hold the POWER button to turn the cab controller on and press ENTER to activate the system. Make adjustments quickly and accurately during planting with the cab controller. Adjust up and down pressure to create the ideal “ride” or floating position for residue managers. Lift and down pressure settings can be adjusted independently. Down pressure can be increased to fix row cleaner in the rigid position. Five presets can be programmed within the controller for quick changes. Residue Managers can be raised as needed with a push of the Roman numeral I up button.

RAM Mount

Cab Controller Serial Number

Serial # is located on the back of the Cab control. See photo below.

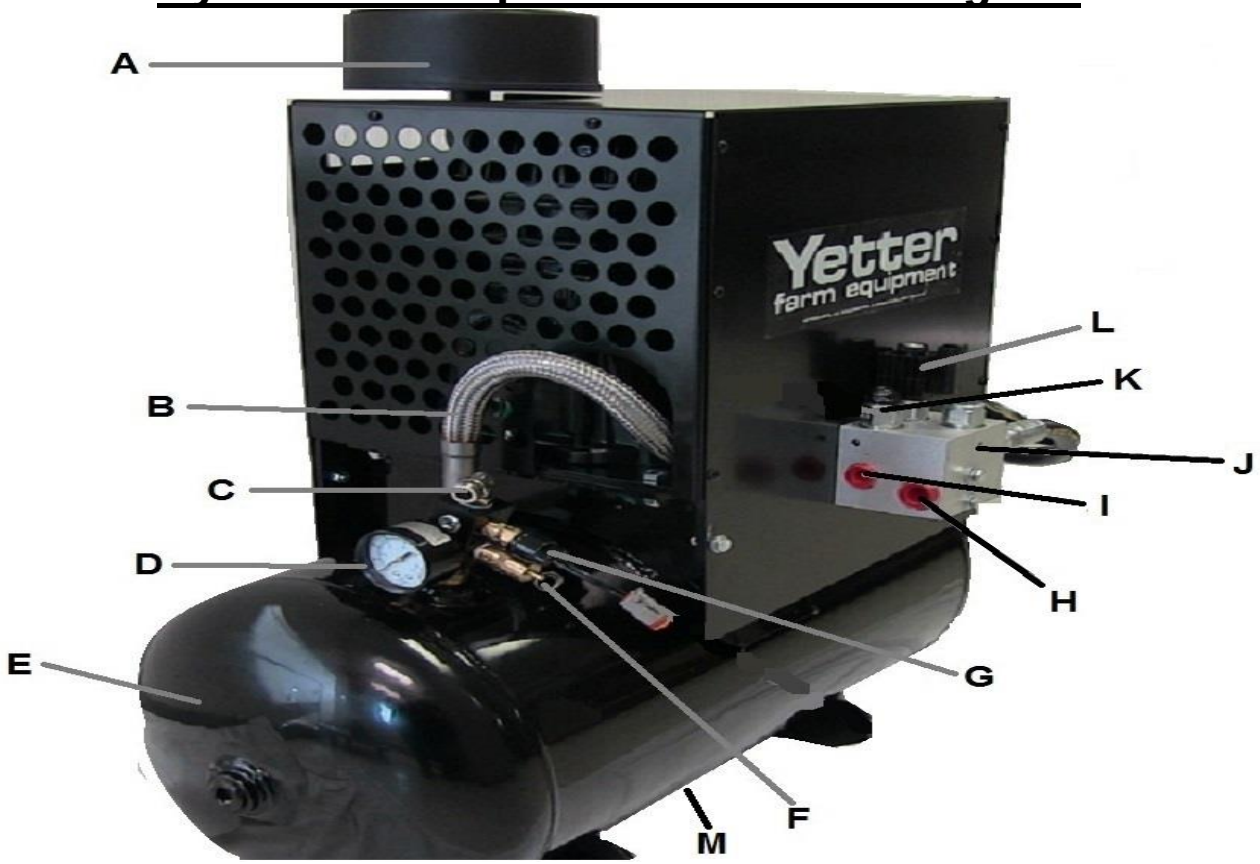
Serial Number Location

2940 Air Adjust System Information

Hydraulic Air Compressor Assembly

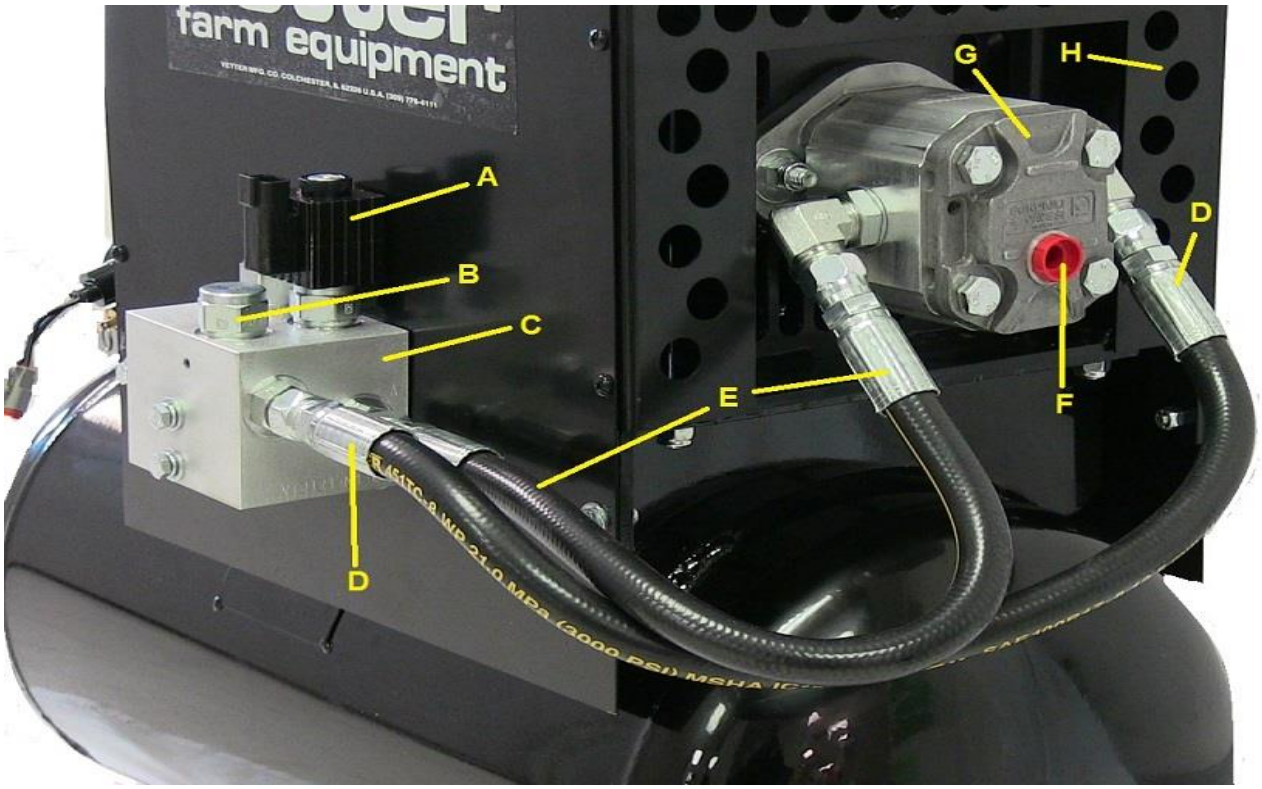
2940 Air Adjust requires a stable air supply source that can provide a minimum of 105 psi of clean, dry air. The 'clean, dry air' is a key component of the air supply, moisture within the air supply can shorten the life cycle of the system. The hydraulic compressor should build to 145psi on the tank gauge. Other pneumatic systems, for example pneumatic down force or air clutches, can be plumbed using the Yetter hydraulic compressor as its air source. Be sure to regulate the air entering any other systems to OEM specifications.

Hydraulic Compressor External Diagram



Item	Part Number	Description	Quantity
A	2940-549	Air Filter	1
B	N/A	Compressor Pressure Line	1
C	2940-408	Output Elbow Fitting 3/8PTC 90 Degree 1/4NPT	1
D	2940-439	Tank Pressure Gauge	1
E	N/A	Tank, 12 Gallon	1
F	2940-416	Pressure Relief Valve	1
G	2940-377	Pressure Switch	1
H	N/A	Hydraulic Return to Tank Port -8 ORFS	1
I	N/A	Hydraulic Pressure Inlet Port -6 ORFS	1
J	2940-546	Hydraulic Compressor Control Block	1
K	N/A	Flow Control Valve	1
L	2940-506 2940-543	Hydraulic On/Off Valve (COIL ONLY) Hydraulic On/Off Cartridge Valve	1
M	N/A	Tank Drain (valve not visible in the picture)	1

Hydraulic Compressor External Diagram

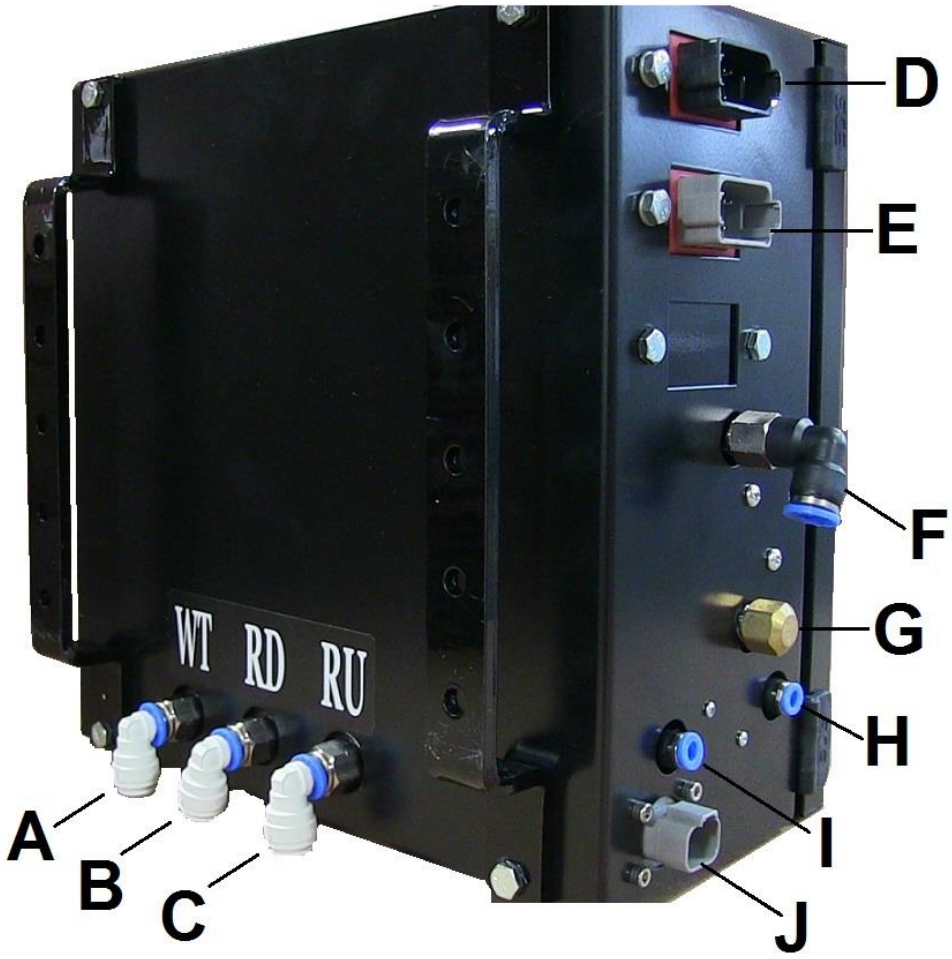


Item	Description	Quantity
A	Hydraulic On/Off Valve (Solenoid)	1
B	Check Valve	1
C	Hydraulic Compressor Control Block	1
D	Return to Tank Hose	1
E	Pressure Inlet Hose	1
F	Case Drain Port -6 ORFS	1
G	Hydraulic Motor	1
H	Housing Assembly	1

Control Box

The 2940-103 control box communicates with the 2940-100 cab controller via the VDM and dispenses air out of the Pneumatic Quick Exhaust (PQE) as the operator commands it. The VDM is the valve drive module that is programmed to carry out each function of the system. **Serial # is located on the front of the VDM in the compressor assembly. See photo below.**

2940-103 Control Box External Lay Out



A. **WHEEL TRACK DOWN PRESSURE PORT**- Safely route black airline from the WT port to the inlet port of the down pressure dump valve on the center/wheel track rows of the planter. The down pressure on the center section residue managers (RM) or RM/Coulter Combo can be adjusted separately than the wing/side section down pressure to make up for tractor/planter tire compaction. WT should be set 2-5 psi heavier than RD. If the WT port is not used, install a plug (2940-352) to prevent air loss.

B. **RESIDUE MANAGER DOWN PRESSURE PORT**- Safely route black airline from the RD port to the inlet port on the down pressure dump valves on the wing/outer sections of the planter. This port dispenses down pressure to the RM or RM/Coulter Combos on the wing/side of the planter.

C. **RESIDUE MANAGER UP PRESSURE PORT**- Safely route blue airline from the RU port to the inlet port of the up pressure dump valves on each section of the planter. This port dispenses up pressure to each RM or RM/Coulter Combo on the planter.

D. **12 PIN DEUTSCH CONNECTOR (BLACK)**- Depending on application, route 2940-164 or 2940-165 CAN AUX cable from rear of the tractor to this female connector. If the control box is mounted at the rear of the planter, 2940-170, 2940-171, or 2940-430 CAN AUX extensions will route to this female connector.

E. **12 PIN DEUTSCH CONNECTOR (GRAY)**- Connect the 2940-162 dump valve cable and route to the dump valves. The 2 pin cable labeled RM UP DUMP (yellow/black wires) routes to all up pressure dump valves. The 2 pin cable labeled RM DOWN DUMP (orange/black wires) routes to all down pressure dump valves. The 2 pin cables labeled Aux 3 and Aux 4 are not used.

F. **MAIN AIR SUPPLY INLET-** Plumb the 2940-367 250psi rated 3/8" airline from the hydraulic compressor to the inlet (water trap side) of the water separator/regulator assembly. Plumb 2940-345 3/8" black airline from outlet (regulator side) of the water separator/regulator assembly to this port.

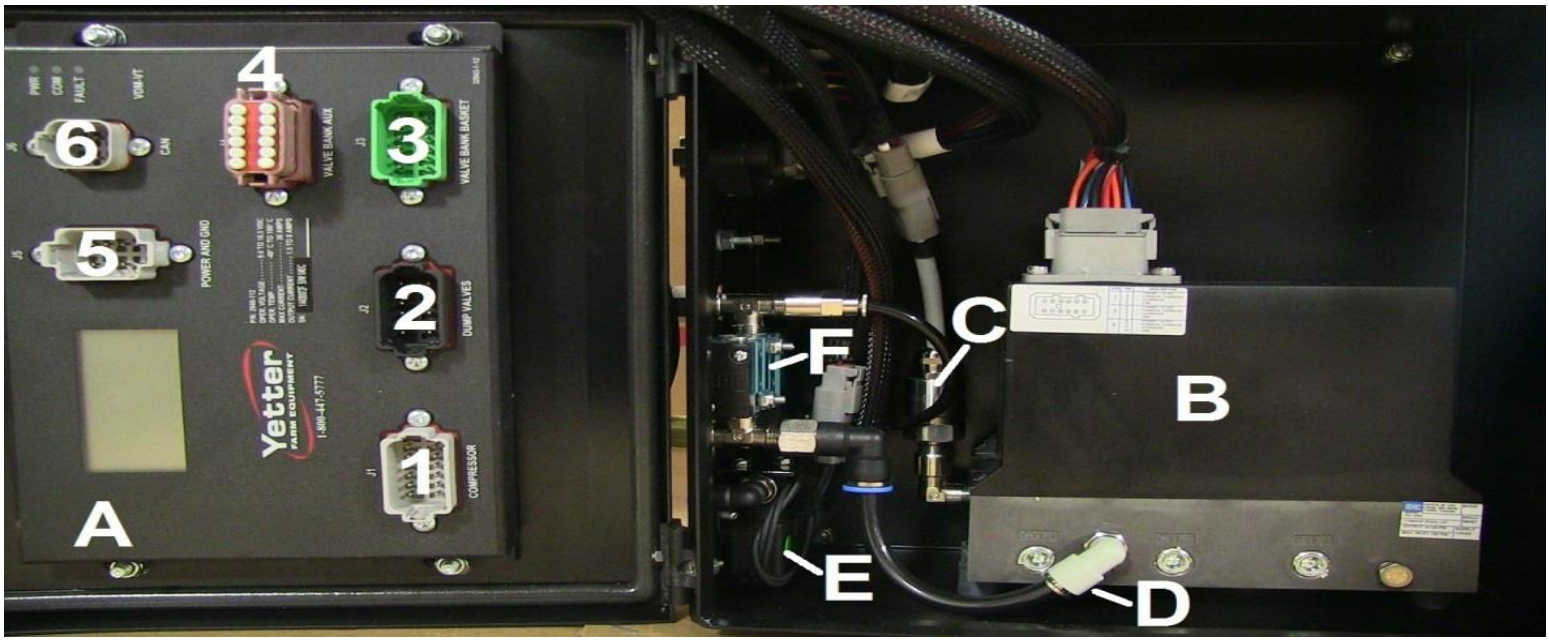
G. **ACCESSORY AIR OUTPUT**- Remove brass cap to install fitting for miscellaneous uses. (ex: air tools) **DO NOT REMOVE WHEN SYSTEM IS PRESSURIZED!**

H. **DUMP INLET**- Install the ¼" airline from the bottom of the water separator into this port.

I. **DUMP EXHAUST**- Install ¼" airline in this port and route toward the ground. (this will drain condensation from the water separator)

J. **HYDRAULIC COMMUNICATION CONNECTOR**- Used only if application uses a Yetter Hydraulic Compressor. **(see page 31)**

2940-103 Control Box Internal Lay Out



A. 2940-112 VDM

1. **J1 Compressor Communication**
2. **J2 Dump Valve Communication**
3. **J3 PQE Communication**
4. **J4 Plugged (used only with 2940-054 kits)**
5. **J5 VDM Power and Ground**
6. **J6 Cab Controller Communication**

B. 2940-402 PQE
C. 2940-441 Pressure Transducer
D. 2940-379 PQE Inlet Elbow
E. 2940-376 Water Separator Dump Valve
F. 2940-135 Pressure On Valve

Harness, Airlines, and Fittings Kit

12V-DC cables will be used to power the VDM, cab controller, and dump valves. Flexible tubing will be used to move air from the tank to each air bag. Each kit will include pneumatic lines for both circuits, down and lift, as well as the fittings to make connections and cable ties to securely fasten the lines to the planter. Note: All 2940 Air Adjust kits include a tubing cutter within the kit. **The 2940-341 cutter should be used for <u>every cut</u> to ensure a clean, square cut is made.**

Installation Guide Using a Yetter Hydraulic Compressor

For installation using a John Deere Hydraulic Compressor installation, see page 18.
For installation using a Precision Planting Hydraulic Compressor, see page 19.

STEP 1: RESIDUE MANAGER (RM) OR RM/COULTER COMBO INSTALLATION

Residue Manager Only: Install the RM Assembly securing with mounting hardware. When installing the wheel mount assembly on the adjustment tube, place the top hole of the wheel mount to the 4th or 5th hole from the top of the adjustment tube for conventional tillage or mellow soils, 5th or 6th hole from the top for no till/minimum till conditions. Install wheels on wheel mounts using hardware from the 2966-119 bolt bag. Install the RM wheels so that the left wheel leads, right wheel trails on the left side of the planter & the right wheel leads, left wheel trails on the right side.
RM/Coulter Combo: Install the RM/Coulter Combo assembly using hardware from the 2940-128 bolt bag. Mount the coulter blade on the coulter arm hub & mount the RM wheels using the 5/8 Whiz Lock Nuts. RM wheels on combo units will install in the rear holes on both sides on all rows. It is recommended to set the coulter blade at seed depth or above. **Refer to the diagram on pages 20 - 23**

STEP 2: 2940-100 CAB CONTROLLER INSTALLATION (Skip to step 3 if using the ISOBUS monitor)

Mount the 2940-100 Cab Controller & 2940-113 RAM Mount in the tractor cab. Position the Cab Controller within reach during operation without compromising safety or visibility from the cab. Connect the 2940-152 harness to the female 6 pin connector on the back of the cab controller & route the black CAN connector towards the hitch of the tractor. Connect the 2940-153 2 pin connector to the female 2 pin connector on the back of the cab controller. Splice the red & black wires to the appropriate connector to fit the tractor's switched power source. **Refer to the diagram on page 24**

STEP 3: HYDRAULIC COMPRESSOR & CONTROL BOX INSTALLATION

Hydraulic Compressor Installation: Remove the hydraulic compressor from the shipping crate. Remove the control block & housing to add provided oil to the fill line on the sight glass. Reinstall the housing & control block after filling with oil. Remove the cap from the air intake elbow fitting, wrap threads on the filter assembly with Teflon tape, & install the air filter assembly securely. Locate a suitable mounting location for the compressor assembly. Placement of the compressor assembly will vary on the make & model of the planter. Use mounts & hardware supplied or depending on application, **different mounts may need to be built**. Be sure to check clearance of the compressor in the mounting location, noting tractor tires while making turns, markers, and folding/unfolding the planter.
Control Box Installation: Mount the control box in a safe location with mounts & hardware supplied. Install the 2940-415 water separator/regulator assembly near the control box. Measure & cut the 2940-367 250psi rated 3/8" airline & install from outlet elbow on the hydraulic compressor into the 2940-415 inlet (water trap side). The regulator is preset to only allow 120psi of clean, dry air beyond it. Route 2940-345 3/8" airline from the 2940-415 outlet (regulator side) to control box inlet. Route provided ¼" airline from the elbow on the bottom of the 2940-415 to the ¼"PTC fitting closest to the door hinge on the side of the control box. Route ¼" airline from remaining ¼"PTC fitting on the 2940-103 toward the ground, as airline will dispense moisture. **Refer to the diagram on pages 25 - 30**

STEP 4: COMPRESSOR & CONTROL BOX HARNESS ROUTING & INSTALLATION (See ISOBUS manual if using ISOBUS monitor)

Install the 2940-166 VDM power with 40 amp breaker on the tractor battery on the correct terminals, red is positive +, black is negative –. Connect the VDM power extension (2940-167 or 2940-168) & route to the hitch of the tractor. Install the CAN AUX to Air Harness, 2940-164 or 2940-165. The Anderson power connector connects to the VDM power extension from the battery, the black CAN connector will connect to the 2940-152 black CAN connector that routes & plugs into the cab controller, & the black male 12 pin Deutsch connector connects to the black female connector on the side of the control box. If the 2940-103 control box is mounted at the back of the planter, 2940-170(10ft), 2940-171(30ft), & 2940-430(20ft) CAN AUX to Air extensions will be needed. Install the 2940-181 Y harness on the hydraulic compressor. Install the 2940-182 or 2940-189 control harness from the 4 pin end of the 2940-181 Y harness to the 4 pin connector on the side of the control box. **Refer to the diagram on page 31**

STEP 5: DUMP VALVE & DUMP VALVE HARNESS INSTALLATION

Install the dump valves (DV) to the planter as shown in the diagram that matches your planter. 16 row planters and less will have 1 up pressure & 1 down pressure DV on the middle of each wing/side & 1 up pressure & 1 down pressure DV on the wheel track (WT) or center rows. 24 row planters & larger will have 3 DVs per wing/side; 2 down pressure & 1 up pressure, & 2 DVs on the WT rows, 1 up pressure & 1 down pressure. Install the gray male 12 pin Deutsch connector of the 2940-162 into the gray female 12 pin Deutsch on the side of the control box. The 2940-162 will have 4) 2 pin pig tails. The connector labeled RM Up Dump (yellow/black wires) will connect to all of the up pressure DVs using 2940-155 (30ft), 2940-157 (15ft), & 2940-160 (5ft) white DV harnesses. Use 2940-159 white Y harnesses to connect all white DV cables together. The connector labeled RM Down Dump (orange/black wires) will connect to all down pressure DVs using 2940-154 (30ft), 2940-156 (15ft), 2940-161 (5ft) black dump valve harnesses. Use 2940-158 black Y harnesses to connect all black DV cables together. **CONNECTORS LABELED AUX 3 & AUX 4 WILL NOT BE USED!** **Refer to pages 32 - 67**

STEP 6: PLUMBING AIRLINES

A group of airlines that route to the residue manager air bags are referred to as trunk airlines. The airline routing from the RU, RD, & WT to the inlet of the DV for the matching circuit is referred to as a supply airline. Start by routing the trunk airlines: route black (down pressure) & blue (up pressure) airline on each wing/side of the planter. If installing on a split row planter, keep the airline on the front rank residue managers on each wing plumbed separate from the back rank. When plumbing in the WT (wheel track) rows, use the center 4 or 6 rows that plant over the tractor & planter wheel tracks. If equipping on a narrow transport planter with 4 center rows & 6 rows are desired on the WT circuit, tie in the 1 row on each wing/side of the planter closest to the first & last center row. Use supplied tees to make enough open ports in each circuit to install supply airline to the inlet port of each DV of the matching circuit. Also use tees to connect the outlet port of the DVs to the matching circuits of the trunk airlines. On split row planters, a ball valve will be used to shut air off to bean rows when planting corn. **Refer to pages 33 - 69**

STEP 7: PERFORM A PRE-OPERATION TEST OF THE SYSTEM

Now that the system is installed, perform a pre-operation test. Start by folding/unfolding & lowering/raising the planter to check for enough slack in airline & in harnesses at hinge points. Check all electrical connections, cables, and airline making sure nothing was damaged. Next, turn on the cab controller by holding the power button. After the cab controller is on, turn all pressures (RU, RD, and WT) to 0psi and press ENTER to activate the system. The compressor will turn on, build to 145psi (120psi on the cab controller) & turn off. Check the interior of the control box housing (PQE, Pressure on Valve, & airline within the housing) for leaks. Apply 30psi to the RU port & watch your row cleaners as they should all rise to maximum up travel. Check for leaks on all up pressure circuits & fittings. When that leak check is finished, turn RU to 0psi & turn RD & WT to 30. Check all down pressure airline & fittings in these circuits for leaks & repair as needed. **Refer to pages 74 - 77**

Installation Guide Using a John Deere Hydraulic Compressor

STEP 1: RESIDUE MANAGER (RM) OR RM/COULTER COMBO INSTALLATION

Residue Manager Only: Install the RM Assembly securing with mounting hardware. When installing the wheel mount assembly on the adjustment tube, place the top hole of the wheel mount to the 4th or 5th hole from the top of the adjustment tube for conventional tillage or mellow soils, 5th or 6th hole from the top for no till/minimum till conditions. Install wheels on wheel mounts using hardware from the 2966-119 bolt bag. Install the RM wheels so that the left wheel leads, right wheel trails on the left side of the planter & the right wheel leads, left wheel trails on the right side.

RM/Coulter Combo: Install the RM/Coulter Combo assembly using hardware from the 2940-128 bolt bag. Mount the coulter blade on the coulter arm hub & mount the RM wheels using the 5/8 Whiz Lock Nuts. RM wheels on combo units will install in the rear holes on both sides on all rows. It is recommended to set the coulter blade at seed depth or above. **Refer to the diagram on pages 20 - 23**

STEP 2: 2940-100 CAB CONTROLLER INSTALLATION (Skip to step 3 if using the ISOBUS monitor)

Mount the 2940-100 Cab Controller & 2940-113 RAM Mount in the tractor cab. Position the Cab Controller within reach during operation without compromising safety or visibility from the cab. Connect the 2940-152 harness to the female 6 pin connector on the back of the cab controller & route the black CAN connector towards the hitch of the tractor. Connect the 2940-153 2 pin connector to the female 2 pin connector on the back of the cab controller. Splice the red & black wires to the appropriate connector to fit the tractor's switched power source. **Refer to the diagram on page 24**

STEP 3: 2940-103 CONTROL BOX INSTALLATION

Mount the control box in a safe location with the mounts & hardware supplied. Locate the John Deere hydraulic compressor & its pneumatic valve block assembly. Drain all air pressure from the compressor tank & valve block. To the left of the yellow valve handle on the valve block is a pipe plug or gauge. Remove the pipe plug if equipped and install a 2940-408 ¼'NPT to 3/8 push to connect (PTC) elbow in that port. If equipped with a gauge, remove gauge & install 2940-374 adaptor with 2 female ¼"NPT ends and 1 male ¼"NPT end. Male thread side of the Tee installs into valve block, the gauge installs onto the rearward facing female threads, & the 2940-408 elbow installs into the remaining female threads. Apply Teflon tape to all male threads. Mount the 2940-415 water separator/regulator assembly near the control box. Measure & cut 2940-367 250psi rated line from the 2940-408 elbow attached to the valve block into the inlet (water trap side) of the water separator regulator assembly. The regulator is preset to only allow 120psi of clean, dry air beyond it. Measure & cut 2940-345 black airline from the outlet (regulator side) of the water separator/regulator assembly to the inlet of the control box. Route provided ¼" airline from the elbow on the bottom of the water separator/regulator assembly to the ¼"PTC fittings on the side of the control box closest to the door hinge. Route ¼" airline from remaining ¼"PTC fitting on the control box toward the ground, this airline will dispense moisture. **Refer to the diagram on pages 29 - 30**

STEP 4: CONTROL BOX HARNESS ROUTING & INSTALLATION (See ISOBUS manual if using ISOBUS monitor)

Install the 2940-166 VDM power cable with 40 amp breaker on the tractor battery on the correct terminals, red is positive +, black is negative –. Connect the VDM power extension (2940-167 or 2940-168) & route to the hitch of the tractor. Install the CAN AUX to Air Harness, 2940-164 or 2940-165. The Anderson power connector connects to the VDM power extension from the battery, the black CAN connector will connect to the 2940-152 black CAN connector that routes & plugs into the cab controller, & the black male 12 pin Deutsch connector connects to the black female connector on the side of the control box. If the 2940-103 control box is mounted at the back of the planter, 2940-170(10ft), 2940-171(30ft), & 2940-430(20ft) CAN AUX to Air Extensions will be needed. **Refer to the diagram on page 31**

STEP 5: DUMP VALVE & DUMP VALVE HARNESS INSTALLATION

Install the dump valves (DV) to the planter as shown in the diagram that matches your planter. 16 row planters and less will have 1 up pressure & 1 down pressure DV on the middle of each wing/side & 1 up pressure & 1 down pressure DV on the wheel track (WT) or center rows. 24 row planters & larger will have 3 DVs per wing/side; 2 down pressure & 1 up pressure, & 2 DVs on the WT rows, 1 up pressure & 1 down pressure. Install the gray male 12 pin Deutsch connector of the 2940-162 into the gray female 12 pin Deutsch on the side of the control box. The 2940-162 will have 4) 2 pin pig tails. The connector labeled RM Up Dump (yellow/black wires) will connect to all of the up pressure DVs using 2940-155 (30ft), 2940-157 (15ft), & 2940-160 (5ft) white DV harnesses. Use 2940-159 white Y harnesses to connect all white DV cables together. The connector labeled RM Down Dump (orange/black wires) will connect to all down pressure DVs using 2940-154 (30ft), 2940-156 (15ft), 2940-161 (5ft) black dump valve harnesses. Use 2940-158 black Y harnesses to connect all black DV cables together. **CONNECTORS LABELED AUX 3 & AUX 4 WILL NOT BE USED!** **Refer to pages 32 - 67**

STEP 6: PLUMBING AIRLINES

A group of airlines that route to the residue manager air bags are referred to as trunk airlines. The airline routing from the RU, RD, & WT to the inlet of the DV for the matching circuit is referred to as a supply airline. Start by routing the trunk airlines: route black (down pressure) & blue (up pressure) airline on each wing/side of the planter. If installing on a split row planter, keep the airline on the front rank residue managers on each wing plumbed separate from the back rank. When plumbing in the WT (wheel track) rows, use the center 4 or 6 rows that plant over the tractor & planter wheel tracks. If equipping on a narrow transport planter with 4 center rows & 6 rows are desired on the WT circuit, tie in the 1 row on each wing/side of the planter closest to the first & last center row. Use supplied tees to make enough open ports in each circuit to install supply airline to the inlet port of each DV of the matching circuit. Also use tees to connect the outlet port of the DVs to the matching circuits of the trunk airlines. On split row planters, a ball valve will be used to shut air off to bean rows when planting corn. **Refer to pages 33 - 69**

STEP 7: PERFORM A PRE-OPERATION TEST OF THE SYSTEM

Now that the system is installed, perform a pre-operation test. Start by folding/unfolding & lowering/raising the planter to check for enough slack in airline & in harnesses at hinge points. Check all electrical connections, cables, and airline making sure nothing was damaged. Next, turn on the cab controller by holding the power button. After the cab controller is on, turn all pressures (RU, RD, and WT) to 0psi and press ENTER to activate the system. The compressor will turn on, build to 145psi (120psi on the cab controller) & turn off. Check the interior of the control box housing (PQE, Pressure on Valve, & airline within the housing) for leaks. Apply 30psi to the RU port & watch your row cleaners as they should all rise to maximum up travel. Check for leaks on all up pressure circuits & fittings. When that leak check is finished, turn RU to 0psi & turn RD & WT to 30. Check all down pressure airline & fittings in these circuits for leaks & repair as needed. **Refer to pages 74 - 77**

Installation Guide for Precision Planting Hydraulic Compressor

STEP 1: RESIDUE MANAGER (RM) OR RM/COULTER COMBO INSTALLATION

Residue Manager Only: Install the RM Assembly securing with mounting hardware. When installing the wheel mount assembly on the adjustment tube, place the top hole of the wheel mount to the 4th or 5th hole from the top of the adjustment tube for conventional tillage or mellow soils, 5th or 6th hole from the top for no till/minimum till conditions. Install wheels on wheel mounts using hardware from the 2966-119 bolt bag. Install the RM wheels so that the left wheel leads, right wheel trails on the left side of the planter & the right wheel leads, left wheel trails on the right side.

RM/Coulter Combo: Install the RM/Coulter Combo assembly using hardware from the 2940-128 bolt bag. Mount the coulter blade on the coulter arm hub & mount the RM wheels using the 5/8 Whiz Lock Nuts. RM wheels on combo units will install in the rear holes on both sides on all rows. It is recommended to set the coulter blade at seed depth or above. **Refer to the diagram on pages 20 - 23**

STEP 2: 2940-100 CAB CONTROLLER INSTALLATION (Skip to step 3 if using the ISOBUS monitor)

Mount the 2940-100 Cab Controller & 2940-113 RAM Mount in the tractor cab. Position the Cab Controller within reach during operation without compromising safety or visibility from the cab. Connect the 2940-152 harness to the female 6 pin connector on the back of the cab controller & route the black CAN connector towards the hitch of the tractor. Connect the 2940-153 2 pin connector to the female 2 pin connector on the back of the cab controller. Splice the red & black wires to the appropriate connector to fit the tractor's switched power source. **Refer to the diagram on page 24**

STEP 3: 2940-103 CONTROL BOX INSTALLATION

Mount the control box in a safe location with mounts and hardware supplied. Mount the 2940-415 water separator/regulator assembly near the control box. Locate the Precision Planting hydraulic compressor, drain all tank pressure, & find the 3/8 tubing inside the housing that routes between the tank & the water separator. Cut & tee into that airline. Measure & cut 2940-367 250psi rated airline & route from remaining port on the Tee to the inlet (water trap side) of the Yetter water separator/regulator assembly. The regulator is preset to only allow 120psi of clean, dry air beyond it. Measure & cut 2940-345 black airline from the outlet (regulator side) of the water separator/regulator assembly to the inlet of the control box. Route provided ¼" airline from the elbow on the bottom of the water separator/regulator assembly to the ¼"PTC fittings on the side of the control box closest to the door hinge. Route ¼" airline from remaining ¼"PTC fitting on the control box toward the ground, as this airline will dispense moisture. **Refer to the diagram on pages 29 - 30**

STEP 4: CONTROL BOX HARNESS ROUTING & INSTALLATION (See ISOBUS manual if using ISOBUS monitor)

Install the 2940-166 VDM power cable with 40 amp breaker on the tractor battery on the correct terminals, red is positive +, black is negative –. Connect the VDM power extension (2940-167 or 2940-168) & route to the hitch of the tractor. Install the CAN AUX to Air Harness, 2940-164 or 2940-165. The Anderson power connector connects to the VDM power extension from the battery, the black CAN connector will connect to the 2940-152 black CAN connector that routes & plugs into the cab controller, & the black male 12 pin Deutsch connector connects to the black female connector on the side of the control box. If the 2940-103 control box is mounted at the back of the planter, 2940-170(10ft), 2940-171(30ft), & 2940-430(20ft) CAN AUX to Air Extensions will be needed. **Refer to the diagram on page 31**

STEP 5: DUMP VALVE & DUMP VALVE HARNESS INSTALLATION

Install the dump valves (DV) to the planter as shown in the diagram that matches your planter. 16 row planters and less will have 1 up pressure & 1 down pressure DV on the middle of each wing/side & 1 up pressure & 1 down pressure DV on the wheel track (WT) or center rows. 24 row planters & larger will have 3 DVs per wing/side; 2 down pressure & 1 up pressure, & 2 DVs on the WT rows, 1 up pressure & 1 down pressure. Install the gray male 12 pin Deutsch connector of the 2940-162 into the gray female 12 pin Deutsch on the side of the control box. The 2940-162 will have 4) 2 pin pig tails. The connector labeled RM Up Dump (yellow/black wires) will connect to all of the up pressure DVs using 2940-155 (30ft), 2940-157 (15ft), & 2940-160 (5ft) white DV harnesses. Use 2940-159 white Y harnesses to connect all white DV cables together. The connector labeled RM Down Dump (orange/black wires) will connect to all down pressure DVs using 2940-154 (30ft), 2940-156 (15ft), 2940-161 (5ft) black dump valve harnesses. Use 2940-158 black Y harnesses to connect all black DV cables together. **CONNECTORS LABELED AUX 3 & AUX 4 WILL NOT BE USED!** **Refer to pages 32 - 67**

STEP 6: PLUMBING AIRLINES

A group of airlines that route to the residue manager air bags are referred to as trunk airlines. The airline routing from the RU, RD, & WT to the inlet of the DV for the matching circuit is referred to as a supply airline. Start by routing the trunk airlines: route black (down pressure) & blue (up pressure) airline on each wing/side of the planter. If installing on a split row planter, keep the airline on the front rank residue managers on each wing plumbed separate from the back rank. When plumbing in the WT (wheel track) rows, use the center 4 or 6 rows that plant over the tractor & planter wheel tracks. If equipping on a narrow transport planter with 4 center rows & 6 rows are desired on the WT circuit, tie in the 1 row on each wing/side of the planter closest to the first & last center row. Use supplied tees to make enough open ports in each circuit to install supply airline to the inlet port of each DV of the matching circuit. Also use tees to connect the outlet port of the DVs to the matching circuits of the trunk airlines. On split row planters, a ball valve will be used to shut air off to bean rows when planting corn. **Refer to pages 33-69**

STEP 7: PERFORM A PRE-OPERATION TEST OF THE SYSTEM

Now that the system is installed, perform a pre-operation test. Start by folding/unfolding & lowering/raising the planter to check for enough slack in airline & in harnesses at hinge points. Check all electrical connections, cables, and airline making sure nothing was damaged. Next, turn on the cab controller by holding the power button. After the cab controller is on, turn all pressures (RU, RD, and WT) to 0psi and press ENTER to activate the system. The compressor will turn on, build to 145psi (120psi on the cab controller) & turn off. Check the interior of the control box housing (PQE, Pressure on Valve, & airline within the housing) for leaks. Apply 30psi to the RU port & watch your row cleaners as they should all rise to maximum up travel. Check for leaks on all up pressure circuits & fittings. When that leak check is finished, turn RU to 0psi & turn RD & WT to 30. Check all down pressure airline & fittings in these circuits for leaks & repair as needed. **Refer to pages 74-77**

Residue Manager(RM) Installation

ENGAGE THE CYLINDER STOPS ON THE PLANTER LIFT WHEELS TO "LOCK" THE PLANTER IN THE UP POSITION

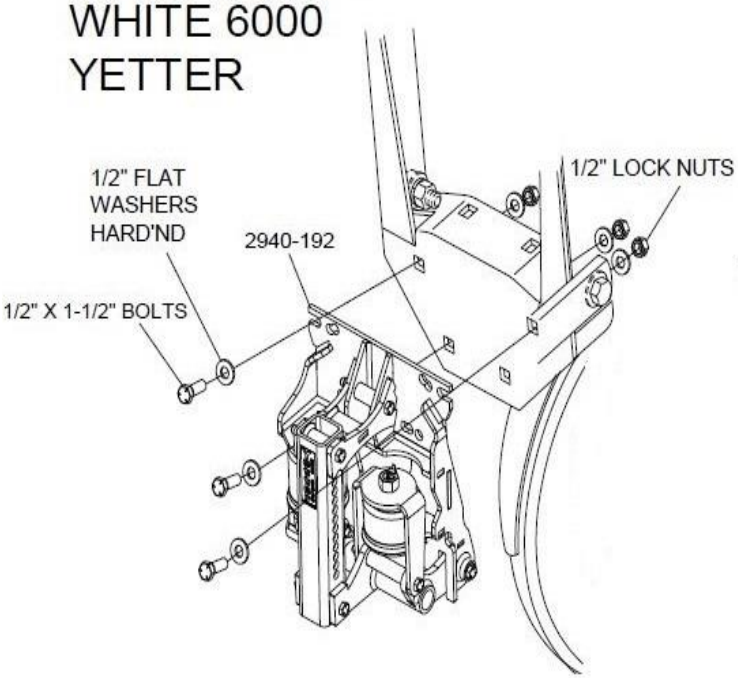
Installation overview:

- Prior to installation of each RM mounting bracket assembly, check the freedom of motion of the parallel linkage or pivot arm.
- The installation process should be done with the planter raised, half folded for transport, & the row units fully extended down.
- Install the 2940 RM or RM/Coulter Combo mounting bracket assembly centered & level side to side on each planter row unit.
- If planter manufacturer is John Deere & equipped with HD scrapers on the True V opener blades, a 2940-049 kit will need installed to space the RM or RM/Coulter Combo mounting bracket assembly out to avoid interference. **(See page 83)**

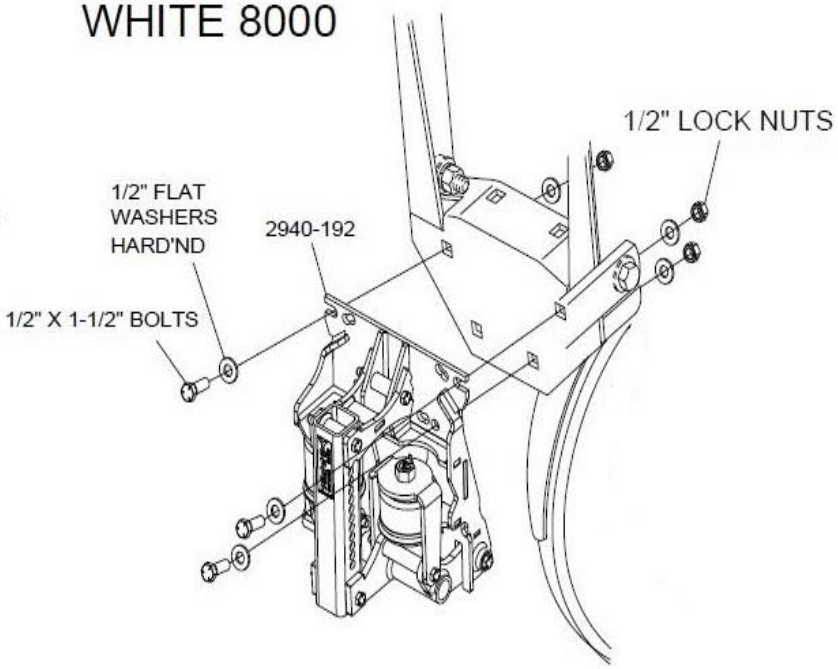
For John Deere, Kinze, & White Models Installing RM Only

Step 1: Place 1) Pneumatic RM Assembly, 1) Mounting Hardware Bolt Bag (2940-142), 1) Wheel Mount Weld Assembly (2940-215/2940-216), 1) RH Wheel Assembly (2966-140), 1) LH Wheel Assembly (2966-141), & 1) Wheel Mount Bolt Bag (2966-119) at each planter row unit. Install the Pneumatic RM assembly using 3) ½" X 1-1/2" GR5 bolts, 6) ½" flat washers, & 3) ½" lock nuts. Use the diagram below for hole alignment, as well as direction of the mounting bolts. Tighten the hardware.
Tools needed are ¾ socket, ¾ wrench, impact, & 10" extension.

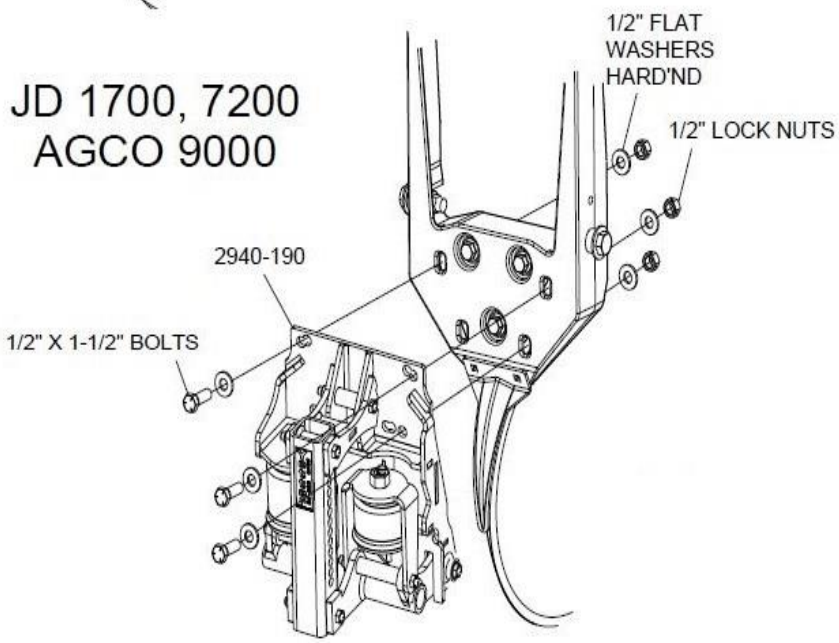
JD 7000, KINZE
WHITE 6000
YETTER



WHITE 8000



JD 1700, 7200
AGCO 9000

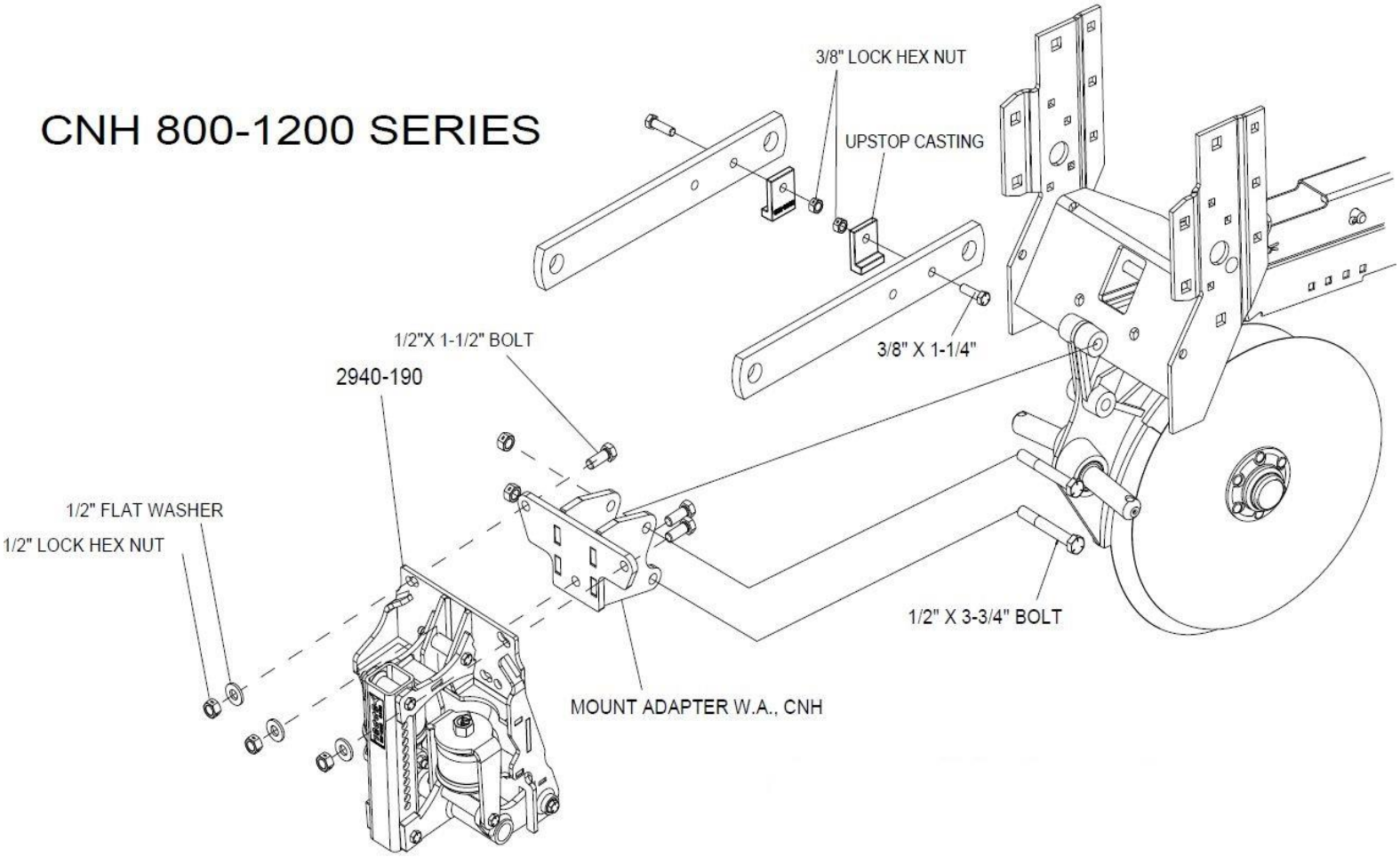


NOTE: AGCO 9000 units will use ½" x 2" mounting bolts!

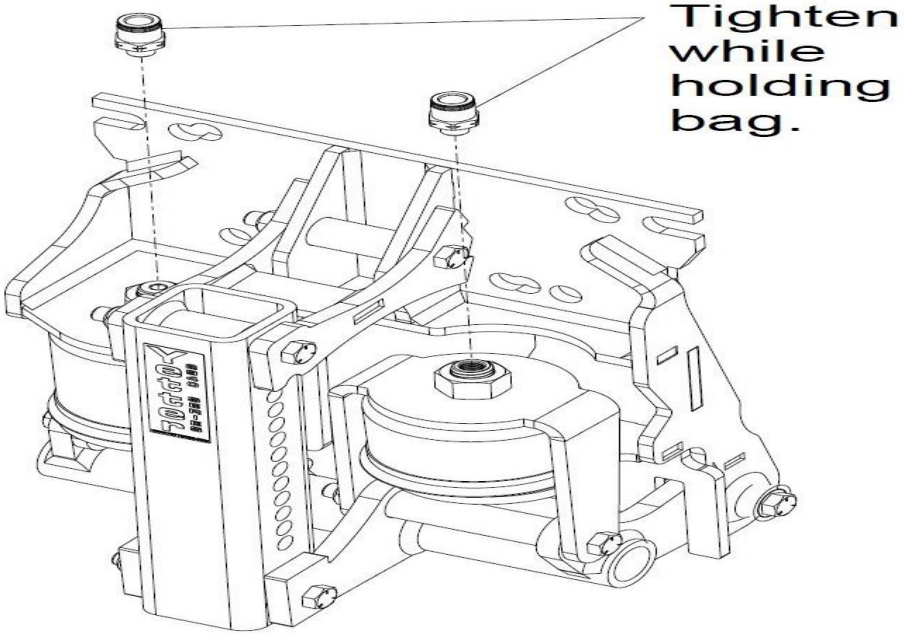
Residue Manager(RM) Installation Con't

For Case Models Installing RM Only

Step 1: Place 1) Pneumatic RM Assembly, 1) CNH Adaptor Bracket (2940-209), 1) CNH Mounting Bolt Bag (2940-145), 1) Wheel Mount (2940-215/2940-216), 1) RH Wheel Assembly (2966-140), 1) LH Wheel Assembly (2966-141), & 1) Wheel Mount Bolt Bag (2966-119) at each row unit. Mount the Pneumatic RM assembly to the 2940-209 using 3) ½" X 1-1/2" GR5 bolts, 3) ½" flat washers, & 3) ½" lock nuts. Mount this assembly to the row unit attachment casting using 2) ½" X 3-3/4" bolts & 2) ½" lock nuts. Install the 2) upstop casting pieces to each upper parallel arm using 3/8 X 1 ¼ bolts & 3/8 lock nuts. Note the direction of the mounting bolt. **Tools needed are ¾ socket, 9/16 socket, ¾ wrench, 9/16 wrench, impact, & 10" extension.**

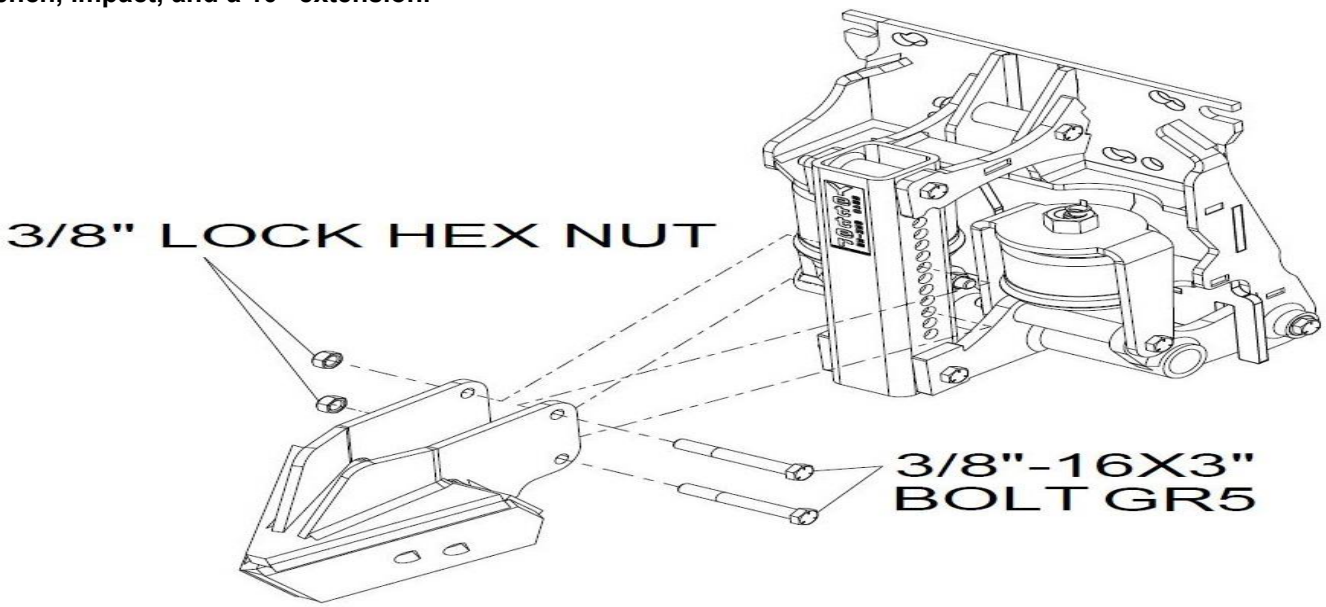


Step 2: Install 1) 2940-380 3/8" PTC X 1/8" BSPP male fitting to each air bag using an 11/16 wrench. Do not over tighten.

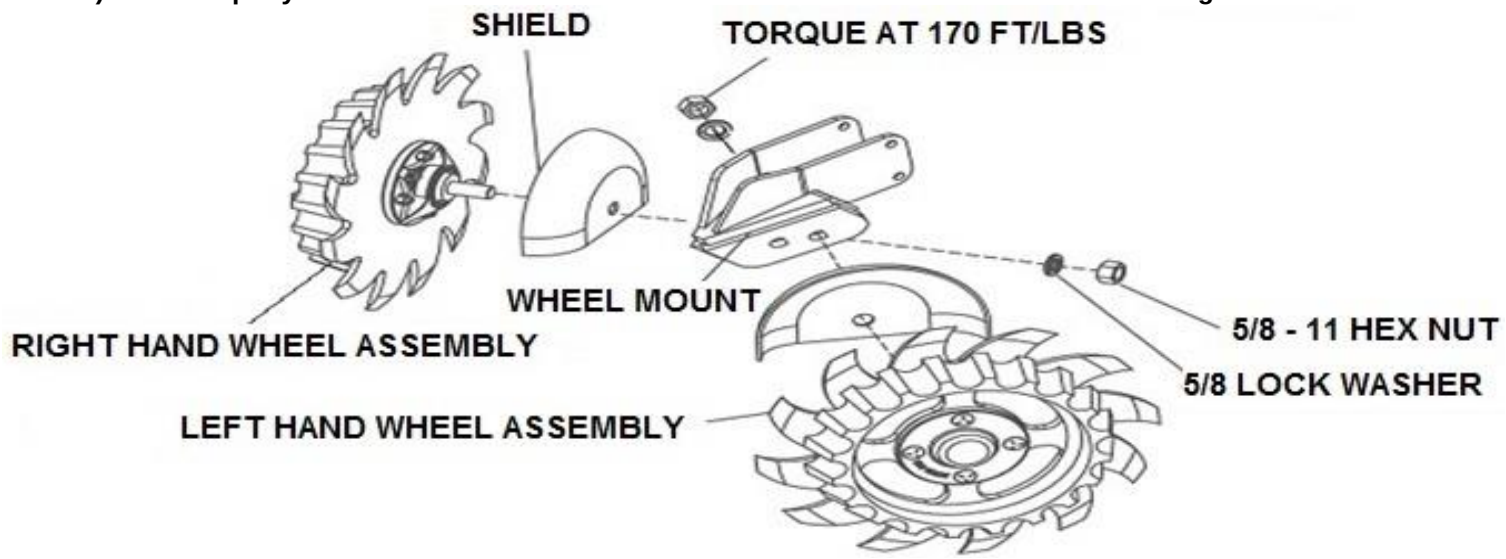


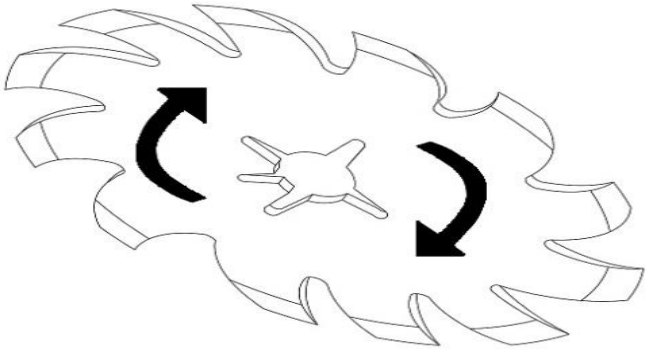
Residue Manager Installation Con't

Step 3: Mount the 2940-215 or 2940-216 wheel mount on the adjustment tube of the mounting bracket assembly. Recommended mounting location is 5th hole down from the top of the adjustment tube mounts to the top hole of the wheel mount. Adjustments may need to be made depending on tillage practice, soil conditions, and/or residue thickness. **Tools needed are a 9/16 socket, 9/16 wrench, impact, and a 10" extension.**



Step 4: Mount the RM wheels on the wheel mount using 2) 5/8" lock washers & 2) 5/8 hex nut. Mount the wheels so the left side of the planter has the left wheel leading, right wheel trailing & the right side of the planter has the right wheel leading, left wheel trailing. Right & left is determined by standing behind the planter looking at the tractor or sitting in the tractor facing forward. Diagram below is proper installation for the right side of the planter. **Tighten using a 15/16 wrench. (Ratcheting wrench if available) Note: Properly install row cleaner wheels so that wheel teeth curve back when entering field debris.**

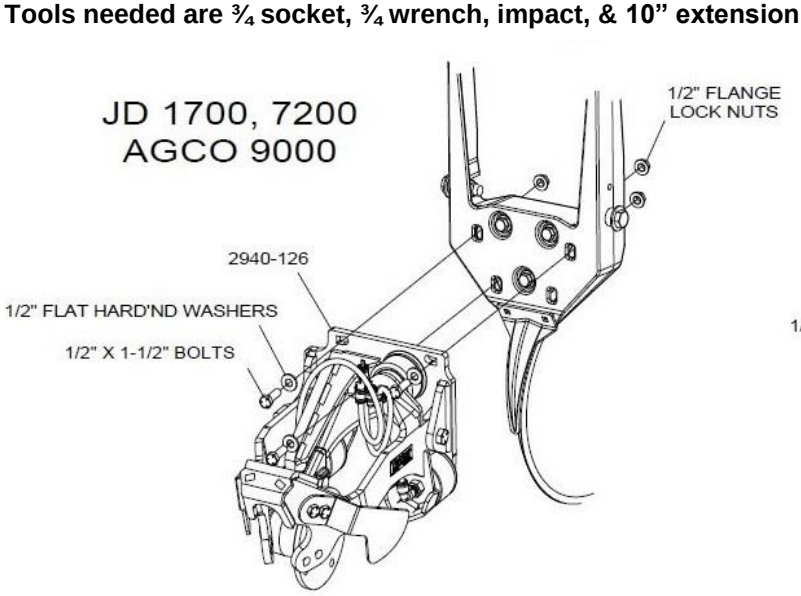


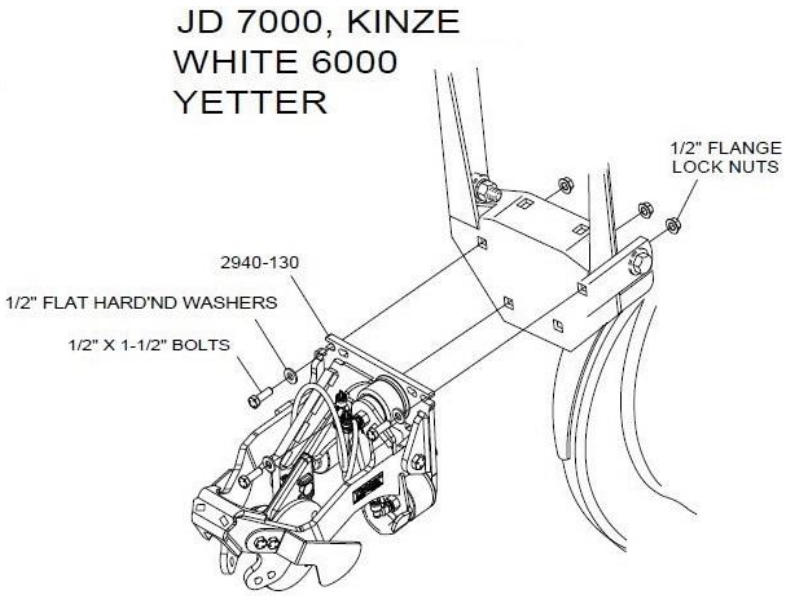


It is highly recommended to wear gloves & use caution when tightening wheels!

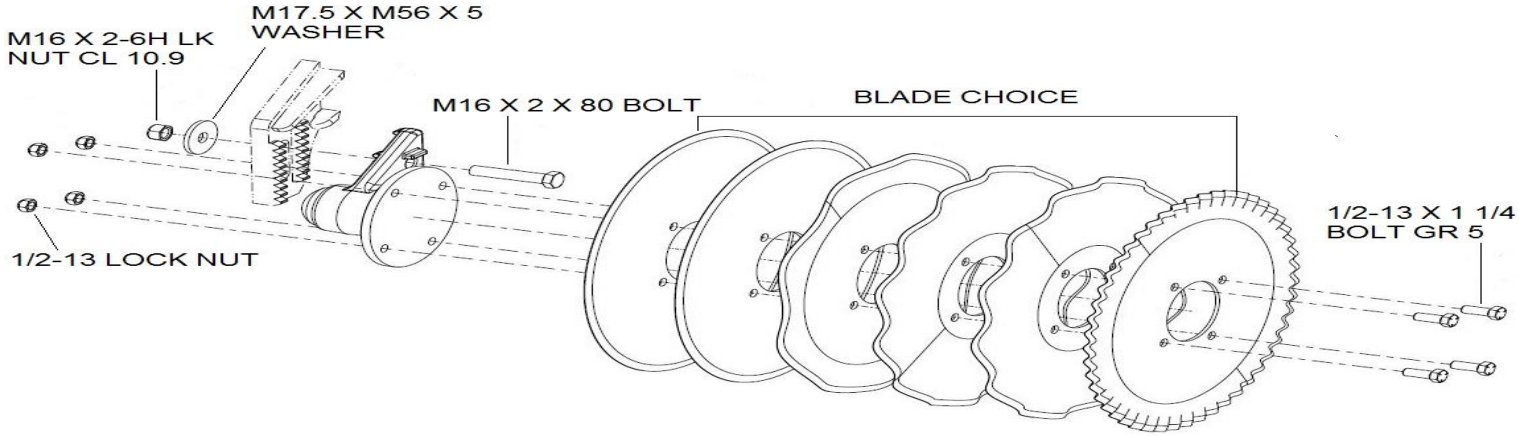
RM/Coulter Combo Installation

Step 1: Place 1) RM/ Coulter Combo assembly, 1) Coulter Blade, 1) Mounting Bolt Bag (2940-128), 1) RH wheel assembly (2966-116), & 1) LH wheel assembly (2966-117) at each row unit. Mount the RM/Coulter Combo assembly to the row unit face plate using 3) ½" X 1 ½" bolts and 3) ½" lock nuts. See the diagrams below for bolt alignment and bolt direction. Tighten hardware.
Tools needed are ¾ socket, ¾ wrench, impact, & 10" extension.



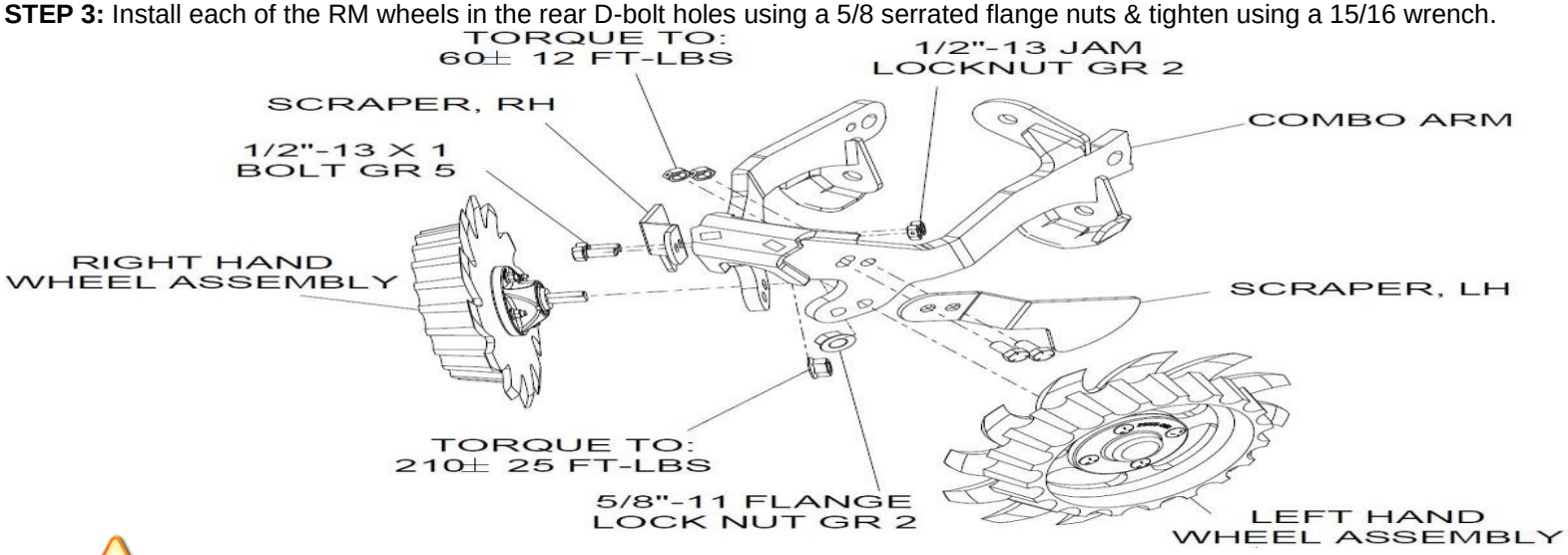


Step 2: Install coulter blade using 4) ½"X1 ¼" bolts & 4) ½" lock nuts using a ¾ socket, ¾ wrench, impact, & 10" extension.



NOTE: Adjust coulter blade depth equal to or above the planter opener blades. Adjust the blade depth as required for blade wear. Planter double disc blades that are worn to 14 ¼" or smaller in diameter should be replaced. Example: 14 ¼" blades will have a 3/8" shallower planting depth than 15" blades at the same gauge wheel adjustment setting.

STEP 3: Install each of the RM wheels in the rear D-bolt holes using a 5/8 serrated flange nuts & tighten using a 15/16 wrench.



It is highly recommended to wear gloves & use caution when tightening wheels!

Yetter Cab Controller Installation
(Skip this page if using ISOBUS monitor)

Step 1: Begin installing the 2940 Air Adjust cab controller once an adequate mounting location has been found. Fix the base component of the 2940-113 Mounting Bracket in place. Use items labeled B if mounting to a slotted, flat mounting system using a ratchet, 11mm socket, & 11mm wrench to tighten the hardware. Use items C if using a tubular mounting system. 2 different sized U-bolts are provided for tubular mounting systems. Use a ratchet & 5mm socket to tighten the hardware.

Step 2: Connect the mount bracket to the rear of the controller using 4) M5 hex nuts and 4) M5 split washers (labeled A) using a ratchet & 8mm socket to tighten the hardware. Set the cab controller in place & tighten the clamp by turning the handle clockwise.

Step 3: Attach the male 2 pin connector of the 2940-153 to the female 2 pin connector on the 2940-100 Cab Controller. Install the connector not provided for your tractor at the bare end of the 2940-153 and connect to tractors switched power source. **The cigarette outlet is NOT a switched port on all models of tractors, and therefore should not be used.**

Switched Power Source Connector part #'s:

JOHN DEERE PART #: RE67013

CNH PART #: 187103A1

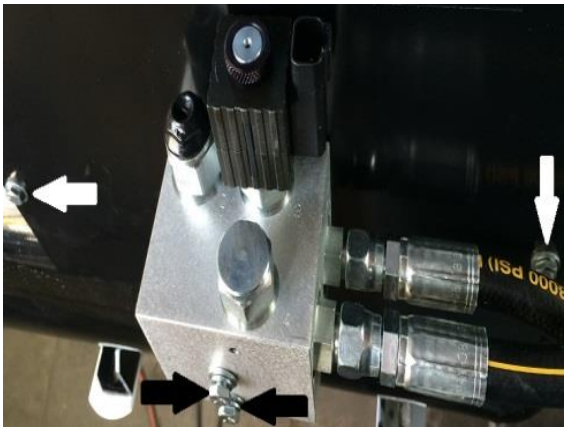
CAT P/N: AG233356

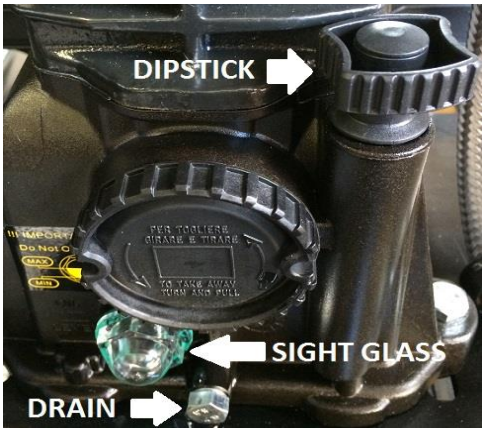
Step 4: Route & install the 2940-152 hitch to switch panel wire harness from the rear 6 pin connector of the 2940-100 Cab Controller to the hitch-point at the rear of the tractor. The black CAN connector of the 2940-152 will connect to the 2940-164 or 2940-165 CAN AUX to Air Harness. (**See page 31 for further details**) If an extension is needed between the 2940-100 Cab Controller and this harness, a 2940-169 10ft cab to hitch extension is available to order.

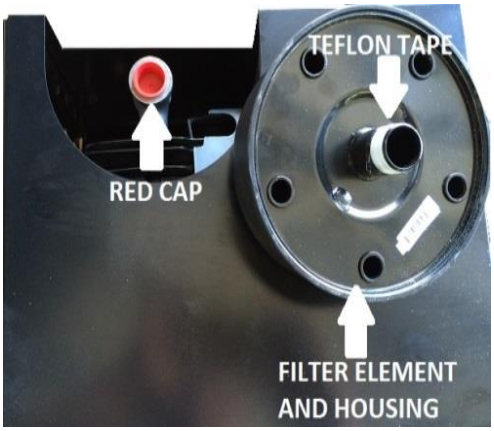
Yetter Hydraulic Compressor Installation

Step 1: Preparation

The crate labeled 2940-055 should include the Yetter hydraulic compressor, 1 liter bottle of oil, this manual, 2940-181 hydraulic compressor solenoid/pressure switch harness, 2940-189 10' hydraulic communication harness, & air filter assembly. Remove the compressor from the crate. Remove the housing by removing 6 bolts (4 are pictured in picture 1 below, the other 2 are on the opposite side of the housing) using a ratchet with 7/16 socket & a 7/16 wrench. Remove the dipstick & slowly fill pump with provided oil until oil reaches the fill line on the sight glass. Fill the pump slowly as there is a delay between oil entering pump & seeing oil on the sight glass. Reinstall the dipstick, housing, & control block. Remove the red dust cap on the elbow on top of the compressor housing. Wrap the male threads on the air filter assembly with Teflon tape & securely install the air filter assembly on the elbow.







Step 2: Mounting

Every planter/tractor combination will contain its own unique situations in regard to mounting the 2940 Hydraulic Compressor assembly for clearance & accessibility. **YOU SHOULD EXERCISE YOUR OWN BEST JUDGEMENT TO FIT YOUR SITUATION**. Begin by locating a suitable mounting location. Placement will vary on the make & model of the planter. Use mounts supplied or **depending on application different mounts may need to be built. See examples below labeled customer built bracket**. Be sure to check clearance in all locations, especially noting tractor tires, folding/unfolding the planter for transport mode, marker arms, fertilizer tanks, & 2-point top link. Yetter has 4 different mounting kits; 2940-085 to mount the compressor to the top link of the 2 point hitch, 2940-086 to mount to the draft tube, 2940-090 to mount to an 8" X 12" bar, & 2940-091 to mount to an 8" X 16" bar. **See pages 95 – 96** in the Part Identification for proper assembly of the mounting kit & compressor mounting. A process of folding & unfolding, turning in a tight circle, & raising/lowering markers & planter is recommended to ensure compressor clearance.

2940-085 – 2 Point Mount

2940-086

2940-090

2940-091

CUSTOMER BUILT BRACKETS (Call Yetter Service Department for additional photos)

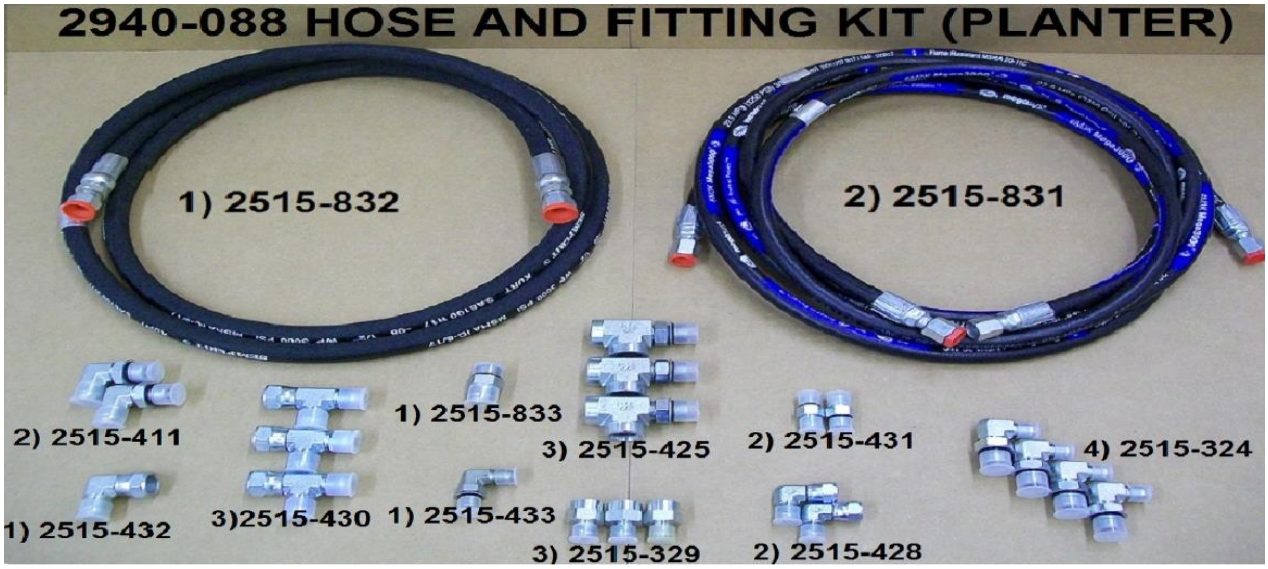
Yetter Hydraulic Compressor Installation

Hose and Fitting Kits

All fittings & adaptors do not have to be used

Additional fittings & adaptors may need purchased

2940-088 (PLANTER)	2940-089 kit (STAND ALONE)	Part #	Part Name	Description
Qty in kit	Qty in kit			
4	2	2515-324	ELBOW	90 DEG, 3/4 SAE TO -6 JIC
	2	2515-327	ADAPTER	3/4-16 SAE TO -6 JIC
3		2515-329	ADAPTER	REDUCER, -8 F TO -6 M JIC
2	2	2515-411	ELBOW	90 DEG 3/4 SAE TO -8JIC
3	1	2515-425	TEE	TEE 3/4 SAE
2		2515-428	ELBOW	JIC-6 90 DEGREE SWIVEL
3		2515-430	TEE	JIC-8 RUN TEE
2	2	2515-431	ADAPTER	9/16 SAE TO -6 JIC ADAPTER
1		2515-432	ELBOW	JIC-8 90 DEGREE SWIVEL
1	1	2515-433	ELBOW	9/16 SAE to -6 JIC 90 DEGREE
2	2	2515-831	HOSE	3/8 10FT HOSE -6 JIC F
1	1	2515-832	HOSE	1/2 10FT HOSE -8 JIC F
1	1	2515-833	ADAPTER	3/4 SAE TO -8 JIC
	2	2515-834	COUPLER	PIONEER, POPPET STYLE



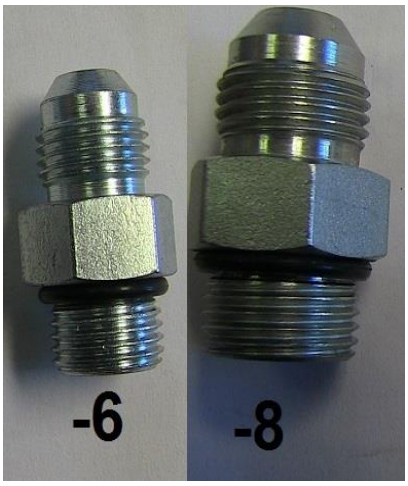
Yetter Hydraulic Compressor Installation

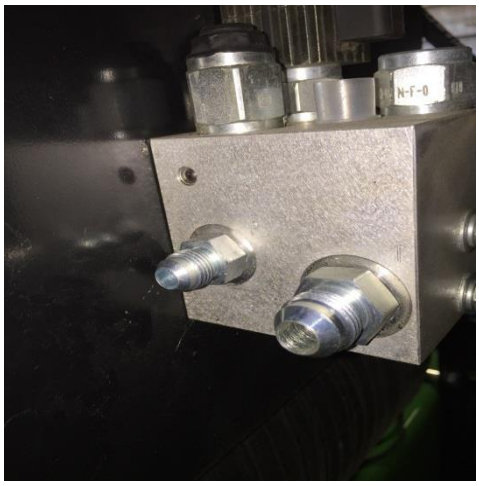
Step 4: Hydraulic Hose and Fittings Installation to the Compressor

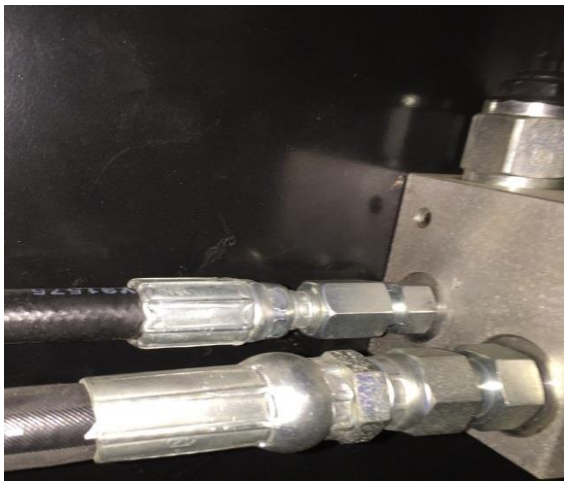
Tool required: An assortment of standard wrenches & crescent wrench.

A) Remove the cap from the – 6 port (also labeled P on the Hydraulic Control Block) & install the 2515-431 – 6 ORB (O-Ring Boss) to – 6 JIC straight adaptor fitting so that the O-Ring end goes into the hydraulic block & the JIC end faces away from the block. Install 1) 2515-831 3/8 – 6 10ft hydraulic hose to that fitting.

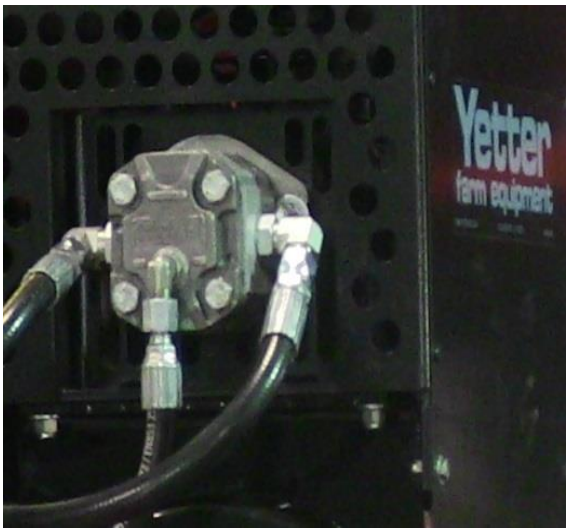
B) Remove the cap from the – 8 port (also labeled T on the Hydraulic Control Block) & install the 2515-833 – 8 ORB to – 8 JIC straight adaptor fitting so that the O-Ring end goes into the hydraulic block & the JIC end faces away from the block. Install the 2515-832 ½ – 8 10ft hydraulic hose to that fitting.







C) Remove the cap from the – 6 port on the motor (this is the Case Drain) & install the 2515-433 – 6 ORB to – 6 JIC 90 degree adaptor fitting so that the O-Ring end goes into the hydraulic motor & the JIC end faces downward. Install 1) 2515-831 3/8 – 6 10ft hydraulic hose to that fitting.

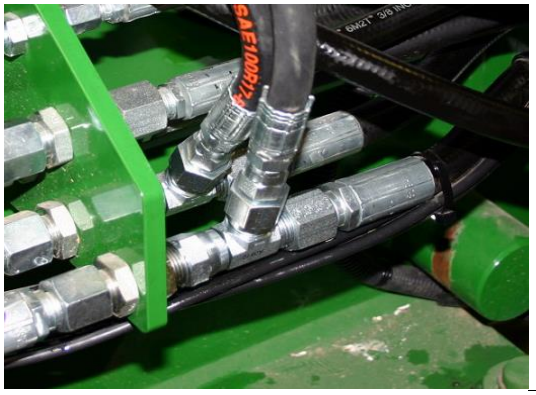


Yetter Hydraulic Compressor Installation

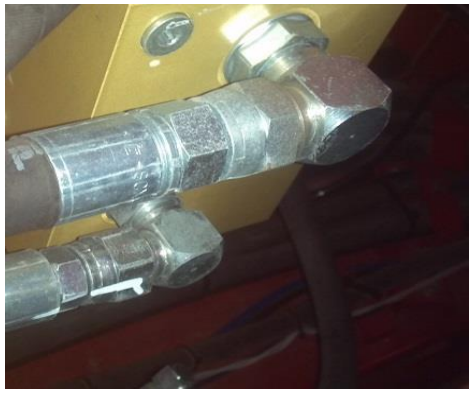
Step 4: Hydraulic Connection

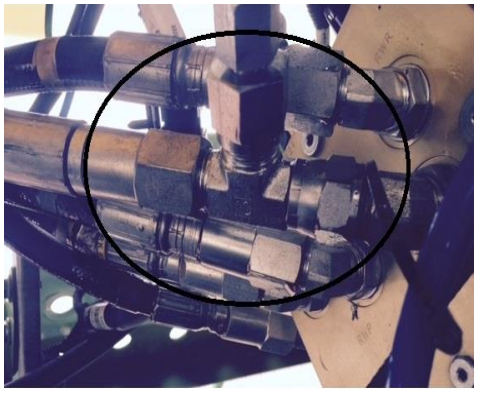
There are 2 ways to supply hydraulics to the compressor: an open SCV on the tractor or plumbing into a planter circuit. If plumbing into a planter's circuit, the circuit must have constant hydraulic flow when the planter is in use. Always plumb between the tractor SCV & the hydraulic block at the center rear of the planter. Plumbing downstream of the hydraulic block causes inconsistent flow to all functions driven by that hydraulic circuit. **PTO drive & power beyond hydraulic circuits are not an adequate source to operate the Yetter hydraulic compressor & should not be used!** The Yetter hydraulic compressor requires 4 gallons per minute max. The 2940-088 hydraulic fittings kit is used to tie into a planter circuit & 2940-089 hydraulic fittings kit is for using an open SCV remote on the tractor. In some applications, more fittings & longer hydraulic hoses may need purchased to make the hydraulic connection. It is recommended to use 1 hydraulic hose from the compressor to the location to where the connection is made & not to have any splices. If teeing into the lift/lower/bulk fill fan on a John Deere planter, plumb the Yetter hydraulic compressors pressure circuit into the return circuit on the planter & plumb the Yetter hydraulic compressor return circuit into the pressure circuit on the planter.

BULKHEAD ON DB PLANTERS

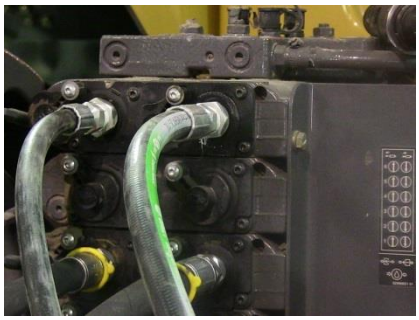


HYDRAULIC BLOCK AT THE REAR OF THE PLANTER



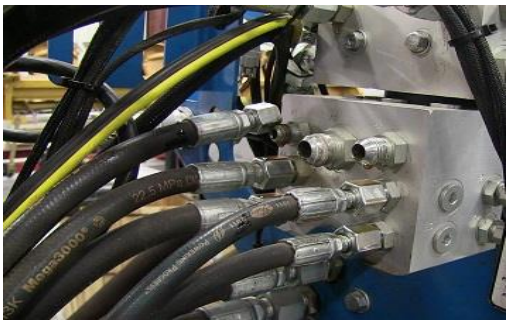


SCV DIRECT



TEEING BEHIND PIONEER COUPLER

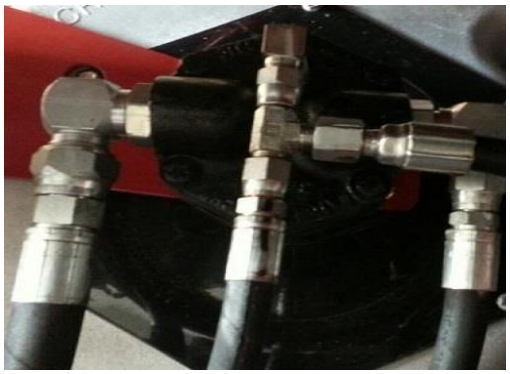
KINZE 4900



Step 6: Connect the hydraulic hose attached to the case drain on the motor to the case drain connector on the tractor or by teeing into a case drain circuit on the planter. Below are a few examples of hydraulic connection. The Yetter hydraulic compressor is equipped with a case drain port on the motor. Case Drain is a pressure free circuit that provides a flow path to the reservoir for hydraulic fluid used to cool and lubricate the motor. Make sure to connect the case drain to the reservoir where the hydraulic flow to the compressor is received. If tractor isn't equipped with case drain, a kit may be purchased from the OEM tractor dealer.

CASE DRAIN FLAT FACE COUPLERS CONNECTED AT TRACTOR

TEE INTO EXISTING CASE DRAIN



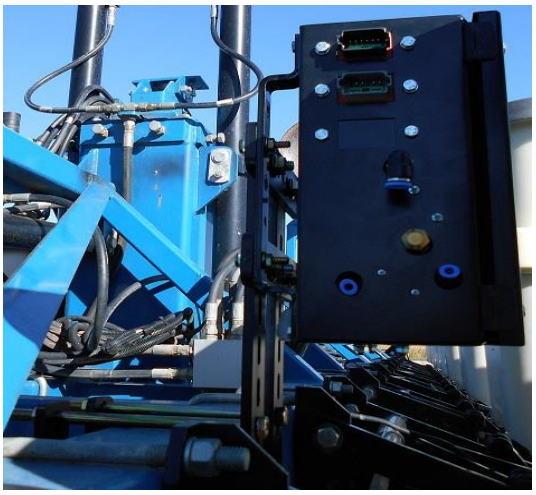
NOTE: THESE ARE EXAMPLES ONLY. USE YOUR BEST JUDGEMENT TO FIT YOUR SITUATION

2940-103 Control Box Installation

2940-103 Compressor Control Box is an assembled unit that utilizes compressed air supplied by the OEM hydraulic compressor to operate the 2940 Air Adjust System. In some situations, a mount may need to be built to install the 2940-103 in an adequate location. **OEM PLANTER ELECTRIC COMPRESSORS ON PLANTERS WILL NOT OPERATE YETTER 2940 AIR ADJUST SYSTEMS!**

2940-103 MOUNTING GUIDE

2940-082 **(See page 94 for diagram)**



2940-083 **(See page 94 for diagram)**

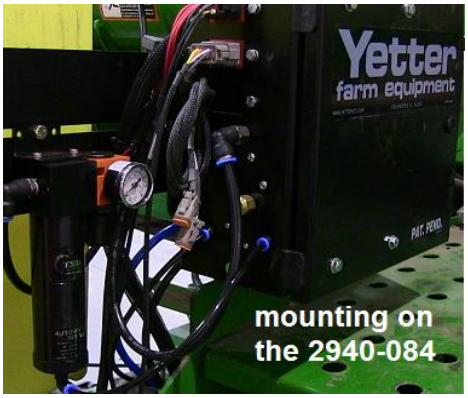
2940-084 (handrail by compressor)

2940-084 (handrail between bulk fill tanks)

(See page 95 for diagram of the 2940-084)

Water Separator/Regulator Installation

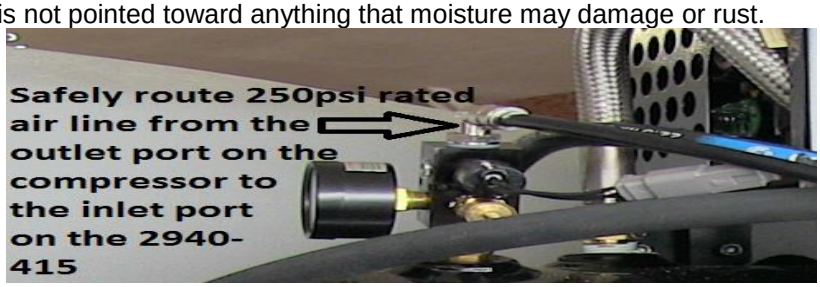
Install the water separator/regulator assembly near the control box in a suitable location out of harm's way. The water separator removes moisture from entering the system's control box. Install the assembly with the water trap vertical & the elbow fitting towards the ground. The regulator should be preset to only allow no more that 120psi into the control box. Below are some examples of mounting locations for the water separator/regulator assembly.

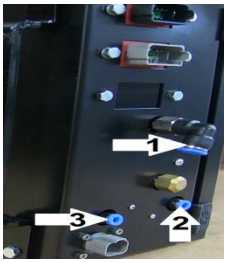


Airline Routing –Compressor to Control Box

If using a Yetter Hydraulic Compressor

Step 1: Install 2940-367 250psi rated 3/8” airline from the Yetter hydraulic compressor outlet to the inlet port (water trap side labeled A) of the water separator.
Step 2: Install 2940-345 3/8” black airline from the outlet port of the water separator (labeled B) to the inlet port (labeled 1) on the control box.
Step 3: Route ¼” airline from ¼”PTC elbow (labeled C) on the water separator to the ¼”PTC fitting (labeled 2) closest to the door hinge on the side of the control box.
Step 4: Route ¼” airline from the ¼”PTC fitting (labeled 3) on the side of the control box toward the ground making sure the end of the airline is not pointed toward anything that moisture may damage or rust.

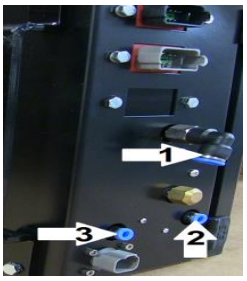




If using a John Deere Hydraulic Compressor

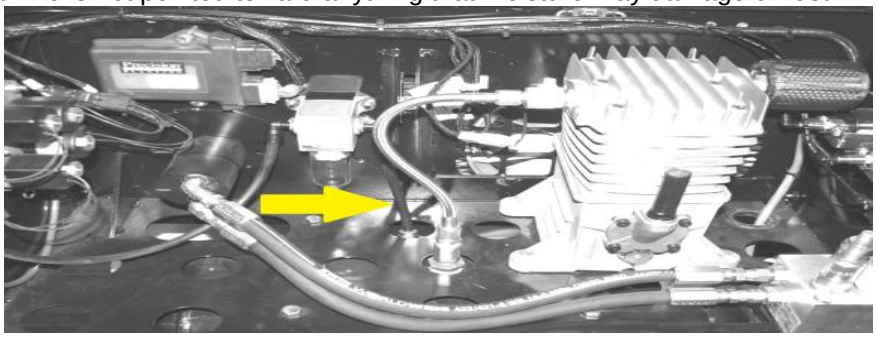
Step 1: Locate the valve block on the hydraulic compressor, drain air pressure from tank/valve block, & remove gauge/pipe plug.
Step 2: If pipe plug equipped, install the 2940-408 3/8 PTC elbow where plug was removed. If gauge equipped, install the 2940-374 adaptor. Male end gets Teflon tape & installs on the hydraulic block, gauge installs in the rearward facing female end, & the 3/8PTC elbow installs in remaining end.
Step 3: Route 2940-367 250psi rated 3/8” airline from the 3/8 PTC elbow fitting to the inlet port (labeled A) of the water separator.
Step 4: Route 2940-345 black 3/8”airline from the outlet port (labeled B) of the water separator to the inlet port (labeled 1) on the 2940-103.
Step 5: Route ¼” airline from ¼”PTC elbow (labeled C) on the water separator to the ¼”PTC fitting (labeled 2) closest to the door hinge on the side of the control box.
Step 6: Route ¼” airline from the ¼”PTC fitting (labeled 3) on the side of the control box toward the ground making sure the end of the airline is not pointed toward anything that moisture may damage or rust.

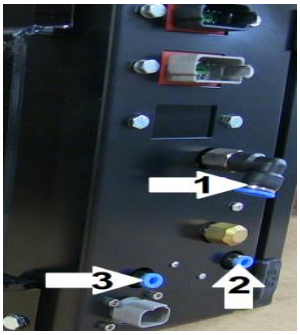




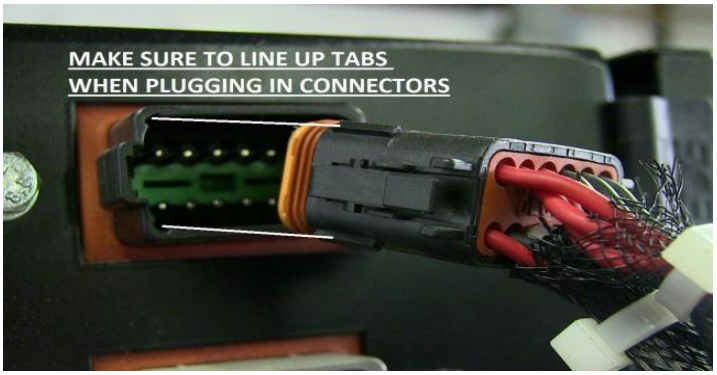
If using a Precision Planting Hydraulic Compressor

Step 1: Drain all tank pressure from the Precision Planting hydraulic compressor and install a Tee in the airline that routes from the top of the tank to the water separator. (as indicated by arrow below)
Step 2: Route 2940-367 250psi rated 3/8” airline from the installed Tee to the inlet (labeled A) of the Yetter water separator.
Step 3: Route 2940-345 3/8” black airline from the outlet port (labeled B) on the water separator to the inlet port (labeled 1) on the control box.
Step 4: Route ¼” airline from ¼”PTC elbow (labeled C) on the water separator to the ¼”PTC fitting (labeled 2) closest to the door hinge on the side of the control box.
Step 5: Route ¼” airline from the ¼”PTC fitting (labeled 3) on the side of the control box toward the ground making sure the end of the airline is not pointed toward anything that moisture may damage or rust.

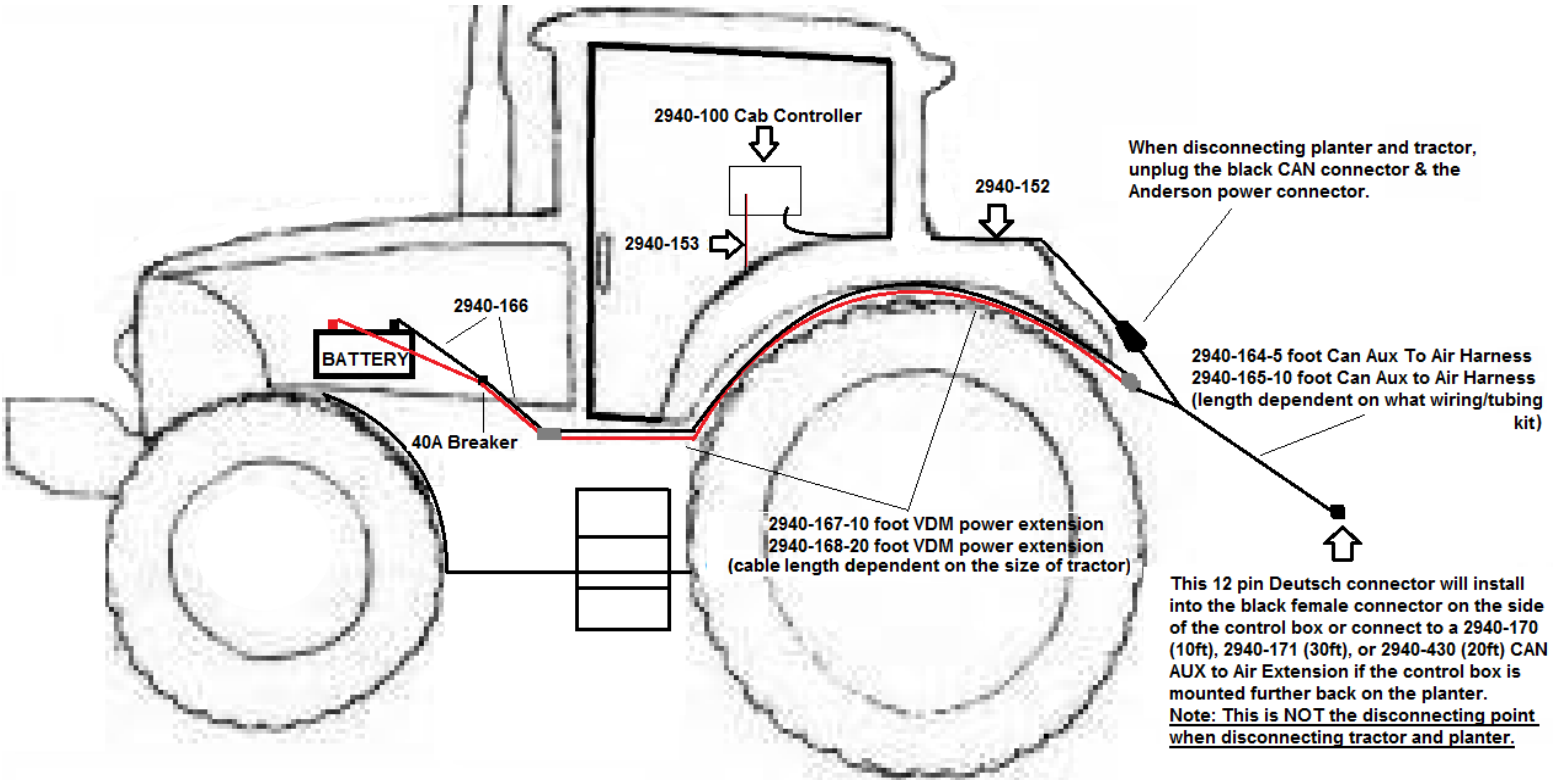


Control Box Harness Installation



FAILURE TO LINE UP TABS WHEN PLUGGING MALE INTO FEMALE CONNECTORS CAN RESULT IN SHORT CIRCUIT. ALSO CHECK TAB & SLOT SIZES, PLUGGING CONNECTORS IN BACKWARDS WILL RESULT IN FAULTY SYSTEM!!!



Power and Cab Controller Communication

Step 1: Install the 2940-166 VDM power cable with 40 amp breaker on the battery, red cable goes on the positive (+) stud & the black cable goes on the negative (-) stud.

Step 2: Install the 2940-167 (10ft) or 2940-168 (20ft) VDM power extension cable to the 2940-166 & route to the hitch of the tractor.

Step 3: Install the 2940-164 (5ft) or 2940-165 (10ft) CAN AUX to Air Harness. This harness has 3 ends. Install the Anderson power connector to the VDM power extension, install the black CAN connector to the black CAN connector attached to the cable that routes to the cab controller **(from step 4 on page 24)**, & install the male black 12 pin Deutsch connector to the female end on the side of the control box. If the control box is mounted further back than the hitch of the planter, CAN AUX to Air extension harnesses need to be installed. 2940-170 is a 10 foot extension, 2940-171 is a 30 foot extension, & a 2940-430 is a 20 foot extension.

Step 4: Zip tie the cables and harnesses as needed keeping the install as neat as possible.

Hydraulic Communication Harness **(Only if application is using the Yetter Hydraulic Compressor)**

Step 1: Install the 2940-181 hydraulic compressor solenoid/switch harness; the male 2 pin connector installs into female into the On/Off solenoid on the hydraulic block on the side of the compressor housing, the female 2 pin connector installs into the male 2 pin connector on the pressure switch.

Step 2: Connect the 2940-189 10 foot control harness to the 4 pin connector of the 2940-181 & route to control box. If more length is needed, call Yetter & order more. (2940-182 is 20 foot length; 2940-189 is 10 foot length)

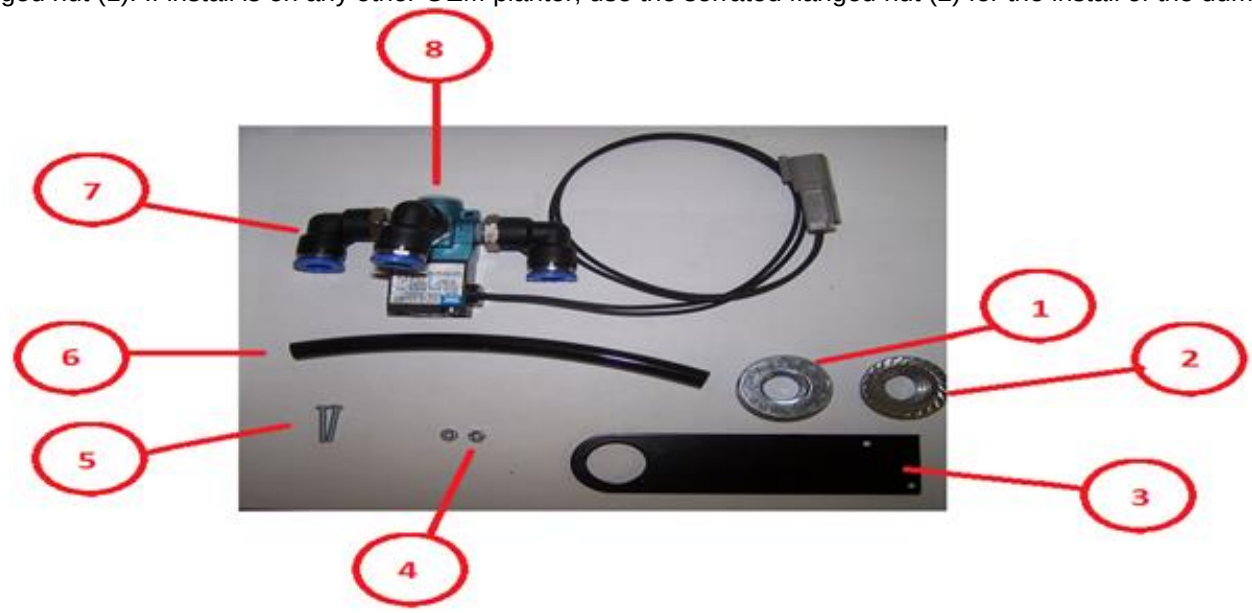
Step 3: Connect the 2940-182 or 2940-189 into the 4 pin female connector on the side of the control box.

2940 -136 Dump Valve Kit Installation

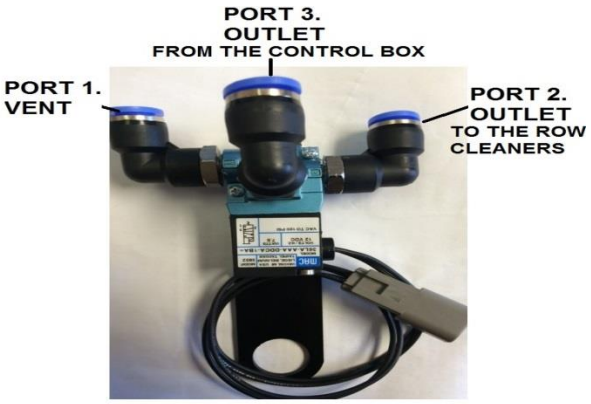
Step 1 - Align the holes on valve (8) with mounting plate (3) holes. Insert bolts (5) through the aligned holes and start the nuts (4) on the threads. Tighten nut with ¼" wrench while holding bolt with a Phillips screwdriver until tight.

Step 2 - Install supplied 6" piece of airline (6) in port 1, the vent elbow (7).

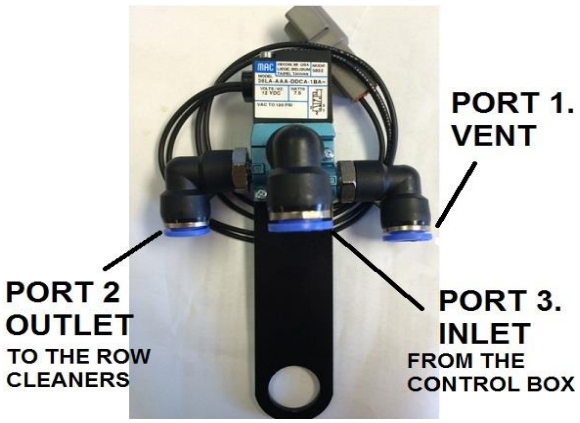
Step 3 - If install is on a John Deere planter, use flat flanged nut (1) to install Dump Valve assembly by placing circle cut out on mounting tab (3) on U-bolt used to mount the row unit to planter toolbar. Pinch mounting tab (3) between existing nut on U-bolt & the flat flanged nut (1). If install is on any other OEM planter, use the serrated flanged nut (2) for the install of the dump valves.



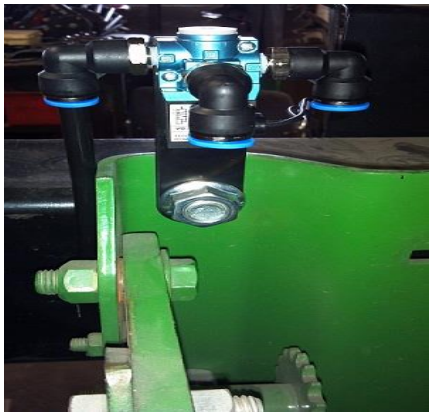
Solenoid Down



Solenoid Up



Single Dump Valve Mounting

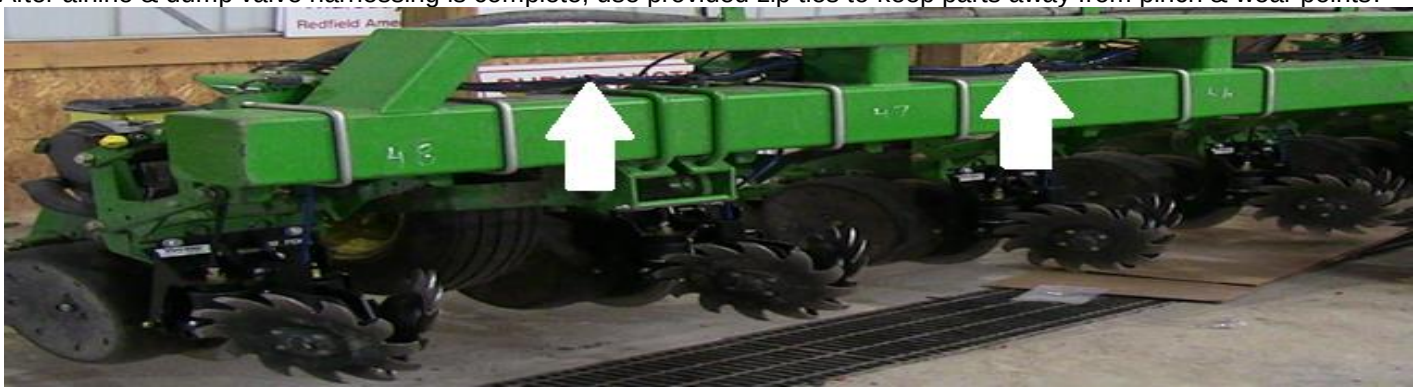


Dual Dump Valve Mounting

See pages 32 – 67 for dump valve & dump valve harness installation. Dump valve placement will vary depending on planter size. Dump valve cable length will vary depending on planter model & row spacing. White dump valve cables are to be used on all lift circuit (blue airline) dump valves. Black dump valve cables are to be used on all down pressure (black airline) dump valves.

Airline Routing-Planter Frame

Below is a suggested method for safely & securely routing the airlines on the planter frame whether installing trunk airlines (airlines routing to the row cleaner air bags) or supply airlines (airlines that route from the control box to the dump valve's inlet port). Safely route the airlines on the frame that the row units are mounted to or follow the path to which the hydraulic hoses on the planter are routed. After airline & dump valve harnessing is complete, use provided zip ties to keep parts away from pinch & wear points.



Airline Routing-Row Unit

Below is a suggested method for safely and securely routing the airlines from the air bag to the tees on the planter frame. These are generalizations and **YOU SHOULD USE YOUR OWN BEST JUDGEMENT** in routing airlines. DO NOT pass the airlines between the rear of the parallel arm & the row unit. DO NOT pass airlines between the frame & the head plate used to mount the row unit to the planter frame. These can act as both a pinch points & wear points. If necessary, use provided zip ties to keep airlines away from pinch & wear points & sharp or rotating objects that may damage the airline.

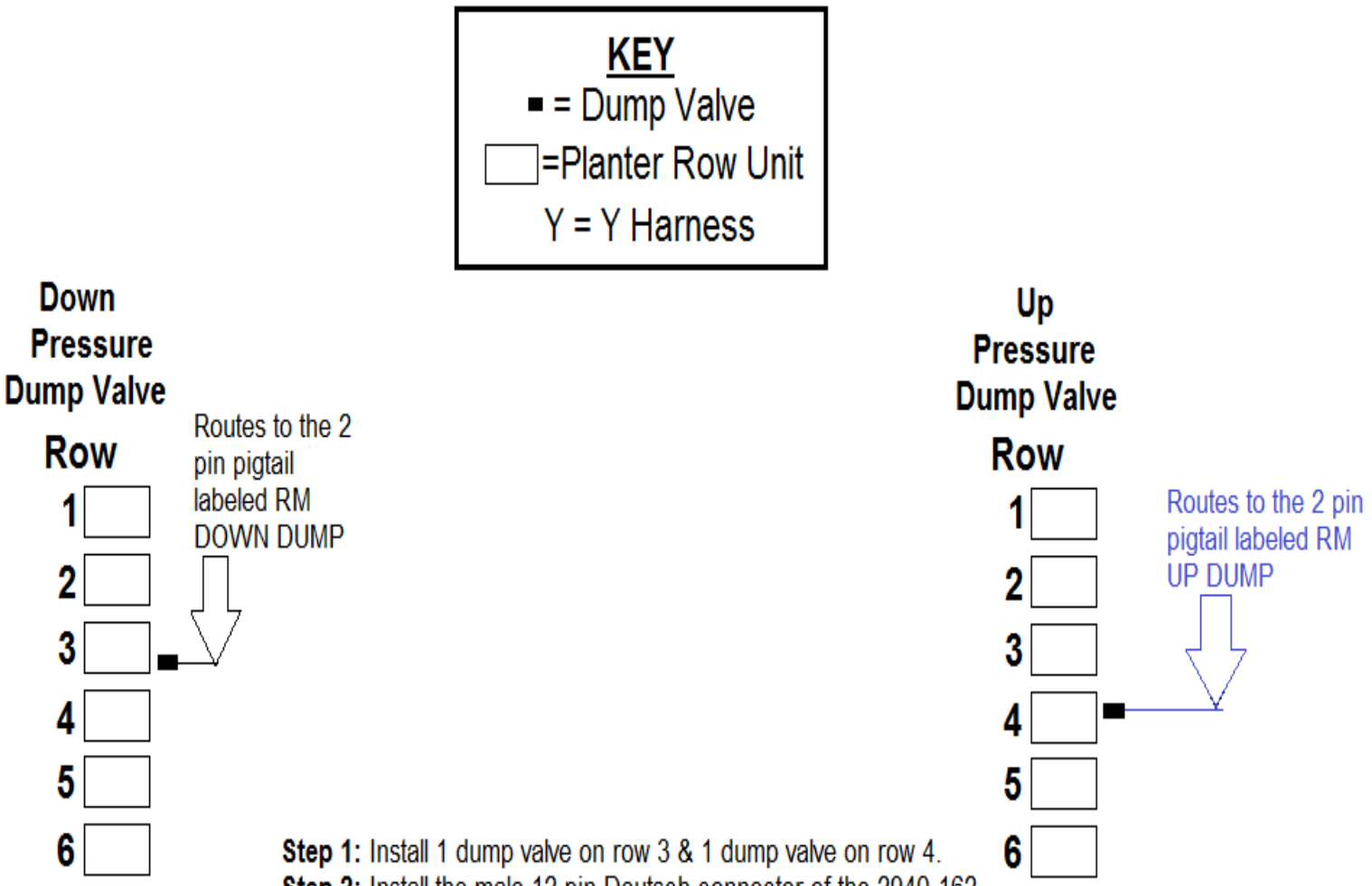
Specific airline routing will be dependent upon: Row unit make & model (AGCO, CNH, JD, Kinze, etc), row unit spacing (15", 20", 22", 30", 36", etc), parallel arm length, & other variables. RM units will have 1 up pressure & 1 down pressure air bag & RM/Coulter Combo models will have 2 air bags on the bottom of the bracket for up pressure & a single air bag on top is for down pressure. The 2 up pressure air bags will have airline already tee'd together so the lift pressure trunk airlines will need plumbed to that tee.

Airline Routing

The following pages are dump valve & airline diagrams of different planter models. Dump valve cable length may vary from the directions given. For example, a 24 row planter on 30 inch centers will have different length dump valve cables than a 24 row planter on 20 inch centers. The wiring & tubing kit will have everything needed to complete the installation.

Direction of flow is: Supply Tank → Water Separator Assembly → Control Box → Dump Valves → Air Bags All airlines will be 3/8". Blue airline should be used on all lift pressure (smaller) air bags & black airline should be used on all down pressure (larger) air bags. Use the airline colors to differentiate the lift pressure (Blue Airline) and down pressure (Black Airline) on the planter for troubleshooting, leak detection, & dump valve circuit indication. Route the airlines as efficiently and conveniently as possible.
If there is no diagram for your situation, contact a Yetter service representative (800-447-5777) and a drawing will be made.

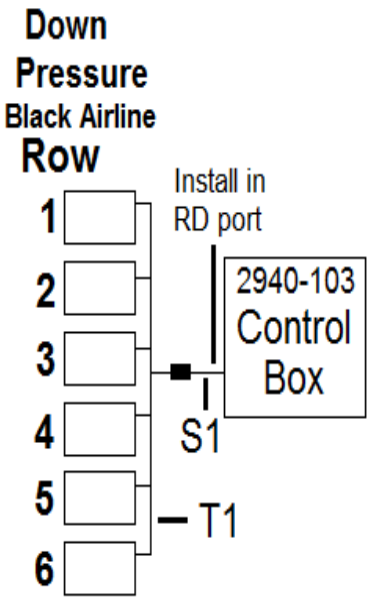
6 Row Dump Valve Diagram



Step 1: Install 1 dump valve on row 3 & 1 dump valve on row 4.
Step 2: Install the male 12 pin Deutsch connector of the 2940-162 dump valve cable into the **GRAY** female connector on the side of the 2940-103 control box.
Step 3: Install the mating 2 pin connector of the 2940-156 black dump valve cable to the dump valve on row 3 & route the other end of the 2940-156 to the 2 pin connector labeled RM DOWN DUMP (orange/black wires) on the 2940-162 from step 2 & install.
Step 4: Install the mating 2 pin connector of the 2940-157 white dump valve cable to the dump valve on row 4 & route the other end of the 2940-157 to the 2 pin connector labeled RM UP DUMP (yellow/black wires) on the 2940-162 from step 2 & install.

✸Aux 3 & Aux 4 on 2940-162 are not yet used✸

6 Row Airline Diagram



Step 1: T1 & T2 Route blue & black airline from row 1 to row 6. Install the black airline in the down pressure (larger) air bag & the blue airline in the up pressure (smaller) air bag. Trace both airlines back to row 1 installing tees in each (blue & black) airline at each row unit. From each tee in the up pressure (blue airline) circuit, route blue airline to the up pressure air bag and install in the fitting. From each tee in the down pressure (black airline) circuit, route black airline to the down pressure air bag and install in the fitting. When back to row 1, cut each airline to length & install each airline into the matching air bag.

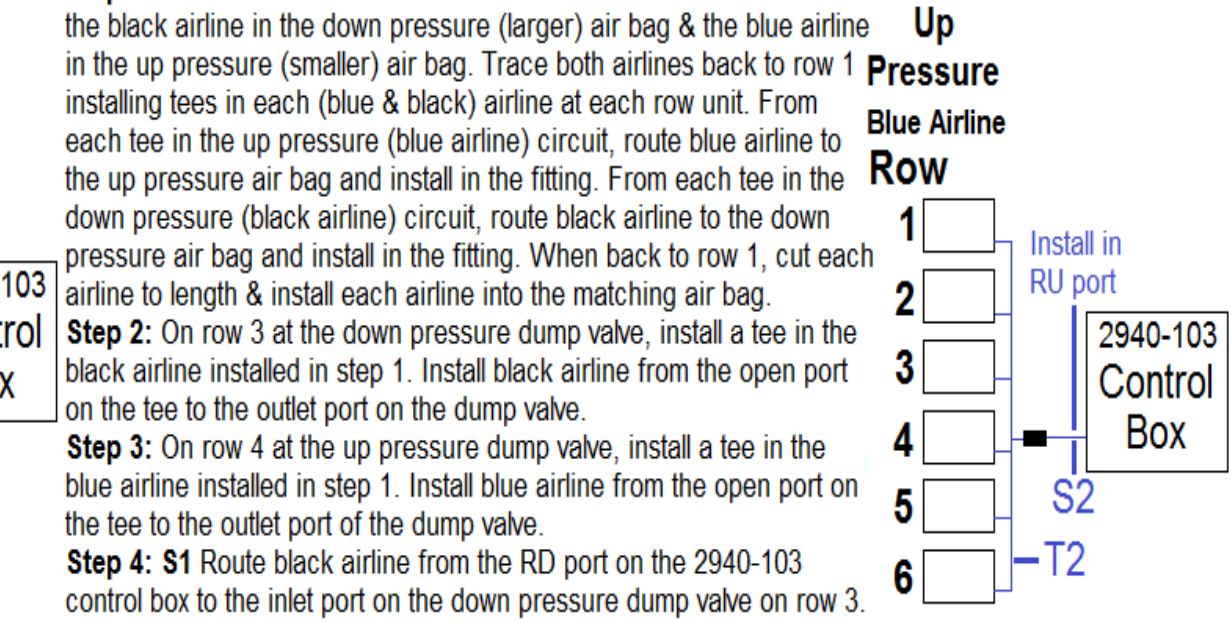
Step 2: On row 3 at the down pressure dump valve, install a tee in the black airline installed in step 1. Install black airline from the open port on the tee to the outlet port on the dump valve.

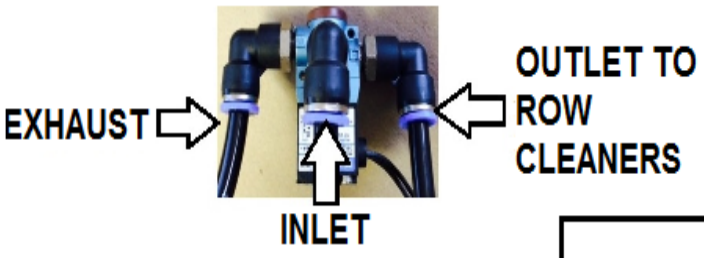
Step 3: On row 4 at the up pressure dump valve, install a tee in the blue airline installed in step 1. Install blue airline from the open port on the tee to the outlet port of the dump valve.

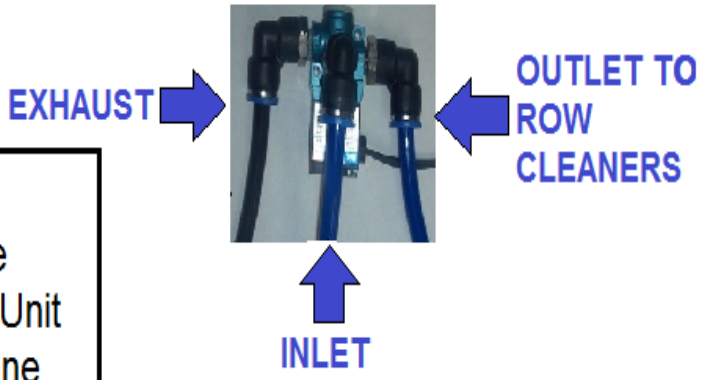
Step 4: S1 Route black airline from the RD port on the 2940-103 control box to the inlet port on the down pressure dump valve on row 3.

Step 5: S2 Route blue airline from the RU port on the 2940-103 control box to the inlet port of the up pressure dump valve on row 4.

Step 6: Install a plug (2940-352) into the WT port on the 2940-103 control box to prevent air loss. Another way to do this is to cut a 6inch piece of black airline, install one end into the WT port, fold the airline over causing a kink, & zip tie the airline to stay like this. This circuit will not be used with this size of planter.







KEY

■ = Dump Valve

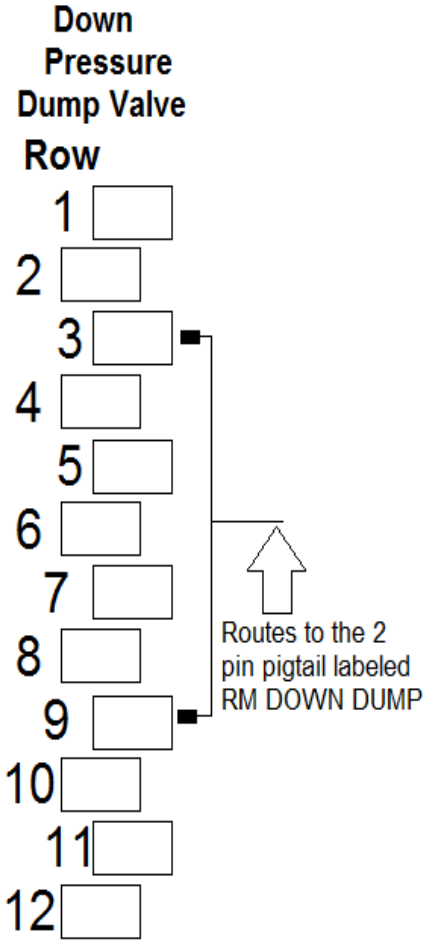
□ =Planter Row Unit

T1-2 = Trunk Line

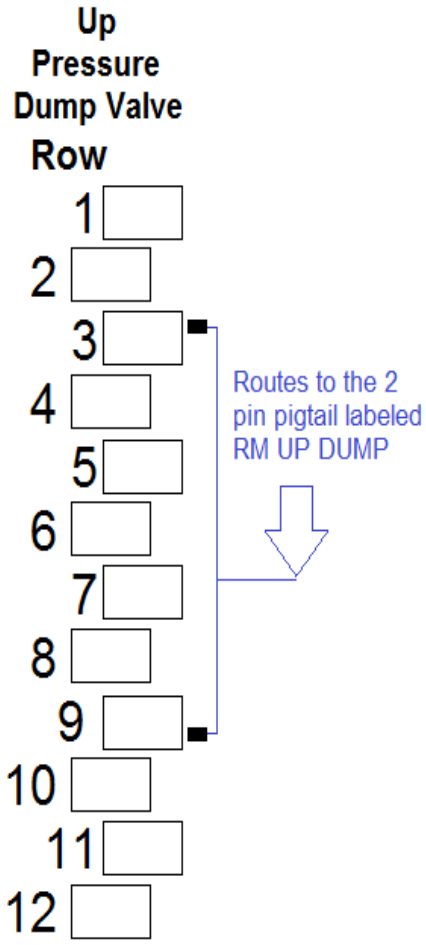
S1-2 = Supply Line

6/11 or 6/12 Split Row Dump Valve Diagram

KEY
■ = Dump Valve
□ =Planter Row Unit
Y = Y Harness



Step 1: Install 2 dump valves on row 3 and 2 dump valves on row 9.
Step 2: Install the male 12 pin Deutsch connector of the 2940-162 dump valve cable into the **GRAY** female connector on the side of the 2940-103 control box.
Step 3: Route & install 15 foot length of black dump valve cable (2940-156) from the 2 pin connector of 1 dump valve on row 3 to 1 dump valve on row 9. Use a black "Y" harness (2940-158) to connect the down pressure dump valve on row 9 to the 15 foot black dump valve cable routed from row 3's down pressure dump valve. From the remaining open connector on the black "Y" harness, route the necessary length of black dump valve cable to reach the 2 pin connector labeled RM DOWN DUMP (orange/black wires) on the 2940-162 harness installed in step 2.
Step 4: Route & install 15 foot length of white dump valve cable (2940-157) from the open 2 pin connector of the up pressure dump valve on row 3 to the up pressure dump valve on row 9. Use a white "Y" harness (2940-159) to connect the up pressure dump valve on row 9 to the 15 foot white dump valve cable routed from row 3. From the remaining open connector on the white "Y" harness, route the necessary length of white dump valve cable to reach the 2 pin connector labeled RM UP DUMP (yellow/black wires) on the 2940-162 harness installed in step 2.

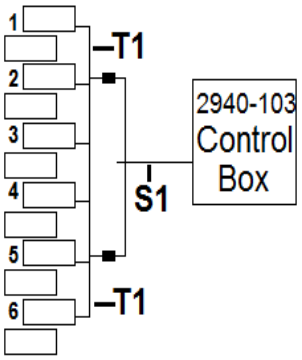


✸Aux 3 & Aux 4 on 2940-162 are not yet used✸

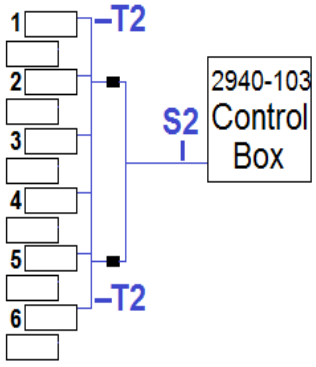
6/11 or 6/12 Split Row Airline Diagram

KEY
■ = Dump Valve
⬭ = Ball Valve
▭ =Planter Row Unit
S1-2 = Supply Airline
T1-4 = Trunk Airline

Down Pressure
Black Airline
on corn rows



Up Pressure
Blue Airline
on corn rows



Step 1: T1 & T2 Route black & blue airline from the first corn row to the last corn row. Install the black airline in the fitting of the down pressure (larger) air bag & the blue airline in the fitting of the up pressure (smaller) air bag on the last corn row. Trace both airlines back to the first corn row installing tees in each airline at each corn row. Route & install blue airline from the up pressure air bag fitting to the tee in the up pressure (blue) circuit for that corn row. Route & install black airline from the down pressure air bag fitting to the tee in the down pressure (black) circuit for that corn row. When back to the first corn row, cut each airline to length & install each airline into the fitting of the matching air bag.

Step 2: S1 At the down pressure dump valve on corn rows 2 & 5, cut & install a tee into the T1 airline installed in step 1. Route & install black airline from the remaining open port in the tee to the outlet port of the down pressure dump valve & install. Route & install black airline from the RD port on the 2940-103 control box to the nearest point on the frame that the seed units are mounted to and install a tee. Route and install black airline from each side of the tee to the inlet port of the dump valve on corn rows 2 & 5.

Step 3: S2 At the up pressure dump valve on corn rows 2 & 5, cut & install a tee into the T2 airline installed in step 1. Route blue airline from the remaining open port in each tee to the outlet port of the dump valve & install. Route & install blue airline from the RU port on the 2940-103 control box to the nearest point on the frame that the seed units are mounted to & install a tee. Route & install blue airline from each side of the tee to the inlet port of the dump valve on corn rows 2 & 5.

Step 4: T3 & T4 Route black & blue airline from the first split row to the last split row. Install the black airline in the fitting of the down pressure (larger) air bag & the blue airline in the fitting of the up pressure (smaller) air bag on the last split row. Trace both airlines back to the first split row installing tees in each airline at each split row. Route & install blue airline from the up pressure air bag fitting to the tee in the up pressure (blue) circuit for that split row. Route & install black airline from the down pressure air bag fitting to the tee in the down pressure (black) circuit for that split row. When back to the first split row, cut each airline to length & install each airline into the fitting of the matching air bag.

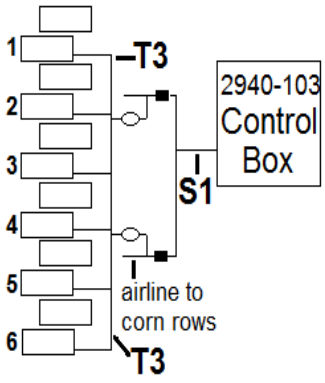
Step 5: At the down pressure dump valve on corn rows 2 & 5, cut & install a tee into the T3 airline installed in step 4. At the up pressure dump valve on corn row 2 & 5, cut & install a tee into the T4 airline installed in step 4.

Step 6: Install a tee just downstream of the outlet port on the down pressure dump valve on corn rows 2 & 5. Install a 6 inch piece of black airline in the remaining port of each tee. Install a ball valve (2940-342) on the open end of each 6" piece of black airline. Route & install black airline from the open port on each ball valve to each tee in the T3 airline installed in step 5.

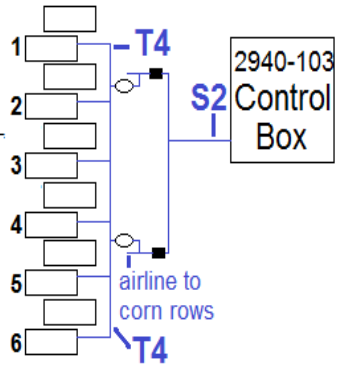
Step 7: Install a tee just downstream of the outlet port on the up pressure dump valve on corn rows 2 & 5. Install a 6 inch piece of blue airline in the remaining port of each tee. Install a ball valve on the open end of each 6" piece of blue airline. Route & install blue airline from the open port on each ball valve to each tee in the T4 airline installed in step 5.

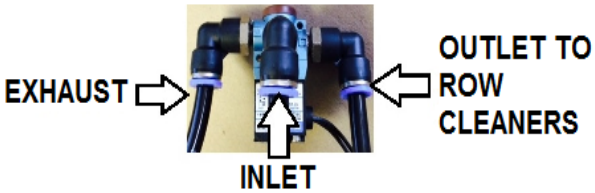
Step 8: Install a plug (2940-352) provided in the spare fittings bag (2940-174) in the WT port on the 2940-103 control box.

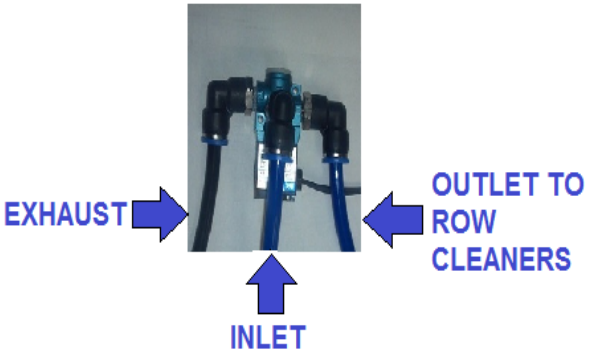
Down Pressure
Black Airline
on split rows



Up Pressure
Blue Airline
on split rows

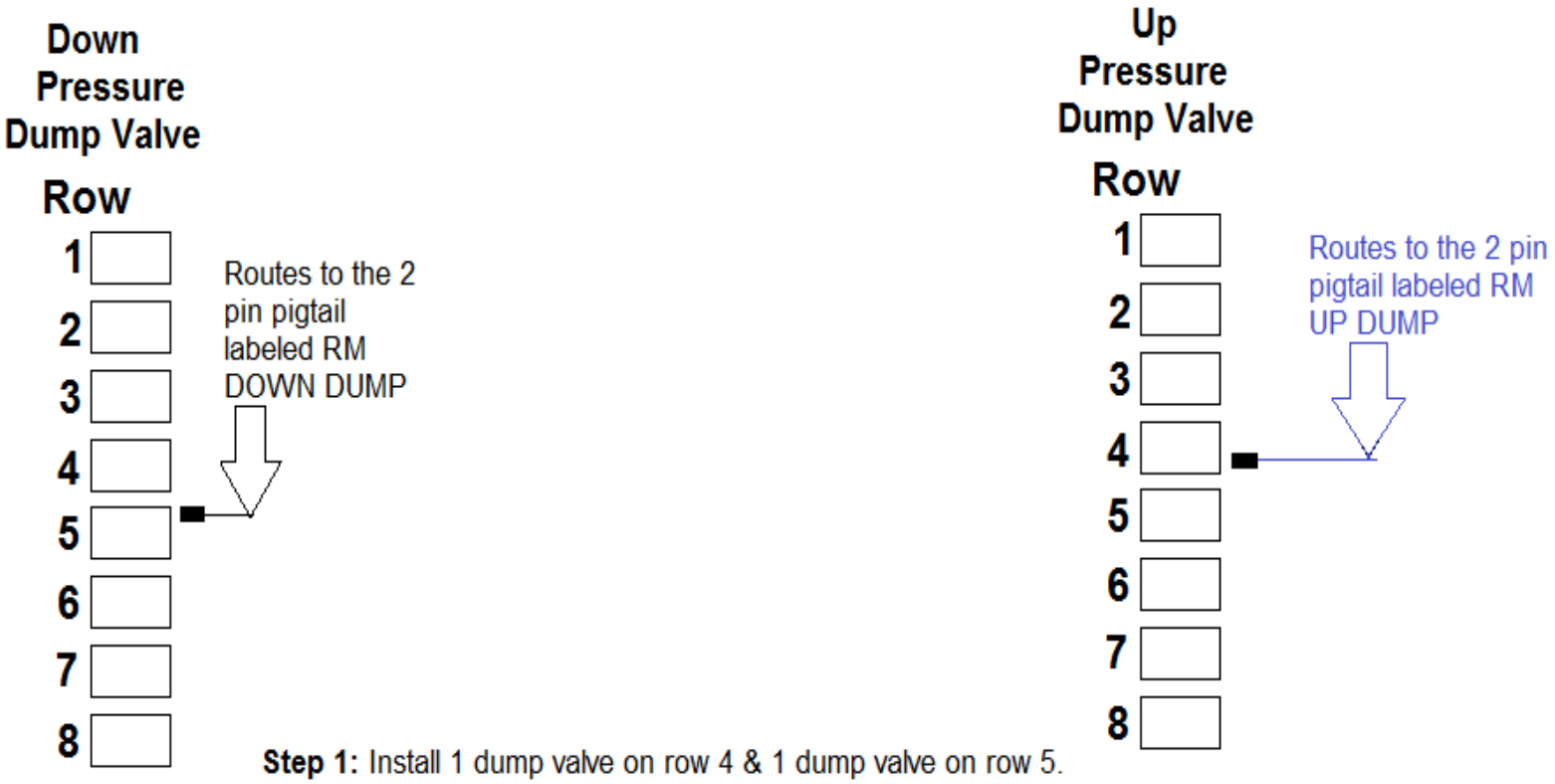






8 Row Dump Valve Diagram

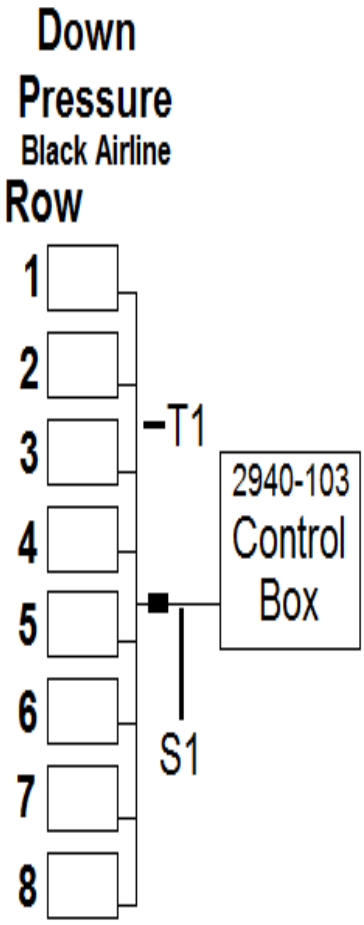
KEY
▪ = Dump Valve
☐ =Planter Row Unit
Y = Y Harness



Step 1: Install 1 dump valve on row 4 & 1 dump valve on row 5.
Step 2: Install the male 12 pin Deutsch connector of the 2940-162 dump valve cable into the **GRAY** female connector on the 2940-103 control box.
Step 3: Install the mating 2 pin connector of the 2940-156 black dump valve cable to the dump valve on row 5. Route the other end of the 2940-156 to the 2 pin connector labeled RM DOWN DUMP (orange/black wires) on the 2940-162 from step 2 & install.
Step 4: Install the mating 2 pin connector of the 2940-157 white dump valve cable to the dump valve on row 4. Route the other end of the 2940-157 to the 2 pin connector labeled RM UP DUMP (yellow/black wires) on the 2940-162 from step 2 & install.

★Aux 3 & Aux 4 on 2940-162 are not yet used★

8 Row Airline Diagram



Step 1: T1 & T2 Route blue & black airline from row 1 to row 8. Install the black airline in the down pressure (larger) air bag & blue airline in the up pressure (smaller) air bag. Trace both airlines back to row 1 installing tees in each (blue and black) airline at each row unit. From each tee in the up pressure (blue airline) circuit, route blue airline to the up pressure air bag and install in the fitting. From each tee in the down pressure (black airline) circuit, route black airline to the down pressure bag and install in the fitting. When back to row 1, cut each airline to length and install each airline to the matching air bag.

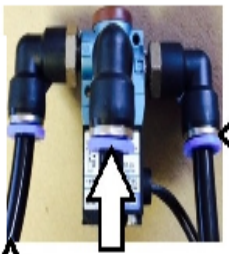
Step 2: On row 5 at the down pressure dump valve, install a tee in the black airline installed in step 1. Install black airline from the open port on the tee to the outlet port on the dump valve.

Step 3: On row 4 at the up pressure dump valve, install a tee in the blue airline installed in step 1. Install blue airline from the open port on the tee to the outlet port on the dump valve.

Step 4: S1 Route black airline from the RD port on the 2940-103 control box to the inlet port on the down pressure dump valve on row 5 & install.

Step 5: S2 Route blue airline from the RU port on the 2940-103 control box to the inlet port on the up pressure dump valve or row 4 & install.

Step 6: Install a plug (2940-352) into the WT port on the 2940-103 control box to prevent air loss. Another way to do this is to cut a 6inch piece of black airline, install one end into the WT port, fold the airline over causing a kink, & zip tie the airline to stay like this. This circuit will not be used with this size of planter.



OUTLET TO ROW CLEANERS

INLET

EXHAUST

KEY

■ = Dump Valve

□ =Planter Row Unit

T1-2 = Trunk Line

S1-2 = Supply Line

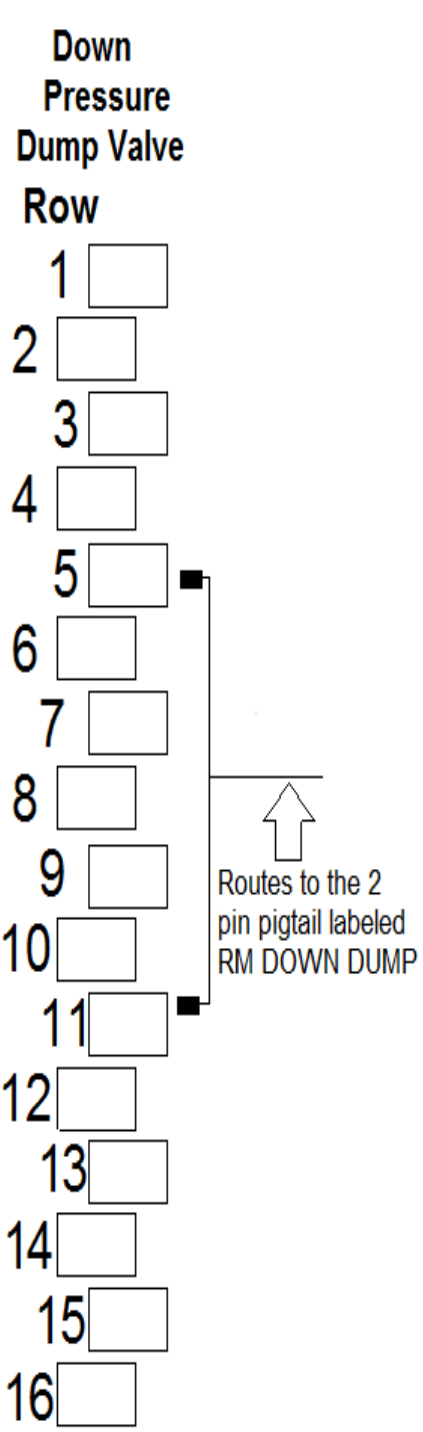
OUTLET TO ROW CLEANERS

INLET

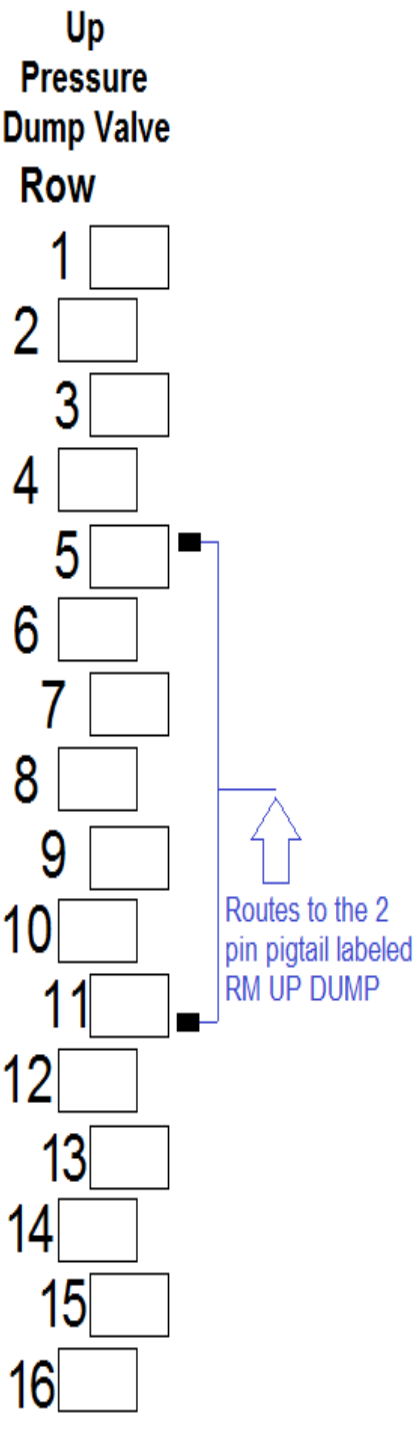
EXHAUST

8/15 & 8/16 Split Row Dump Valve Diagram

KEY
■ = Dump Valve
□ =Planter Row Unit
Y = Y Harness

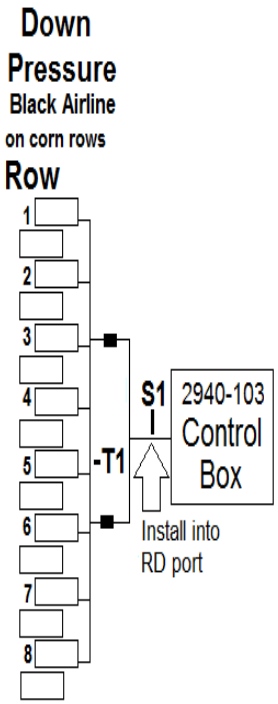


Step 1: Install 2 dump valves on each of the following rows: 5 & 11.
Step 2: : Install the male 12 pin Deutsch connector of the 2940-162 dump valve cable into the **GRAY** female connector on the side of the 2940-103 control box.
Step 3: Route & install 15 foot length of black dump valve cable (2940-156) from the 2 pin connector of 1 dump valve on row 5 to 1 dump valve on row 11. Use a black "Y" harness (2940-158) to connect the down pressure dump valve on row 11 to the 15 foot black dump valve cable routed from row 5's down pressure dump valve. From the remaining open connector on the black "Y" harness, route the necessary length of black dump valve cable to reach the 2 pin connector labeled RM DOWN DUMP (orange/black wires) on the 2940-162 harness installed in step 2.
Step 4: Route & install 15 foot length of white dump valve cable (2940-157) from the open 2 pin connector of the up pressure dump valve on row 5 to the up pressure dump valve on row 11. Use a white "Y" harness (2940-159) to connect the up pressure dump valve on row 11 to the 15 foot white dump valve cable routed from row 5. From the remaining open connector on the white "Y" harness, route the necessary length of white dump valve cable to reach the 2 pin connector labeled RM UP DUMP (yellow/black wires) on the 2940-162 harness installed in step 2.



Aux 3 & Aux 4 on 2940-162 are not yet used

8/15 & 8/16 Split Row Airline Diagram



KEY

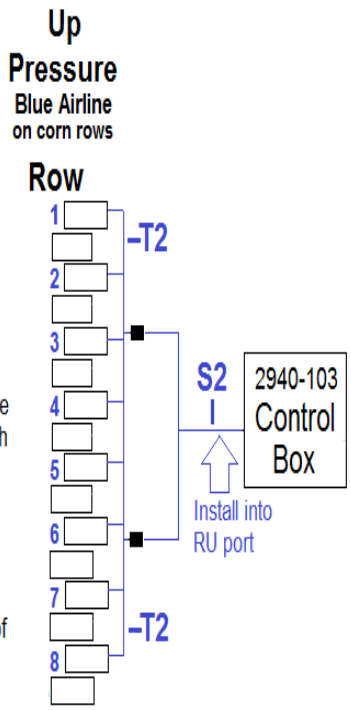
■ = Dump Valve

□ =Planter Row Unit

○ = Ball Valve

T1-4 = Trunk Line

S1-2 = Supply Line



Step 1: T1 & T2 Route black & blue airline from the first corn row to the last corn row. Install the black airline in the fitting of the down pressure (larger) air bag & the blue airline in the fitting of the up pressure (smaller) air bag on the last corn row. Trace both airlines back to the first corn row installing tees in each airline at each corn row. Route & install blue airline from the up pressure air bag fitting to the tee in the up pressure (blue) circuit for that corn row. Route & install black airline from the down pressure air bag fitting to the tee in the down pressure (black) circuit for that corn row. When back to the first corn row, cut each airline to length & install each airline into the fitting of the matching air bag.

Step 2: S1 At the down pressure dump valve on corn rows 3 & 6, cut & install a tee into the T1 airline installed in step 1. Route & install black airline from the remaining open port in the tee to the outlet port of the down pressure dump valve & install. Route & install black airline from the RD port on the 2940-103 control box to the nearest point on the frame that the seed units are mounted to and install a tee. Route and install black airline from each side of the tee to the inlet port of the dump valve on corn rows 3 & 6.

Step 3: S2 At the up pressure dump valve on corn rows 3 & 6, cut & install a tee into the T2 airline installed in step 1. Route blue airline from the remaining open port in each tee to the outlet port of the dump valve & install. Route & install blue airline from the RU port on the 2940-103 control box to the nearest point on the frame that the seed units are mounted to & install a tee. Route & install blue airline from each side of the tee to the inlet port of the dump valve on corn rows 3 & 6.

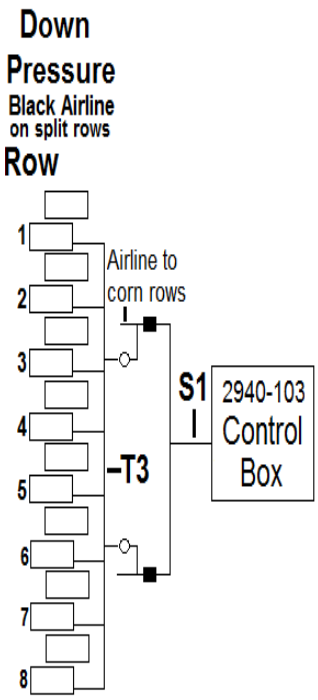
Step 4: T3 & T4 Route black & blue airline from the first split row to the last split row. Install the black airline in the fitting of the down pressure (larger) air bag & the blue airline in the fitting of the up pressure (smaller) air bag on the last split row. Trace both airlines back to the first split row installing tees in each airline at each split row. Route & install blue airline from the up pressure air bag fitting to the tee in the up pressure (blue) circuit for that split row. Route & install black airline from the down pressure air bag fitting to the tee in the down pressure (black) circuit for that split row. When back to the first split row, cut each airline to length & install each airline into the fitting of the matching air bag.

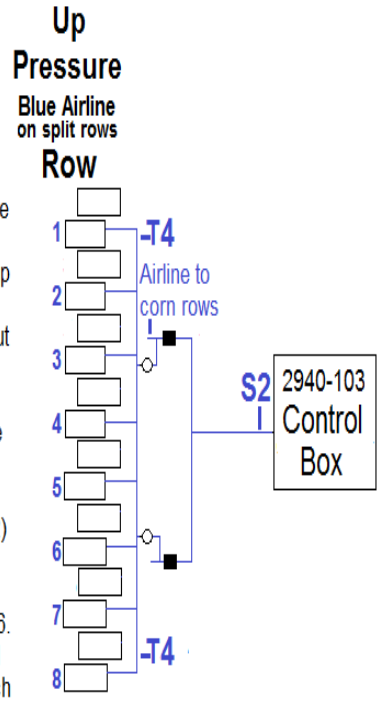
Step 5: At the down pressure dump valve on corn rows 3 & 6, cut & install a tee into the T3 airline installed in step 4. At the up pressure dump valve on corn row 3 & 6, cut & install a tee into the T4 airline installed in step 4.

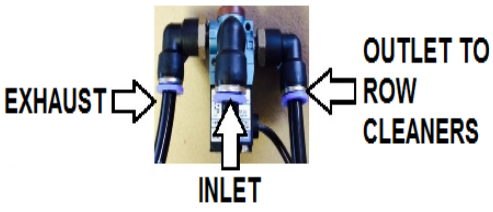
Step 6: Install a tee just downstream of the outlet port on the down pressure dump valve on corn rows 3 & 6. Install a 6 inch piece of black airline in the remaining port of each tee. Install a ball valve (2940-342) on the open end of each 6 inch piece of black airline. Route & install black airline from the open port on each ball valve to each tee in the T3 airline installed in step 5.

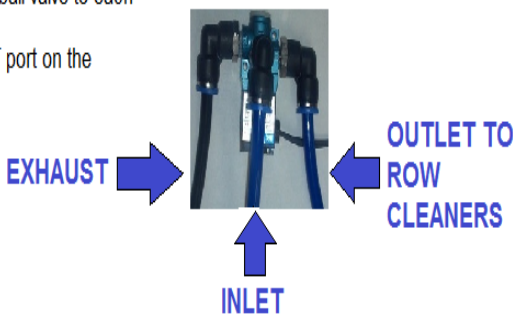
Step 7: Install a tee just downstream of the outlet port on the up pressure dump valve on corn rows 3 & 6. Install a 6 inch piece of blue airline in the remaining port of each tee. Install a ball valve on the open end of each 6 inch piece blue airline. Route & install blue airline from the open port on each ball valve to each tee in the T4 airline installed in step 5.

Step 8: Install a plug (2940-352) provided in the spare fittings bag (2940-174) in the WT port on the 2940-103 control box.



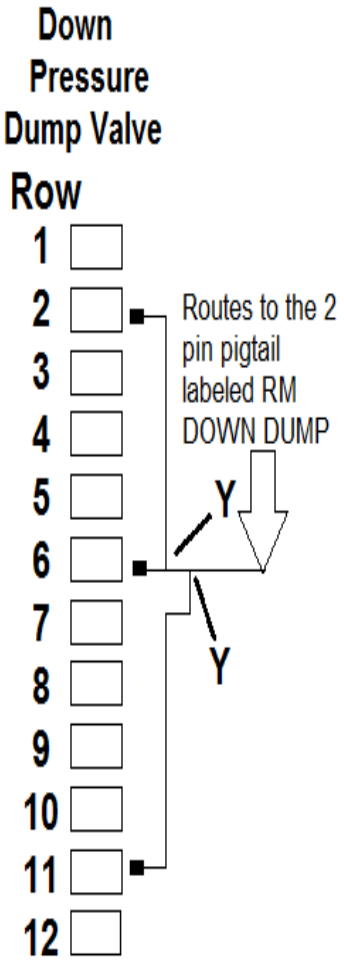




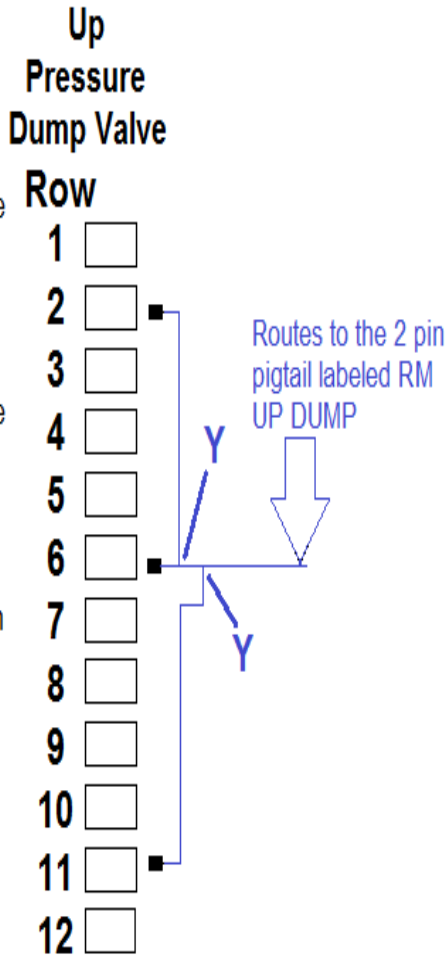


12 Row Dump Valve Diagram

KEY
■ = Dump Valve
□ =Planter Row Unit
Y = Y Harness



Step 1: Install 2 dump valves on each of the following rows: 2, 6, & 11.
Step 2: Install the male 12 pin Deutsch connector of the 2940-162 dump valve cable into the **GRAY** female connector on the side of the 2940-103 control box.
Step 3: At row 2, install the mating 2 pin connector on the 2940-156 15ft black dump valve cable to the 2 pin cable on one dump valve and install the mating 2 pin connector on the 2940-157 15ft white dump valve cable to the 2 pin cable on the other dump valve. Route both cables to the dump valves on row 6 but do not install.
Step 4: At row 11, install the mating 2 pin connector on the 2940-156 15ft black dump valve cable to the 2 pin cable on one dump valve and install the mating 2 pin connector on the 2940-157 15ft white dump valve cable to the 2 pin cable on the other dump valve. . Route both cables to the dump valves on row 6 but do not install.
Step 5: At row 6, install a 2940-158 black Y harness connecting the black dump valve cables routed in steps 3 & 4.
Step 6: Install a second black Y harness connecting one dump valve on row 6 to the Y harness installed in step 5.
Step 7: Route the appropriate length of black dump valve cable(s) from the open 2 pin connector at row 6 (from step 6) to the 2 pin connector labeled RM DOWN DUMP (orange/black wires) on the 2940-162 from step 2.
Step 8: At row 6, install a 2940-159 white Y harness connecting the white dump valve cables routed in steps 3 & 4.
Step 9: Install a second white Y harness connecting the open dump valve on row 6 to the Y harness installed in step 8.
Step 10: Route appropriate length of white dump valve cable(s) from the open 2 pin connector at row 6 (from step 9) to the 2 pin connector labeled RM UP DUMP (yellow/black wires) on the 2940-162 from step 2.



Aux 3 & Aux 4 on 2940-162 are not yet used

12 Row Airline Diagram

Step 1: T1 & T2 Route blue & black airline from row 1 to row 4. At row 4, install the black airline in the down pressure (larger) air bag fitting & blue airline in the up pressure (smaller) air bag fitting. Install a tee in each color of airline at rows 2 & 3. Install blue airline from the up pressure air bag to the tee in the blue airline & install black airline from the down pressure air bag to the tee in the black airline at each row. At row 1, cut both airlines to length & install each airline into the matching air bag fitting.

Step 2: Cut & tee T1 & T2 airline next to the matching dump valve on row 2. Route black airline from the tee in the T1 black airline into the outlet port of the down pressure dump valve (black cable) and route blue airline from the tee in the T2 blue airline to the outlet port of the up pressure dump valve (white cable).

Step 3: T5 & T6 Route blue & black airline from row 12 to row 9. At row 9, install each airline into the matching air bag's fitting. Install a tee in each color of airline at row 10 & 11. Install blue airline from the up pressure air bag fitting to the tee in the blue airline & black airline from the down pressure air bag fitting to the tee in the black airline at each row. At row 12, cut both airlines to length & install each airline into the matching air bag fitting.

Step 4: Cut & tee T5 & T6 airline next to the matching dump valve on row 11. Route black airline from the tee in the T5 black airline into the outlet port of the down pressure dump valve (black cable) and route blue airline from the tee in the T6 blue airline to the outlet port of the up pressure dump valve (white cable).

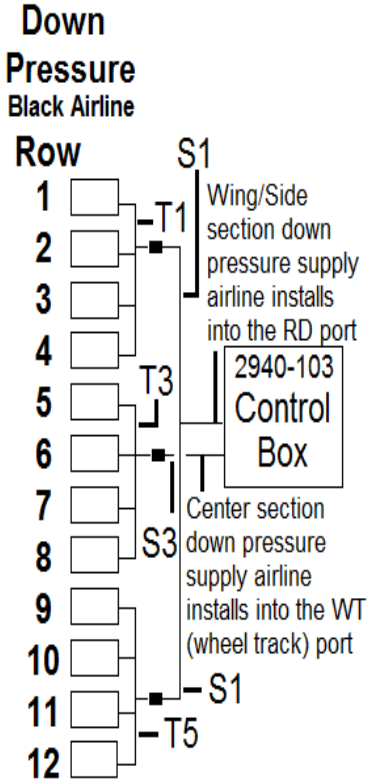
Step 5: T3 &T4 Route blue and black airline from row 5 to row 8. Install each airline at row 8 into the matching air bag's fitting. Trace both airlines back to row 5 installing a tee in each airline at rows 6 & 7. Install blue airline from the up pressure air bag fitting to the tee in blue airline on rows 6 & 7. Install black airline from the down pressure air bag fitting to the tee in the black airline on rows 6 & 7. At row 5, cut both airlines to length and install into the matching air bag.

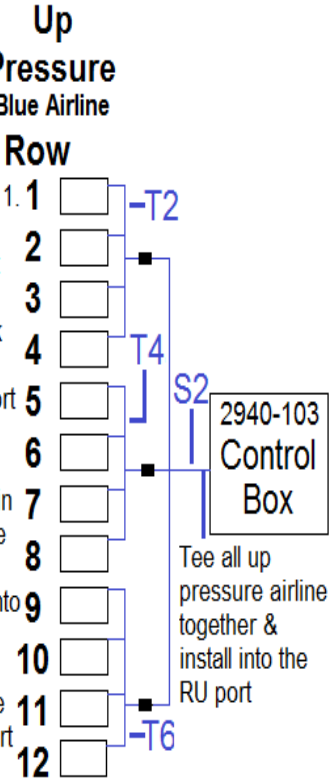
Step 6: Cut & tee the T3 & T4 airline next to the matching dump valve on row 6. Route & install black airline from the tee in T3 black airline into the outlet port of the down pressure dump valve on row 6 & route blue airline from the tee in the T4 blue airline to the outlet port of the up pressure dump valve on row 6.

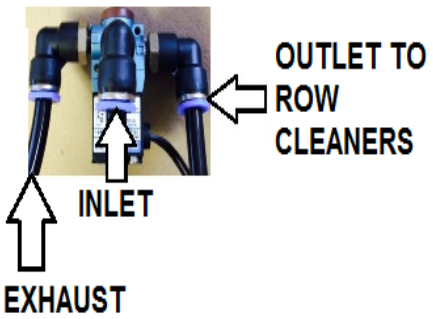
Step 7: S1 Route black airline from RD port of the 2940-103 control box to the nearest point on the main frame that the seed units are mounted to & install a tee. From each side of the tee, route black airline to the inlet port on the down pressure dump valve on each wing/side of the planter. (Rows 2 and 11) (follow the same routing path as the trunk airlines)

Step 8: S2 Route blue airline from the RU port of the 2940-103 control box to the nearest point on the main frame that the seed units are mounted to and install a tee. Install a 6 inch piece of blue line into one port of tee. Install a second tee on the open end of the 6 inch piece of blue airline. This will give you 3 open ports on this circuit to use. Route blue airline from 2 of those ports to each inlet port on the up pressure dump valve on the wings/sides of the planter on row 2 and row 11 & install. Route blue airline from remaining port of the tee to the inlet port on the up pressure dump valve on row 6 & install.

Step 9: S3 Route black airline from the WT port of the 2940-103 control box to the inlet port of the down pressure dump valve on row 6.







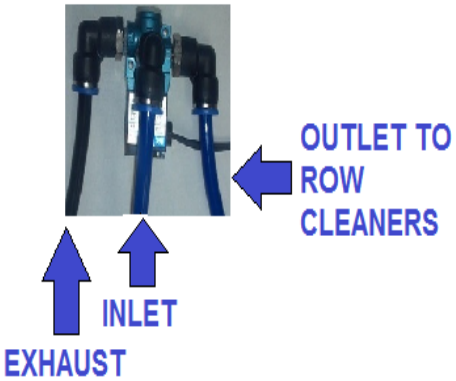
KEY

■ = Dump Valve

□ =Planter Row Unit

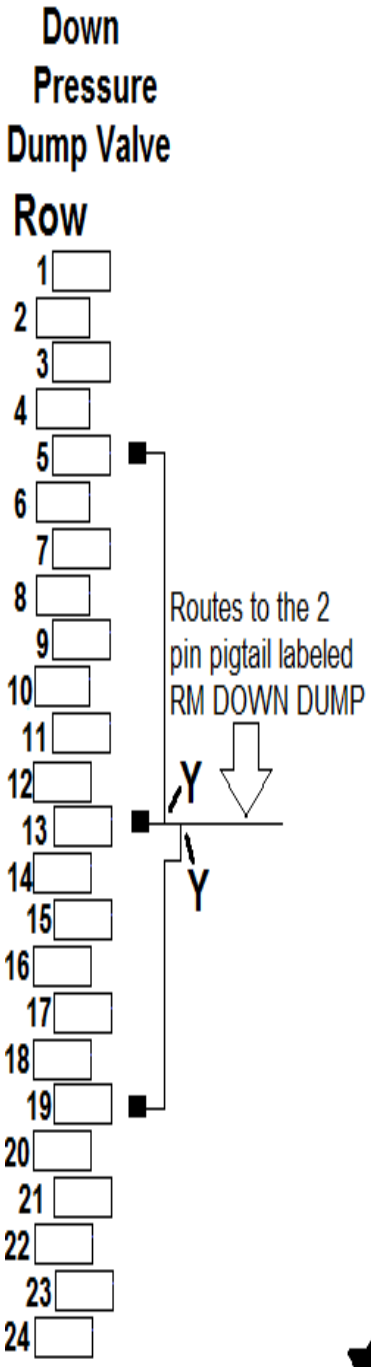
T1-6 = Trunk Line

S1-3 = Supply Line

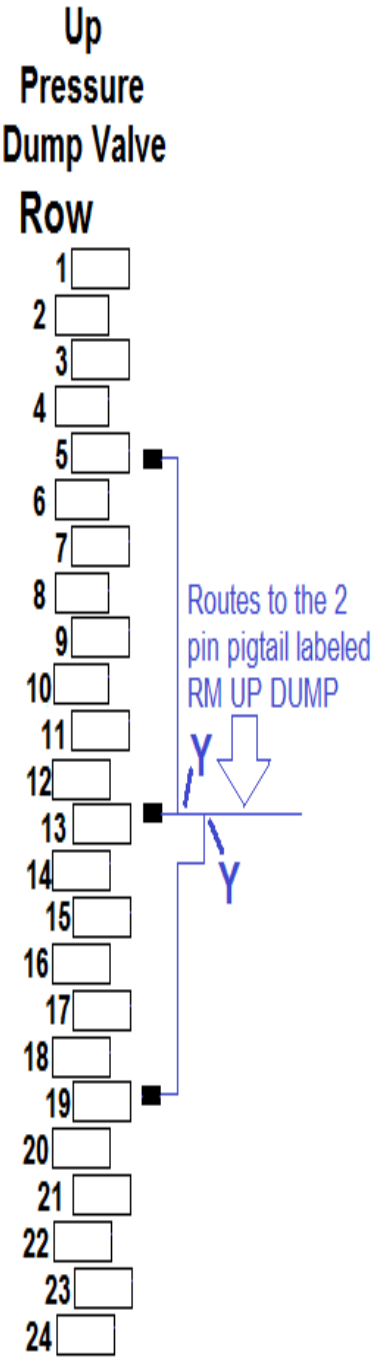


12/23 & 12/24 Split Row Dump Valve Diagram

KEY
■ = Dump Valve
□ =Planter Row Unit
Y = Y Harness

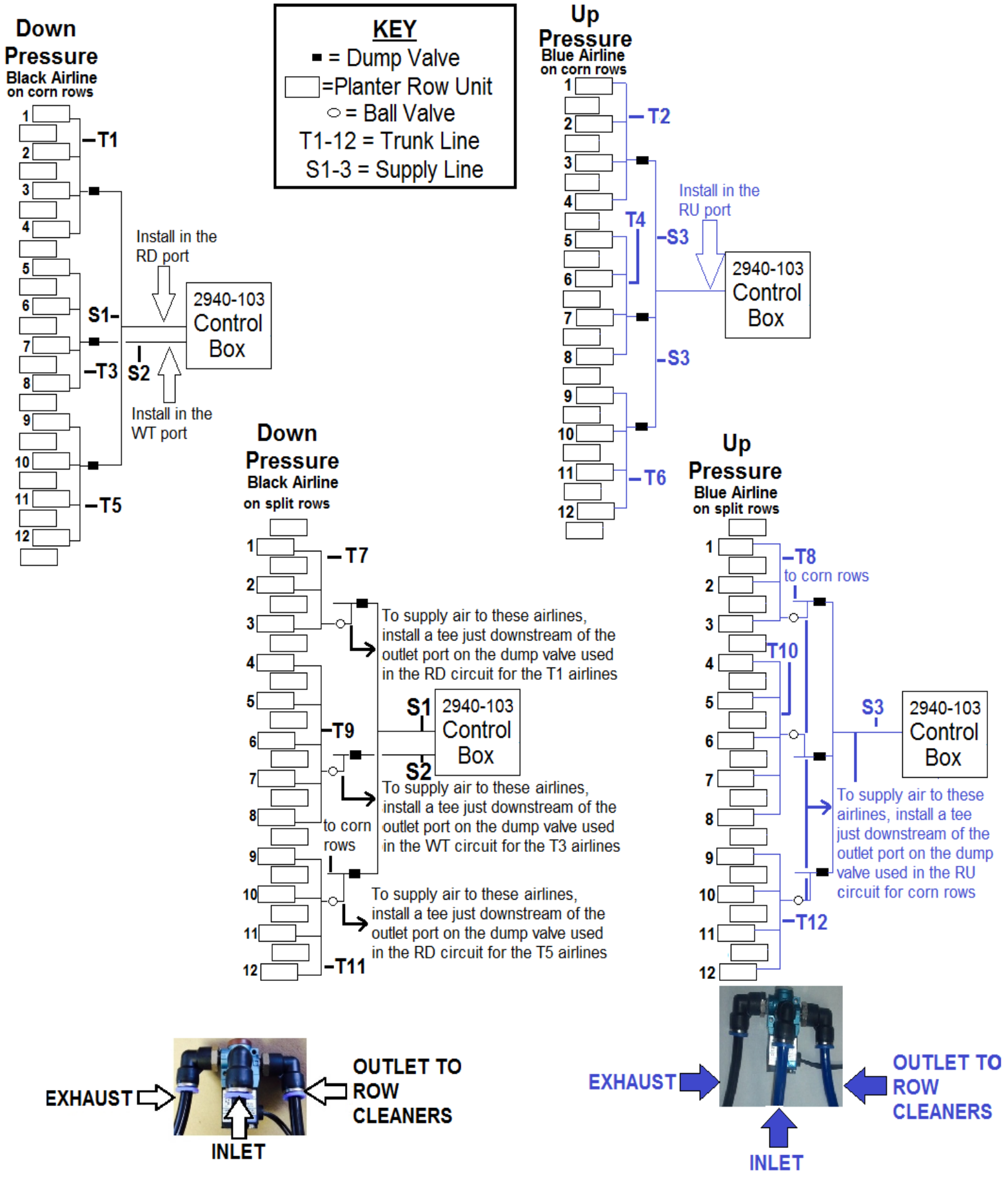


Step 1: Install 2 dump valves on each of the following rows: 5, 13, &19.
Step 2: Install the male 12 pin Deutsch connector of the 2940-162 dump valve cable into the **GRAY** female connector on the side of the 2940-103 control box.
Step 3: At row 5 & 19, install a 2940-156 15ft black dump valve cable from the 2 pin connector on one dump valve at each row and route to the dump valve on row 13 but don't install.
Step 4: At row 13, install a 2940-158 black Y harness to connect the 15ft black dump valve cables from row 5 & 19 (from step 3). Install a second black Y harness to connect one dump valve on row 13 to the Y harness connecting rows 5 & 19, so that only 1 open 2 pin connector remains.
Step 5: Route the appropriate length of black dump valve cable(s) from the open 2 pin connector on the Y harness from step 4 to the 2 pin connector labeled RM DOWN DUMP (orange/black wires) on the 2940-162 dump valve harness installed in step 2.
Step 6: At row 5 & 19, route 2940-157 15ft white dump valve cables from the 2 pin connector on each unused dump valve and route to the unused dump valve on row 13 but don't install
Step 7: At row 13, install a 2940-159 white Y harness connecting the white dump valve cables routed in step 6. Install a second white Y harness to connect the unused dump valve on row 13 to the Y harness connecting rows 5 & 19.
Step 8: Route the appropriate length of white dump valve cable(s) from the open 2 pin connector on the Y harness installed in step 7 to the 2 pin connector labeled RM UP DUMP (yellow/black wires) on the 2940-162 dump valve harness installed in step 2.



Aux 3 & Aux 4 on 2940-162 are not yet used

12/23 & 12/24 Split Row Airline Diagram



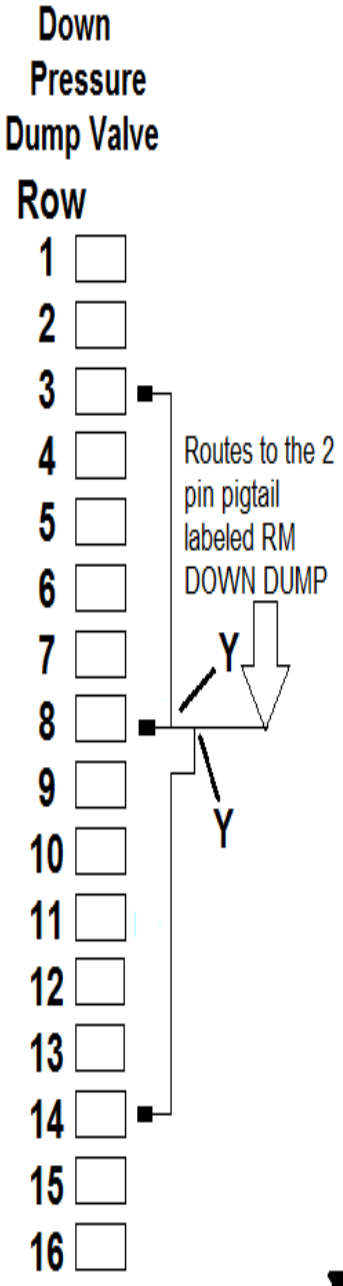
12/23 & 12/24 Split Row Airline Diagram Con't

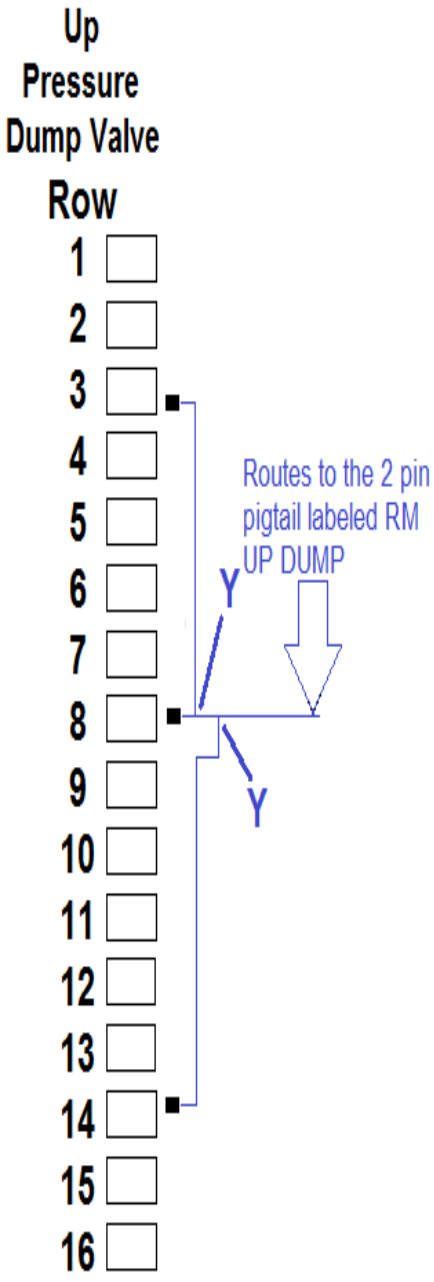
Step 1: T1 & T2 Route black & blue airline from corn row 1 to corn row 4 & install the black airline into the down pressure air bag (larger) fitting & the blue airline in the up pressure air bag (smaller) fitting. Trace both airlines back to corn 1, installing a tee in each airline at corn rows 2 & 3, & then cut both airlines to length and install the black airline in the down pressure air bag fitting & the blue airline in the up pressure air bag fitting on corn row 1. At corn rows 2 & 3, install blue airline from the up pressure air bag to the tee in the blue airline & install black airline from the down pressure air bag to the tee in the black airline.
Step 2: T3 & T4 Route black & blue airline from corn row 5 to corn row 8 & install the black airline into the down pressure air bag (larger) fitting & the blue airline in the up pressure air bag (smaller) fitting. Trace both airlines back to corn 5, installing a tee in each airline at corn rows 6 & 7, & then cut both airlines to length and install the black airline in the down pressure air bag fitting & the blue airline in the up pressure air bag fitting on corn row 5. At corn rows 6 & 7, install blue airline from the up pressure air bag to the tee in the blue airline & install black airline from the down pressure air bag to the tee in the black airline.
Step 3: T5 & T6 Route black & blue airline from corn row 12 to corn row 9 & install the black airline into the down pressure air bag (larger) fitting & the blue airline in the up pressure air bag (smaller) fitting. Trace both airlines back to corn 12, installing a tee in each airline at corn rows 10 & 11, & then cut both airlines to length and install the black airline in the down pressure air bag fitting & the blue airline in the up pressure air bag fitting on corn row 12. At corn rows 10 & 11, install blue airline from the up pressure air bag to the tee in the blue airline & install black airline from the down pressure air bag to the tee in the black airline.
Step 4: T7 & T8 Route black & blue airline from split row 1 to split row 3 & install the black airline into the down pressure air bag (larger) fitting & the blue airline in the up pressure air bag (smaller) fitting. Trace both airlines back to split 1, installing a tee in each airline at split row 2, & then cut both airlines to length and install the black airline in the down pressure air bag fitting & the blue airline in the up pressure air bag fitting on split row 1. At split row 2, install blue airline from the up pressure air bag to the tee in the blue airline & install black airline from the down pressure air bag to the tee in the black airline.
Step 5: T9 & T10 Route black & blue airline from split row 4 to split row 8 & install the black airline into the down pressure air bag (larger) fitting & the blue airline in the up pressure air bag (smaller) fitting. Trace both airlines back to split 4, installing a tee in each airline at split rows 5-7, & then cut both airlines to length and install the black airline in the down pressure air bag fitting & the blue airline in the up pressure air bag fitting on split row 4. At split row 5-7, install blue airline from the up pressure air bag to the tee in the blue airline & install black airline from the down pressure air bag to the tee in the black airline.
Step 6: T11 & T12 Route black & blue airline from the last split row to split row 9 & install the black airline into the down pressure air bag (larger) fitting & the blue airline in the up pressure air bag (smaller) fitting. Trace both airlines back to the last split row, installing a tee in each airline at split row 10 & 11(if equipped with only 11 split rows, only row 10 will need tee's installed), & then cut both airlines to length and install the black airline in the down pressure air bag fitting & the blue airline in the up pressure air bag fitting on the last split row. At split row 10 & 11(if equipped with 11 split rows, only row 10), install blue airline from the up pressure air bag to the tee in the blue airline & install black airline from the down pressure air bag to the tee in the black airline.
Step 7: S1 At corn row 3 next to the down pressure dump valve, install a tee in the T1 black airline routing from corn row 1-4. Install black airline in the remaining port on the tee & route to the outlet port on the down pressure dump valve on corn row 3 & install. Install a tee just downstream of the outlet port of the down pressure dump valve on corn row 3 (same airline just installed). Install a 6" piece of black airline in the remaining port of the tee. Install a ball valve (2940-342) on the open end of the 6inch piece of black airline. Install a tee in the T7 black airline routing from split row 1-3. Install black airline from the open port of the ball valve to the open port of the tee. At corn row 10 next to the down pressure dump valve, install a tee in the T5 black airline routing from corn row 9-12. Install black airline in the remaining port on the tee & route to the outlet port on the dump valve on corn row 10 & install. Install a tee just downstream of the outlet port of the down pressure dump valve on corn row 10 (same airline just installed). Install a 6" piece of black airline in the remaining port of the tee. Install a ball valve on the open end of the 6inch piece of black airline. Install a tee in the T11 airline routing from the last split row to split row 9. Install black airline from the open port of the ball valve to the open port of the tee. Install black airline in the inlet port of the down pressure dump valves on corn rows 3 & 10. Route the black airline from the inlet port of these dump valves to the center of the planter & install a tee to connect the airlines together. Install black airline in the remaining open port of the tee, route to the RD port of the 2940-103 control box, & install.
Step 8: S2 At corn row 7 next to the down pressure dump valve, install a tee in the T3 black airline routing from corn row 5-8. Install black airline in the remaining port on the tee & route to the outlet port on the down pressure dump valve on corn row 7 & install. Install a tee just downstream of the outlet port of the down pressure dump valve on corn row 7 (same airline just installed). Install a 6" piece of black airline in the remaining port of the tee. Install a ball valve on the open end of the 6inch piece of black airline. Install a tee in the T9 black airline routing from split row 1-3. Install black airline from the open port of the ball valve to the open port of the tee. Install black airline in the inlet port of the down pressure dump valve on corn row 7. Install black airline from the inlet port of the dump valve to the WT port of the 2940-103 control box.
Step 9: S3 At corn row 3 next to the up pressure dump valve, install a tee in the T2 blue airline routing from corn row 1-4. Install blue airline in the remaining port on the tee & route to the outlet port on the up pressure dump valve on corn row 3 & install. Install a tee just downstream of the outlet port of the up pressure dump valve on corn row 3 (same airline just installed). Install a 6" piece of blue airline in the remaining port of the tee. Install a ball valve on the open end of the 6inch piece of blue airline. Install a tee in the T8 blue airline routing from split row 1-3. Install blue airline from the open port of the ball valve to the open port of the tee. At corn row 7 next to the up pressure dump valve, install a tee in the T4 blue airline routing from corn row 5-8. Install blue airline in the remaining port on the tee & route to the outlet port on the up pressure dump valve on corn row 7 & install. Install a tee just downstream of the outlet port of the up pressure dump valve on corn row 7 (same airline just installed). Install a 6" piece of blue airline in the remaining port of the tee. Install a ball valve on the open end of the 6inch piece of blue airline. Install a tee in the T10 blue airline routing from split row 4-8. Install blue airline from the open port of the ball valve to the open port of the tee. At corn row 9 next to the up pressure dump valve, install a tee in the T6 blue airline routing from corn row 9-12. Install blue airline in the remaining port on the tee & route to the outlet port on the up pressure dump valve on corn row 9 & install. Install a tee just downstream of the outlet port of the up pressure dump valve on corn row 9 (same airline just installed). Install a 6" piece of blue airline in the remaining port of the tee. Install a ball valve on the open end of the 6inch piece of blue airline. Install a tee in the T12 blue airline routing from the last split row to split row 9. Install blue airline from the open port of the ball valve to the open port of the tee. Install blue airline in the inlet port of the up pressure dump valves on corn rows 3 & 10. Route the blue airline from the inlet port of these dump valves to the up pressure dump valve on corn row 7 & install tee to connect the blue airlines routed from the up pressure dump valves on rows 3 & 10. Install blue airline from the remaining port of the tee to the inlet on the up pressure dump valve on row 7. Install a tee next to the tee connecting the up pressure dump valves. Install blue airline from the remaining port of this tee to the RU port on the 2940-103 control box.

16 Row Dump Valve Diagram

KEY
■ = Dump Valve
□ =Planter Row Unit
Y = Y Harness

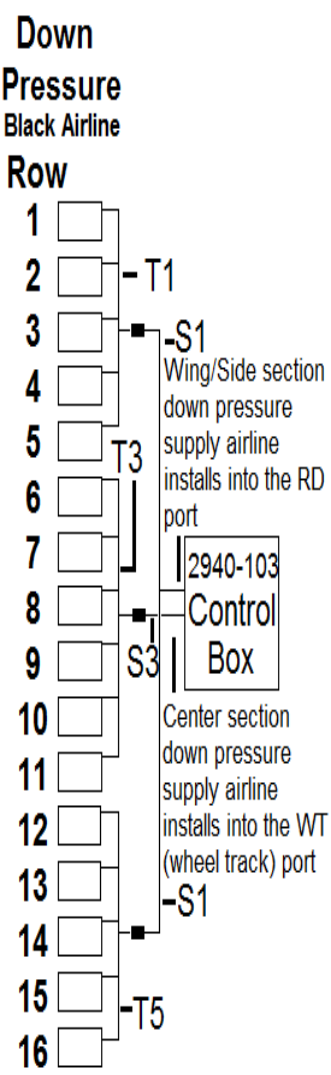
Step 1: Install 2 dump valves on each of the following rows: 3, 8, & 14.
Step 2: Install the male 12 pin Deutsch connector of the 2940-162 dump valve cable into the **GRAY** female connector on the side of the 2940-103 control box.
Step 3: At row 3, install the mating 2 pin connector on the 2940-156 15ft black dump valve cable to the 2 pin cable on one dump valve and install the mating 2 pin connector on the 2940-157 15ft white dump valve cable to the 2 pin cable on the other dump valve. Route both cables to the dump valves on row 8 but do not install.
Step 4: At row 14, install the mating 2 pin connector on the 2940-156 15ft black dump valve cable to the 2 pin cable on one dump valve and install the mating 2 pin connector on the 2940-157 15ft white dump valve cable to the 2 pin cable on the other dump valve. Route both cables to the dump valves on row 8 but do not install.
Step 5: At row 8, install a 2940-158 black Y harness connecting the black dump valve cables routed in steps 3 & 4.
Step 6: Install a second black Y harness connecting one dump valve on row 8 to the Y harness installed in step 5.
Step 7: Route the appropriate length of black dump valve cable(s) from the open 2 pin connector at row 6 (from step 6) to the 2 pin connector labeled RM DOWN DUMP (orange/black wires) on the 2940-162 from step 2.
Step 8: At row 8, install a 2940-159 white Y harness connecting the white dump valve cables routed in steps 3 & 4.
Step 9: Install a second white Y harness connecting the open dump valve on row 8 to the Y harness installed in step 8.
Step 10: Route appropriate length of white dump valve cable(s) from the open 2 pin connector at row 6 (from step 9) to the 2 pin connector labeled RM UP DUMP (yellow/black wires) on the 2940-162 from step 2.

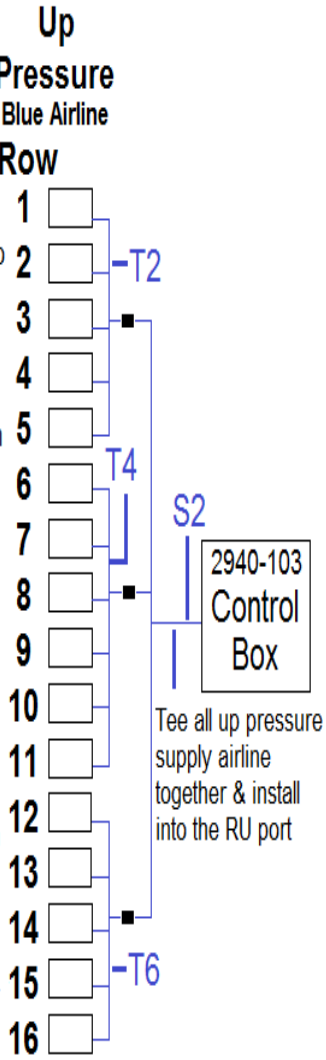




Aux 3 & Aux 4 on 2940-162 are not yet used

16 Row Airline Diagram





Step 1:T1 & T2 Route blue & black airline from row 1 to row 5. At row 5, install the black airline in the down pressure (larger) air bag fitting & blue airline in the up pressure (smaller) air bag fitting. Install a tee in each color of airline at rows 2-4. Install blue airline from the up pressure air bag to the tee in the blue airline & install black airline from the down pressure air bag to the tee in the black airline. At row 1, cut both airlines to length & install each airline into the matching air bag fitting.

Step 2: Cut & tee the T1 & T2 airline next to the matching dump valve on row 3. Route black airline from the tee in the T1 black airline into the outlet port of the down pressure dump valve (black cable) and route blue airline from the tee in the T2 blue airline to the outlet port of the up pressure dump valve (white cable).

Step 3:T5 & T6 Route blue and black airline from row 16 to row 12. At row 12, install each airline into the matching air bag's fitting. Install a tee in each color of airline at rows 13-15. Install blue airline from the up pressure air bag fitting to the tee in the blue airline & black airline from the down pressure air bag fitting to the tee in the black airline. At row 12, cut both airlines to length and install each airline into the matching air bag fitting.

Step 4: Cut & tee T5 & T6 airline next to the matching dump valve on row 14. Route black airline from the tee in the T5 black airline into the outlet port of the down pressure dump valve (black cable) and route blue airline from the tee in the T6 blue airline to the outlet port of the up pressure dump valve (white cable).

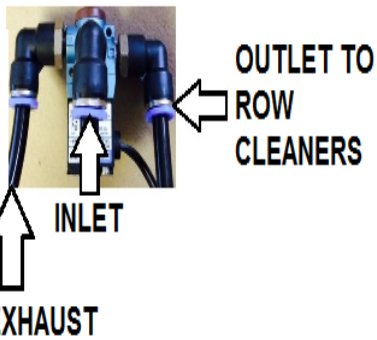
Step 5:T3 &T4 Route blue and black airline from row 6 to row 11. Install each airline at row 11 into the matching air bag's fitting. Trace both airlines back to row 6 installing a tee in each airline at each row (rows 5-8). Install blue airline from the up pressure air bag fitting to the tee in blue airline on rows 7-10. Install black airline from the down pressure air bag fitting to the tee in the black airline on rows 7-10. At row 6, cut both airlines to length and install into the matching air bag.

Step 6: Cut & tee the T3 & T4 airline next to the matching dump valve on row 8. Route & install black airline from the tee in T3 black airline into the outlet port of the down pressure dump valve on row 8 & route blue airline from the tee in the T4 blue airline to the outlet port of the up pressure dump valve on row 8.

Step 7:S1 Route black airline from RD port of the 2940-103 control box to the nearest point on the main frame that the seed units are mounted to & install a tee. From each side of the tee, route & install black airline to the inlet port on the down pressure dump valve on each wing/side of the planter. (Rows 3 and 14) (follow the same routing path as the trunk airlines)

Step 8:S2 Route blue airline from the RU port of the 2940-103 control box to the nearest point on the main frame that the seed units are mounted to and install a tee. Install a 6 inch piece of blue line into one port of tee. Install a second tee on the open end 6 inch piece of blue airline. This will give you 3 open ports on this circuit to use. Route blue airline from 2 of those ports to each inlet port on the up pressure dump valve on the wings/sides of the planter on row 3 and row 14 & install. Route blue airline from remaining port of the tee to the inlet port on the up pressure dump valve on row 8 & install.

Step 9:S3 Route black airline from the WT port of the 2940-103 control box to the inlet port of the down pressure dump valve on row 8.



KEY

■ = Dump Valve

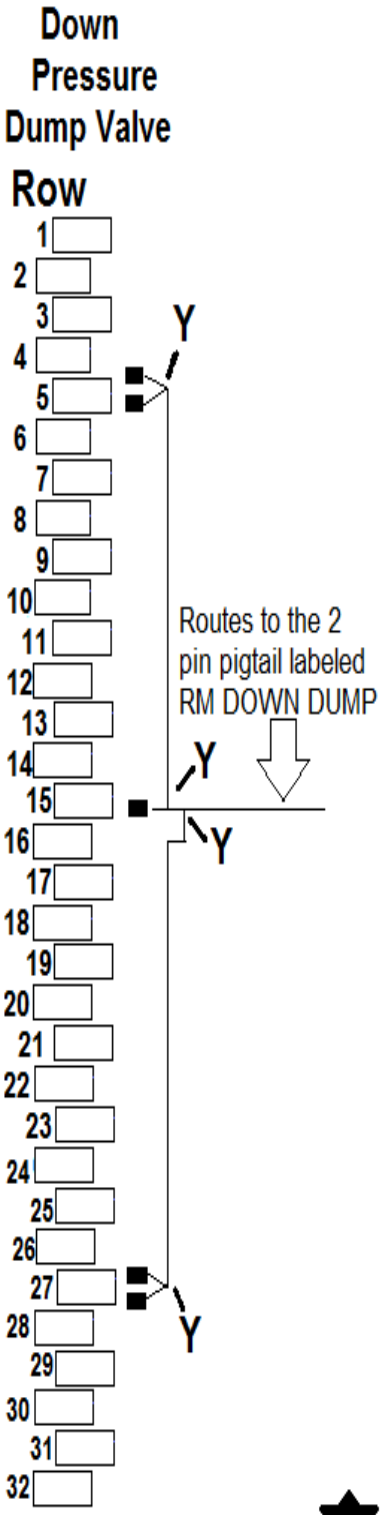
□ =Planter Row Unit

T1-6 = Trunk Line

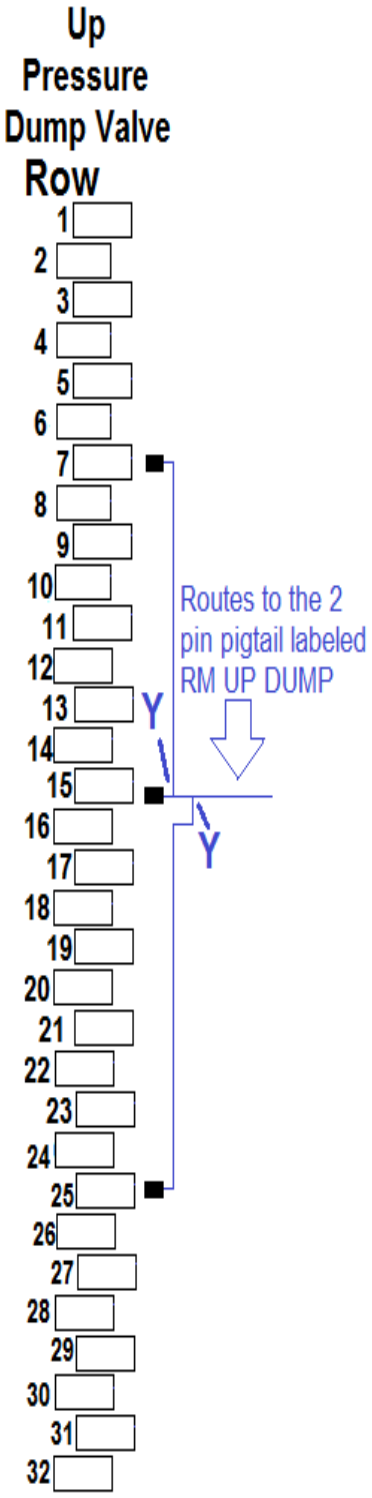
S1-3 = Supply Line

16/31 & 16/32 Split Row Dump Valve Diagram

KEY
■ = Dump Valve
□ =Planter Row Unit
Y = Y Harness



Step 1: Install 1 dump valve on each of the following rows: 7 & 25. Install 2 dump valves on each of the following rows: 5, 15, & 27.
Step 2: : Install the male 12 pin Deutsch connector of the 2940-162 dump valve cable into the **GRAY** female connector on the side of the 2940-103 control box.
Step 3: On rows 5 & 27, install a 2940-158 black Y harness to connect the dump valve's wiring harness leaving 1 open 2 pin connector on those rows.
Step 4: Install 2940-156 15ft black dump valve cable from the remaining open connector of the Y harnesses installed in step 3 on rows 5 & 27 and route to one of the dump valves on row 15 but don't install.
Step 5: Install a 2940-158 black Y harness connecting the 15ft black dump valve cables routed from rows 5 & 27 in step 4.
Step 6: Install another 2940-158 black Y harness connecting the Y harness from step 5 to the 2 pin connector of one of the dump valves on row 15, leaving one open 2 pin connector.
Step 7: Route the appropriate length of black dump valve cable(s) from the open 2 pin connector on the Y harness from step 6 to the 2 pin connector labeled RM DOWN DUMP (orange/black wires) on the 2940-162 dump valve harness installed in step 2.
Step 8: Route 2940-157 15ft white dump valve cables from dump valves on rows 7 & 25 to the open, unused dump valve on row 15 but don't install.
Step 9: Install a 2940-159 white Y harness connecting the white dump valve cables routed in step 8. Install a second white Y harness connecting row 15's dump valve to the white Y harness connecting rows 7 & 25, so that only 1 open 2 pin connector remains.
Step 10: Route the appropriate length of white dump valve cable(s) from the open 2 pin connector on the white Y harness installed in step 9 to the 2 pin connector labeled RM UP DUMP (yellow/black wires) on the 2940-162 dump valve harness installed in step 2.



Aux 3 & Aux 4 on 2940-162 are not yet used

16/31 & 16/32 Split Row Airline Diagram

KEY
- ▪ = Dump Valve
- ▭ = Planter Row Unit
- ⬭ = Ball Valve
- T1-12 = Trunk Line
- S1-3 = Supply Line

Down Pressure
Black Airline on corn rows

ROW
1
2 – T1
3
4
5
6 – S1
Install in the RD port
7
8 – T3
9 – S2
Install in the WT port
10
11 – S1
12
13 – T5
14
15
16

2940-103 Control Box

Up Pressure
Blue Airline on corn rows

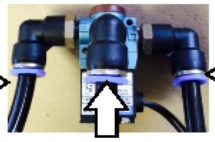
ROW
1
2 – T2
3
4
5
6 – S3
Install into the RU port
7 – T4
8
9
10
11 – S3
12
13
14
15 – T6
16

2940-103 Control Box

Down Pressure
Black Airline on split rows

ROW
1
2
3 – To supply air to the T7 airlines, install a tee just downstream of the outlet port on the dump valves used in the RD circuit for corn rows.
4 – T7
5
6
7 – T9
8 – S1
9 – S2
10 – To supply air to the T9 airlines, install a tee just downstream of the outlet port on the dump valves used in the WT circuit for corn rows.
11
12 – T11
13 – To supply air to the T11 airlines, install a tee just downstream of the outlet port on the dump valves used in the RD circuit for corn rows.
14
15
16

2940-103 Control Box



Up Pressure
Blue Airline on split rows

ROW
1
2 – T8
3
4
5
6 – T10
7
8 – S3
9
10 – To supply air to the T8, T10, & T12 airlines, install a tee just downstream of the outlet port on the dump valves used in the RU circuit on corn rows.
11
12
13
14
15 – T12
16

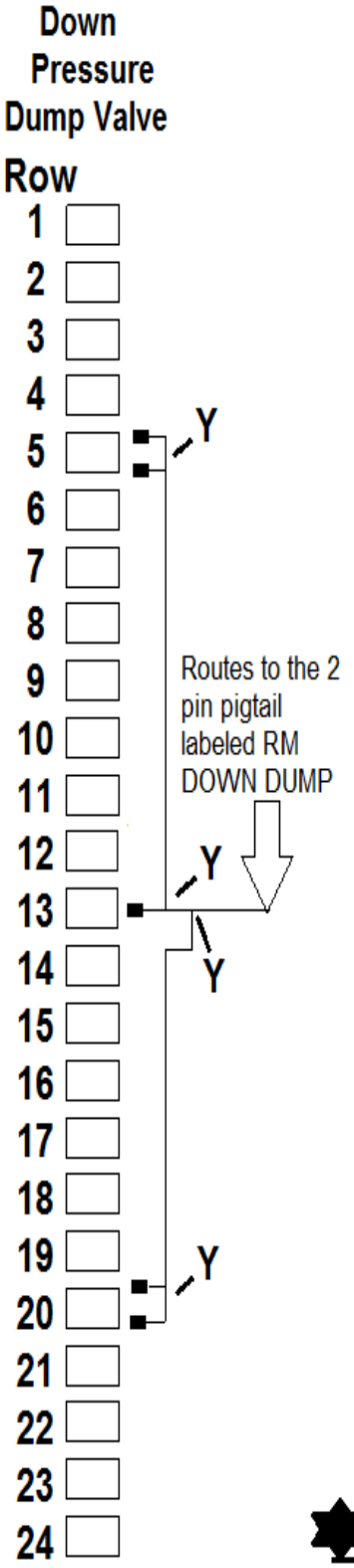
2940-103 Control Box

16/31 & 16/32 Split Row Airline Diagram Con't

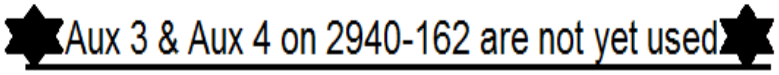
Step 1: T1 & T2 Route black & blue airline from corn row 1 to corn row 6 & install the black airline into the down pressure air bag (larger) fitting & the blue airline into the up pressure air bag (smaller) fitting. Trace both airlines back to corn 1, installing a tee in each airline at corn rows 2-5. At corn row 1, cut both airlines to length and install the black airline in the down pressure air bag fitting & the blue airline in the up pressure air bag fitting. At corn rows 2-5, install blue airline from the up pressure air bag to the tee in the blue airline & install black airline from the down pressure air bag to the tee in the black airline.
Step 2: T3 & T4 Route black & blue airline from corn row 7 to corn row 10 & install the black airline into the down pressure air bag (larger) fitting & the blue airline in the up pressure air bag (smaller) fitting. Trace both airlines back to corn row 7, installing a tee in each airline at corn rows 8 & 9. At corn row 7, cut both airlines to length and install the black airline in the down pressure air bag fitting & the blue airline in the up pressure air bag fitting. At corn rows 8 & 9, install blue airline from the up pressure air bag to the tee in the blue airline & install black airline from the down pressure air bag to the tee in the black airline.
Step 3: T5 & T6 Route black & blue airline from corn row 16 to corn row 11 & install the black airline into the down pressure air bag (larger) fitting & the blue airline in the up pressure air bag (smaller) fitting. Trace both airlines back to corn 16, installing a tee in each airline at corn rows 12-15. At corn row 16, cut both airlines to length & install the black airline in the down pressure air bag fitting & the blue airline in the up pressure air bag fitting on corn row 16. At corn rows 12-15, install blue airline from the up pressure air bag to the tee in the blue airline & install black airline from the down pressure air bag to the tee in the black airline.
Step 4: T7 & T8 Route black & blue airline from split row 1 to split row 5 & install the black airline into the down pressure air bag (larger) fitting & the blue airline in the up pressure air bag (smaller) fitting. Trace both airlines back to split 1, installing a tee in each airline at split rows 2-4. At split row 1, cut both airlines to length and install the black airline in the down pressure air bag fitting & the blue airline in the up pressure air bag fitting. At split row 2-4, install blue airline from the up pressure air bag to the tee in the blue airline & install black airline from the down pressure air bag to the tee in the black airline.
Step 5: T9 & T10 Route black & blue airline from split row 6 to split row 10 & install the black airline into the down pressure air bag (larger) fitting & the blue airline in the up pressure air bag (smaller) fitting. Trace both airlines back to split 6, installing a tee in each airline at split rows 7-9. At split row 6, cut both airlines to length and install the black airline in the down pressure air bag fitting & the blue airline in the up pressure air bag. At split row 5-7, install blue airline from the up pressure air bag to the tee in the blue airline & install black airline from the down pressure air bag to the tee in the black airline.
Step 6: T11 & T12 Route black & blue airline from the last split row to split row 11 & install the black airline into the down pressure air bag (larger) fitting & the blue airline in the up pressure air bag (smaller) fitting. Trace both airlines back to the last split row, installing a tee in each airline at split rows 12-14/15. At the last split row, cut both airlines to length and install the black airline in the down pressure air bag fitting & the blue airline in the up pressure air bag fitting. At split row 12-14/15, install blue airline from the up pressure air bag to the tee in the blue airline & install black airline from the down pressure air bag to the tee in the black airline.
Step 7: S1 At corn row 3 next to the down pressure dump valves, install a tee in the T1 black airline routing from corn row 1-6. Install black airline in the remaining port on each tee & route to the outlet port on each down pressure dump valve on corn row 3 & install. Install a tee just downstream of the outlet port of each down pressure dump valve on corn row 3 (same airline just installed). Install a 6" piece of black airline in the remaining port of each tee. Install a ball valve (2940-342) on the open end of each 6inch piece of black airline. Install a tee in the T7 black airline routing from split row 1-5. Install black airline from the open port of each ball valve to the open port of each tee. At corn row 14 next to the down pressure dump valves, install a tee in the T5 black airline routing from corn row 11-16. Install black airline in the remaining port on each tee & route to the outlet port on each dump valve on corn row 14 & install. Install a tee just downstream of the outlet port of each down pressure dump valve on corn row 14 (same airline just installed). Install a 6" piece of black airline in the remaining port of each tee. Install a ball valve on the open end of each 6inch piece of black airline. Install a tee in the T11 airline routing from the last split row to split row 11. Install black airline from the open port of each ball valve to the open port of each tee. At the down pressure dump valves on row 3, install a long enough piece of airline in each inlet port of these dump valves to connect these airlines with a tee. At the down pressure dump valves on row 14, install a long enough piece of airline in each inlet port of these dump valves to connect these airlines with a tee. Route black airline from each open port of the tee to the center of the planter and connect using another tee. From the remaining port of this tee, route black airline to the RD port of the 2940-103 control box & install.
Step 8: S2 At corn row 8 next to the down pressure dump valve, install a tee in the T3 black airline routing from corn row 7-10. Install black airline in the remaining port on the tee & route to the outlet port on the down pressure dump valve on corn row 8 & install. Install a tee just downstream of the outlet port of the down pressure dump valve on corn row 8 (same airline just installed). Install a 6" piece of black airline in the remaining port of the tee. Install a ball valve on the open end of the 6inch piece of black airline. Install a tee in the T9 black airline routing from split row 6-10. Install black airline from the open port of the ball valve to the open port of the tee. Install black airline in the inlet port of the down pressure dump valve on corn row 8. Route the black airline from the inlet port of the dump valve to the WT port of the 2940-103 control box, & install.
Step 9: S3 At corn row 4 next to the up pressure dump valve, install a tee in the T2 blue airline routing from corn row 1-6. Install blue airline in the remaining port on the tee & route to the outlet port on the up pressure dump valve on corn row 4 & install. Install a tee just downstream of the outlet port of the up pressure dump valve on corn row 4 (same airline just installed). Install a 6" piece of blue airline in the remaining port of the tee. Install a ball valve on the open end of the 6inch piece of blue airline. Install a tee in the T8 blue airline routing from split row 1-5. Install blue airline from the open port of the ball valve to the open port of the tee. At corn row 8 next to the up pressure dump valve, install a tee in the T4 blue airline routing from corn row 6-10. Install blue airline in the remaining port on the tee & route to the outlet port on the up pressure dump valve on corn row 8 & install. Install a tee just downstream of the outlet port of the up pressure dump valve on corn row 8 (same airline just installed). Install a 6" piece of blue airline in the remaining port of the tee. Install a ball valve on the open end of the 6inch piece of blue airline. Install a tee in the T10 blue airline routing from split row 6-10. Install blue airline from the open port of the ball valve to the open port of the tee. At corn row 13 next to the up pressure dump valve, install a tee in the T6 blue airline routing from corn row 11-16. Install blue airline in the remaining port on the tee & route to the outlet port on the up pressure dump valve on corn row 13 & install. Install a tee just downstream of the outlet port of the up pressure dump valve on corn row 13 (same airline just installed). Install a 6" piece of blue airline in the remaining port of the tee. Install a ball valve on the open end of the 6inch piece of blue airline. Install a tee in the T12 blue airline routing from the last split row to split row 11. Install blue airline from the open port of the ball valve to the open port of the tee. Install blue airline in the inlet port of the up pressure dump valves on corn rows 4 & 13. Route the blue airline from the inlet port of these dump valves to the up pressure dump valve on corn row 8 & install tee to connect the blue airlines routed from the up pressure dump valves on corn rows 4 & 13. Install blue airline from the remaining port of the tee to the inlet on the up pressure dump valve on corn row 8. Install a tee next to the tee connecting the up pressure dump valves. Install blue airline from the remaining port of this tee to the RU port on the 2940-103 control box.

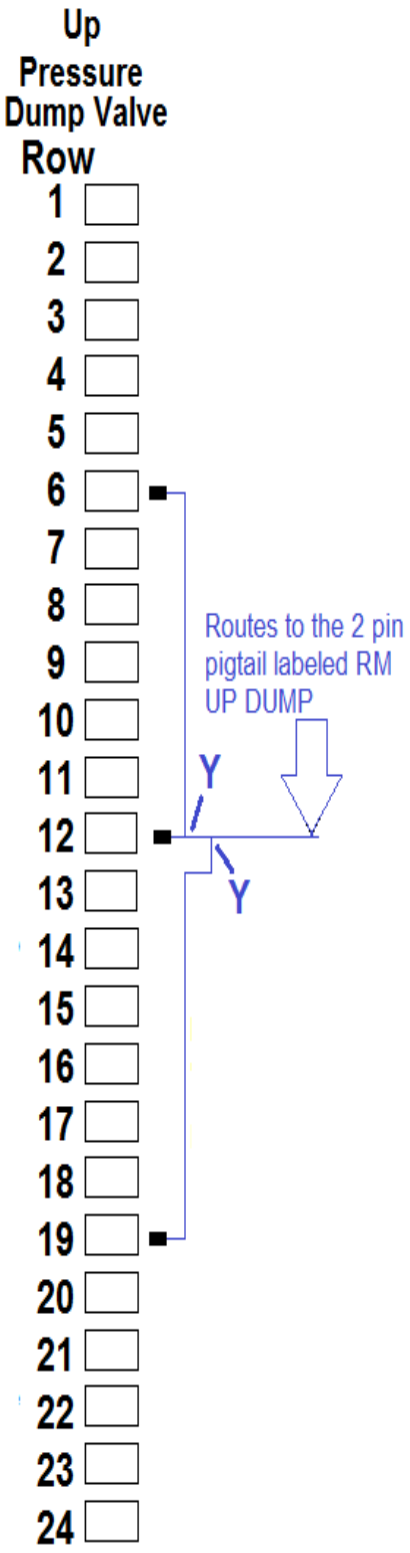
24 Row Dump Valve Diagram

KEY
■ = Dump Valve
□ =Planter Row Unit
Y = Y Harness



Step 1: Install 1 dump valve on each of the following rows: 6, 12, 13, & 19. Install 2 dump valves on each of the following rows: 5 & 20.
Step 2: Install the male 12 pin Deutsch connector of the 2940-162 dump valve cable into the **GRAY** female connector on the side of the 2940-103 control box.
Step 3: At row 5's dump valves, connect each dump valve's 2 pin cable using a 2940-158 black Y harness. Install a 2940-154 30ft black dump valve cable on the open end of the Y harness and route to row 13's dump valve but don't install.
Step 4: At row 20's dump valves, connect each dump valve's 2 pin cable using a 2940-158 black Y harness. Install a 2940-154 30ft black dump valve cable on the open end of the Y harness and route to row 13's dump valve but don't install.
Step 5: At row 13, use 1 black Y harnesses to connect the 30ft black dump valve cable routed from row 5 (step 3) and the 30ft black dump valve harness routed from row 20 (step 4). Use a second black Y harness to connect row 13's dump valve cable to the Y harness connecting row 5 and 20 leaving 1 open 2 pin connector.
Step 6: Route the appropriate length of black dump valve cable(s) from the open 2 pin connector at row 13 (from step 5) to the 2 pin connector labeled RM DOWN DUMP (orange/black wires) on the 2940-162 from step 2.
Step 7: At row 6's dump valve, connect the 2 pin connector of the dump valve to the mating 2 pin connector of the 2940-155 30ft white dump valve cable & route to the dump valve on row 12 but don't install. At row 19's dump valve, connect the 2 pin connector of the dump valve to the mating 2 pin connector of the 2940-155 30ft white dump valve cable and route to row 12 but don't install.
Step 8: At row 12, use a 2940-159 white Y harnesses to connect the white dump valve cable routed from the dump valve on row 6 & row 19 (in step 7) & a second 2940-159 white Y harness to connect the dump valve on row 12 to the Y harness used to connect the dump valves on row 6 & 19 so that only 1) 2 pin connector remains.
Step 9: Route the appropriate length of white dump valve cable(s) from the open 2 pin connector of the Y harness at row 12 (from step 8) to the 2 pin connector labeled RM UP DUMP (yellow/black wires) on the 2940-162 from step 2.





24 Row Airline Diagram

KEY
- ■ = Dump Valve
- ▭ =Planter Row Unit
- T1-6 = Trunk Line
- S1-3 = Supply Line

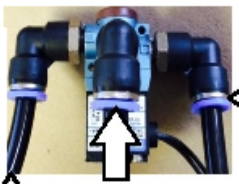
Down Pressure
Black Airline

Row
1
2
3
4 – T1
5
6
7 – S1
8
9
10
11 – T3
12
13
14 – S3
15
16
17
18
19 – S1
20
21
22 – T5
23
24

Wing/Side section down pressure supply airline installs into the RD port

2940-103 Control Box

Center section down pressure supply airline installs into the WT (wheel track) port



OUTLET TO ROW CLEANERS

INLET

EXHAUST

Up Pressure
Blue Airline

Row
1
2 – T2
3
4
5
6
7
8
9
10 – T4 S2
11
12
13
14
15
16
17
18
19
20
21 – T6
22
23
24

2940-103 Control Box

Tee all up pressure supply airline together & install into the RU port

OUTLET TO ROW CLEANERS

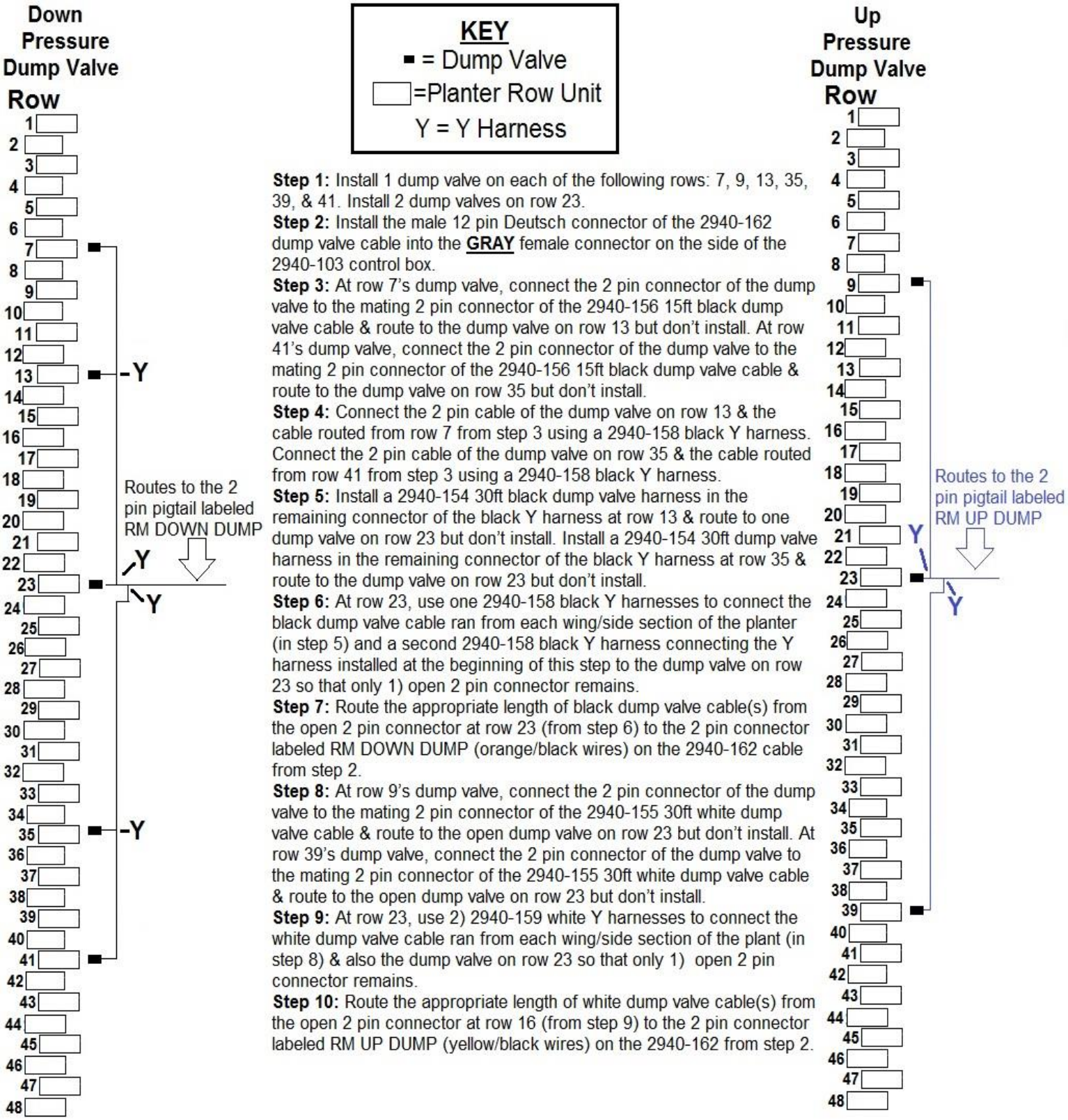
INLET

EXHAUST

24 Row Airline Diagram Con't

Step 1:T1 & T2 Route blue & black airline from row 1 to row 9. At row 9, install the black airline in the down pressure (larger) air bag & blue airline in the up pressure (smaller) air bag. Trace both airlines back to row 1 installing tees at each row unit in each airline. Install blue airline from the up pressure air bag (smaller air bag) at each row to the tee in the up pressure (blue) circuit for that row. Install black airline from the down pressure air bag (larger air bag) at each row to the tee in the down pressure (black) circuit for that row. At row 1, cut both airlines to length & install each airline into the matching air bag.
Step 2: T3 &T4 Route blue & black airline from row 10 to row 15. Install each airline into the matching air bag on row 15. Trace both airlines back to row 10 installing tees at each row unit in each airline. Install blue airline from the up pressure air bags to the tee in the up pressure airline for that row. Install black airline from the down pressure air bags to the tee in the down pressure airline for that row. At row 10, cut both airlines to length and install each airline into the matching air bag.
Step 3: T5 & T6 Route blue & black airline from row 24 to row 16. Install each airline into the matching air bag on row 16. Trace both airlines back to row 24 installing tees at each row unit in each airline. Install blue airline from the up pressure air bags to the tee in the up pressure airline for that row. Install black airline from the down pressure air bag to the tee in the down pressure airline for that row. At row 24, cut both airlines to length and install each airline into the matching air bag.
Step 4: S1 Install a tee in the T1 airline next to each down pressure dump valve on row 5. Install black airline from the outlet port on the down pressure dump valves on row 5 to the tee installed for that dump valve. Install a tee in the T5 airline next to each down pressure dump valve on row 20. Install black airline from the outlet port on the down pressure dump valves on row 20 to the tee installed for that dump valve. Route black airline from the RD port of the 2940-103 control box to the nearest point on the main frame and install a tee. From each side of the tee, route black airline to the inlet port on the furthest down pressure dump valve on rows 5 and 20 (follow the same routing path as the trunk airlines). Install a tee into the S1 airline next to the other down pressure dump valves on rows 5 & 20. Install black airline from the tee to the inlet port of each dump valve.
Step 5: S2 Install a tee in theT3 airline next to the dump valve on row 13. Install black airline from the outlet port on the down pressure dump valve on row 13 to the tee installed for that dump valve. Route & install black airline from the WT port of the 2940-103 control box to the inlet of the down pressure dump valve on row 13.
Step 6: S3 Install a tee in the T2 airline next to the up pressure dump valve on row 6. Install blue airline from the outlet port on the up pressure dump valve on row 6 to the tee installed for that dump valve. Install a tee in the T4 airline next to the up pressure dump valve on row 12. Install blue airline from the outlet port of the up pressure dump valve to the tee installed for that dump valve. Install a tee in the T6 airline next to the up pressure dump valve on row 19. Install blue airline from the outlet port of the up pressure dump valve on row 19 to the tee installed for that dump valve. Route blue airline from the RU port of the 2940-103 control box to the nearest point on the main frame and install a tee. Install a 6 inch piece of blue airline into one port of the tee. Install a second tee on the open end of the 6 inch piece of blue airline. This will give you 3 open ports on this circuit to use. Route & install blue airline from 2 of those ports to each inlet port on the up pressure dump valve on rows 6 and 19. Route & install blue airline from remaining open port on the tee to the inlet on the up pressure dump valve on row 12.

24/47 & 24/48 Row Dump Valve Diagram



Step 1: Install 1 dump valve on each of the following rows: 7, 9, 13, 35, 39, & 41. Install 2 dump valves on row 23.

Step 2: Install the male 12 pin Deutsch connector of the 2940-162 dump valve cable into the **GRAY** female connector on the side of the 2940-103 control box.

Step 3: At row 7's dump valve, connect the 2 pin connector of the dump valve to the mating 2 pin connector of the 2940-156 15ft black dump valve cable & route to the dump valve on row 13 but don't install. At row 41's dump valve, connect the 2 pin connector of the dump valve to the mating 2 pin connector of the 2940-156 15ft black dump valve cable & route to the dump valve on row 35 but don't install.

Step 4: Connect the 2 pin cable of the dump valve on row 13 & the cable routed from row 7 from step 3 using a 2940-158 black Y harness. Connect the 2 pin cable of the dump valve on row 35 & the cable routed from row 41 from step 3 using a 2940-158 black Y harness.

Step 5: Install a 2940-154 30ft black dump valve harness in the remaining connector of the black Y harness at row 13 & route to one dump valve on row 23 but don't install. Install a 2940-154 30ft dump valve harness in the remaining connector of the black Y harness at row 35 & route to the dump valve on row 23 but don't install.

Step 6: At row 23, use one 2940-158 black Y harnesses to connect the black dump valve cable ran from each wing/side section of the planter (in step 5) and a second 2940-158 black Y harness connecting the Y harness installed at the beginning of this step to the dump valve on row 23 so that only 1) open 2 pin connector remains.

Step 7: Route the appropriate length of black dump valve cable(s) from the open 2 pin connector at row 23 (from step 6) to the 2 pin connector labeled RM DOWN DUMP (orange/black wires) on the 2940-162 cable from step 2.

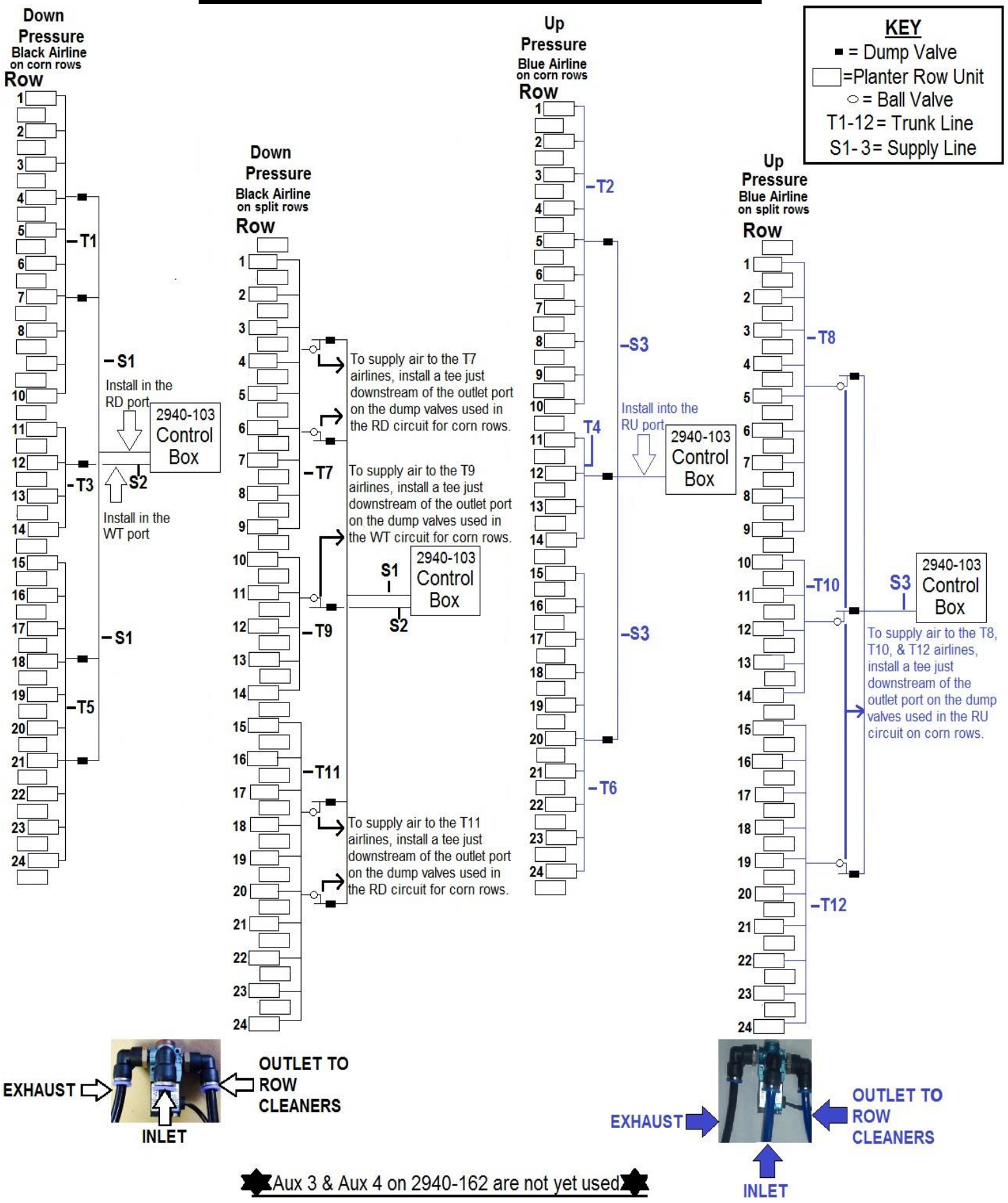
Step 8: At row 9's dump valve, connect the 2 pin connector of the dump valve to the mating 2 pin connector of the 2940-155 30ft white dump valve cable & route to the open dump valve on row 23 but don't install. At row 39's dump valve, connect the 2 pin connector of the dump valve to the mating 2 pin connector of the 2940-155 30ft white dump valve cable & route to the open dump valve on row 23 but don't install.

Step 9: At row 23, use 2) 2940-159 white Y harnesses to connect the white dump valve cable ran from each wing/side section of the plant (in step 8) & also the dump valve on row 23 so that only 1) open 2 pin connector remains.

Step 10: Route the appropriate length of white dump valve cable(s) from the open 2 pin connector at row 16 (from step 9) to the 2 pin connector labeled RM UP DUMP (yellow/black wires) on the 2940-162 from step 2.

Aux 3 & Aux 4 on 2940-162 are not yet used

24/47 & 24/48 Row Airline Diagram



✸Aux 3 & Aux 4 on 2940-162 are not yet used✸

24/47 & 24/48 Row Airline Diagram Con't

Step 1: T1 & T2 Route black & blue airline from corn row 1 to corn row 10 & install the black airline into the down pressure air bag (larger) fitting & the blue airline into the up pressure air bag (smaller) fitting. Trace both airlines back to corn 1, installing a tee in each airline at corn rows 2-9. At corn row 1, cut both airlines to length and install the black airline in the down pressure air bag fitting & the blue airline in the up pressure air bag fitting. At corn rows 2-9, install blue airline from the up pressure air bag to the tee in the blue airline & install black airline from the down pressure air bag to the tee in the black airline.

Step 2: T3 & T4 Route black & blue airline from corn row 11 to corn row 14 & install the black airline into the down pressure air bag (larger) fitting & the blue airline in the up pressure air bag (smaller) fitting. Trace both airlines back to corn row 11, installing a tee in each airline at corn rows 12 & 13. At corn row 11, cut both airlines to length and install the black airline in the down pressure air bag fitting & the blue airline in the up pressure air bag fitting. At corn rows 12 & 13, install blue airline from the up pressure air bag to the tee in the blue airline & install black airline from the down pressure air bag to the tee in the black airline.

Step 3: T5 & T6 Route black & blue airline from corn row 24 to corn row 15 & install the black airline into the down pressure air bag (larger) fitting & the blue airline in the up pressure air bag (smaller) fitting. Trace both airlines back to corn 24, installing a tee in each airline at corn rows 16 – 23. At corn row 24, cut both airlines to length & install the black airline in the down pressure air bag fitting & the blue airline in the up pressure air bag fitting. At corn rows 16 – 23, install blue airline from the up pressure air bag to the tee in the blue airline & install black airline from the down pressure air bag to the tee in the black airline.

Step 4: T7 & T8 Route black & blue airline from split row 1 to split row 9 & install the black airline into the down pressure air bag (larger) fitting & the blue airline in the up pressure air bag (smaller) fitting. Trace both airlines back to split 1, installing a tee in each airline at split rows 2 – 8. At split row 1, cut both airlines to length and install the black airline in the down pressure air bag fitting & the blue airline in the up pressure air bag fitting. At split row 2 – 8, install blue airline from the up pressure air bag to the tee in the blue airline & install black airline from the down pressure air bag to the tee in the black airline.

Step 5: T9 & T10 Route black & blue airline from split row 10 to split row 14 & install the black airline into the down pressure air bag (larger) fitting & the blue airline in the up pressure air bag (smaller) fitting. Trace both airlines back to split 10, installing a tee in each airline at split rows 11 – 13. At split row 610, cut both airlines to length and install the black airline in the down pressure air bag fitting & the blue airline in the up pressure air bag. At split row 10 – 13, install blue airline from the up pressure air bag to the tee in the blue airline & install black airline from the down pressure air bag to the tee in the black airline.

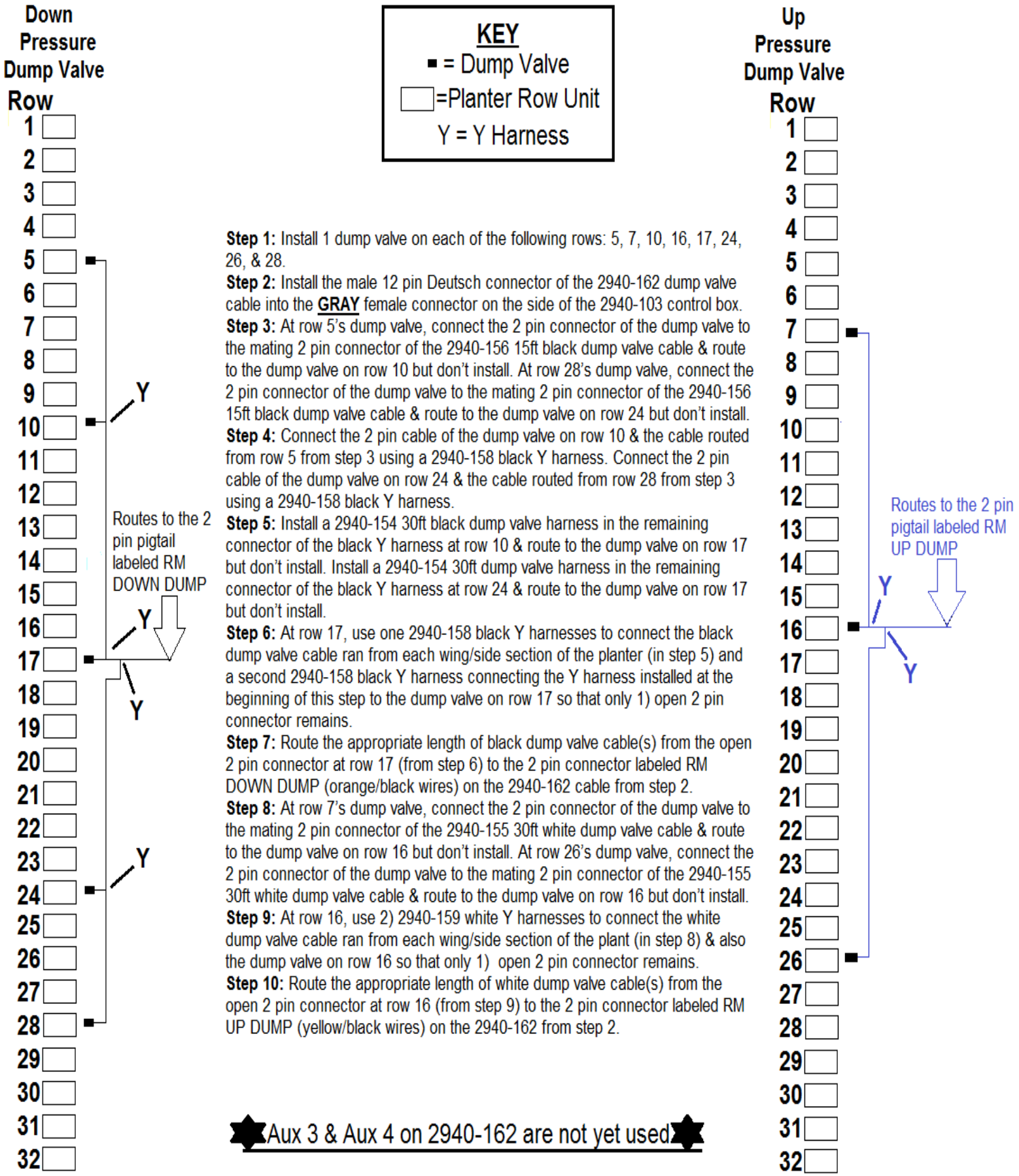
Step 6: T11 & T12 Route black & blue airline from the last split row to split row 15 & install the black airline into the down pressure air bag (larger) fitting & the blue airline in the up pressure air bag (smaller) fitting. Trace both airlines back to the last split row, installing a tee in each airline at split rows 16 – 23/24. At the last split row, cut both airlines to length and install the black airline in the down pressure air bag fitting & the blue airline in the up pressure air bag fitting. At split row 16 – 23/24, install blue airline from the up pressure air bag to the tee in the blue airline & install black airline from the down pressure air bag to the tee in the black airline.

Step 7: S1 At corn row 4 & 7 next to each down pressure dump valve, install a tee in the T1 black airline routing from corn row 1 – 10. Install black airline in the remaining port on each tee & route to the outlet port on each down pressure dump valve on corn row 4 & 7 & install. Install a tee just downstream of the outlet port of each down pressure dump valve on corn row 4 & 7 (same airline just installed). Install a 6" piece of black airline in the remaining port of each tee. Install a ball valve (2940-342) on the open end of each 6inch piece of black airline. Install a tee in the T7 black airline routing from split row 1 – 9. Install black airline from the open port of each ball valve to the open port of each tee. At corn row 18 & 21 next to each down pressure dump valve, install a tee in the T5 black airline routing from corn row 15 – 24. Install black airline in the remaining port on each tee & route to the outlet port on each dump valve on corn row 18 & 21 & install. Install a tee just downstream of the outlet port of each down pressure dump valve on corn row 18 & 21 (same airline just installed). Install a 6" piece of black airline in the remaining port of each tee. Install a ball valve on the open end of each 6inch piece of black airline. Install a tee in the T11 airline routing from the last split row to split row 15. Install black airline from the open port of each ball valve to the open port of each tee. Route & install black airline from the RD port on the 2940-103 control to the nearest point on the frame of the planter that the row units are mounted to & install a tee. On one side of the tee, route black airline to the inlet port of the down pressure dump valve on corn row 4. Trace this airline back to the up pressure dump valve on corn row 7 and install a tee. Install black airline from the remaining port of the tee the inlet port of this down pressure dump valve. On the other side of the tee, route black airline to the inlet port of the down pressure dump valve on con row 21. Trace this airline back to the up pressure dump valve on corn row 18 and install a tee. Install black airline from the remaining port of the tee the inlet port of this down pressure dump valve.

Step 8: S2 At corn row 12 next to the down pressure dump valve, install a tee in the T3 black airline routing from corn row 11 – 14. Install black airline in the remaining port on the tee & route to the outlet port on the down pressure dump valve on corn row 12 & install. Install a tee just downstream of the outlet port of the down pressure dump valve on corn row 14 (same airline just installed). Install a 6" piece of black airline in the remaining port of the tee. Install a ball valve on the open end of the 6inch piece of black airline. Install a tee in the T9 black airline routing from split row 10 – 14. Install black airline from the open port of the ball valve to the open port of the tee. Install black airline in the inlet port of the down pressure dump valve on corn row 14. Route black airline from the inlet port of the dump valve to the WT port of the 2940-103 control box, & install.

Step 9: S3 At corn row 5 next to the up pressure dump valve, install a tee in the T2 blue airline routing from corn row 1 – 10. Install blue airline in the remaining port on the tee & route to the outlet port on the up pressure dump valve on corn row 5 & install. Install a tee just downstream of the outlet port of the up pressure dump valve on corn row 5 (same airline just installed). Install a 6" piece of blue airline in the remaining port of the tee. Install a ball valve on the open end of the 6inch piece of blue airline. Install a tee in the T8 blue airline routing from split row 1 – 9. Install blue airline from the open port of the ball valve to the open port of the tee. At corn row 12 next to the up pressure dump valve, install a tee in the T4 blue airline routing from corn row 11 – 14. Install blue airline in the remaining port on the tee & route to the outlet port on the up pressure dump valve on corn row 12 & install. Install a tee just downstream of the outlet port of the up pressure dump valve on corn row 12 (same airline just installed). Install a 6" piece of blue airline in the remaining port of the tee. Install a ball valve on the open end of the 6inch piece of blue airline. Install a tee in the T10 blue airline routing from split row 10 – 14. Install blue airline from the open port of the ball valve to the open port of the tee. At corn row 20 next to the up pressure dump valve, install a tee in the T6 blue airline routing from corn row 15 – 24. Install blue airline in the remaining port on the tee & route to the outlet port on the up pressure dump valve on corn row 20 & install. Install a tee just downstream of the outlet port of the up pressure dump valve on corn row 20 (same airline just installed). Install a 6" piece of blue airline in the remaining port of the tee. Install a ball valve on the open end of the 6inch piece of blue airline. Install a tee in the T12 blue airline routing from the last split row to split row 15. Install blue airline from the open port of the ball valve to the open port of the tee. Install blue airline in the inlet port of the up pressure dump valves on corn rows 5 & 20. Route the blue airline from the inlet port of these dump valves to the up pressure dump valve on corn row 12 & install tee to connect the blue airlines routed from the up pressure dump valves on corn rows 5 & 20. Install blue airline from the remaining port of the tee to the inlet on the up pressure dump valve on corn row 12. Install a tee next to the tee connecting the up pressure dump valves. Install blue airline from the remaining port of this tee to the RU port on the 2940-103 control box.

32 Row Dump Valve Diagram



Step 1: Install 1 dump valve on each of the following rows: 5, 7, 10, 16, 17, 24, 26, & 28.
Step 2: Install the male 12 pin Deutsch connector of the 2940-162 dump valve cable into the **GRAY** female connector on the side of the 2940-103 control box.
Step 3: At row 5's dump valve, connect the 2 pin connector of the dump valve to the mating 2 pin connector of the 2940-156 15ft black dump valve cable & route to the dump valve on row 10 but don't install. At row 28's dump valve, connect the 2 pin connector of the dump valve to the mating 2 pin connector of the 2940-156 15ft black dump valve cable & route to the dump valve on row 24 but don't install.
Step 4: Connect the 2 pin cable of the dump valve on row 10 & the cable routed from row 5 from step 3 using a 2940-158 black Y harness. Connect the 2 pin cable of the dump valve on row 24 & the cable routed from row 28 from step 3 using a 2940-158 black Y harness.
Step 5: Install a 2940-154 30ft black dump valve harness in the remaining connector of the black Y harness at row 10 & route to the dump valve on row 17 but don't install. Install a 2940-154 30ft dump valve harness in the remaining connector of the black Y harness at row 24 & route to the dump valve on row 17 but don't install.
Step 6: At row 17, use one 2940-158 black Y harnesses to connect the black dump valve cable ran from each wing/side section of the planter (in step 5) and a second 2940-158 black Y harness connecting the Y harness installed at the beginning of this step to the dump valve on row 17 so that only 1) open 2 pin connector remains.
Step 7: Route the appropriate length of black dump valve cable(s) from the open 2 pin connector at row 17 (from step 6) to the 2 pin connector labeled RM DOWN DUMP (orange/black wires) on the 2940-162 cable from step 2.
Step 8: At row 7's dump valve, connect the 2 pin connector of the dump valve to the mating 2 pin connector of the 2940-155 30ft white dump valve cable & route to the dump valve on row 16 but don't install. At row 26's dump valve, connect the 2 pin connector of the dump valve to the mating 2 pin connector of the 2940-155 30ft white dump valve cable & route to the dump valve on row 16 but don't install.
Step 9: At row 16, use 2) 2940-159 white Y harnesses to connect the white dump valve cable ran from each wing/side section of the plant (in step 8) & also the dump valve on row 16 so that only 1) open 2 pin connector remains.
Step 10: Route the appropriate length of white dump valve cable(s) from the open 2 pin connector at row 16 (from step 9) to the 2 pin connector labeled RM UP DUMP (yellow/black wires) on the 2940-162 from step 2.

Aux 3 & Aux 4 on 2940-162 are not yet used

32 Row Airline Diagram

KEY
- ▪ = Dump Valve
- ▭ =Planter Row Unit
- T1-6 = Trunk Line
- S1-3 = Supply Line

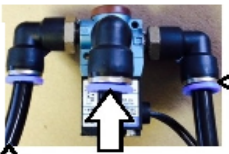
Down Pressure
Black Airline

Row
1
2
3 – T1
4
5
6
7 – S1
8
9
10
11
12
13
14 – T3
15
16
17
18 – S3
19
20
21
22
23
24 – S1
25
26
27
28
29
30 – T5
31
32

Wing/Side section down pressure supply airline installs into the RD port

2940-103 Control Box

Center section down pressure supply airline installs into the WT (wheel track) port



OUTLET TO ROW CLEANERS

INLET

EXHAUST

Up Pressure
Blue Airline

Row
1
2
3
4 – T2
5
6
7
8
9
10 – S2
11
12
13
14 – T4
15
16
17
18
19
20
21
22
23 – S2
24
25
26
27
28
29 – T6
30
31
32

2940-103 Control Box

Tee all up pressure supply airline together & install into the RU port

OUTLET TO ROW CLEANERS

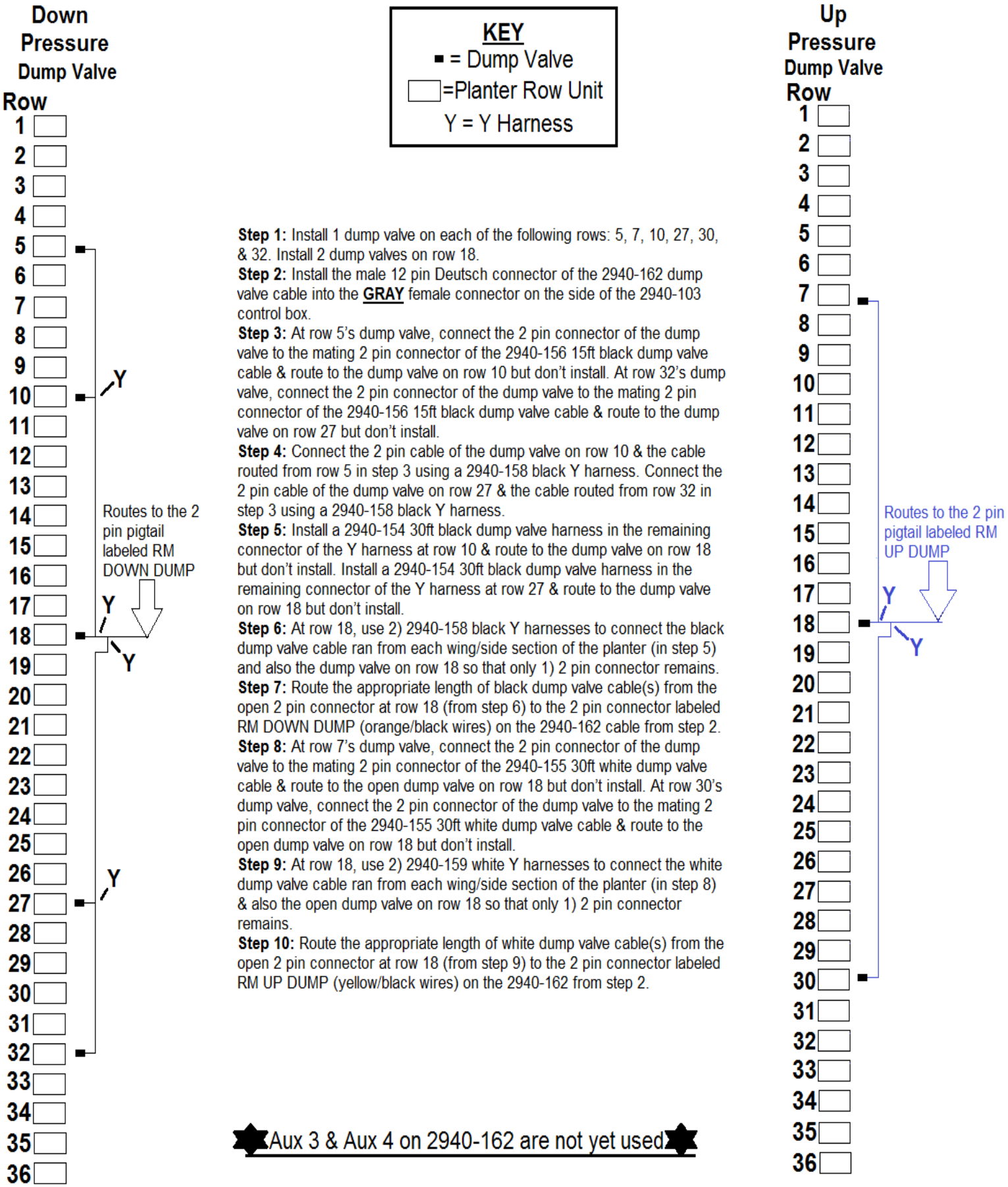
INLET

EXHAUST

32 Row Airline Diagram Con't

Step 1:T1 & T2 Route blue & black airline from row 1 to row 13. At row 13, install the black airline in the down pressure (larger) air bag & blue airline in the up pressure (smaller) air bag. Trace both airlines back to row 1 installing tees in each airline at each row unit. Install blue airline from the up pressure air bag (smaller air bag) at each row to the tee in the up pressure (blue) circuit for that row. Install black airline from the down pressure air bag (larger air bag) at each row to the tee in the down pressure (black) circuit for that row. At row 1, cut both airlines to length & install each airline into the matching air bag.
Step 2: T3 &T4 Route blue and black airline from row 14 to row 19. At row 19, install the black airline in the down pressure air bag & blue airline in the up pressure air bag. Trace both airlines back to row 14 installing a tee in each airline at each row. Install blue airline from the up pressure air bag (smaller air bag) at each row to the tee in the up pressure (blue) circuit for that row. Install black airline from the down pressure air bag (larger air bag) at each row to the tee in the down pressure (black) circuit for that row. At row 14, cut both airlines to length and install each airline into the matching air bag.
Step 3: T5 & T6 Route blue and black airline from row 32 to row 20. At row 20, install the black airline in the down pressure air bag & blue airline in the up pressure air bag. Trace both airlines from row 20 back to row 32 installing tees in each airline at each row unit. Install blue airline from the up pressure air bag (smaller air bag) at each row to the tee in the up pressure (blue) circuit for that row. Install black airline from the down pressure air bag (larger air bag) at each row to the tee in the down pressure (black) circuit for that row. At row 32, cut both airlines to length and install each airline into the matching air bag.
Step 4: S1 Install a tee in the T1 airline next to each down pressure dump valve on row 5 & row 10. Install black airline from the outlet port on the down pressure dump valves on row 5 &10 to the tee installed for that dump valve. Install a tee in the T5 airline next to each down pressure dump valve on rows 24 & 28. Install black airline from the outlet port on each down pressure dump valve to each tee installed for that dump valve. Route black airline from RD port of the 2940-103 control box to the nearest point on the main frame and install a tee. From each side of the tee, route black airline to the inlet port of the down pressure dump valve on rows 5 & 28. (follow the same routing path as the trunk airlines) Install a tee into the S1 airline next to the down pressure dump valves on rows 10 and 24 & install black airline from tee to the inlet port on each of those dump valves.
Step 5: S2 Install a tee in the T3 airline next to the down pressure dump valve on rows 17. Install black airline from the tee in T3 airline into the outlet port on the down pressure dump valve on row 17. Route & install black airline from the WT port of the 2940-103 control box to the inlet port of the down pressure dump valve on row 17.
Step 6: S3 Install a tee in the T2 airline next to the up pressure dump valve on row 7. Install blue airline from the outlet port on the up pressure dump valve on row 7 to the tee. Install a tee in the T4 airline next to the dump valve on row 16. Install blue airline from the tee in T4 airline to the outlet port on the up pressure dump valve on row 16. Install a tee in the T6 airline next to the up pressure dump valve on row 26. Install blue airline from the outlet port on the up pressure dump valve on row 26 to the tee. Route blue airline from the RU port of the 2940-103 control box to the nearest point on the main frame & install a tee. Install a 6 inch piece of blue airline into one port of the tee. Install a second tee on the open end 6 inch piece of blue airline. This will give you 3 open ports on this circuit to use. Route & install blue airline from 2 of those ports to each inlet port on the up pressure dump valve on rows 7 & 26. Route & install blue airline from the remaining port on the tee to the inlet on the up pressure dump valve on row 16.

36 Row Dump Valve Diagram



Step 1: Install 1 dump valve on each of the following rows: 5, 7, 10, 27, 30, & 32. Install 2 dump valves on row 18.
Step 2: Install the male 12 pin Deutsch connector of the 2940-162 dump valve cable into the **GRAY** female connector on the side of the 2940-103 control box.
Step 3: At row 5's dump valve, connect the 2 pin connector of the dump valve to the mating 2 pin connector of the 2940-156 15ft black dump valve cable & route to the dump valve on row 10 but don't install. At row 32's dump valve, connect the 2 pin connector of the dump valve to the mating 2 pin connector of the 2940-156 15ft black dump valve cable & route to the dump valve on row 27 but don't install.
Step 4: Connect the 2 pin cable of the dump valve on row 10 & the cable routed from row 5 in step 3 using a 2940-158 black Y harness. Connect the 2 pin cable of the dump valve on row 27 & the cable routed from row 32 in step 3 using a 2940-158 black Y harness.
Step 5: Install a 2940-154 30ft black dump valve harness in the remaining connector of the Y harness at row 10 & route to the dump valve on row 18 but don't install. Install a 2940-154 30ft black dump valve harness in the remaining connector of the Y harness at row 27 & route to the dump valve on row 18 but don't install.
Step 6: At row 18, use 2) 2940-158 black Y harnesses to connect the black dump valve cable ran from each wing/side section of the planter (in step 5) and also the dump valve on row 18 so that only 1) 2 pin connector remains.
Step 7: Route the appropriate length of black dump valve cable(s) from the open 2 pin connector at row 18 (from step 6) to the 2 pin connector labeled RM DOWN DUMP (orange/black wires) on the 2940-162 cable from step 2.
Step 8: At row 7's dump valve, connect the 2 pin connector of the dump valve to the mating 2 pin connector of the 2940-155 30ft white dump valve cable & route to the open dump valve on row 18 but don't install. At row 30's dump valve, connect the 2 pin connector of the dump valve to the mating 2 pin connector of the 2940-155 30ft white dump valve cable & route to the open dump valve on row 18 but don't install.
Step 9: At row 18, use 2) 2940-159 white Y harnesses to connect the white dump valve cable ran from each wing/side section of the planter (in step 8) & also the open dump valve on row 18 so that only 1) 2 pin connector remains.
Step 10: Route the appropriate length of white dump valve cable(s) from the open 2 pin connector at row 18 (from step 9) to the 2 pin connector labeled RM UP DUMP (yellow/black wires) on the 2940-162 from step 2.

✸Aux 3 & Aux 4 on 2940-162 are not yet used✸

36 Row Airline Diagram

KEY
- ▪ = Dump Valve
- ▭ =Planter Row Unit
- T1-6 = Trunk Line
- S1-3 = Supply Line

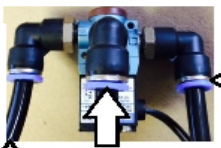
Down Pressure
Black Airline

Row
1
2
3 —T1
4
5
6
7
8
9 —S1
10
11
12
13
14
15
16 T3
17
18
19 S2
20
21
22
23
24
25
26
27 —S1
28
29
30
31
32
33
34 —T5
35
36

Wing/Side section down pressure supply airline installs into the RD port

2940-103 Control Box

Center section down pressure supply airline installs into the WT (wheel track) port



OUTLET TO ROW CLEANERS

INLET

EXHAUST

Up Pressure
Blue Airline

Row
1
2
3
4
5 —T2
6
7
8
9
10
11
12
13
14
15
16 T4
17
18
19 S3
20
21
22
23
24
25
26
27
28
29
30
31
32 —T6
33
34
35
36

—S3

—S3

2940-103 Control Box

Tee all up pressure supply airline together & install into the RU port

OUTLET TO ROW CLEANERS

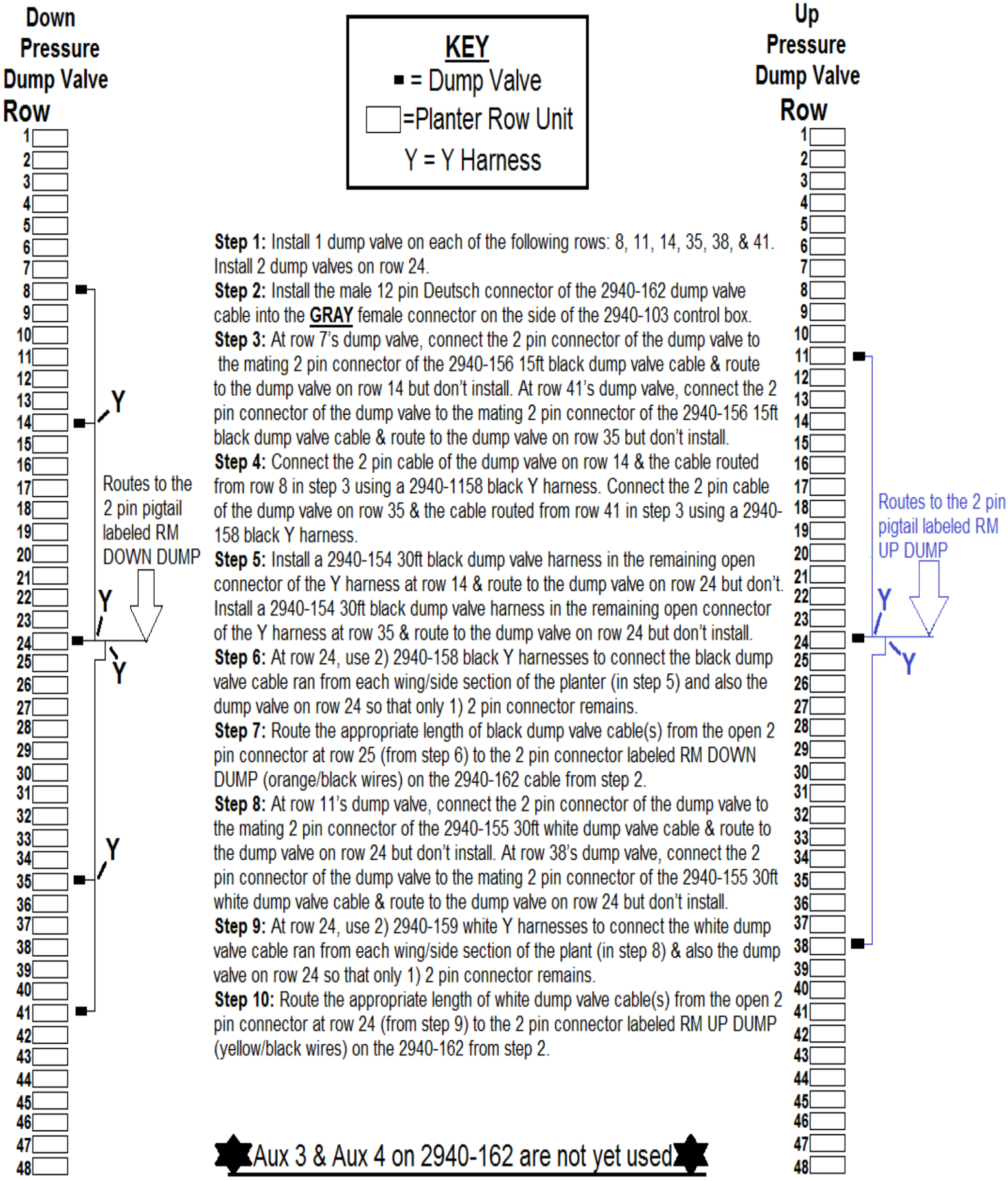
INLET

EXHAUST

36 Row Airline Diagram Con't

Step 1:T1 & T2 Route blue & black airline from row 1 to row 15. At row 15, install the black airline in the down pressure (larger) air bag & blue airline in the up pressure (smaller) air bag. Trace both airlines back to row 1 installing tees in each airline at each row unit. Install blue airline from the up pressure air bag (smaller air bag) at each row to the tee in the up pressure (blue) circuit for that row. Install black airline from the down pressure air bag (larger air bag) at each row to the tee in the down pressure (black) circuit for that row. At row 1, cut both airlines to length & install each airline into the matching air bag.
Step 2: T3 &T4 Route blue and black airline from row 16 to row 21. At row 21, install the black airline in the down pressure air bag & blue airline in the up pressure air bag. Trace both airlines back to row 16 installing a tee in each airline at each row. Install blue airline from the up pressure air bag (smaller air bag) at each row to the tee in the up pressure (blue) circuit for that row. Install black airline from the down pressure air bag (larger air bag) at each row to the tee in the down pressure (black) circuit for that row. At row 16, cut both airlines to length and install each airline into the matching air bag.
Step 3: T5 & T6 Route blue and black airline from row 36 to row 22. At row 22, install the black airline in the down pressure air bag & blue airline in the up pressure air bag. Trace both airlines from row 22 back to row 36 installing tees in each airline at each row unit. Install blue airline from the up pressure air bag (smaller air bag) at each row to the tee in the up pressure (blue) circuit for that row. Install black airline from the down pressure air bag (larger air bag) at each row to the tee in the down pressure (black) circuit for that row. At row 36, cut both airlines to length and install each airline into the matching air bag.
Step 4: S1 Install a tee in the T1 airline next to each down pressure dump valve on row 5 and row 10. Install black airline from the outlet port on the down pressure dump valves on row 5 &10 to the tee installed for that dump valve. Install a tee in the T5 airline next to each down pressure dump valve on rows 27 & 32. Install black airline from the outlet port on each down pressure dump valve to each tee installed for that dump valve. Route black airline from RD port of the 2940-103 control box to the nearest point on the main frame and install a tee. From each side of the tee, route black airline & install in the inlet port on the down pressure dump valve on rows 5 & 32. (follow the same routing path as the trunk airlines) Install a tee into the S1 airline next to the down pressure dump valves on rows 10 and 27 & install black airline from the tee to the inlet port on each of those dump valves.
Step 5: S2 Install a tee in the T3 airline next to the down pressure dump valve on row 18. Install black airline from the tee in the T3 airline into the outlet port on the down pressure dump valve on row 18. Route & install black airline from the WT port of the 2940-103 control box to the inlet port of the down pressure dump valve on row 18.
Step 6: S3 Install a tee in the T2 airline next to the up pressure dump valve on row 7. Install blue airline from the outlet port on the up pressure dump valve on row 7 to the tee. Install a tee in the T4 airline next to the up pressure dump valve on row 18. Install blue airline from the tee in T4 airline to the outlet port on the up pressure dump valve on row 18. Install a tee in the T6 airline next to the up pressure dump valve on row 30. Install blue airline from the outlet port on the up pressure dump valve on row 30 to the tee. Route blue airline from the RU port of the 2940-103 control box to the nearest point on the main frame & install a tee. Install a 6 inch piece of blue airline into one port of the tee. Install a second tee on the open end 6 inch piece of blue airline. This will give you 3 open ports on this circuit to use. Route & install blue airline from 2 of those ports to each inlet port on the up pressure dump valve on rows 7 & 30. Route & install blue airline from the remaining port on the tee to the inlet on the up pressure dump valve on row 18.

48 Row Dump Valve Diagram



Step 1: Install 1 dump valve on each of the following rows: 8, 11, 14, 35, 38, & 41. Install 2 dump valves on row 24.

Step 2: Install the male 12 pin Deutsch connector of the 2940-162 dump valve cable into the **GRAY** female connector on the side of the 2940-103 control box.

Step 3: At row 7's dump valve, connect the 2 pin connector of the dump valve to the mating 2 pin connector of the 2940-156 15ft black dump valve cable & route to the dump valve on row 14 but don't install. At row 41's dump valve, connect the 2 pin connector of the dump valve to the mating 2 pin connector of the 2940-156 15ft black dump valve cable & route to the dump valve on row 35 but don't install.

Step 4: Connect the 2 pin cable of the dump valve on row 14 & the cable routed from row 8 in step 3 using a 2940-1158 black Y harness. Connect the 2 pin cable of the dump valve on row 35 & the cable routed from row 41 in step 3 using a 2940-158 black Y harness.

Step 5: Install a 2940-154 30ft black dump valve harness in the remaining open connector of the Y harness at row 14 & route to the dump valve on row 24 but don't. Install a 2940-154 30ft black dump valve harness in the remaining open connector of the Y harness at row 35 & route to the dump valve on row 24 but don't install.

Step 6: At row 24, use 2) 2940-158 black Y harnesses to connect the black dump valve cable ran from each wing/side section of the planter (in step 5) and also the dump valve on row 24 so that only 1) 2 pin connector remains.

Step 7: Route the appropriate length of black dump valve cable(s) from the open 2 pin connector at row 25 (from step 6) to the 2 pin connector labeled RM DOWN DUMP (orange/black wires) on the 2940-162 cable from step 2.

Step 8: At row 11's dump valve, connect the 2 pin connector of the dump valve to the mating 2 pin connector of the 2940-155 30ft white dump valve cable & route to the dump valve on row 24 but don't install. At row 38's dump valve, connect the 2 pin connector of the dump valve to the mating 2 pin connector of the 2940-155 30ft white dump valve cable & route to the dump valve on row 24 but don't install.

Step 9: At row 24, use 2) 2940-159 white Y harnesses to connect the white dump valve cable ran from each wing/side section of the plant (in step 8) & also the dump valve on row 24 so that only 1) 2 pin connector remains.

Step 10: Route the appropriate length of white dump valve cable(s) from the open 2 pin connector at row 24 (from step 9) to the 2 pin connector labeled RM UP DUMP (yellow/black wires) on the 2940-162 from step 2.

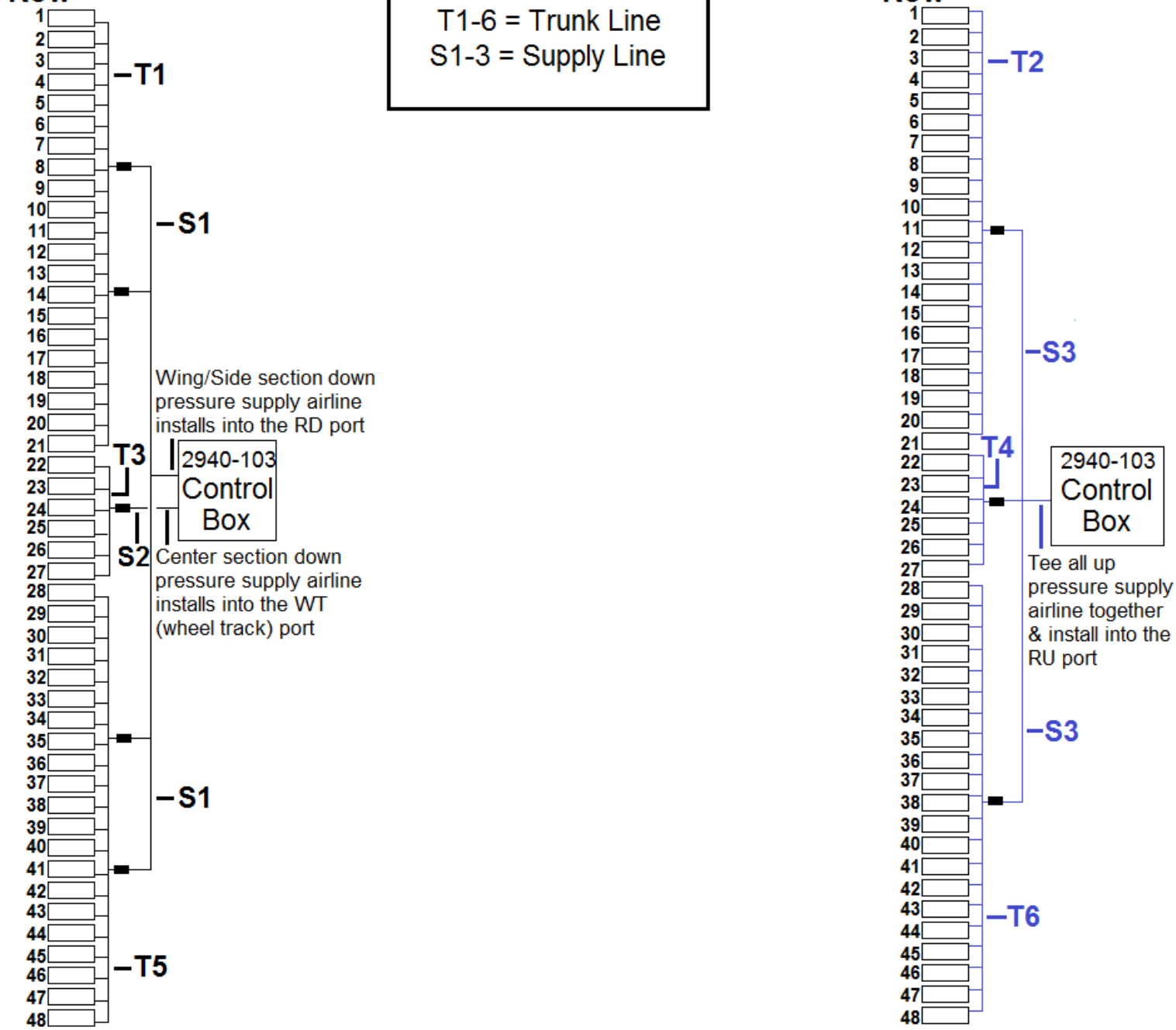
Aux 3 & Aux 4 on 2940-162 are not yet used

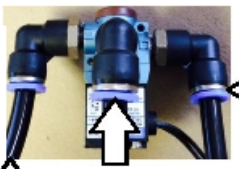
48 Row Airline Diagram

Down Pressure
Black Airline

KEY
■ = Dump Valve
▭ =Planter Row Unit
T1-6 = Trunk Line
S1-3 = Supply Line

Up Pressure
Blue Airline





OUTLET TO ROW CLEANERS

INLET

EXHAUST

OUTLET TO ROW CLEANERS

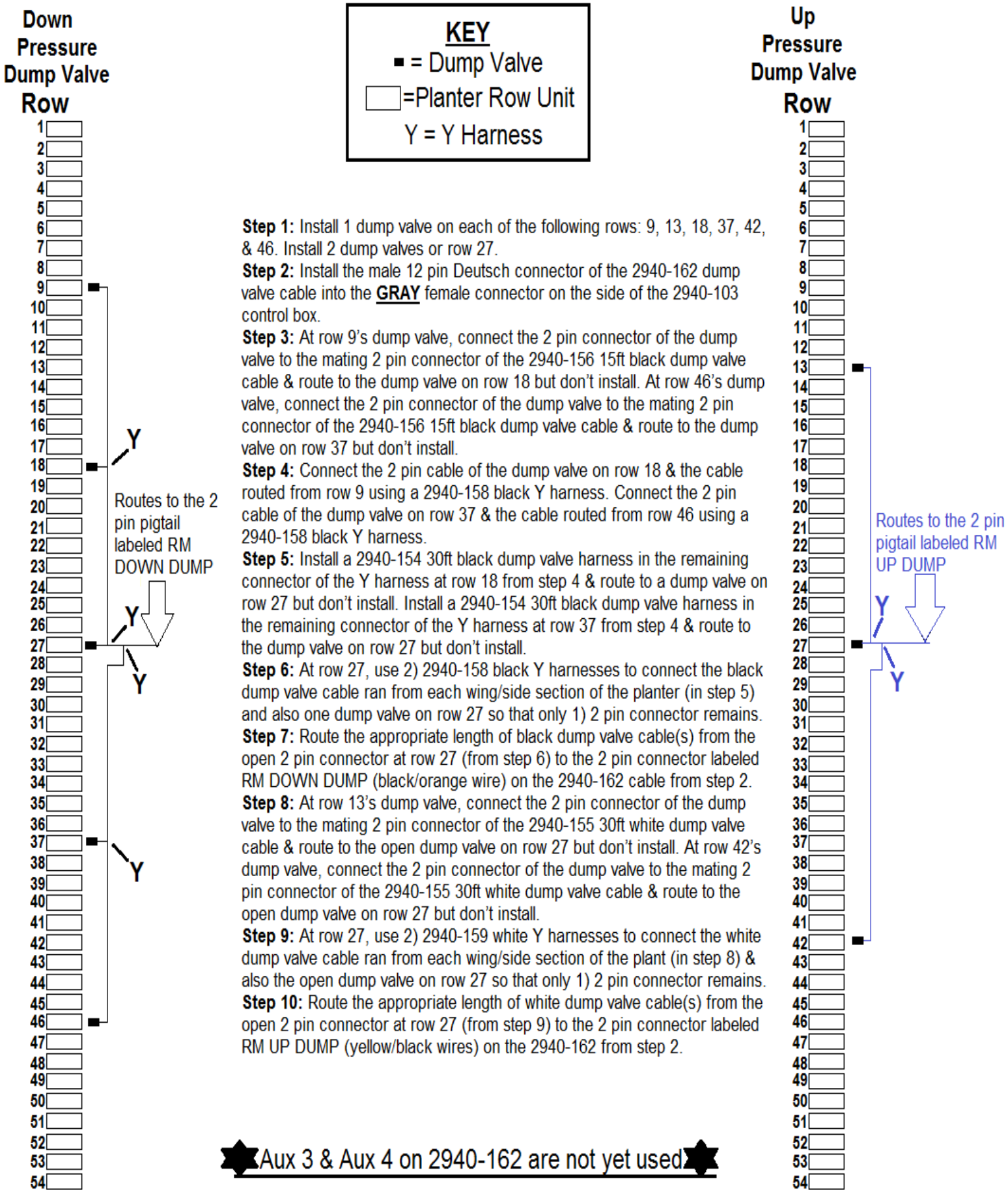
INLET

EXHAUST

48 Row Airline Diagram Con't

Step 1:T1 & T2 Route blue & black airline from row 1 to row 21. At row 21, install the black airline in the down pressure (larger) air bag & blue airline in the up pressure (smaller) air bag. Trace both airlines back to row 1 installing tees in each airline at each row unit. Install blue airline from the up pressure air bag (smaller air bag) at each row to the tee in the up pressure (blue) circuit for that row. Install black airline from the down pressure air bag (larger air bag) at each row to the tee in the down pressure (black) circuit for that row. At row 1, cut both airlines to length & install each airline into the matching air bag.
Step 2: T3 &T4 Route blue and black airline from row 22 to row 27. At row 27, install the black airline in the down pressure air bag & blue airline in the up pressure air bag. Trace both airlines back to row 22 installing a tee in each airline at each row. Install blue airline from the up pressure air bag (smaller air bag) at each row to the tee in the up pressure (blue) circuit for that row. Install black airline from the down pressure air bag (larger air bag) at each row to the tee in the down pressure (black) circuit for that row. At row 22, cut both airlines to length and install each airline into the matching air bag.
Step 3: T5 & T6 Route blue and black airline from row 48 to row 28. At row 28, install the black airline in the down pressure air bag & blue airline in the up pressure air bag. Trace both airlines from row 28 back to row 48 installing tees in each airline at each row unit. Install blue airline from the up pressure air bag (smaller air bag) at each row to the tee in the up pressure (blue) circuit for that row. Install black airline from the down pressure air bag (larger air bag) at each row to the tee in the down pressure (black) circuit for that row. At row 48, cut both airlines to length and install each airline into the matching air bag.
Step 4: S1 Install a tee in the T1 airline next to each down pressure dump valve on row 8 and row 14. Install black airline from the outlet port on the down pressure dump valves on row 8 &14 to the tee installed for that dump valve. Install a tee in the T5 airline next to each down pressure dump valve on rows 35 & 41. Install black airline from the outlet port on each down pressure dump valve to each tee installed for that dump valve. Route black airline from RD port of the 2940-103 control box to the nearest point on the main frame and install a tee. From each side of the tee, route black airline to the inlet port on the down pressure dump valve on rows 8 & 41. (follow the same routing path as the trunk airlines) Install a tee into the S1 airline next to the down pressure dump valves on rows 14 and 35 & install black airline from tee to the inlet port on each of those dump valves.
Step 5: S2 Install a tee in the T3 airline next to the down pressure dump valve on rows 24. Install black airline from the tee in T3 airline into the outlet port on the down pressure dump valve on row 24. Route & install black airline from the WT port of the 2940-103 control box to the inlet port of the down pressure dump valve on row 24.
Step 6: S3 Install a tee in the T2 airline next to the up pressure dump valve on row 11. Install blue airline from the outlet port on the up pressure dump valve on row 11 to the tee. Install a tee in the T4 airline next to the up pressure dump valve on row 24. Install blue airline from the tee in T4 airline to the outlet port on the up pressure dump valve on row 24. Install a tee in the T6 airline next to the up pressure dump valve on row 38. Install blue airline from the outlet port on the up pressure dump valve on row 38 to the tee. Route blue airline from the RU port of the 2940-103 control box to the nearest point on the main frame & install a tee. Install a 6 inch piece of blue airline into one port of the tee. Install a second tee on the open end 6 inch piece of blue airline. This will give you 3 open ports on this circuit to use. Route & install blue airline from 2 of those ports to each inlet port on the up pressure dump valve on rows 11 & 38. Route & install blue airline from the remaining port on the tee to the inlet on the up pressure dump valve on row 24.

54 Row Dump Valve Diagram



Step 1: Install 1 dump valve on each of the following rows: 9, 13, 18, 37, 42, & 46. Install 2 dump valves or row 27.

Step 2: Install the male 12 pin Deutsch connector of the 2940-162 dump valve cable into the **GRAY** female connector on the side of the 2940-103 control box.

Step 3: At row 9's dump valve, connect the 2 pin connector of the dump valve to the mating 2 pin connector of the 2940-156 15ft black dump valve cable & route to the dump valve on row 18 but don't install. At row 46's dump valve, connect the 2 pin connector of the dump valve to the mating 2 pin connector of the 2940-156 15ft black dump valve cable & route to the dump valve on row 37 but don't install.

Step 4: Connect the 2 pin cable of the dump valve on row 18 & the cable routed from row 9 using a 2940-158 black Y harness. Connect the 2 pin cable of the dump valve on row 37 & the cable routed from row 46 using a 2940-158 black Y harness.

Step 5: Install a 2940-154 30ft black dump valve harness in the remaining connector of the Y harness at row 18 from step 4 & route to a dump valve on row 27 but don't install. Install a 2940-154 30ft black dump valve harness in the remaining connector of the Y harness at row 37 from step 4 & route to the dump valve on row 27 but don't install.

Step 6: At row 27, use 2) 2940-158 black Y harnesses to connect the black dump valve cable ran from each wing/side section of the planter (in step 5) and also one dump valve on row 27 so that only 1) 2 pin connector remains.

Step 7: Route the appropriate length of black dump valve cable(s) from the open 2 pin connector at row 27 (from step 6) to the 2 pin connector labeled RM DOWN DUMP (black/orange wire) on the 2940-162 cable from step 2.

Step 8: At row 13's dump valve, connect the 2 pin connector of the dump valve to the mating 2 pin connector of the 2940-155 30ft white dump valve cable & route to the open dump valve on row 27 but don't install. At row 42's dump valve, connect the 2 pin connector of the dump valve to the mating 2 pin connector of the 2940-155 30ft white dump valve cable & route to the open dump valve on row 27 but don't install.

Step 9: At row 27, use 2) 2940-159 white Y harnesses to connect the white dump valve cable ran from each wing/side section of the plant (in step 8) & also the open dump valve on row 27 so that only 1) 2 pin connector remains.

Step 10: Route the appropriate length of white dump valve cable(s) from the open 2 pin connector at row 27 (from step 9) to the 2 pin connector labeled RM UP DUMP (yellow/black wires) on the 2940-162 from step 2.

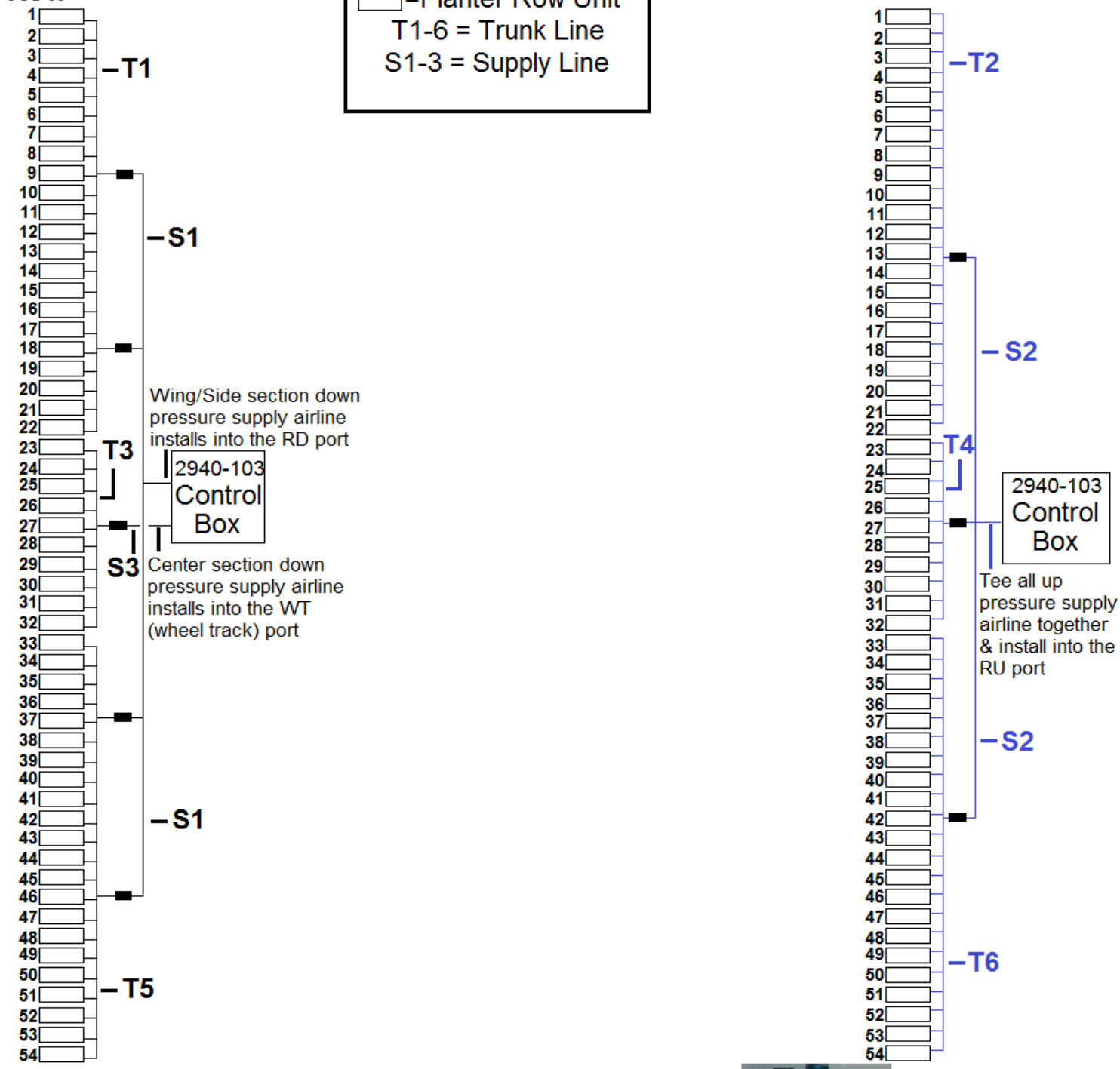
Aux 3 & Aux 4 on 2940-162 are not yet used

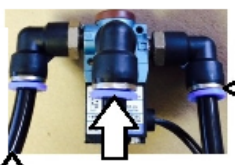
54 Row Airline Diagram

KEY
- ▬ = Dump Valve
- ▭ =Planter Row Unit
- T1-6 = Trunk Line
- S1-3 = Supply Line

Down Pressure
Black Airline
Row

Up Pressure
Blue Airline
Row





OUTLET TO ROW CLEANERS

INLET

EXHAUST

OUTLET TO ROW CLEANERS

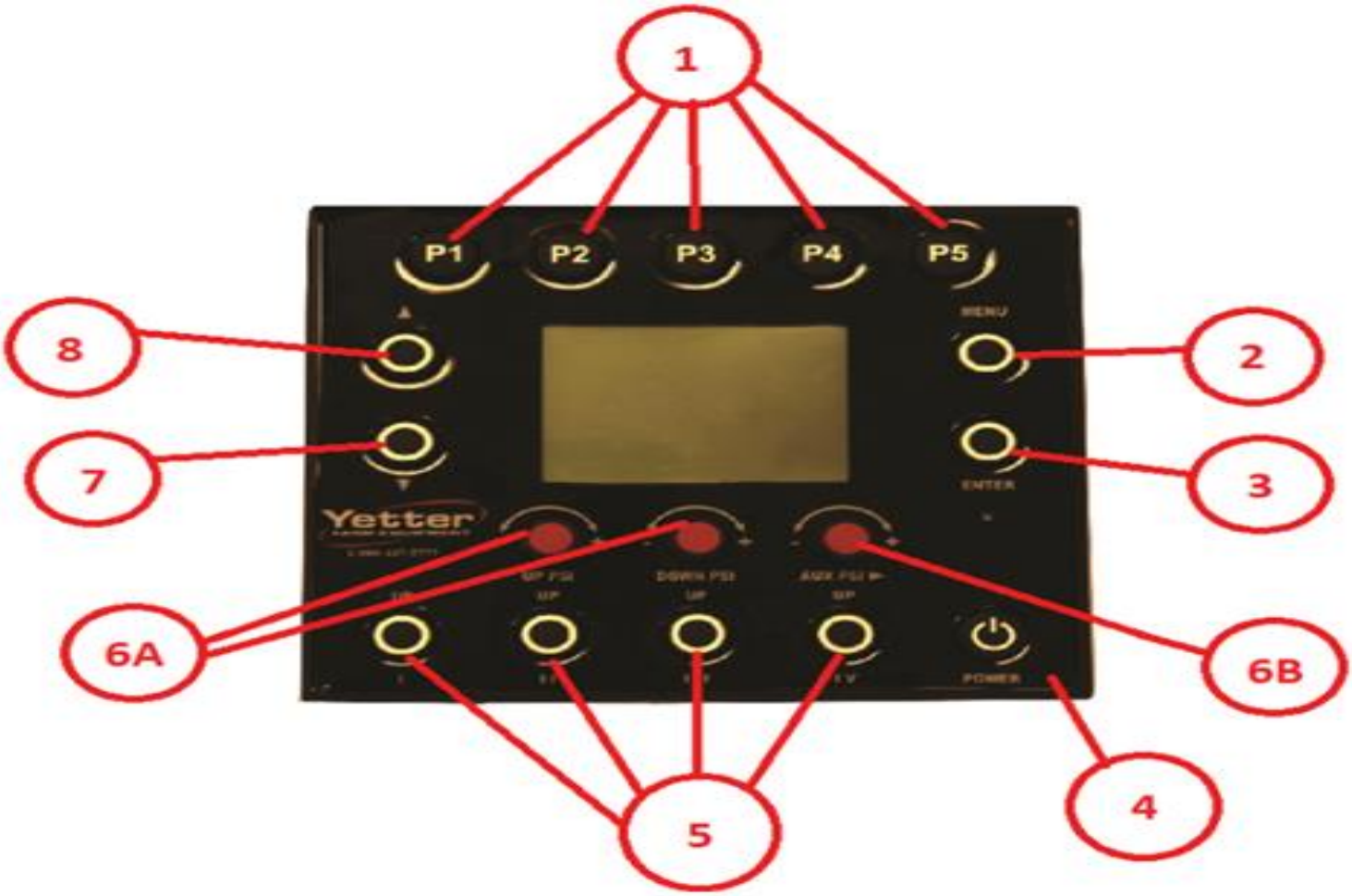
INLET

EXHAUST

54 Row Airline Diagram Con't

Step 1:T1 & T2 Route blue & black airline from row 1 to row 22. At row 22, install the black airline in the down pressure (larger) air bag & blue airline in the up pressure (smaller) air bag. Trace both airlines back to row 1 installing tees in each airline at each row unit. Install blue airline from the up pressure air bag (smaller air bag) at each row to the tee in the up pressure (blue) circuit for that row. Install black airline from the down pressure air bag (larger air bag) at each row to the tee in the down pressure (black) circuit for that row. At row 1, cut both airlines to length & install each airline into the matching air bag.
Step 2: T3 &T4 Route blue and black airline from row 23 to row 32. At row 32, install the black airline in the down pressure air bag & blue airline in the up pressure air bag. Trace both airlines back to row 23 installing a tee in each airline at each row. Install blue airline from the up pressure air bag (smaller air bag) at each row to the tee in the up pressure (blue) circuit for that row. Install black airline from the down pressure air bag (larger air bag) at each row to the tee in the down pressure (black) circuit for that row. At row 23, cut both airlines to length and install each airline into the matching air bag.
Step 3: T5 & T6 Route blue and black airline from row 54 to row 33. At row 33, install the black airline in the down pressure air bag & blue airline in the up pressure air bag. Trace both airlines back to row 54 installing tees in each airline at each row unit. Install blue airline from the up pressure air bag (smaller air bag) at each row to the tee in the up pressure (blue) circuit for that row. Install black airline from the down pressure air bag (larger air bag) at each row to the tee in the down pressure (black) circuit for that row. At row 54, cut both airlines to length and install each airline into the matching air bag.
Step 4: S1 Install a tee in the T1 airline next to each down pressure dump valve on row 9 and row 18. Install black airline from the outlet port on the down pressure dump valves on row 9 &18 to the tee installed for that dump valve. Install a tee in the T5 airline next to each down pressure dump valve on rows 37 & 46. Install black airline from the outlet port on each down pressure dump valve to each tee installed for that dump valve. Route black airline from RD port of the 2940-103 control box to the nearest point on the main frame and install a tee. From each side of the tee, route black airline to the inlet port on the down pressure dump valve on rows 9 & 46. (follow the same routing path as the trunk airlines) Install a tee into the S1 airline next to the down pressure dump valves on rows 18 and 37 & install black airline from the tee to the inlet port on each of those dump valves.
Step 5: S2 Install a tee in the T3 airline next to the down pressure dump valve on row 27. Install black airline from the tee in T3 airline into the outlet port on the down pressure dump valve on row 27. Route & install black airline from the WT port of the 2940-103 control box to the inlet port of the down pressure dump valve on row 27.
Step 6: S3 Install a tee in the T2 airline next to the up pressure dump valve on row 13. Install blue airline from the outlet port on the up pressure dump valve on row 13 to the tee. Install a tee in the T4 airline next to the dump valve on row 27. Install blue airline from the tee in T4 airline to the outlet port on the up pressure dump valve on row 27. Install a tee in the T6 airline next to the up pressure dump valve on row 42. Install blue airline from the outlet port on the up pressure dump valve on row 42 to the tee. Route blue airline from the RU port of the 2940-103 control box to the nearest point on the main frame & install a tee. Install a 6 inch piece of blue airline into one port of the tee. Install a second tee on the open end 6 inch piece of blue airline. This will give you 3 open ports on this circuit to use. Route & install blue airline from 2 of those ports to each inlet port on the up pressure dump valve on rows 13 & 42. Route & install blue airline from the remaining port on the tee to the inlet on the up pressure dump valve on row 27.

Cab Controller Operation



1. **PRESET 1 – 5-**Hold (approximately 5 seconds) to store the commanded pressure settings.

2. **MENU-** Press to display Menu Options. If in Menu Options, pressing Menu will take operator back one screen and eventually to operating screen.

3. **ENTER-** Press to activate/deactivate the system, also used in Menu options to make selections.

4. **POWER-** Press and hold to turn ON/OFF the 2940-100 Cab Controller Display.

5. **UP I-IV-** Press I to raise all row cleaners max travel. Pressing again lowers all row cleaners to preset setting. **Up II-IV is not used!**

6. A **PSI UP Encoder(RU)-**rotate to INCREASE/DECREASE Air Pressure on the attachment.

   PSI DOWN Encoder (RD)-Rotate to INCREASE/DECREASE Air Pressure on the attachment.

6. B **PSI Aux Encoder (WT, A1, A2, A3) -** Push to scroll the curser. ROTATE to INCREASE/DECREASE air pressure on the curser selected circuit. (WT, A1, A2, and A3) WT circuit is the only circuit used. A1, A2, & A3 are not utilized at this time.

▼ **7.** Push to scroll DOWN in the MENU display. Hold this down for 10 seconds to manually dump the water separator. Valve remains open for as long as button is pressed.

▲ **8.** Push to scroll UP in the MENU display.

2940 Air Adjust Cab Controller Operation

Screen Control and Navigation:

1. **Screen Navigation:** Unless otherwise noted the MENU button will always take you back one screen at a time until you are arrive at the main menu.
2. To navigate to other screens from the main menu use the scroll arrow buttons to select the page you would like to go to and then press ENTER to navigate there.
3. **Splash Screen (Screen 0):** This screen will be presented after the POWER button has been pressed. This screen will show the project number and software V/R. It will be displayed for 5 seconds. After that the system will navigate to screen 1.
4. **Main Operating Screen (Screen 1, Pictured below):** This screen is where the air system is monitored and controlled.

4A The top of the screen shows what preset you are currently using (1-5), if a manual adjustment is made it will display "PRESET (X) MANUAL" until the preset is saved, then it will display PRESET X.

4B This will display "AIR ON" or "AIR OFF" depending on the status of the air system. Pressing ENTER will activate or deactivate the AIR ON/OFF. "AIR ON" signifies that the air system is operational & supplying air to the attachment. If AIR ON is displayed with sufficient tank pressure & there is no air in the air bag of the attachment, check the 40A breaker at the battery.

4C There is a field which will display the tank pressure in psi "TANK PSI".

4D There are (4) fields which will indicate "UP" or "DN" (DOWN) depending on the state of the dump valves that are being controlled. If the Roman Numeral I indicator light is on, UP (under ROW) will be displayed & all residue managers will be in the up position. The UP/DN function under AUX & Roman Numerals II, III, & IV are not used.

4E There are (6) fields which define the tools on the system and their pressures. The pressures shown at the bottom of this screen have two modes. In normal operation mode the real pressure feedback from the air system is shown, but if a manual adjustment is made it will show the commanded value for 7.5 seconds, after that delay it will return to displaying the feedback values. Systems with 1 control box will only use RU, RD, & WT. Systems with 2 control boxes will use all 6 fields.

Operation Settings:

"How much Down/Lift Pressure should I be running?"

The amount of Down/Lift Pressure will vary greatly across soil types, tillage practices, soil moisture, row unit weight & many other variables. Manage the pressure in the down and/or lift circuits in order to maintain 90%+ Ground Contact while keeping the pressure between 20-60 psi. The cab controller will display the tank pressure in psi & the down/lift circuits in psi. A typical starting range for residue managers (RM) would be 35psi up, 30psi down, and 32psi WT. A typical starting range for RM/coulter combo would be 40psi up, 35 psi down, 37psi WT. When an ideal pressure setting is found for a certain field condition, press & hold a preset to store the desired setting. If the residue managers aren't removing enough residue, add more down pressure or subtract some up pressure. If the residue managers are being too aggressive, subtract down pressure or add up pressure.

Normal operating ranges:

- Down Pressure Bags: 20-60psi
- Lift Pressure Bags: 20-60psi
- Tank Pressure: The gauge at the tank will read 145psi when full. The tank pressure reading on the cab controller will be around 120psi. The tank has a safety relief valve that will automatically exhaust excess pressure in the event that the pressure would exceed 150 psi.

2940 Air Adjust Cab Controller Operation

Main Menu: This screen will allow you to navigate to the setup and service screens. Selecting EXIT will return you to the main operating screen.

Setup: Currently this screen has one option, to select & edit the Dump Valve Delay.

- **Dump Valve Delay:** This screen allows you to adjust the dump valve delay time. Press the ENTER button to go into the edit mode & then adjust the time with the SCROLL UP/DOWN buttons. The time value will have .25 second resolution & will be adjustable from 0-60 seconds. Pressing ENTER again will exit the edit mode. Generally, no more than 2.5 seconds is needed. **(see page 77 for proper setting)**
- **Setting the Dump Valve Delay:**
  - Ensure all dump valves & harnesses are plugged in securely & that dump valves are functioning properly
  - Adjustments will be made in increments of .25 seconds.
  - When the dump valve delay is properly set, the residue managers should react as follows: with sufficient tank pressure, AIR ON displayed, command RU to 30psi, RD to 35psi, & WT to 37psi. Press the Roman numeral I button & all residue managers will raise. Press the Roman numeral I button again & all residue managers should drop to half travel & then settle into position. If the residue managers don't go to half travel, more dump valve delay is needed. If the residue managers go further than half travel, less dump valve delay is needed. It is best to have a second person looking as well.
  - Access the dump valve delay screen on your cab controller.
  - Adjust the dump valve delay by .25 seconds at a time in the desired direction (more or less), revert to home screen.
  - Press the Roman numeral I button & observe residue managers to see if more adjustment is needed.
  - Keep adjusting as needed

SEE PAGE 77 TO SEE WHAT SETTING THE DUMP VALVE DELAY SHOULD BE FOR YOUR SITUATION

Service: This screen has (3) selections to choose from, HOUR METERS, MAINTENANCE, and FAULT STATUS.

- **Hour Meters:** This screen will contain (2) hour meters, air compressor hours, which only increments if the compressor is on, & total system hours, which only increments if the air system is enabled (AIR ON). There will also be a field that shows duty cycle; this is a cumulative value calculated by dividing compressor hours by system hours which equals the percentage of time the compressor has run in reference to how many hours the system has been enabled. The percentage shown by the duty cycle should be less than 20%. **If not, perform the leak check.** **(See pages 76 & 77)**
- **Maintenance:** This screen is static & has a text description indicating basic maintenance info.
- **Fault Status: J1:** This screen contains real time read outs of command & feedback voltage readings for each pin present in the connector labeled J1.
- **Fault Status: J2:** This screen contains real time read outs of command & feedback voltage readings for each pin present in the connector labeled J2
- **Fault Status: J3:** This screen contains real time read outs of command & feedback voltage readings for each pin present in the connector labeled J3
- **Fault Status: J4:** This screen contains real time read outs of command & feedback voltage readings for each pin present in the connector labeled J4

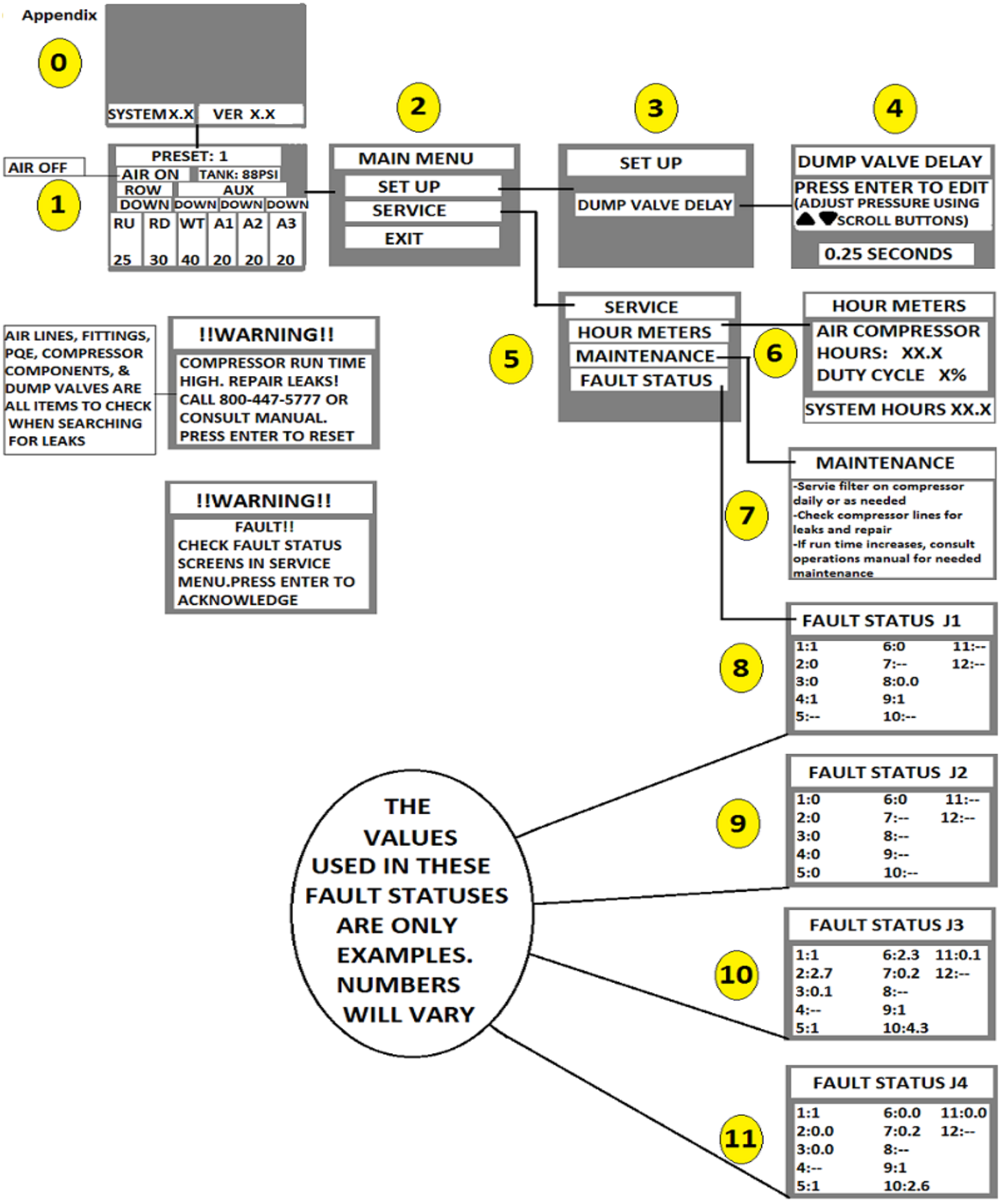
Warning – Compressor Run Time: This screen will be displayed if the compressor has been running continuously for 15 minutes. **Evaluate the system for leaks or other issues before continuing.** When all issues are fixed, press ENTER to clear the screen & resume normal operation.

Warning – Check Fault Screens: If a fault is detected, this screen will be displayed. Contact a service representative at Yetter, & have the fault screens ready, to review voltage readouts for diagnostics. This warning will remain displayed until the ENTER button is pressed.

Air System On: The state of this displayed text tells the operator if the system is operating or not. The Air System will be ON if the ENTER button is pressed on the main operating screen (screen 1). At this point the indicator will turn from red to green. It will maintain ON until ENTER is pressed again, turning the indicator back to its original color. Remember to switch the air system off, before removing power to the controller. The system is ON when the indicator is green; also the text on the screen will read "AIR ON" (vs. "AIR OFF").

Compressor Sump Dump: This dumps any water that has built up in the compressor tank or water separator. This function is programmed to open the valve for 5 seconds every hour to dump the moisture. The Compressor Sump Dump valve can also be activated by holding the "Scroll Down" button while on the Main Operating Screen for 8 seconds. The valve will remain open as long as the button is pressed, releasing the button will close the valve.

2940 Air Adjust Cab Controller Operation



2940 Operation Guide

System Start Up Procedure

Below is the 2940 system startup procedure that should be followed every time the 2940-100 Cab Controller is turned on. This will ensure that component parts of the system are working correctly.

If this is the first start up procedure after installation, make sure to set the dump valve delay and familiarize yourself with cab controller operation. Before activating the system, save P1 at 35 RU, 30 RD, & 32 WT & save P2 at 35 RU, 33 RD, & 35 WT.

Step 1: Supply power to the cab controller (start the tractor) & hold the Power button until the cab controller turns on.
Step 2: Turn all pressures (RU, RD, & WT) to 0psi. If using hydraulic compressor other than Yetter, engage compressor to operate and build 145psi and shut off.
Step 3: If using a Yetter hydraulic compressor, engage hydraulics to compressor circuit. Press Enter to activate the system. AIR: ON will be displayed. The Yetter hydraulic compressor will turn on (if it is below 125psi) & should build to 145psi & shut off. If 145psi isn't reached, **see page 76** to make an adjustment to the flow control valve. If the Yetter compressor doesn't run & is below 125psi, check the 40A breaker on the tractor battery. Trip the breaker and reset the breaker arm firmly back into the pocket.
Step 4: When the hydraulic compressor has shut off, press a preset (P1 – P5) to apply air to the air bags of the residue managers. If not using a Yetter hydraulic compressor & there is no air to the air bags, check the 40A breaker on the tractor battery. Trip the breaker and reset the breaker arm firmly back into the pocket.
Step 5: Press the UP I button (lowest left button) while watching all the residue managers. When this button is pressed and the indicator light next to UP is lit, the residue managers should all raise.
Step 6: Press the UP 1 button while watching all the residue managers. All the residue managers should drop to half travel and then settle into position. (change dump valve delay if necessary, **see page 77**)

ROW CLEANER DO'S AND DON'TS

1. **DO NOT** use as a tillage tool; Residue Managers are designed to move crop residue & to break up clods & crust.
2. **DO NOT** operate planter at slow speeds. Ground speed affects how aggressive the residue manager wheels are. Operate at sufficient speed (refer to you OEM planter manufacturer manual) to maintain good residue flow.
3. **DO NOT** expect 100% of crop residue to be cleared, it is not necessary and would necessitate engaging the soil. The width of path cleared depends on ground conditions, depth setting, and ground speed.
4. **DO** expect to see wheels occasionally quit turning, indicating ideal (shallow) setting which is not moving soil.
5. **DO** adjust toolbar frame height 20"-22" and drawbar correctly. It is very important to ensure planter opener will follow ground contours properly. **See Page 75 for the planter levelness and height**.
6. **DO NOT** run air pressure below 20psi or above 60psi. Full range of travel can be achieved between these settings.
7. **DO** grease the hub cavity of the bearings regularly. Even though the bearings are sealed, filling the hub keeps moisture, dirt, & debris from entering the hub and ruining the seal. **See page 81 for greasing intervals.**
8. **DO** NOT run the coulter, if equipped, deeper than the disc opener blades. Coulter should be set to run even or slightly above disc opening blades depth.

IMPORTANT: For proper operation, the planter frame must operate level (fore, aft and side to side) and at the correct height, typically 20"-22". Regularly inspect the residue manager for loose or worn bolts & hardware. Repair or replace as needed.

Overview:
This electronic control system works with a pneumatic system that controls pressure in the air bags as well as other air valves in the system on an agricultural application. The air bags provide independent up **AND** down pressure to the mechanical devices that are used on an agricultural implement.

System Layout:
There are (2) main parts to the control system. The first being a VDM (Valve Drive Module), the role of the VDM is to provide Outputs to control functions of the pneumatic system. The VDM will also provide Inputs to monitor the pneumatic system as well as provide feedback to the operator. The second part is an in-cab switch panel/display (Cab Controller) that allows the operator to control the pneumatic system and monitor its performance.

OPERATION PRECAUTIONS

STOP

MACHINE OPERATION

Read this before field operation of the Yetter product.

IMPORTANT: Failure to properly set the planter frame height & levelness can result in less than successful operation of the planter & the Yetter product. This may result in **damaged equipment**. All operators should read & thoroughly understand the instructions given prior to using the Yetter product.

NOTE: DO NOT use this product if the planter is not adjusted properly!

Leveling the planter: On a level planting surface, lower the planter frame to an operation height of **20"-22"**. Make adjustments to the planter as necessary**.** Read the planter operator's manual for recommended setting. Check to be sure the toolbar & row unit parallel arms are level fore & aft. Re-Check when the planter is in the field & has been fully loaded with seed, fertilizer, etc. Also, a field check with a bubble level on the frame should be made of the hitch height to ensure level operation front to back. It is important for the planter to operate level laterally. Tire pressure must be maintained at pressures specified by the manufacturer. Field & actual planting conditions change & will dictate planter frame heights. You must ensure that the row unit parallel arms are approximately parallel with the ground.

IMPORTANT: For proper operation of the planter attachments & row units, it is imperative that the planter toolbars and row unit parallel arms be level side-to-side & front-to-rear. The toolbar frame should operate at a 20"-22" height from the *planting surface.* Check the manufacturer's operator's manual for instructions on how to adjust the frame height & levelness.

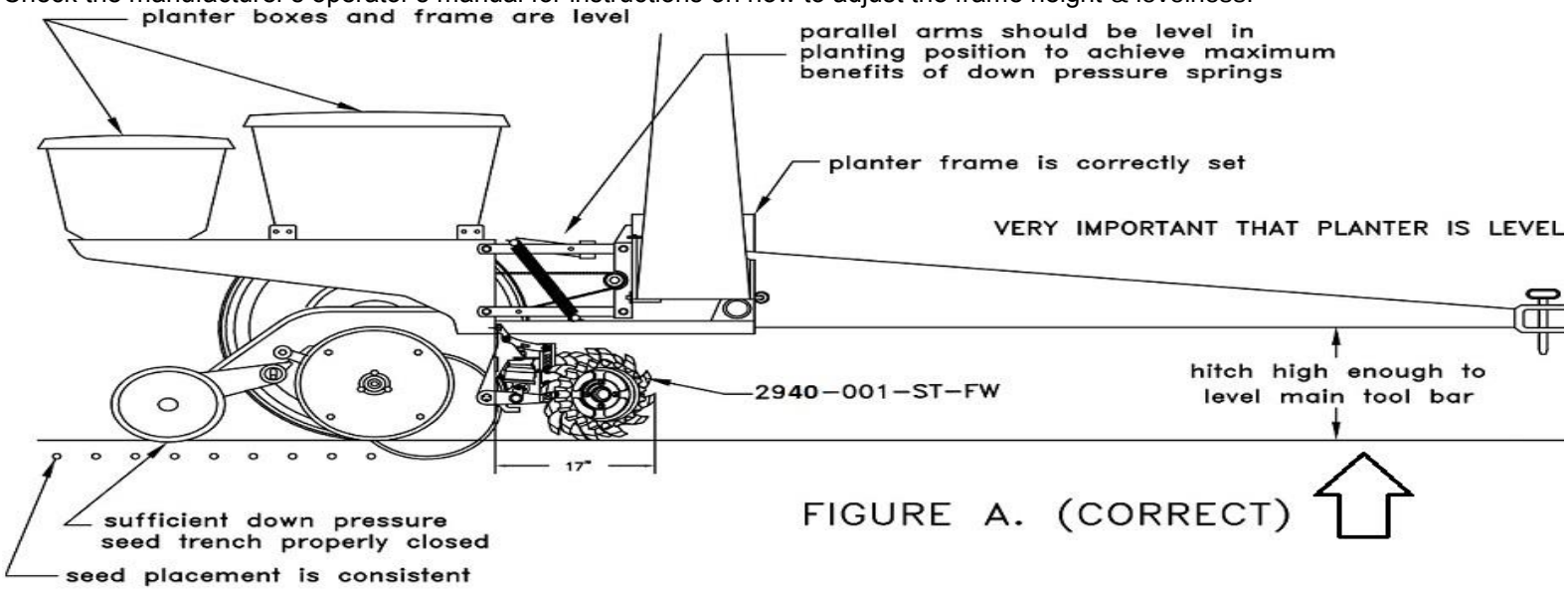


FIGURE A. (CORRECT)

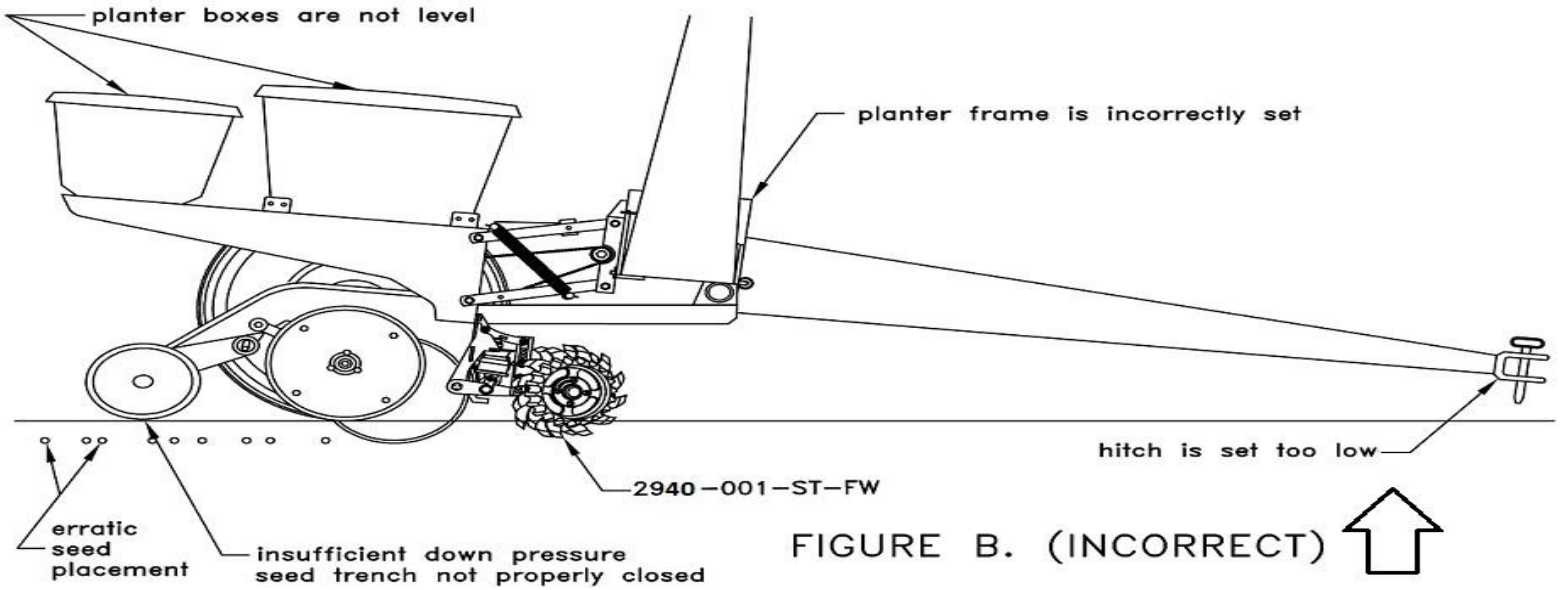
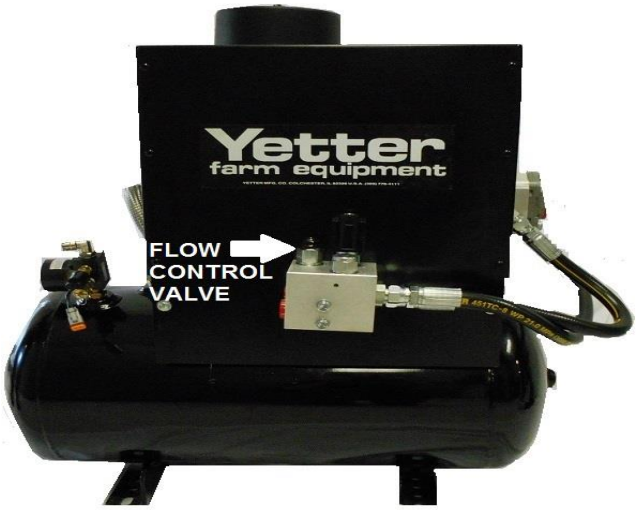


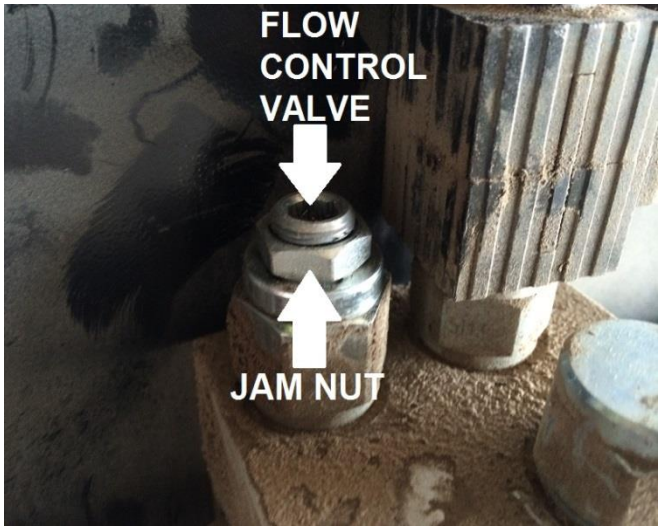
FIGURE B. (INCORRECT)

OPERATION PRECAUTIONS

To ensure the hydraulic compressor motor doesn't exceed the recommended operating RPM level, the hydraulic oil flow control valve has been preset. In some instances, the compressor may run below optimum rpm, or will not reach 145psi of tank pressure read at the gauge on the compressor unit causing the VDM to think the compressor is running continuously. (High Compressor Run Time message will appear on the cab controller) If this is the case, an adjustment to the flow control valve will need made. Only open the flow control valve enough to allow the compressor to build to 145psi tank pressure read at the gauge on the compressor unit. Opening the flow control too far could cause over speeding and reduced service life of the compressor. Follow the instructions below to make the proper adjustment.

NOTE: Before making any adjustments to the flow control valve, adjust the tractor hydraulic flow fully open. Adjusting the tractor's hydraulic flow will affect the compressor's RPM. The hydraulic motor speed on the hydraulic compressor should not exceed 1350RPM. RPM's on the hydraulic compressor may be checked via the fan blades with an optical tachometer.



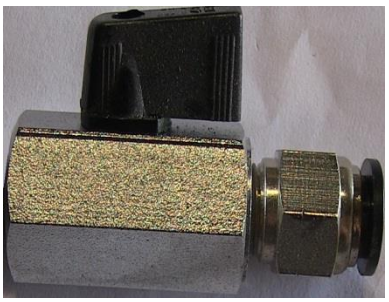


STEP 1: Remove the black seal from hydraulic flow control valve and jam nut.
STEP 2: Turn the 2940 system on by pressing ENTER on the cab controller (AIR ON displayed) & supply hydraulic pressure to the compressor. Make adjustments while hydraulic motor is running. Open tank drain to allow continuous running if necessary.
STEP 3: Insert 5/16 Allen wrench into flow control valve.
STEP 4: Using an 11/16 wrench, loosen jam nut by turning counterclockwise.
STEP 5: Using a 5/16 Allen wrench, **SLIGHTLY** turn the flow control valve counterclockwise (the equivalent to 3 degrees or 1/32 of a turn) to increase the hydraulic motor speed.
STEP 6: Hold the Allen wrench in place and tighten the jam nut. Each time an adjustment is made, allow the compressor to build to its potential 145psi shut off mark. If 145psi is not achieved, drain tank pressure until compressor turns on, and make another adjustment. Repeat these steps until 145psi is achieved without compressor struggle. **DO NOT RUN MOTOR ON COMPRESSOR MORE THAN 1350RPM!** Once the flow control valve is set properly, hold the Allen wrench in place and tighten the jam nut.

Pre-Field Operation Guide

LEAK TESTING:

A leak testing procedure should be performed after set-up of the 2940 Air Adjust system is complete. This procedure shall be performed at the beginning of each planting season and every 20 hours of in season use. **In addition, it should be performed if the user notices a lack of air pressure availability or if the compressor is running an abnormally high duty cycle or run time.** It will help keep the duty cycle in check, thus extending the life of the compressor. The most efficient way to perform a leak test is to use shop air, if available, to allow for a quieter environment to detect an air leak better. A 2940-382 shop air adaptor is provided in the 2940-174 spare fittings bag. The shop air adaptor is equipped with a shut off valve. Attach your matching male coupler to the open ¼"NPT & install airline between the 3/8PTC fitting & the water separator inlet port. Wrap the male threads of the shop air fitting with Teflon tape.



Pre-Field Operation Guide Con't

SYSTEM LEAK TESTING:

Step 1: Power the cab controller, turn all pressures (RU, RD, and WT) to 0psi, and press ENTER to activate the system. Make sure the compressor supplying air to the system has run, built 145psi of tank pressure, and shut off.

Step 2: With tank pressure reading 145psi on the gauge at the compressor, the compressor not running, and 0psi commanded to all circuits, note the tank gauge psi. Start a stop watch & after 5 minutes, note the tank pressure. If tank pressure drops more the 2psi, check for leaks around/inside the compressor housing, water separator, & control box. Repair as needed.

Step 3: Turn the lift pressure (RU) to 40psi, exit the tractor cab, & start at the compressor housing checking all blue airline on the RU circuit for air leaks. Check all fittings, tees, & dump valves on the RU circuit. Repair leaks as needed, return to the cab, & turn the lift pressure back to 0psi.

Step 4: Turn the down pressure (RD) & wheel track (WT) pressure to 40psi, exit the tractor cab, & start at the compressor housing checking all black airlines on the RD & WT circuit for leaks. Check all fittings, tees, & dump valves on the RD & WT circuits for air leaks. Repair leaks as need, return to the tractor cab, & turn all circuit pressures to 0psi.

Step 5: With tank pressure reading 145psi on the gauge at the compressor, compressor not running, & 40 psi commanded in all circuits, note the tank psi. Start a stop watch & after 5 minutes, note the tank pressure on the gauge at the tank. If tank pressure drops more the 2psi, check for leaks on the row cleaner fittings, tees, and dump valves. Repair as needed.

AIR COMPRESSOR PRE-OPERATING TEST PROCEDURE:

Before beginning this test, run the compressor system leak test and ensure it passes. There should be virtually no leaks in the tank circuit before performing this test. Use a stop watch to time the hydraulic compressor's recovery time. Start the time when the tank gauge reaches 125psi & the compressor turns on. Stop the time when the compressor shuts off at 145psi. If the time is greater than 20 seconds, there is a leak, the compressor is worn, or the compressor's RPMs are too slow. Repair as needed.

Proper Settings

Dump Valve Delay

To set the dump valve delay, start at the operating screen, press **Menu**, select **Set Up**, press **Enter** to edit, & use the following guide to set to your planter size:

Non Split Row Planters

6-12 row planters - .5 seconds
16-24 row planters - .75-1.5 seconds
32-36 row planters - 1.75 – 2 seconds
48-54 row planters - 2.25-2.5 seconds

Split Row Planters

6/11, 6/12, 8/15, or 8/16 planters - .5 – .75 seconds using only corn rows, .75 – 1.5 seconds when using all rows
12/23 or 12/24 planters - .5 – .75 seconds using only corn rows, 1.75 – 2 seconds when using all rows
16/31 or 16/32 planters - .75 – 1 seconds using only corn rows, 1.75 – 2 seconds when using all rows
24/47 or 24/48 planters - 1.25 – 1.5 seconds using only corn rows, 2.25 – 2.5 seconds when using all rows

Note: When the dump valve delay is set properly, the action of the residue managers (RM) will be as follows:
Pressing the Roman numeral I button (up indicator light on) should raise all RMs
Pressing the Roman numeral I button (up indicator light off) will lower RMs to half travel & then settle into position

Air Pressure Settings

Residue Managers Only

A common question is "What pressures should I start out at?" A good starting pressure setting would be 35psi Up Pressure, 30psi Down Pressure, & 32psi Wheel Track(WT). This particular setting will give each row cleaner a nice sturdy float. If this pressure setting doesn't remove enough residue or trenches/digs furrows, adjust the settings accordingly until the row cleaner is doing exactly what you want it to do. If the row cleaner is trenching, lessen the down pressure or increase the up pressure. If not enough residue is removed, lesson the up pressure or increase the down pressure. Once a setting is found, hold the desired preset button (P1-P5) until saved. Each field may require a different setting even though field conditions seem the same. For example, if you use a setting for one no-till field planting corn in soybean residue, you may find that the setting used for the next field planting corn in soybean residue in no-till conditions may be different. The reason may be the amount of residue, soil types, moisture amounts, etc.

Residue managers/Coulter Combos

A common question is "What pressures should I start out at?" A good starting pressure setting would be 40psi Up Pressure, 35psi Down Pressure, & 37psi Wheel Track (WT). This particular setting will give each row cleaner a nice sturdy float. If this pressure setting doesn't remove enough residue or trenches/digs furrows, adjust the settings accordingly until the row cleaner is doing exactly what you want it to do. If the row cleaner is trenching, lessen the down pressure or increase the up pressure. If not enough residue is removed, lesson the up pressure or increase the down pressure. Once a setting is found, hold the desired preset button (P1-P5) until saved. Each field may require a different setting even though field conditions seem the same. For example, if you use a setting for one no-till field planting corn in soybean residue, you may find that the setting used for the next field planting corn in soybean residue in no-till conditions may be different. The reason may be the amount of residue, soil types, moisture amounts, etc.

Yetter Hydraulic Compressor Maintenance

WARNING:

Keep extremities out of the compressor housing when compressor is running, has potential to run, or recently shut off as there are rotating and high temperature parts that my cause injury. Always turn tractor off and disconnect power before performing any maintenance.

LUBRICATION:

The compressor is shipped empty of pump lubrication and needs oil added before operation. Provided is a 1 Liter bottle of grade 111 synthetic. Add oil until oil level is seen half way up on the sight glass. Yetter part number for purchasing new bottle is 2940-550.

GUARDS:

Always ensure the housing and guards are in place during operation.

AIR FILTER CARTRIDGE:

Yetter part number 2940-549. Order as needed.

MAINTENANCE SCHEDULE GUIDE

DAILY

Check oil level and fill as needed
Check air filter cleanliness and clean/replace as needed
Check hoses for fluid leaks and replace/fix as needed
Check air lines for air leaks and replace/fix as needed
Check component parts of the compressor for damage (pressure switch, cooling fan, gauge, etc)
Drain tank pressure with Tank Drain Valve **(labeled M on page 13)** to allow moisture to drain

SEASONALLY/200 COMPRESSOR HOURS

Change compressor oil
Change inlet air filter
Check fluid hoses and air lines for weakness or weathering and replace as needed.
Check hydraulic fittings for proper connections with no leaks, replace as needed.

FIRST OIL CHANGE SHOULD TAKE PLACE AFTER APPROXIMATELY 50 RUNNING HOURS

CLEANING OR REPLACING THE 2940-106 AIR FILTER

Filter cleanliness is critical to maintain the performance & service life of the compressor. Recommendations for cleaning are DAILY & replace every 200 hours OR at beginning of every planting season. Dirt sucked passed the filter will ruin the pump.

STEP 1: Remove the wing nut & filter cover.
STEP 2: Remove the filter. (If cleaning, tap the filter on a solid surface to remove dirt from the pleats & clean the filter base. **DO NOT USE COMPRESSED AIR TO CLEAN FILTER!**
STEP 3: Install new or cleaned filter.
STEP 4: Install filter cover & wing nut removed in step 1.

Yetter Hydraulic Compressor Maintenance

Check Hydraulic Air Compressor Oil

Deactivate SCV operating hydraulic compressor and turn tractor off before servicing

NOTE: Check hydraulic air compressor oil daily before use during planting season and beginning of each season.

Sight glass is positioned behind the housing for protection purposes but easily seen without removing the housing. Oil level should be visible in sight glass. If oil needs added, remove housing and add grade 111 synthetic or PAO synthetic compressor oil until seen in middle of sight glass

Filling or Changing Hydraulic Air Compressor Oil

Deactivate SCV operating hydraulic compressor and turn off tractor before servicing

Filling Hydraulic Air Compressor Oil

Step 1: Remove cap
Step 2: Using a proper sized funnel add grade 111 synthetic or a PAO synthetic compressor oil until oil level is in middle of the sight glass
Step 3: Install cap

Changing Hydraulic Air Compressor Oil

Step 1: Remove cap for ventilation while draining
Step 2: Place container in position to catch oil while draining
Step 3: Remove drain plug to allow oil to drain
Step 4: Install removed drain plug after oil drained in entirety
Step 5: Add grade 111 synthetic or a PAO synthetic compressor oil until oil level is in middle of the sight glass
Step 6: Install cap

Remove housing to add or fill the pump with oil. See page 25 for housing removal instructions.

Bearing Maintenance/Assembly

Practice Safety

Understand & practice safe service procedures before doing work. Follow ALL the operating, maintenance, & safety information in the equipment operator manual. Clear the area of bystanders, especially small children, when performing any maintenance or adjustments. Keep work area clean & dry. Use adequate lighting for the job. Use only tools, jacks, & hoists of sufficient capacity for the job. Never lubricate, service, or adjust machine while it is moving. Keep hands, feet, & clothing from power-driven moving and rotating parts. Disengage all power & operating controls to relieve pressure. Lower equipment to the ground or to the cylinder stops & turn off the engine. Remove the key. Wait for all moving parts to stop before servicing, adjusting, repairing or unplugging. Securely support any machine elements with blocks or safety stands that must be raised for service work. Keep all parts in good condition & properly installed. Fix damaged equipment immediately. Replace worn or broken parts. Remove any buildup of grease, oil, or debris. Make sure all guards are in place & properly secured when maintenance work is completed.

CAUTION: To help prevent serious injury or death to you or others caused by unexpected movement, service machine on a level surface. Lower machine to ground or sufficiently lock or block raised machine before servicing. If machine is connected to tractor, engage parking brake & place transmission in "PARK", shut off engine and remove key. If machine is detached from tractor, block wheels & use shop stands to prevent movement.

CAUTION: Use grease based on NLGI consistency numbers and the expected air temperature range during the service interval. Use a multi-purpose lithium, water resistant, moderate speed, & NLGI grade #2 grease. Other greases may be used if they meet the following NLGI Performance Classification: GC-LB.

IMPORTANT: Some types of grease thickener are not compatible with others. Consult your grease supplier before mixing different types of grease.

Maintenance

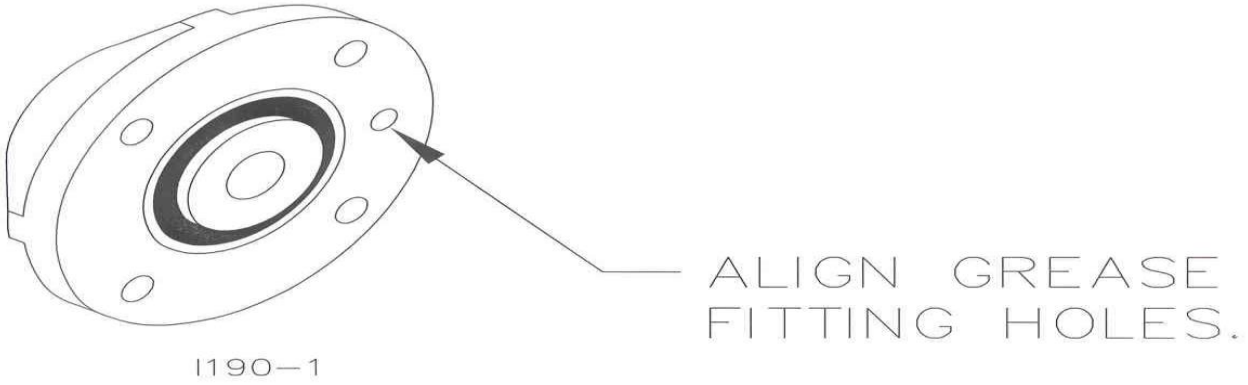
Alternative Lubricants
Conditions in certain geographical areas may require special lubricants and lubrication practices which do not appear in the operator's manual. If there are any questions, consult Yetter Manufacturing Co. to obtain latest information and recommendation.

PART #	DESCRIPTION	*OUNCES OF GREASE*
2967-404	13” TAPER TOOTH R.M. WHEEL	1.12 OZ
2967-602	13” SHARK TOOTH R.M. WHEEL	1.12 OZ
2967-186	FLOATER WHEEL KIT W/R.M. WHEEL	2.08 OZ
2967-596	HEAVY DUTY OR BEVEL R.M. WHEEL W/ FLOATER WHEEL KIT	2.40 OZ

Storing Lubricants
Store them in an area protected from dust, moisture, & other contaminants.
Your machine can operate at top efficiency only if clean lubricants are used.
Use clean containers to handle all lubricants.

Bearing Replacement Installation

1. When assembling the wheels, bearing assembly and hubcap, be sure to align the grease transfer hole in the spoke wheel with the groove in the hubcap and hole in the hub to allow grease passage.
2. Assemble the wheels, hubs and caps.
3. Grease the wheel/hub/bearing assembly



NOTE: Be certain to align the grease fitting with the slot in the wheel and the hubcap so that the grease can flow freely to the cavity. The bearing is sealed but the cavity must be filled so that dirt, moisture, and debris do not enter the cavity and ruin the seal.

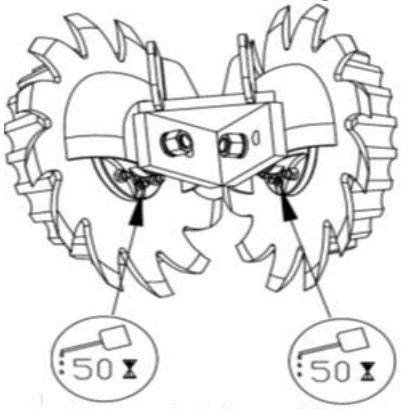
Maintenance

Lubrication Symbols

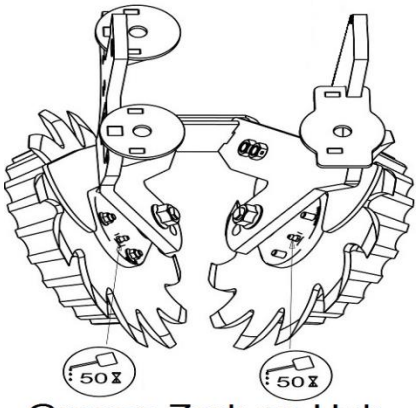
Lubricate with grease at hourly interval indicated on symbol.

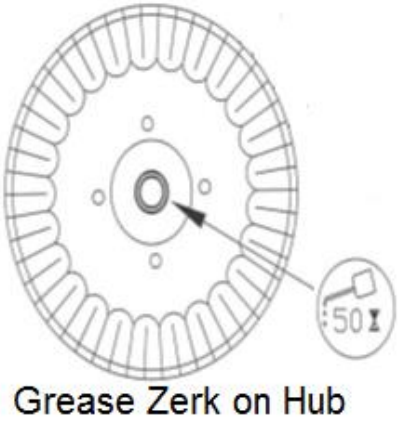
Lubrication Intervals

Residue Manager



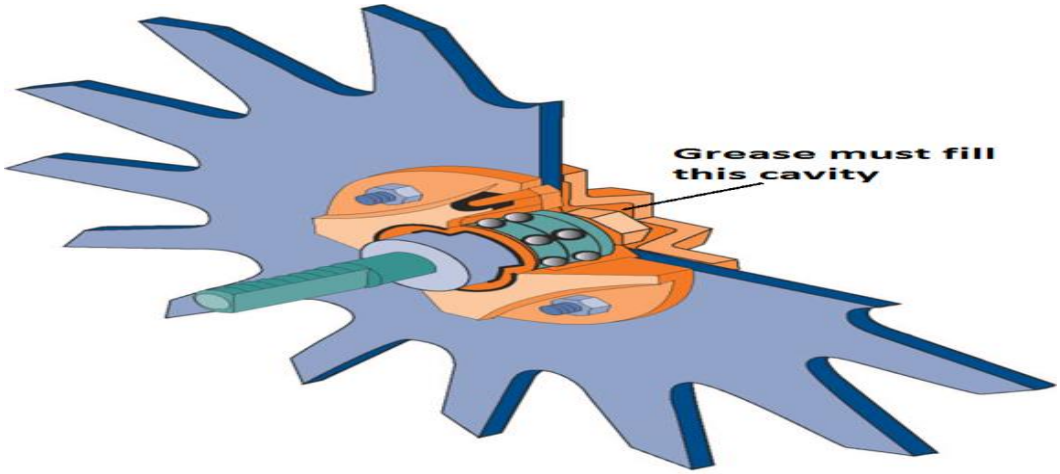
Residue Manager/Coulter Combo





IMPORTANT: The recommended service intervals are based on normal conditions; severe or unusual conditions may require more frequent lubrication.

-Perform each lubrication and service procedure at the beginning and end of each season.
-Clean grease fittings before using grease gun, to avoid injecting dirt and grit into the bearing.
-Replace any lost or broken fittings immediately. If a fitting fails to take grease, remove and clean thoroughly, replace fitting if necessary. Also check for failure of adjoining parts.

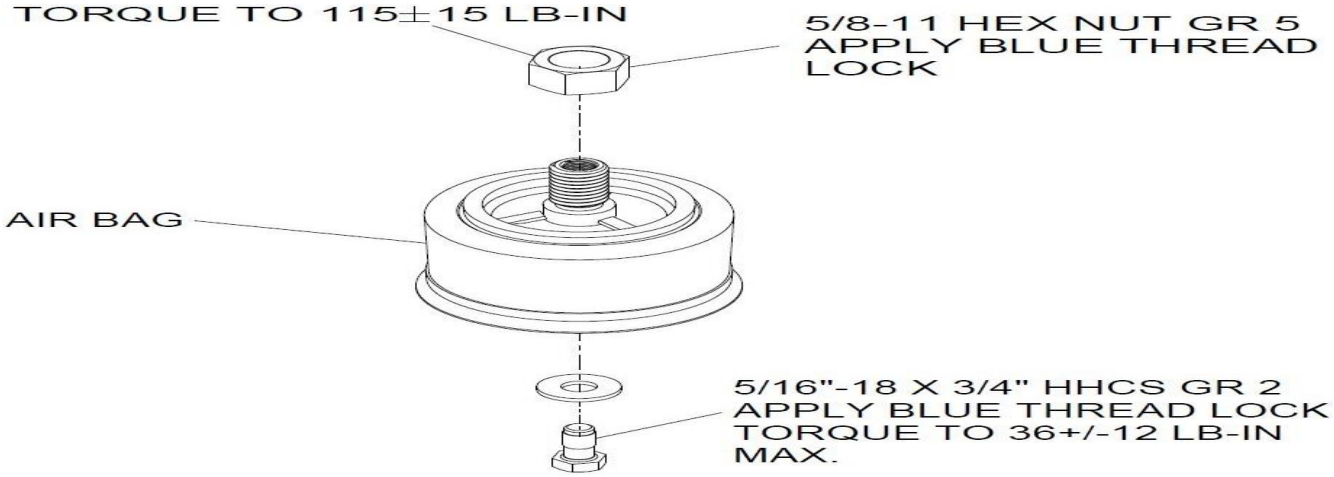


Storing the Equipment

-Store the machine in an area away from human activity in the **RAISED** position.
-Install service locks on all wheel cylinders.
-At the end of the season, the machine should be thoroughly inspected and prepared for storage. Repair or replace any worn or damaged components to prevent down time at the start of the next season. Store the machine under cover with all parts in operating condition.

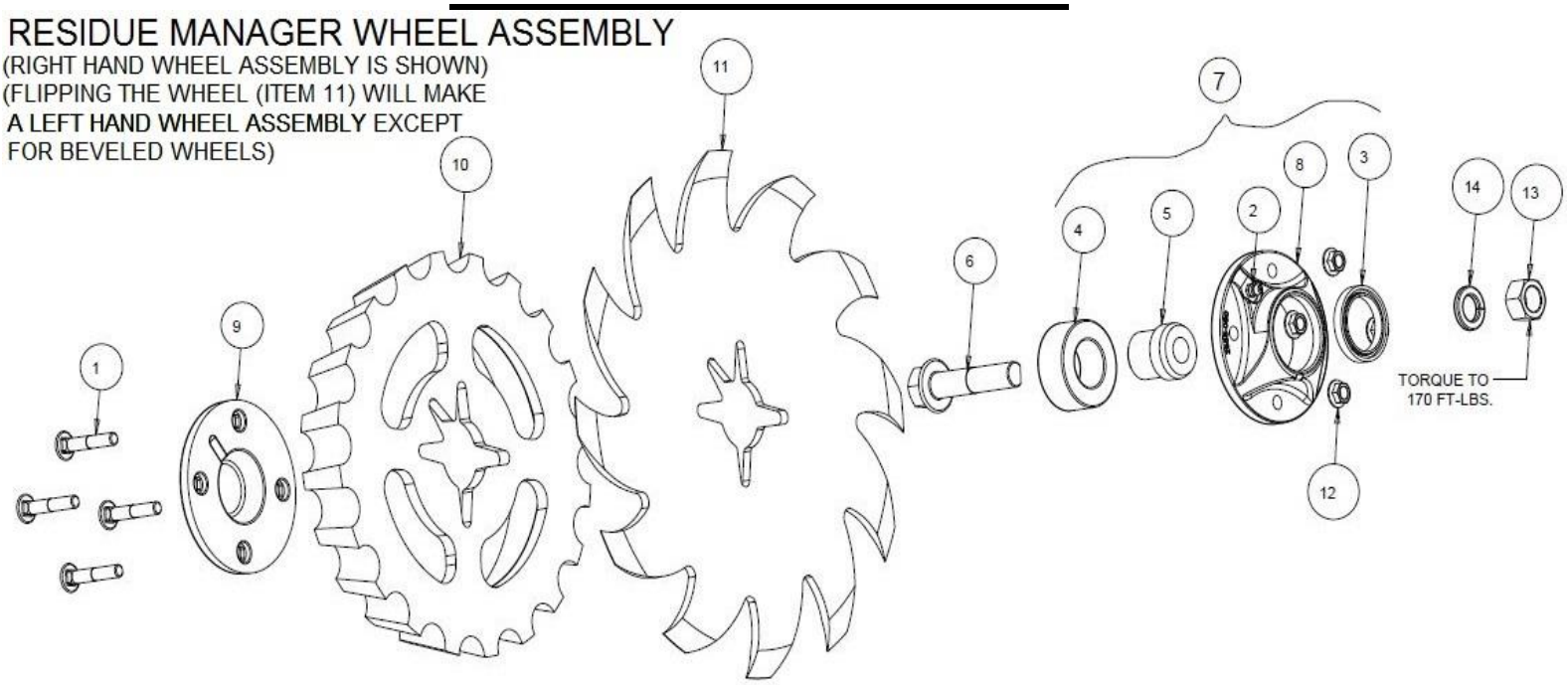
- Clean machine thoroughly removing all dirt, debris, and crop residue which holds moisture causing rust.
- Inspect machine for worn or broken parts. See your Yetter Farm Equipment dealer during the off-season so that parts or service can be acquired when machine is not needed in the field.
- Lubricate bearings as outlined in the Lubrication section.
- Paint all parts which are chipped or worn and require repainting.
- Store machine in a clean, dry place with the planting unit out of the sun.
- If the machine cannot be stored inside, cover with a waterproof tarpaulin and tie securely in place.
- Do not allow children to play on or around the machine.

AIR BAG REPLACEMENT



2940-386 6" AIR BAG **2940-388 8" AIR BAG**

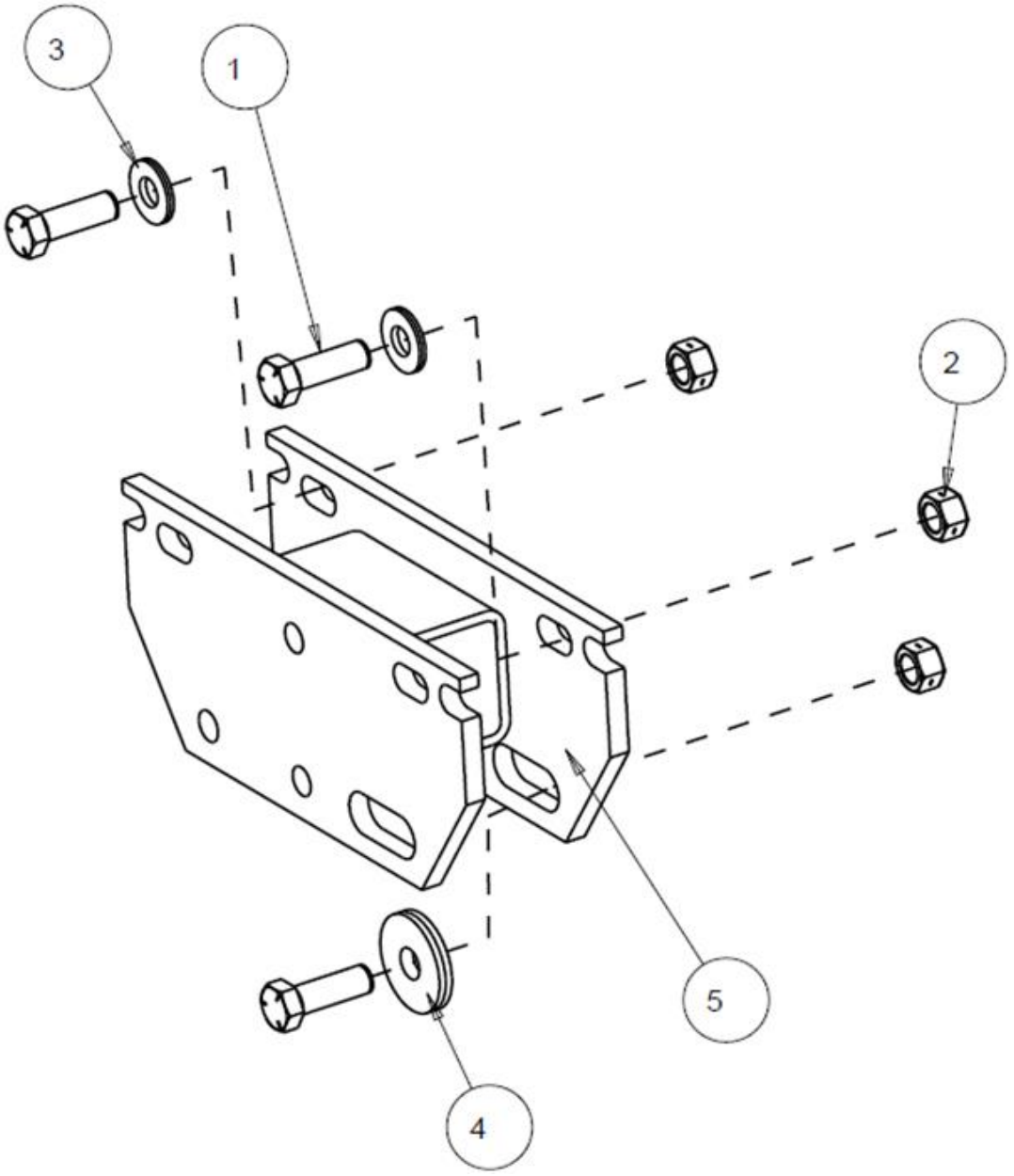
PARTS IDENTIFICATION



Item	Part Number	Description	Qty
1	2505-207	5/16-18 X 1 ¼ CAR BLT GR5 ZP	4
	2505-208	5/16-18 X 1 ½ CAR BLT GR5 ZP (For use with Heavy Duty Wheel)	4
	2505-209	5/16-18 X 1 ¾ CAR BLT GR5 ZP (For use with Floater Wheel)	4
2	2533-110	¼" SELF TAP ZERK (NOT SHOWN)	1
3	2550-069	SEAL, TRIPLE LIP, NTI# 1812-5	1
4	2570-594	BEARING, 2 ROW, NTN DF0654L	1
5	2570-715	BEARING INSERT, TRASHMASTER	1
6	2570-740	D-BOLT, FLANGED, 5/8-11 X 2.812 GR 8	1
7	2965-128	HUB AND BEARING ASSEMBLY, 4 BOLT	1
8	2965-351	HUB CAST, MACHINED, 4 BOLT	1
9	2965-352	HUB CAP CASTING, 4 BOLT, BLACK	1
10	2967-555	FLOATER WHEEL	1
11	2967-404	13" TAPER TOOTH SPOKE WHEEL	1
	2967-596	3/8 TAPER TOOTH SPOKE WHEEL	1
	2967-602	13" SHARK TOOTH WHEEL	1
	6200-350	13" BEVELED WHEEL, LH	1
	6200-351	13" BEVELED WHEEL, RH	1
12	N10213	5/16-18 HEX FLANGE SERRATED NUT	4
13	2520-452	5/8-11 HEX NUT	1
14	2525-451	5/8 LOCKWASHER	1

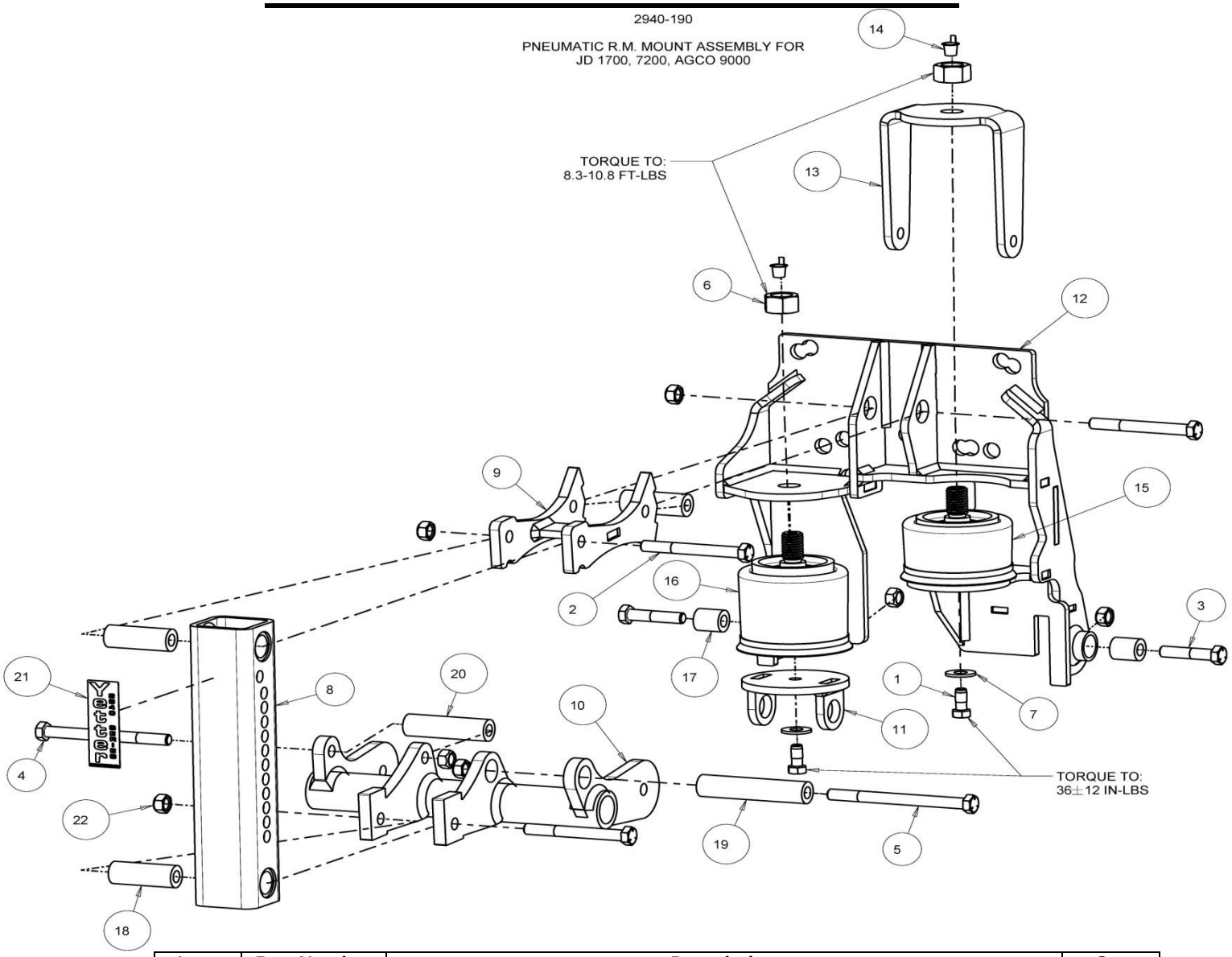
2940-049 PARTS IDENTIFICATION

(For John Deere Planters with Heavy Duty Double Disc Scrapers)



Item	Part Number	Description	Qty
1	2502-294	1/2-13 x 1-1/2 HHCS GR 5 ZP	3
2	2520-357	½-13 HEX LOCK NUT ZP	3
3	2526-355	½ FLAT WASHER HARDENED ZP	2
4	2526-402	9/16ID X 1-3/4 OD X 1/4MBZP	1
5	2940-220	MOUNT EXTENSION W.A.	1

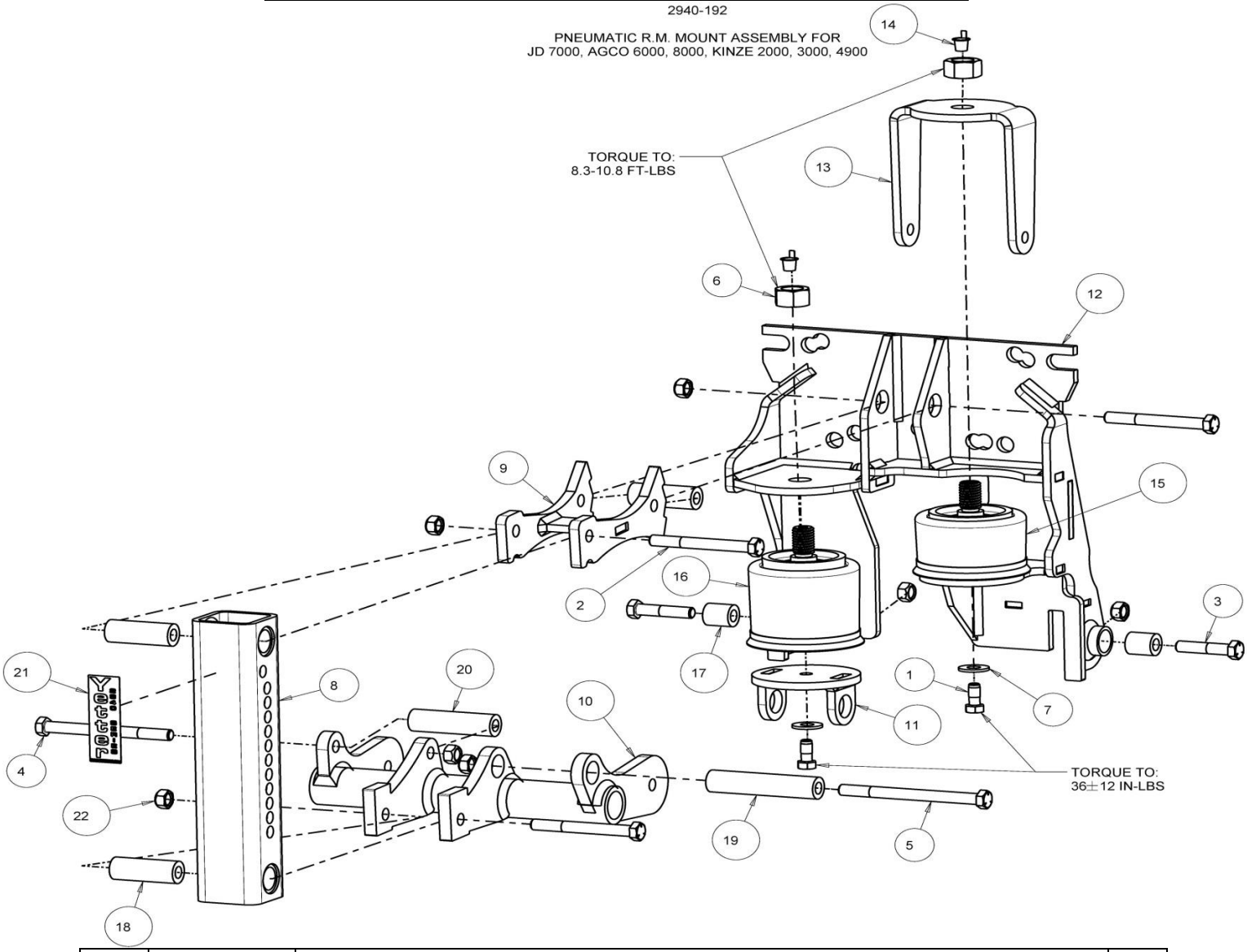
2940-190 PARTS IDENTIFICATION



Item	Part Number	Description	Qty
1	2502-200	5/16-18 X 3/4 HHCS W/THD LCK GR 2 ZP	2
2	2502-233	3/8-16 X 3 1/4 HHCS GR 5 ZP	3
3	2502-245	3/8-16 X 1-3/4 HHCS GR 5 ZP	2
4	2502-254	3/8-16 X 4 HHCS GR 5 ZP	1
5	2502-260	3/8-16 X 4-1/2 HHCS GR 5 ZP	1
6	2520-455	5/8-11 JAM HEX NUT ZP PATCH LOC, GR 5	2
7	2526-201	5/16 STD FLATWASHER ZP	2
8	2940-210	ADJUSTMENT TUBE W.A.	1
9	2940-211	UPPER LINK W.A.	1
10	2940-213	LOWER PARALLEL ARM W.A.	1
11	2940-214	AIR BAG BRACKET W.A.	1
12	2940-222	STANDARD MOUNT PLATE W.A. JD 1700, 7200, AGCO 9000	1
13	2940-309	UPFORCE TOP MOUNT	1
14	2940-340	AIR BAG CAP PLUG	2
15	2940-386	SHORTER AIR BAG	1
16	2940-388	LARGER AIR BAG	1
17	2940-472	BUSHING	2
18	2940-473	.750" OD X .406" X 2" BUSHING	3
19	2940-474	.750" OD X .406" ID X 3.437" BUSHING	1
20	2940-478	.750" OD X .406" ID X 2.630" BUSHING	1
21	2940-590	YETTER VERTICAL DECAL 3" X 1"	1
22	K40003	NUT, INCH PREVAILING TORQUE	7

MANUFACTURED 08/2015 – PRESENT

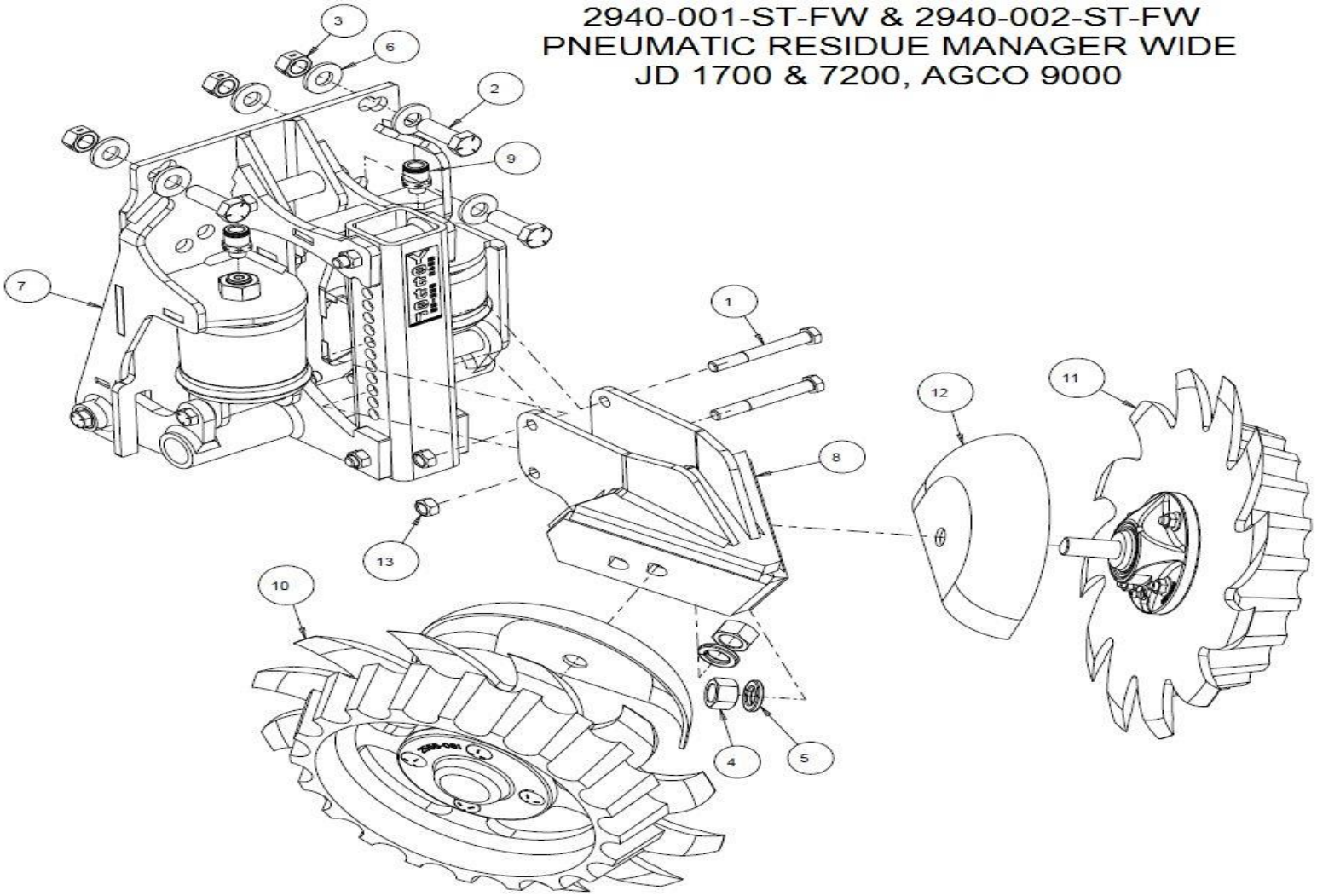
2940-192 PARTS IDENTIFICATION



Item	Part Number	Description	Qty
1	2502-200	5/16-18 X 3/4 HHCS W/THD LCK GR 2 ZP	2
2	2502-233	3/8-16 X 3 1/4 HHCS GR 5 ZP	3
3	2502-245	3/8-16 X 1-3/4 HHCS GR 5 ZP	2
4	2502-254	3/8-16 X 4 HHCS GR 5 ZP	1
5	2502-260	3/8-16 X 4-1/2 HHCS GR 5 ZP	1
6	2520-455	5/8-11 JAM HEX NUT ZP PATCH LOC, GR 5	2
7	2526-201	5/16 STD FLATWASHER ZP	2
8	2940-210	ADJUSTMENT TUBE W.A.	1
9	2940-211	UPPER LINK W.A.	1
10	2940-213	LOWER PARALLEL ARM W.A.	1
11	2940-214	AIR BAG BRACKET W.A.	1
12	2940-223	PNEUMATIC R.M. MOUNT ASSEMBLY: JD7000, AGCO 6-8K, KINZE 2K, 3K, 4900	1
13	2940-309	UPFORCE TOP MOUNT	1
14	2940-340	AIR BAG CAP PLUG	2
15	2940-386	SHORTER AIR BAG	1
16	2940-388	LARGER AIR BAG	1
17	2940-472	BUSHING	2
18	2940-473	.750" OD X .406" X 2" BUSHING	3
19	2940-474	.750" OD X .406" ID X 3.437" BUSHING	1
20	2940-478	.750" OD X .406" ID X 2.630" BUSHING	1
21	2940-590	YETTER VERTICAL DECAL 3" X 1"	1
22	K40003	NUT, INCH PREVAILING TORQUE	7

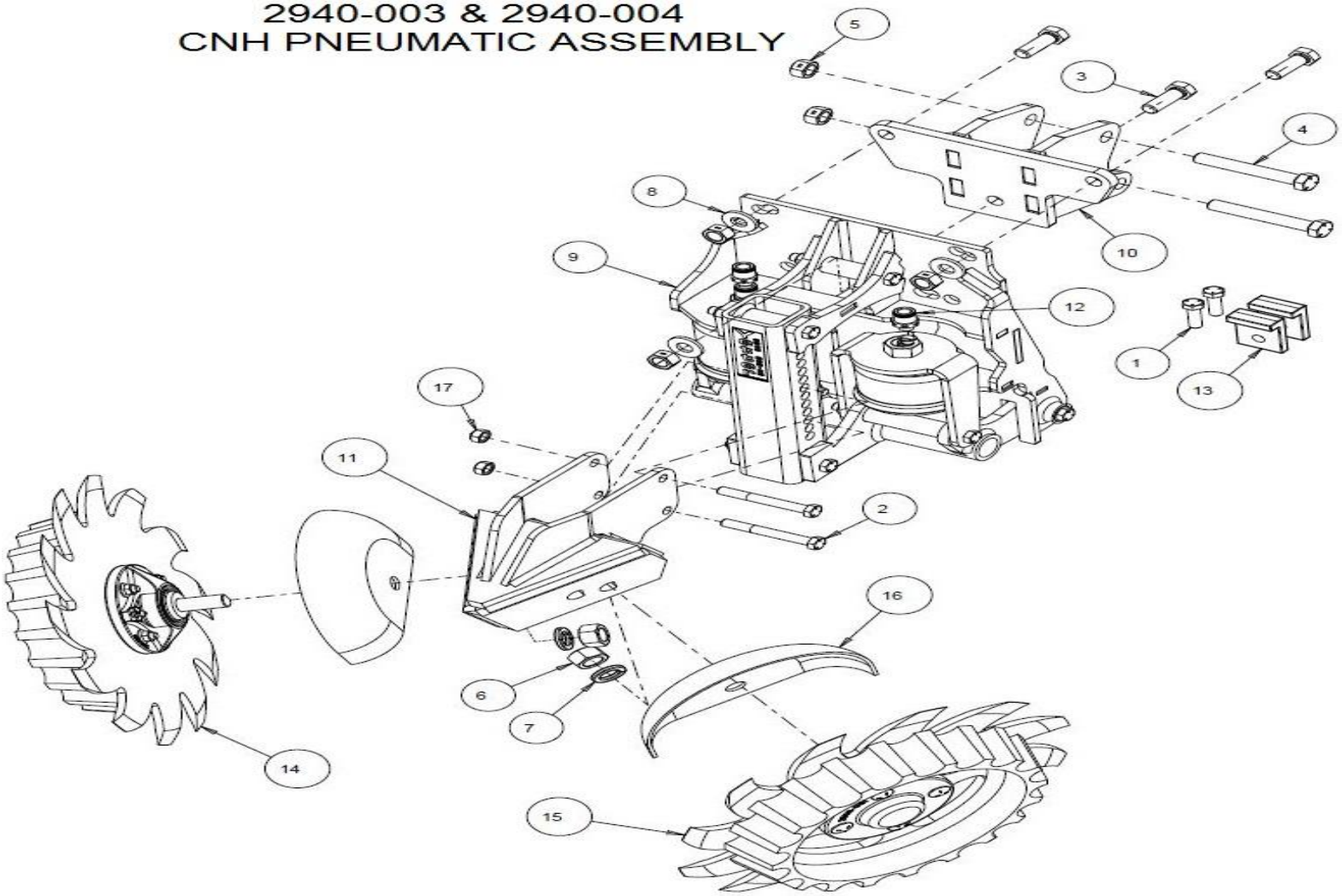
MANUFACTURED 08/2015 – PRESENT

2940-001 & 2940-002 PARTS IDENTIFICATION



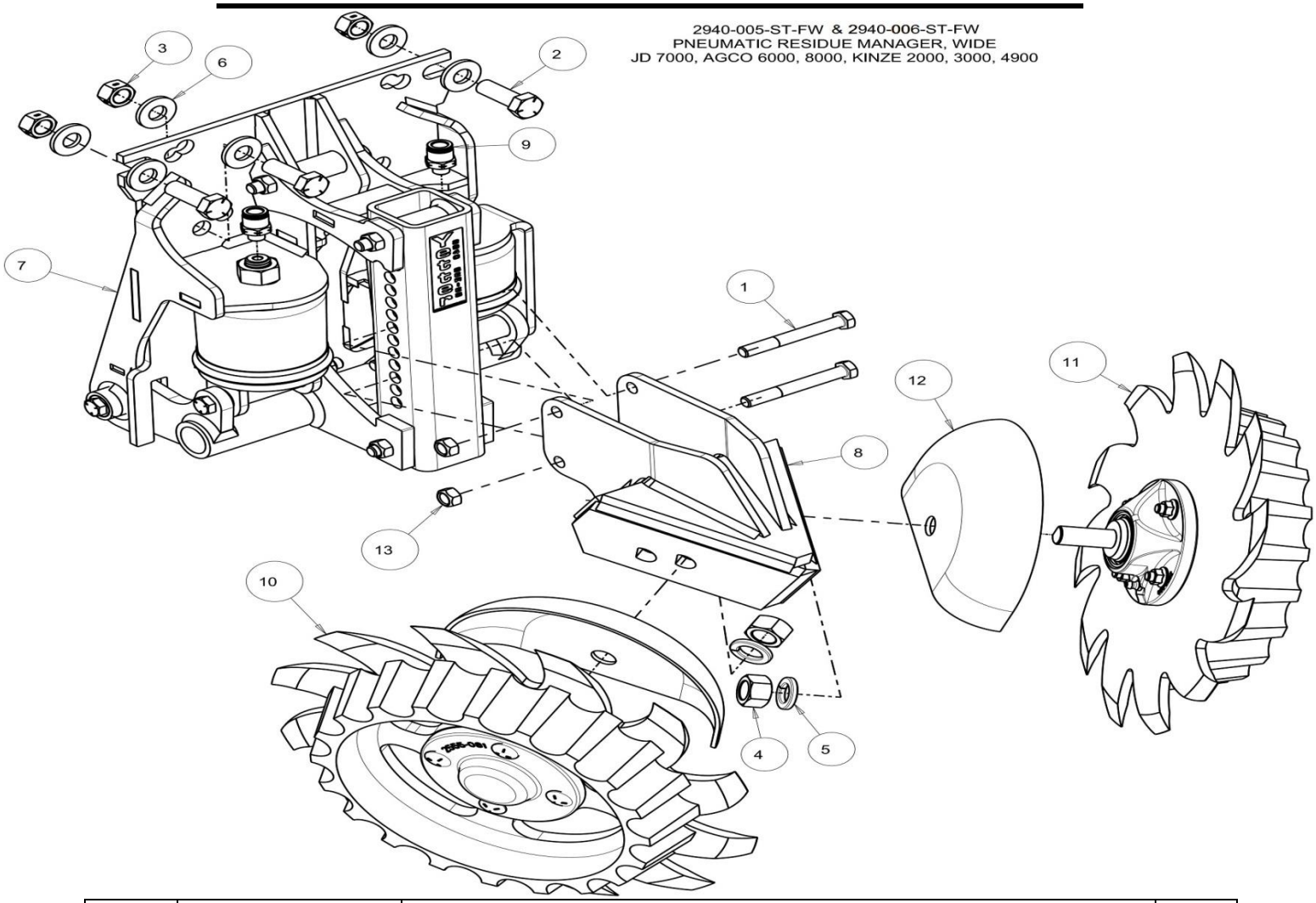
Item	Part Number	Description	Qty
1	2502-246	3/8-16 X 3 HHCS GR5 ZP	2
2	2502-294	½-13 X 1 ½ HHCS GR5 ZP	3
3	2520-357	½-13 LOCK HEX NUT, GR A, ZP	3
4	2520-452	5/8-11 HEX NUT ZP	2
5	2525-451	5/8 MEDIUM LOCKWASHER ZP	2
6	2526-355	½ FLAT WASHER HARDENED ZP	6
7	2940-190	PNEUMATIC R.M. MOUNT ASSEMBLY	1
8	2940-215	AIR ADJUST WIDE STEM W.A. (2940-001 USE THESE)	1
	2940-216	AIR ADJUST NARROW STEM W.A. (2940-002 USE THESE)	1
9	2940-380	3/8 PC X 1/8 BSPP O-RING STRAIGHT FITTING	2
10	2966-140	SPOKE WHEEL ASSEMBLY, RH, 3” D-BOLT	1
	2966-140-BW	BEVEL WHEEL ASSEMBLY, RH, 3” D-BOLT	1
	2966-140-BW-FW	BEVEL WHEEL ASSEMBLY, RH, 3” D-BOLT WITH FLOATER WHEEL	1
	2966-140-FW	SPOKE WHEEL ASSEMBLY, RH, 3” D-BOLT WITH FLOATER WHEEL	1
	2966-140-HD	HD SPOKE WHEEL ASSEMBLY, RH, 3” D-BOLT	1
	2966-140-HD-FW	HD SPOKE WHEEL ASSEMBLY, RH, 3” D-BOLT WITH FLOATER WHEEL	1
	2966-140-ST	SHARKTOOTH ASSEMBLY, RH, 3” D-BOLT	1
	2966-140-ST-FW	SHARKTOOTH ASSEMBLY, RH, 3” D-BOLT WITH FLOATER WHEEL	1
11	2966-141	SPOKE WHEEL ASSEMBLY, LH, 3” D-BOLT	1
	2966-141-BW	BEVEL WHEEL ASSEMBLY, LH, 3” D-BOLT	1
	2966-141-BW-FW	BEVEL WHEEL ASSEMBLY, LH, 3” D-BOLT WITH FLOATER WHEEL	1
	2966-141-FW	SPOKE WHEEL ASSEMBLY, LH, 3” D-BOLT WITH FLOATER WHEEL	1
	2966-141-HD	HD SPOKE WHEEL ASSEMBLY, LH, 3” D-BOLT	1
	2966-141-HD-FW	HD SPOKE WHEEL ASSEMBLY, LH, 3” D-BOLT WITH FLOATER WHEEL	1
	2966-141-ST	SHARKTOOTH ASSEMBLY, LH, 3” D-BOLT	1
	2966-141-ST-FW	SHARKTOOTH ASSEMBLY, LH, 3” D-BOLT WITH FLOATER WHEEL	1
12	2967-392	SHIELD, RM-PAINTED	2
13	K40003	3/8 LOCK NUT	2

2940-003 & 2940-004 PARTS IDENTIFICATION



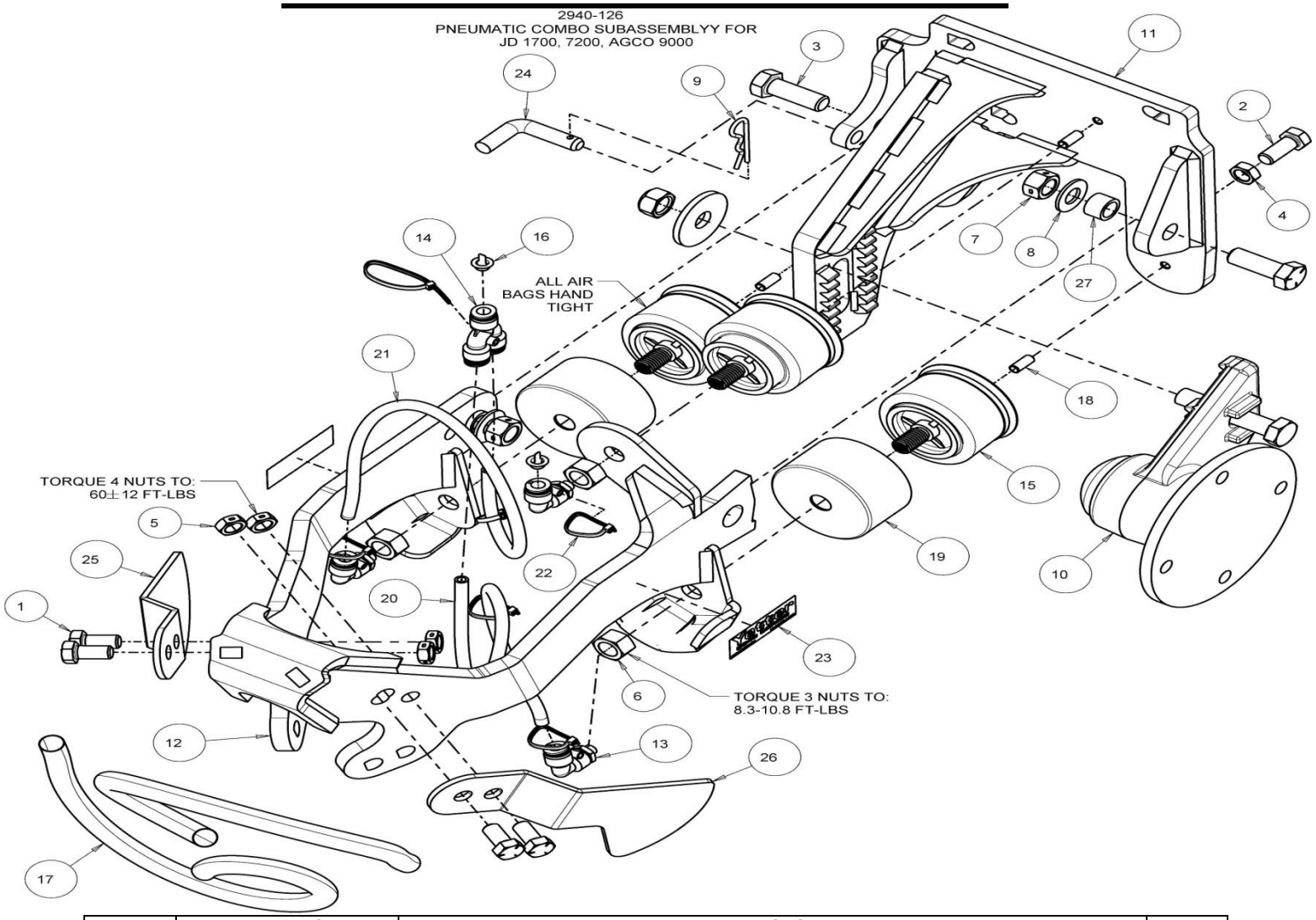
Item	Part Number	Description	Qty
1	2502-246	3/8-16 X 3 HHCS GR5 ZP	2
2	2502-294	½-13 X 1 ½ HHCS GR5 ZP	3
3	2520-357	½-13 LOCK HEX NUT, GR A, ZP	3
4	2520-452	5/8-11 HEX NUT ZP	2
5	2525-451	5/8 MEDIUM LOCKWASHER ZP	2
6	2526-355	½ FLAT WASHER HARDENED ZP	6
7	2940-190	PNEUMATIC R.M. MOUNT ASSEMBLY	1
8	2940-215	AIR ADJUST WIDE STEM W.A. (2940-001 USE THESE)	1
	2940-216	AIR ADJUST NARROW STEM W.A. (2940-002 USE THESE)	1
9	2940-380	3/8 PC X 1/8 BSPP O-RING STRAIGHT FITTING	2
10	2966-140	SPOKE WHEEL ASSEMBLY, RH, 3” D-BOLT	1
	2966-140-BW	BEVEL WHEEL ASSEMBLY, RH, 3” D-BOLT	1
	2966-140-BW-FW	BEVEL WHEEL ASSEMBLY, RH, 3” D-BOLT WITH FLOATER WHEEL	1
	2966-140-FW	SPOKE WHEEL ASSEMBLY, RH, 3” D-BOLT WITH FLOATER WHEEL	1
	2966-140-HD	HD SPOKE WHEEL ASSEMBLY, RH, 3” D-BOLT	1
	2966-140-HD-FW	HD SPOKE WHEEL ASSEMBLY, RH, 3” D-BOLT WITH FLOATER WHEEL	1
	2966-140-ST	SHARKTOOTH ASSEMBLY, RH, 3” D-BOLT	1
	2966-140-ST-FW	SHARKTOOTH ASSEMBLY, RH, 3” D-BOLT WITH FLOATER WHEEL	1
11	2966-141	SPOKE WHEEL ASSEMBLY, LH, 3” D-BOLT	1
	2966-141-BW	BEVEL WHEEL ASSEMBLY, LH, 3” D-BOLT	1
	2966-141-BW-FW	BEVEL WHEEL ASSEMBLY, LH, 3” D-BOLT WITH FLOATER WHEEL	1
	2966-141-FW	SPOKE WHEEL ASSEMBLY, LH, 3” D-BOLT WITH FLOATER WHEEL	1
	2966-141-HD	HD SPOKE WHEEL ASSEMBLY, LH, 3” D-BOLT	1
	2966-141-HD-FW	HD SPOKE WHEEL ASSEMBLY, LH, 3” D-BOLT WITH FLOATER WHEEL	1
	2966-141-ST	SHARKTOOTH ASSEMBLY, LH, 3” D-BOLT	1
	2966-141-ST-FW	SHARKTOOTH ASSEMBLY, LH, 3” D-BOLT WITH FLOATER WHEEL	1
12	2967-392	SHIELD, RM-PAINTED	2
13	K40003	3/8 LOCK NUT	2

2940-005 & 006 PARTS IDENTIFICATION



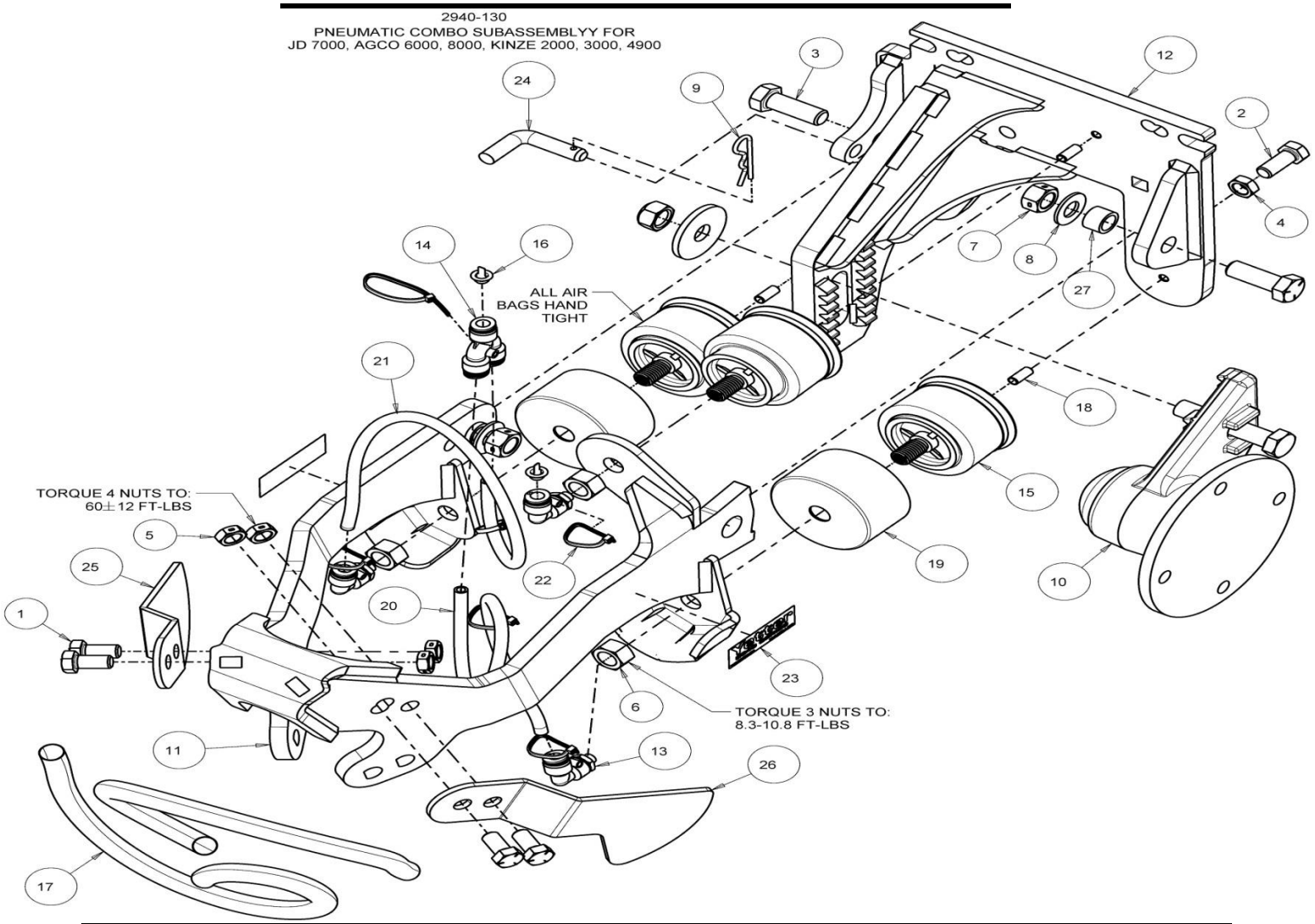
Item	Part Number	Description	Qty
1	2502-246	3/8-16 X 3 HHCS GR5 ZP	2
2	2502-294	½-13 X 1 ½ HHCS GR5 ZP	3
3	2520-357	½-13 LOCK HEX NUT, GR A, ZP	3
4	2520-452	5/8-11 HEX NUT ZP	2
5	2525-451	5/8 MEDIUM LOCKWASHER ZP	2
6	2526-355	½ FLAT WASHER HARDENED ZP	6
7	2940-192	PNEUMATIC R.M. MOUNT ASSEMBLY	1
8	2940-215	AIR ADJUST WIDE STEM W.A. (2940-001 USE THESE)	1
	2940-216	AIR ADJUST NARROW STEM W.A. (2940-002 USE THESE)	1
9	2940-380	3/8 PC X 1/8 BSPP O-RING STRAIGHT FITTING	2
10	2966-140	SPOKE WHEEL ASSEMBLY, RH, 3” D-BOLT	1
	2966-140-BW	BEVEL WHEEL ASSEMBLY, RH, 3” D-BOLT	1
	2966-140-BW-FW	BEVEL WHEEL ASSEMBLY, RH, 3” D-BOLT WITH FLOATER WHEEL	1
	2966-140-FW	SPOKE WHEEL ASSEMBLY, RH, 3” D-BOLT WITH FLOATER WHEEL	1
	2966-140-HD	HD SPOKE WHEEL ASSEMBLY, RH, 3” D-BOLT	1
	2966-140-HD-FW	HD SPOKE WHEEL ASSEMBLY, RH, 3” D-BOLT WITH FLOATER WHEEL	1
	2966-140-ST	SHARKTOOTH ASSEMBLY, RH, 3” D-BOLT	1
	2966-140-ST-FW	SHARKTOOTH ASSEMBLY, RH, 3” D-BOLT WITH FLOATER WHEEL	1
11	2966-141	SPOKE WHEEL ASSEMBLY, LH, 3” D-BOLT	1
	2966-141-BW	BEVEL WHEEL ASSEMBLY, LH, 3” D-BOLT	1
	2966-141-BW-FW	BEVEL WHEEL ASSEMBLY, LH, 3” D-BOLT WITH FLOATER WHEEL	1
	2966-141-FW	SPOKE WHEEL ASSEMBLY, LH, 3” D-BOLT WITH FLOATER WHEEL	1
	2966-141-HD	HD SPOKE WHEEL ASSEMBLY, LH, 3” D-BOLT	1
	2966-141-HD-FW	HD SPOKE WHEEL ASSEMBLY, LH, 3” D-BOLT WITH FLOATER WHEEL	1
	2966-141-ST	SHARKTOOTH ASSEMBLY, LH, 3” D-BOLT	1
	2966-141-ST-FW	SHARKTOOTH ASSEMBLY, LH, 3” D-BOLT WITH FLOATER WHEEL	1
12	2967-392	SHIELD, RM-PAINTED	2
13	K40003	3/8 LOCK NUT	2

2940-126 PARTS IDENTIFICATION



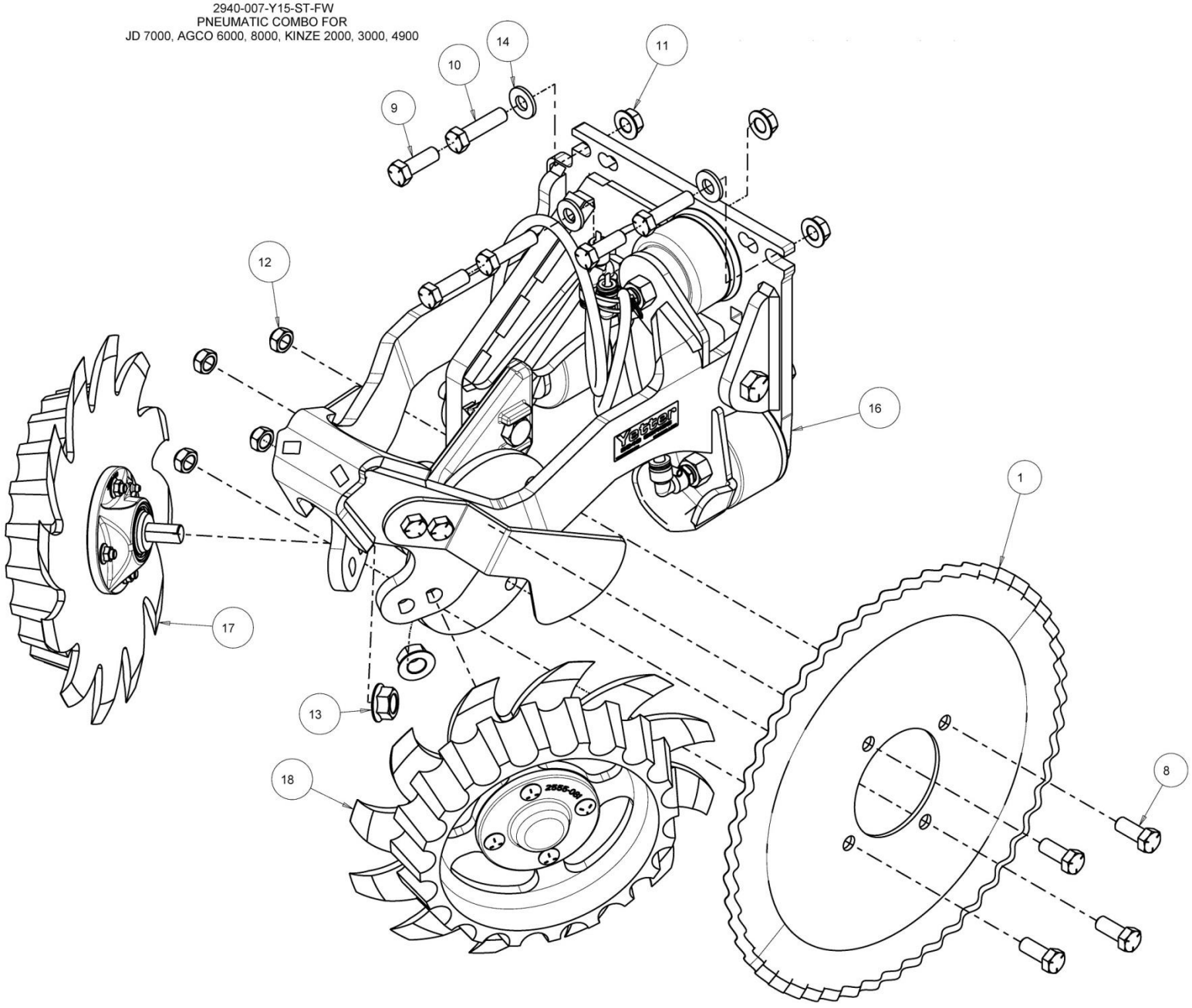
	Part Number	Description	Qty
1	2502-292	½-13 X 1 HHCS GR 5 ZP	4
2	2502-293	½-13 X 1 ¼ HHCS GR 5 ZP	1
3	2502-331	5/8-11 X 1 ¾ HHCS GR 5 ZP	2
4	2520-356	½-13 JAM HEX NUT ZP	1
5	2520-364	½-13 JAM HEX LOCK NUT	4
6	2520-455	5/8-11 HEX NUT WITH PATCH LOC, GR 5 ZP	3
7	2520-459	5/8-11 HEX LOCK NUT ZP	2
8	2526-453	5/8 SAE FLAT WASHER ZP	2
9	2570-446	.125 HAIRPIN COTTER ZP	1
10	2940-121	ASSEMBLY, COULTER HUB	1
11	2940-230	FACEPLATE W.A. JD 1700,7200, AGCO 9000	1
12	2940-231	COMBO ARM W.A.	1
13	2940-381	3/8 PC X 1/8 BSPP O-RING 90 DEGREE	3
14	2940-383	3/8 PC WYE FITTING	1
15	2940-386	SHORTER AIR BAG	3
16	2940-389	RUBBER AIR BAG PLUG	2
17	2940-508	HOSE SLEEVE	2
18	2940-560	SET SCREW, .313-18 X .750 W/ THREAD LOCK	3
19	2940-569	AIR BAG SHIELD	2
20	2940-571	HOSE, LH COMBO 2940 AIR SYSTEMS	1
21	2940-572	HOSE, RH COMBO 2940 AIR SYSTEMS	1
22	2940-577	ZIP TIE	6
23	2940-589	YETTER HORIZONTAL DECAL 1” X 3”	2
24	2967-613	TITAN PIN, JD ZP	1
25	2967-630	SCRAPER, RH	1
26	2967-631	SCRAPER, LH	1
27	6000-335	9/16” BUSHING	2

2940-130 PARTS IDENTIFICATION



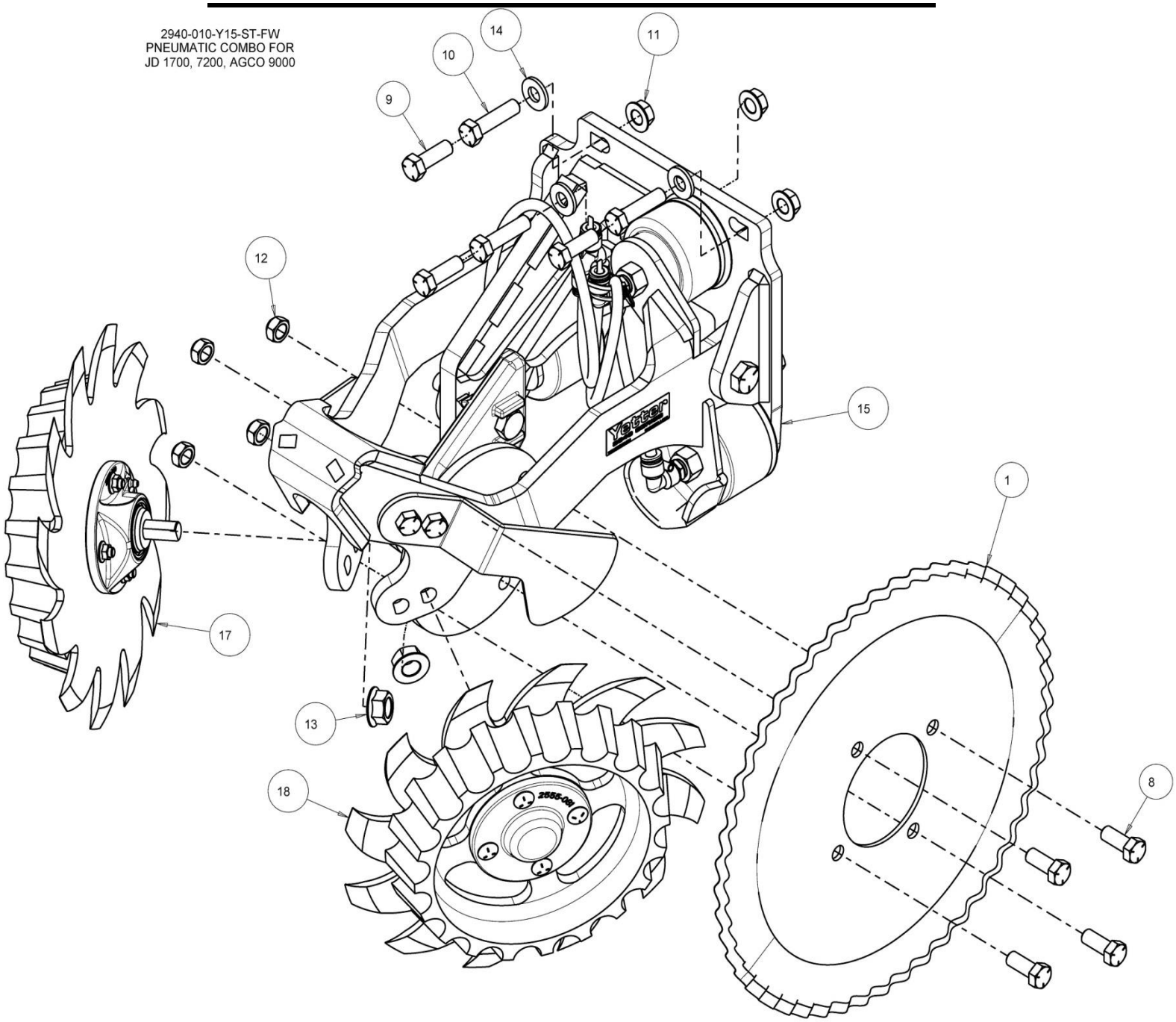
Item	Part Number	Description	Qty
1	2502-292	½-13 X 1 HHCS GR 5 ZP	4
2	2502-293	½-13 X 1 ¼ HHCS GR 5 ZP	1
3	2502-331	5/8-11 X 1 ¾ HHCS GR 5 ZP	2
4	2520-356	½-13 JAM HEX NUT ZP	1
5	2520-364	½-13 JAM HEX LOCK NUT	4
6	2520-455	5/8-11 HEX NUT WITH PATCH LOC, GR 5 ZP	3
7	2520-459	5/8-11 HEX LOCK NUT ZP	2
8	2526-453	5/8 SAE FLAT WASHER ZP	2
9	2570-446	.125 HAIRPIN COTTER ZP	1
10	2940-121	ASSEMBLY, COULTER HUB	1
11	2940-231	COMBO ARM W.A.	1
12	2940-232	FACEPLATE W.A. JD 7000, AGCO 6000 – 8000, KINZE	1
13	2940-381	3/8 PC X 1/8 BSPP O-RING 90 DEGREE	3
14	2940-383	3/8 PC WYE FITTING	1
15	2940-386	SHORTER AIR BAG	3
16	2940-389	RUBBER AIR BAG PLUG	2
17	2940-508	HOSE SLEEVE	2
18	2940-560	SET SCREW, .313-18 X .750 W/ THREAD LOCK	3
19	2940-569	AIR BAG SHIELD	2
20	2940-571	HOSE, LH COMBO 2940 AIR SYSTEMS	1
21	2940-572	HOSE, RH COMBO 2940 AIR SYSTEMS	1
22	2940-577	ZIP TIE	6
23	2940-589	YETTER HORIZONTAL DECAL 1” X 3”	2
24	2967-613	TITAN PIN, JD ZP	1
25	2967-630	SCRAPER, RH	1
26	2967-631	SCRAPER, LH	1
27	6000-335	9/16” BUSHING	2

2940-007-Y15 PARTS IDENTIFICATION



Item	Part Number	Description	Qty
1	2571-161	16INCH RIPPLE BLADE OPTION	1
	2571-162	13 WAVE 16INCH BLADE OPTION	1
	2571-172	25 WAVE 16INCH BLADE OPTION	1
8	2502-293	½-13 X 1 ¼ HHCS GR 5 ZP	4
9	2502-294	½-13 X 1 ½ HHCS GR 5 ZP	3
10	2502-351	½-13 X 2 HHCS GR 5 ZP (FOR MOUNTING TO AGCO 9000)	3
11	2520-361	½-13 FLANGE WHIZLOCK HEX NUT GR 5 ZP	3
12	2520-362	½-13 HEX LOCK NUT GR C ZP	4
13	2520-464	5/8-11 WHIZLOCK HEX NUT GR 2 ZP	2
14	2526-355	½ FLAT WASHER HARDENED ZP	3
16	2940-130	PNEUMATIC COMBO SUBASSEMBLY FOR JD 7000, AGCO 6000 & 8000, KINZE	1
17	2966-116-FW	SPOKE WHEEL ASSEMBLY, RH, 2 3-4” D-BOLT WITH FLOATER WHEEL	
	2966-116-ST-FW	SHARK TOOTH WHEEL ASSEMBLY, RH, 2 3/4” D-BOLT WITH FLOATER WHEEL	1
	2966-116-BW-FW	BEVEL WHEEL ASSEMBLY, RH, 2 3/4” D-BOLT WITH FLOATER WHEEL	1
18	2966-117-FW	SPOKE WHEEL ASSEMBLY, RH, 2 3-4” D-BOLT WITH FLOATER WHEEL	1
	2966-117-ST-FW	SHARK TOOTH WHEEL ASSEMBLY, RH, 2 3/4” D-BOLT WITH FLOATER WHEEL	1
	2966-117-BW-FW	BEVEL WHEEL ASSEMBLY, RH, 2 3/4” D-BOLT WITH FLOATER WHEEL	1

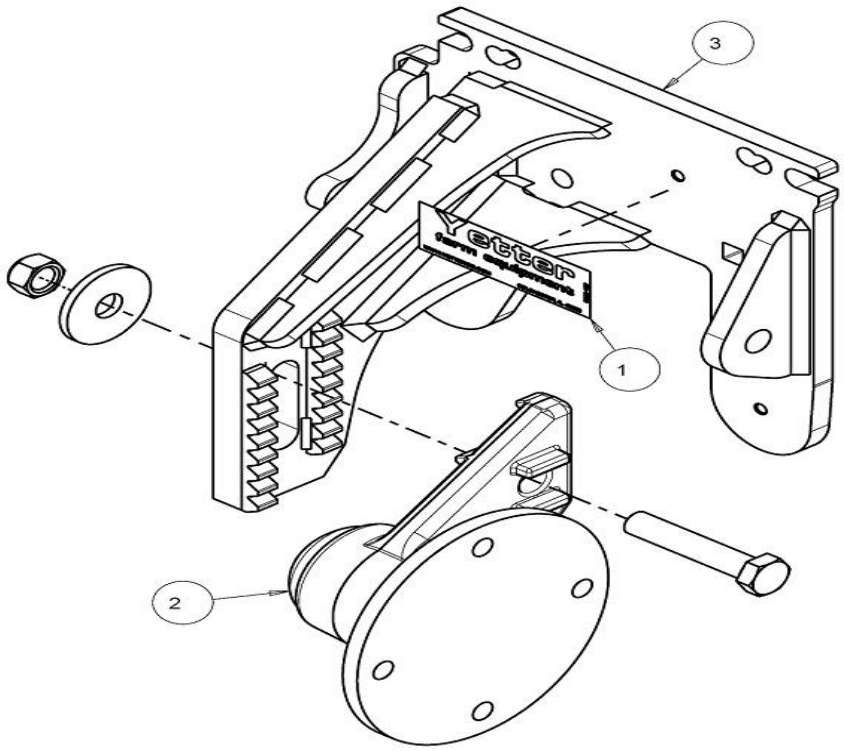
2940-010-Y15 PARTS IDENTIFICATION



Item	Part Number	Description	Qty
1	2571-161	16INCH RIPPLE BLADE OPTION	1
	2571-162	13 WAVE 16INCH BLADE OPTION	1
	2571-172	25 WAVE 16INCH BLADE OPTION	1
8	2502-293	½-13 X 1 ¼ HHCS GR 5 ZP	4
9	2502-294	½-13 X 1 ½ HHCS GR 5 ZP	3
10	2502-351	½-13 X 2 HHCS GR 5 ZP (FOR MOUNTING TO AGCO 9000)	3
11	2520-361	½-13 FLANGE WHIZLOCK HEX NUT GR 5 ZP	3
12	2520-362	½-13 HEX LOCK NUT GR C ZP	4
13	2520-464	5/8-11 WHIZLOCK HEX NUT GR 2 ZP	2
14	2526-355	½ FLAT WASHER HARDENED ZP	3
16	2940-126	PNEUMATIC COMBO SUBASSEMBLY FOR JD 1700 & 7200, AGCO 9000	1
17	2966-116-FW	SPOKE WHEEL ASSEMBLY, RH, 2 3-4” D-BOLT WITH FLOATER WHEEL	1
	2966-116-ST-FW	SHARK TOOTH WHEEL ASSEMBLY, RH, 2 3/4” D-BOLT WITH FLOATER WHEEL	1
	2966-116-BW-FW	BEVEL WHEEL ASSEMBLY, RH, 2 3/4” D-BOLT WITH FLOATER WHEEL	1
17	2966-117-FW	SPOKE WHEEL ASSEMBLY, RH, 2 3-4” D-BOLT WITH FLOATER WHEEL	1
	2966-117-ST-FW	SHARK TOOTH WHEEL ASSEMBLY, RH, 2 3/4” D-BOLT WITH FLOATER WHEEL	1
	2966-117-BW-FW	BEVEL WHEEL ASSEMBLY, RH, 2 3/4” D-BOLT WITH FLOATER WHEEL	1

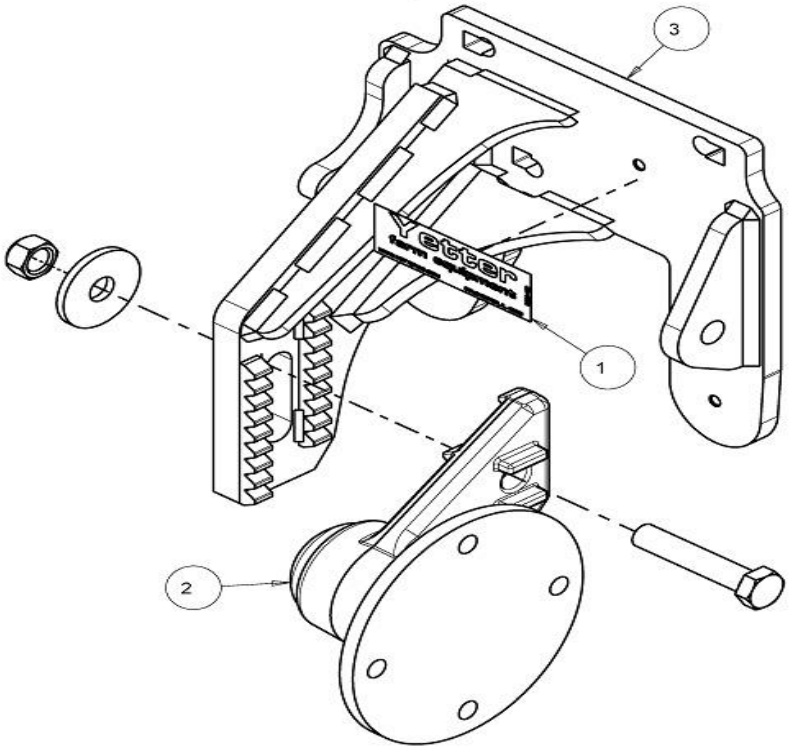
PARTS IDENTIFICATION

2940-115
COULTER SUBASSEMBLYY FOR
JD 7000, AGCO 6000, 8000, KINZE 2000, 3000, 4900



Item	Part Number	Description	Qty
1	2565-162	YETTER DECAL, 1 ½ X 4 ½	1
2	2940-121	ASSEMBLY, COULTER HUB	1
3	2940-232	FACEPLATE W.A., JD 7000, AGCO 6000 & 8000, KINZE	1

2940-116
COULTER SUBASSEMBLYY FOR
JD 1700, 7200, AGCO 9000

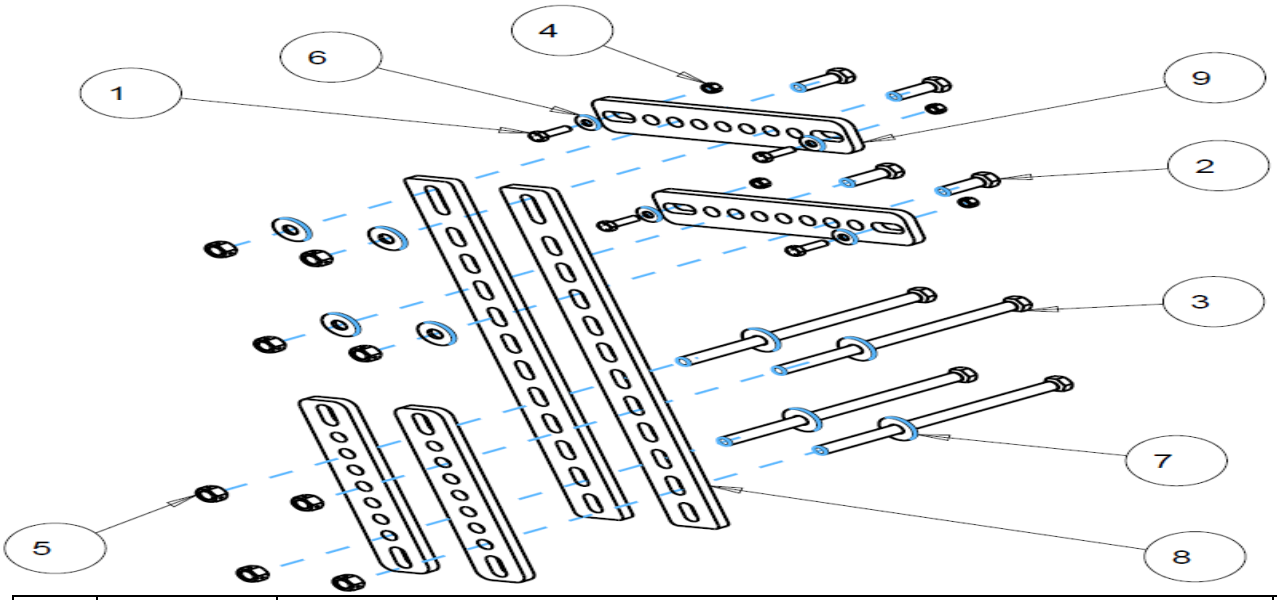


Item	Part Number	Description	Qty
1	2565-162	YETTER DECAL, 1 ½ X 4 ½	1
2	2940-121	ASSEMBLY, COULTER HUB	1
3	2940-230	FACEPLATE W.A., JD 1700 & 7200, AGCO 9000	1

PARTS IDENTIFICATION

2940-082

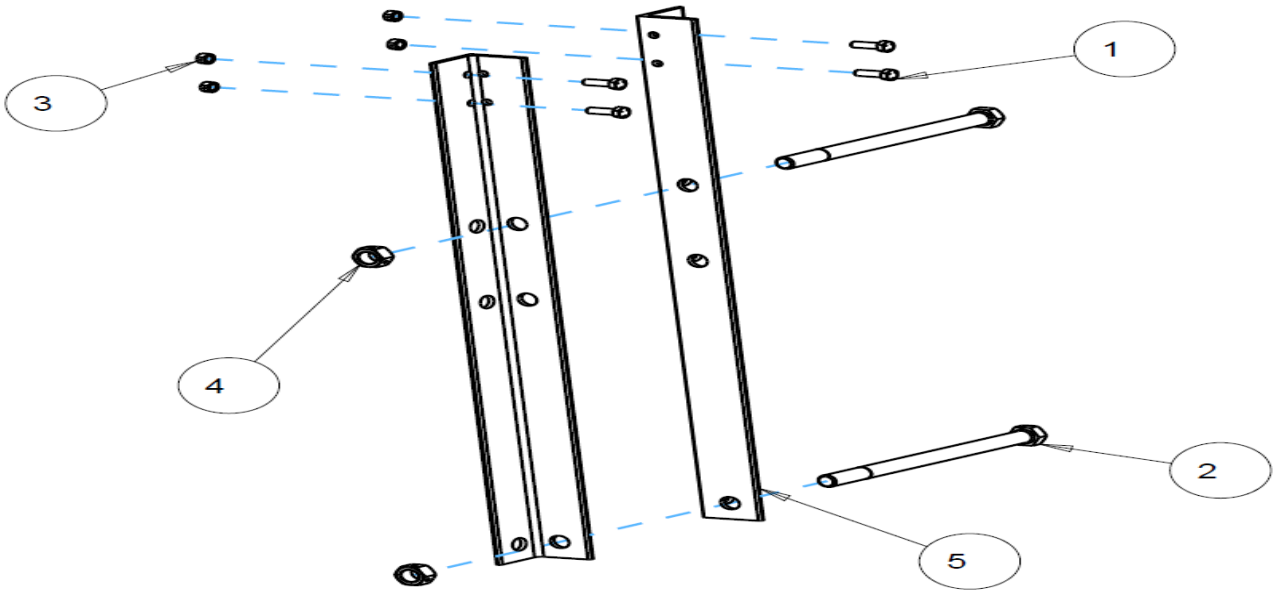
5X7 & 7X7 BAR MOUNT KIT



Item	Part Number	Description	Qty
1	2502-198	5/16-18 X 1 HHCS GR 5 ZP	4
2	2502-294	½-13 X 1-1/2 HHCS GR 5 ZP	4
3	2502-372	½-13 X 6 ½ HHCS GR5 ZP	4
	2502-374	½-13 X 9 HHCS GR 5 ZP	4
4	2520-205	5/16-18 LOCK HEX NUT ZP	4
5	2520-357	½-13 LOCK HEX NUT ZP	8
6	2526-201	5/16 STANDARD FLAT WASHER ZP	4
7	2526-351	½ STANDARD FLAT WASHER ZP	8
8	2940-344	MOUNT STRAP (LONG)	2
9	2940-355	MOUNT STRAP (SHORT)	4

2940-083

8X16 & 8X12 BAR MOUNT KIT

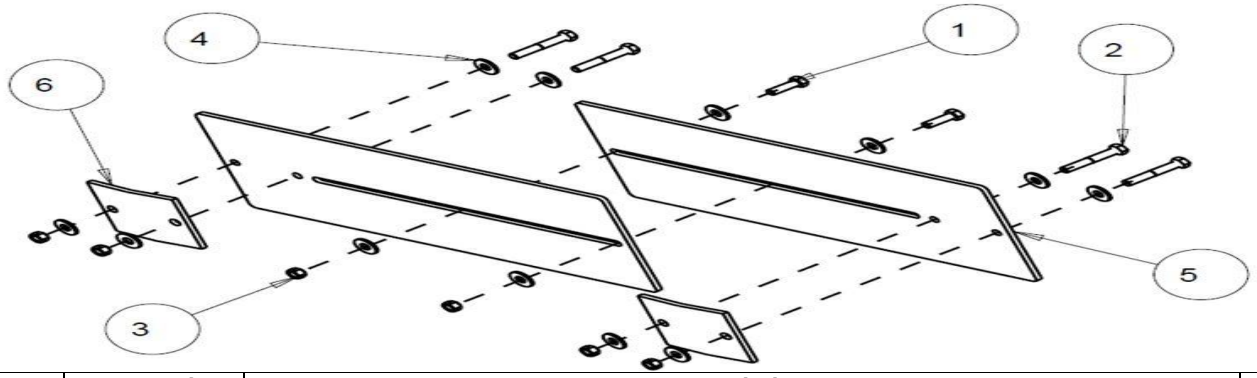


Item	Part Number	Description	Qty
1	2502-198	5/16-18 X 1 HHCS GR 5 ZP	4
2	2502-398	5/8-11 X 9 ½ HHCS GR 5 ZP	2
3	2520-205	5/16-18 LOCK HEX NUT ZP	4
4	2520-459	5/8-11 LOCK HEX NUT ZP	2
5	2940-479	ANGLE MOUNT BRACKET	2

PARTS IDENTIFICATION

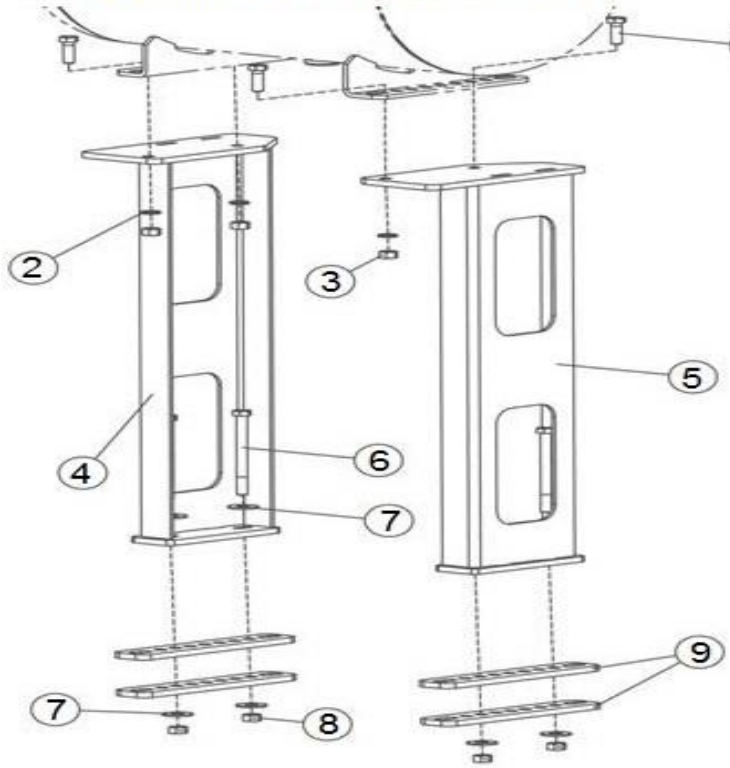
2940-084

UNIVERSAL HAND RAIL MOUNT KIT



Item	Part Number	Description	Qty
1	2502-198	5/16-18 X 1 HHCS GR 5 ZP	7
2	2502-207	5/16-18 X 2 HHCS GR 5 ZP	4
	2520-212	5/16-18 X 2 ½ HHCS GR5 ZP	4
3	2520-205	5/16-18 LOCK HEX NUT ZP	11
4	2526-201	5/16 STANDARD FLAT WASHER ZP	18
5	2940-480	HAND RAIL TELESCOPING PLATE	2
6	2940-481	HAND RAIL CLAMP	2

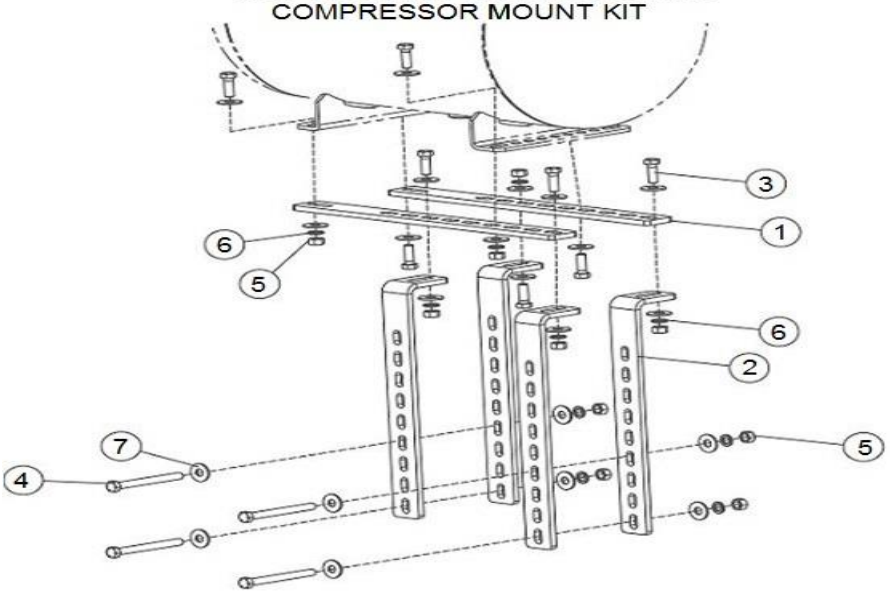
2940-085 2 PT/UNIVERSAL
COMPRESSOR MOUNT KIT



Item	Part Number	Description	Qty
1	2502-294	½-13 X 1 ½ HHCS GR 5 ZP	4
2	2525-352	½ MED LOCK WASHER ZP	4
3	2520-352	½-13 HEX NUT ZP	4
4	2940-207	COMPRESSOR MOUNT W.A., LH	1
5	2940-208	COMPRESSOR MOUNT W.A., RH	1
6	2502-373	½-13 X 6 HHCS GR 5 ZP	4
7	2526-352	½ SAE FLAT WASHER ZP	8
8	2520-357	½-13 LOCK HEX NUT ZP	4
9	2940-355	MOUNT STRAP	4

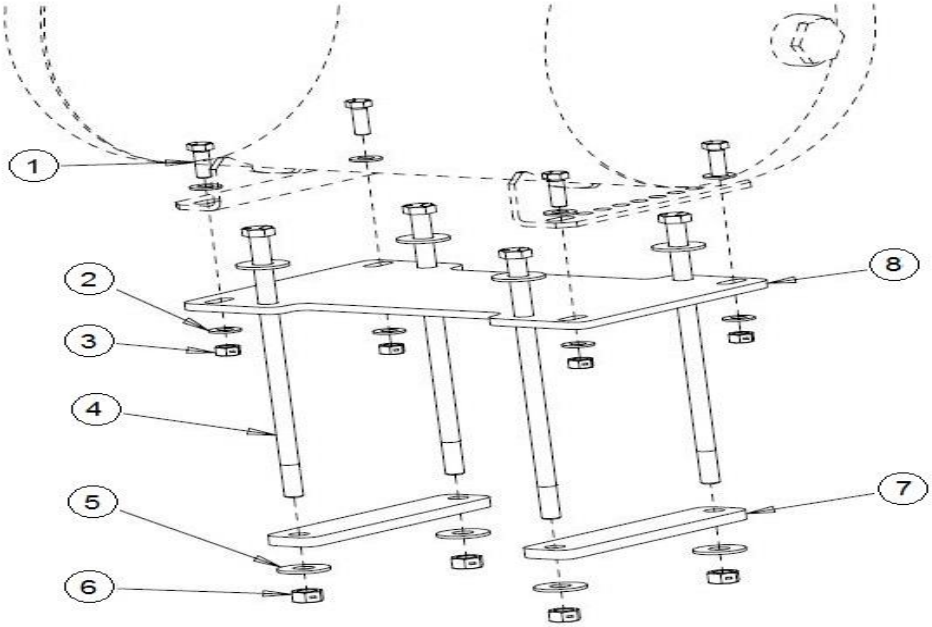
PARTS IDENTIFICATION

2940-086 DRAFT TUBE/UNIVERSAL
COMPRESSOR MOUNT KIT



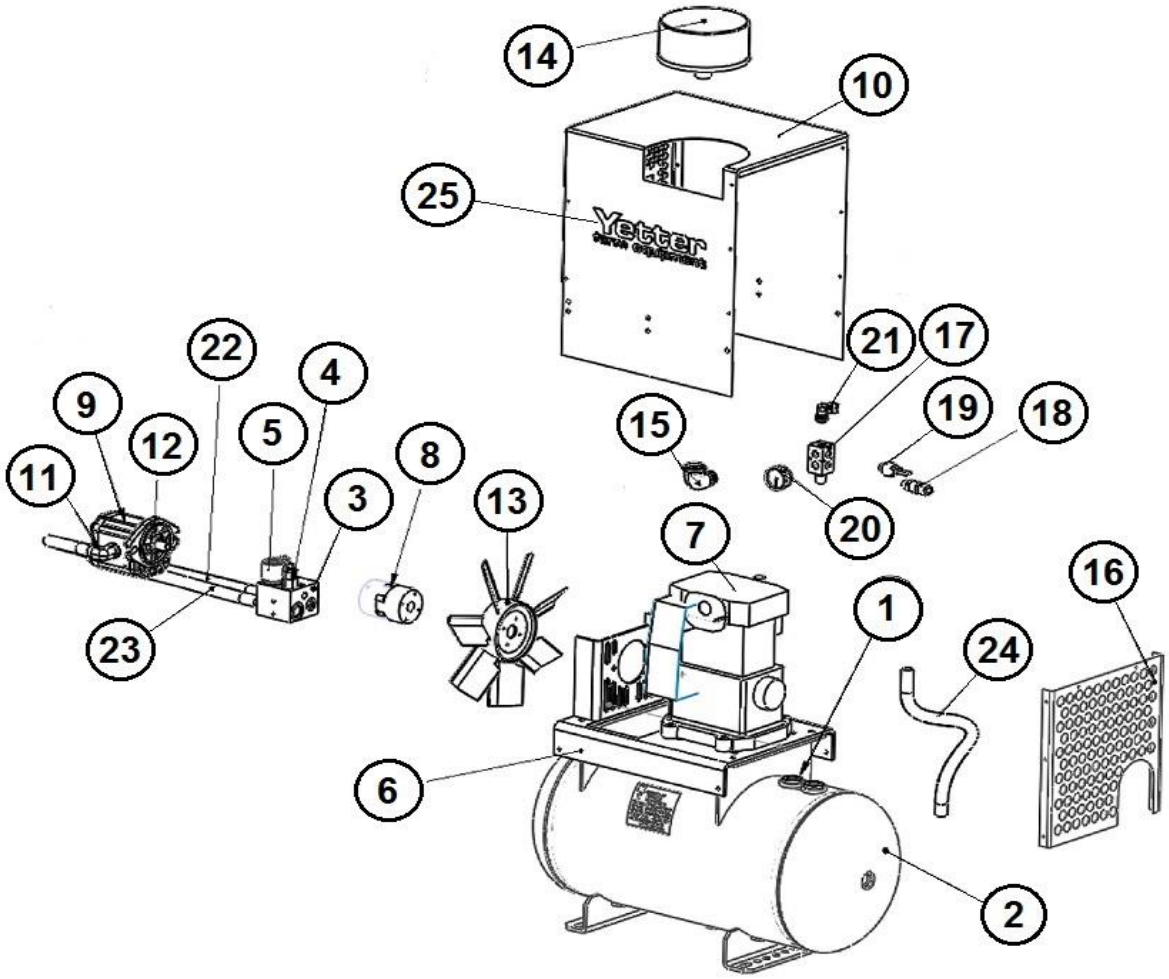
Item	Part Number	Description	Qty
1	2940-344	COMPRESSOR STRAP	2
2	2940-351	COMPRESSOR MOUNT BRACKET	4
3	2502-294	½-13 X 1 ½ HHCS GR 5 ZP	8
4	2502-349	½-13 X 5 FLTHD HHCS GR 5 ZP	4
5	2520-352	½-13 HEX NUT ZP	12
6	2525-352	½ MED LOCK WASHER ZP	12
7	2526-351	½ STANDARD FLAT WASHER ZP	24

2940-090 8x12 & 2940-091 8x16 HYD COMP MOUNT KIT



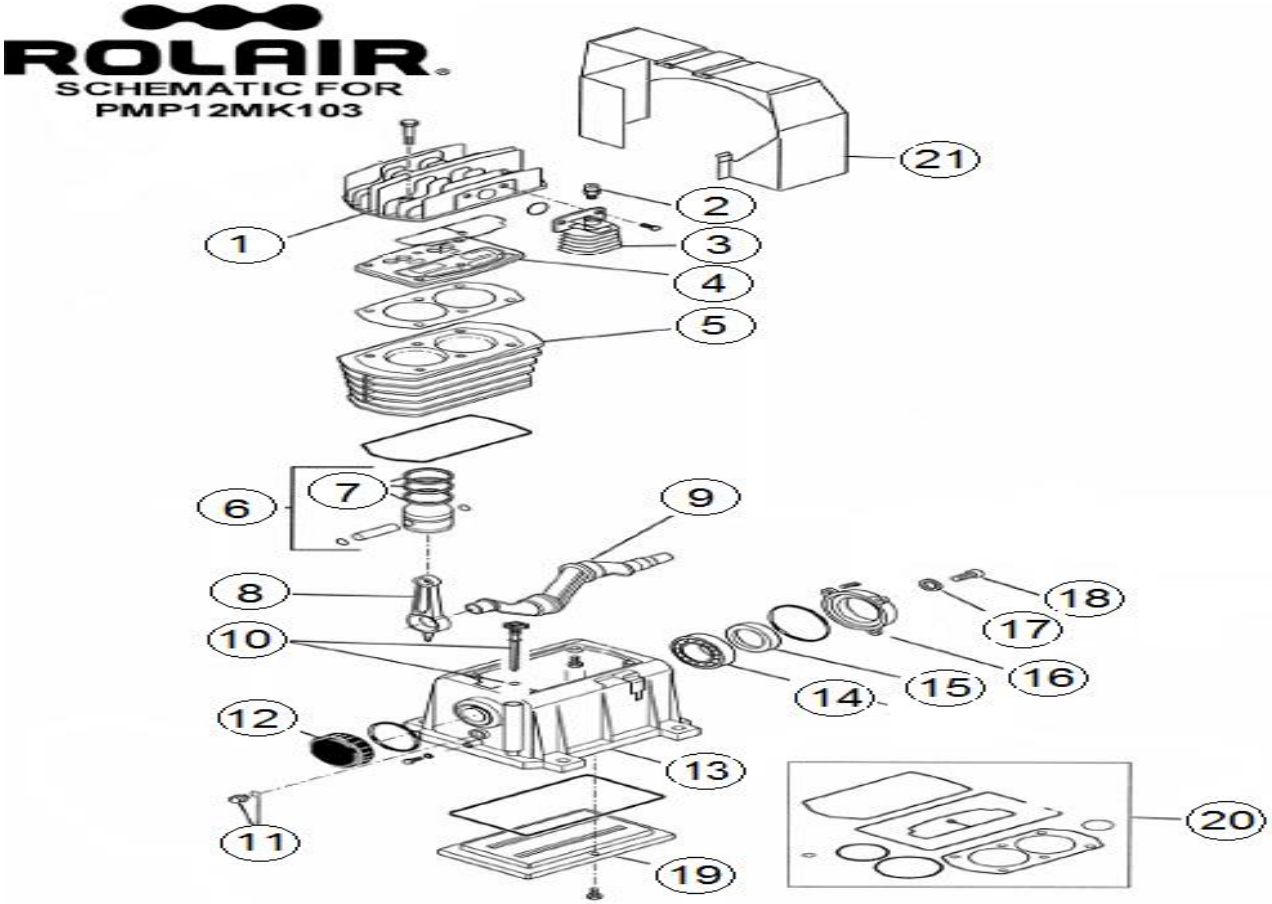
Item	Part Number	Description	Qty
1	2502-294	½-13 X 1 ½ HHCS GR 5 ZP	4
2	2526-352	½ STANDARD FLAT WASHER ZP	8
3	2520-357	½-13 HEX LOCK NUT ZP	4
4	2502-388	5/8-11 X 14 HHCS GR 5 ZP (IN THE 2940-090 KIT)	4
	2502-389	5/8-11 X 18 HHCS GR 5 ZP (IN THE 2940-091 KIT)	4
5	2526-451	5/8 STANDARD FLAT WASHER ZP	8
6	2520-459	5/8-11 HEX LOCK NUT ZP	4
7	2940-373	MOUNT STRAP	2
8	2940-372	HYDRAULIC COMPRESSOR MOUNT PLATE	1

2940-106 HYD COMP PARTS IDENTIFICATION



Item	Part Number	Description	Qty
1	N/A	CHECK VALVE	1
2	N/A	12 GALLON TANK	1
3	2940-546	HYDRAULIC COMPERSSOR CONTROL BLOCK	1
4	N/A	FLOW CONTROL VALVE	1
5	N/A	ON/OFF SOLENOID	1
6	N/A	FRAME	1
7	2940-545	ROL-AIR COMPRESSOR PUMP UNIT	1
8	N/A	COUPLER	1
9	N/A	HYDRAULIC MOTOR	1
10	N/A	HOUSING COVER	1
11	N/A	MOTOR ELBOW FITTING	1
12	N/A	INLET ELBOW FITTING	1
13	2940-519	HYDRAULIC COMPRESSOR FAN	1
14	2940-549	HYDRAULIC COMPRESSOR AIR FILTER	1
15	N/A	FILTER ELBOW	1
16	N/A	BACK GUARD	1
17	N/A	AIR MANIFOLD	1
18	2940-416	150PSI TANK SAFETY RELIEF VALVE	1
19	2940-377	HYDRAULIC COMPRESSOR PRESSURE SWITCH 125-145PSI	1
20	2940-439	0-160PSI HYDRAULIC COMPRESSOR GAUGE	1
21	2940-408	3/8PTC OUTPUT ELBOW FITTING 1/4NPT	1
22	N/A	TANK HOSE	1
23	N/A	INLET HOSE	1
24	N/A	PRESSURE LINE	1
25	N/A	YETTER DECAL	1

HYDRAULIC PUMP PARTS IDENTIFICATION



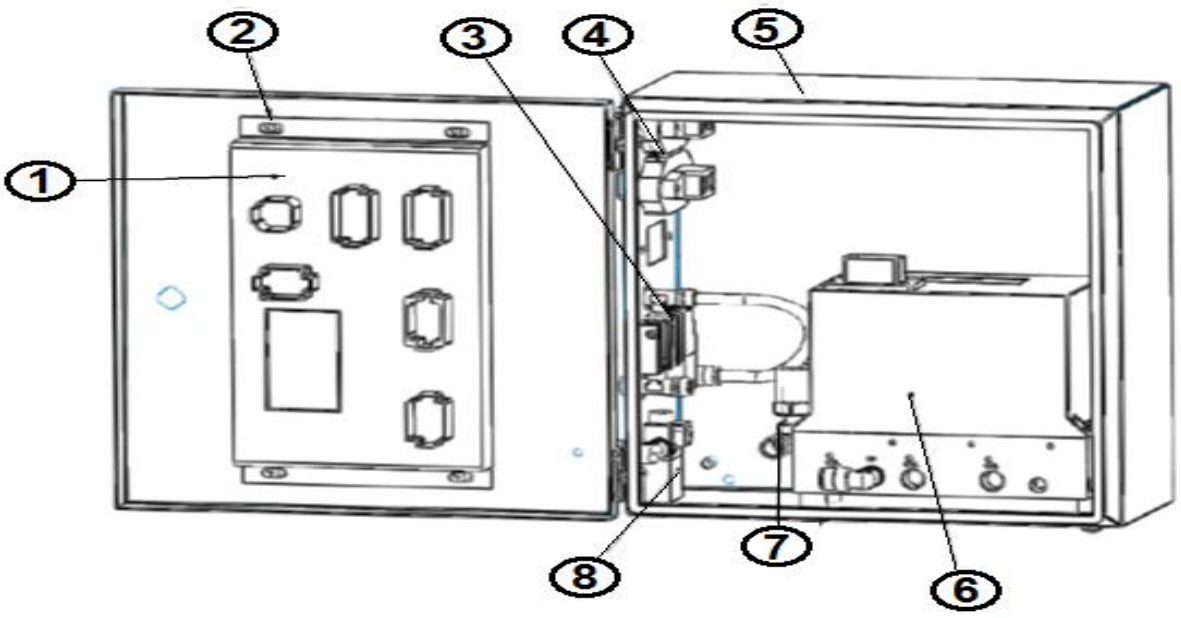
ROLAIR SYSTEMS

PARTS LIST FOR PMP12MK103

Schematic #	Description	Part #	Qty.
1	Head	FC113167020	1
2	Cold Start Valve	FC011158000	1
3	Aftercooler	FC116091024	1
4	Valve Plate Assembly	FC413167005	1
5	Cylinder	FC113167002	1
6	Complete Piston Assembly	FC413167006	2
7	Ring Set (2 required)	FC213167001	2
8	Connecting Rod	FC113150004	2
9	Crankshaft	FC113167003	1
10	Dipstick	FC312036000	1
11	Sight Gauge	FC012029000	1
12	End Cover	FC113149009	1
13	Crankcase	FC113167001	1
14	Ball Bearing	FC033027000	1
15	Oil Seal	FC010053000	1
16	Bearing Carrier	FC113149008	1
17	Washer	FC014005001	1
18	Bolt (Left-Hand Thread)	FC014001057	1
19	Lower Cover	FC113149015	1
20	Gasket Set	FC213167002	1
21	Shroud	FC113150002	1

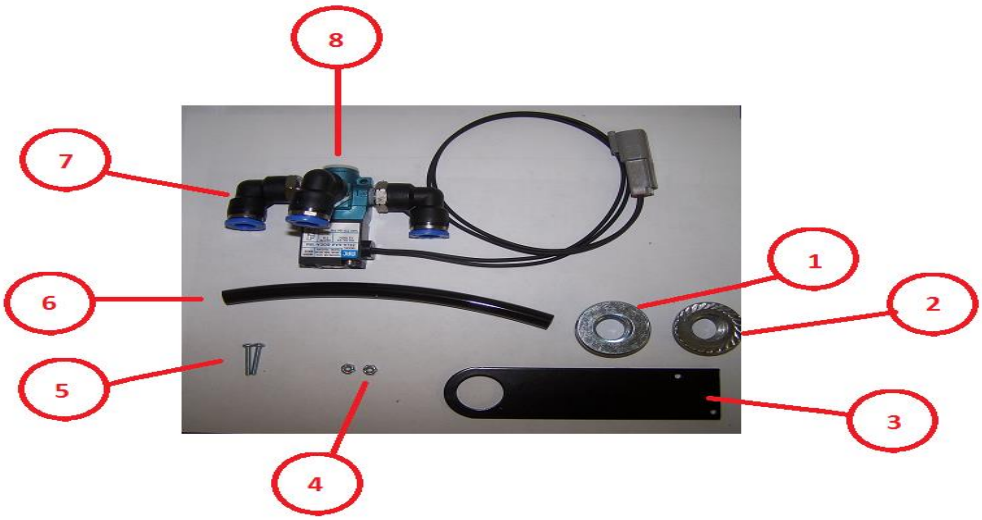
PART REFERENCE ONLY

2940-103 PARTS IDENTIFICATION



Item	Part Number	Description	Qty
1	2940-112	VDM	1
2	2940-442	SPACERS	4
3	2940-135	PRESSURE ON VALVE	1
4	N/A	HARNESSING	2
5	N/A	ENCLOSURE	1
6	2940-402	PQE	1
7	2940-441	PRESSURE TRANSDUCER	1
8	2940-376	WATER SEPARATOR DUMP VALVE	1

2940-136 Dump Valve Kit



Item	Part Number	Description	Qty
1	14M7291	METRIC FLANGE HEX NUT	1
2	2520-464	5/8-11 SERRATED FLANGE NUT	1
3	2940-335	DUMP VALVE MOUNT TAB	1
4	2520-110	M5 HEX LOCK NUT	2
5	N/A	PHILIPS HEAD BOLT	2
6	2940-138	6” 3/8 DRAIN AIRLINE	1
7	2940-337	3/8 PTC ELBOW 1/8NPT	3
8	2940-336	VALVE	1

Troubleshooting Guide

Problem	Cause	Corrective Action
Tank pressure drops when compressor shuts off	1. improper check valve function 2. loose connections/ air leak 3. water separator drain valve leaking	1. replace check valve 2. perform leak check **(see pages 76 & 77)** 3. replace water separator drain valve
Compressor runs continuously/air flow lower than normal, Compressor Run Time High warning on cab controller if compressor runs continuously for 15 minutes	1. excessive air usage 2. loose connections/air leak 3. Improper pressure switch function 4. clogged air filter element 5. worn compressor 6. defective safety valve 7. tank drain valve open 8. water separator valve leaking	1. decrease air usage 2. perform leak check **(see pages 76 & 77)** 3. replace pressure switch 4. clean/replace filter element 5. replace compressor 6. replace safety valve 7. close tank drain valve 8. replace water separator valve
Compressor will not run	1. air system is off 2. hydraulics disengaged 3. no power to the VDM 4. communication harness connection issue 5. shut off psi(145psi) reached 6. worn compressor 7. Improper pressure switch function	1. press enter to activate system (AIR ON) 2. engage compressor hydraulic circuit 3. check power connections from battery to VDM, check 2940-166 breaker at the battery 4. check harnessing from cab controller to the control box 5.compressor will restart after tank pressure drops below 125psi 6. replace compressor 7. replace pressure switch
No air output from the RU, RD, and WT ports even though pressure is commanded and tank pressure reads 60psi or greater	1. air system is off 2. no power to the VDM 3. J3 connector on VDM plugged in upside down 4. improperly functioning PQE 5. communication harness connection issue	1. press enter to activate system (AIR ON) 2. check power connections from battery to VDM, check 2940-166 breaker at the battery 3.unplug J3 connector, check tab/slot sizes, reinstall J3 connector properly 4. replace PQE 5. check the end of all connectors to make sure terminal pins are all flush to the end of the male connectors and the connectors are seated tightly
Low or sporadic tank pressure reading Air leaking out regulator knob	water separator/regulator assembly plumbed incorrectly	plumb water separator/regulator correctly (air compressor→water separator→exit regulator side→enter control box inlet port)
Compressor struggles to build/won't build 145psi	flow control valve adjustment needed	flow control valve adjustment needed **(see page 76 for instructions)**
No ECU/VDM present displays on Cab Controller	improper communication harness connection between cab controller and VDM	start at the 6 pin connector on the back of the cab controller and inspect all connectors and connections to the VDM inside the control box
Excessive noise from compressor	1. loose mounting bolts 2. worn bearings 3. cylinder or piston is worn 4. compressor over speeding	1. tighten bolts 2. replace compressor 3. rebuild compressor 4. check compressor RPMs **(see page 76)** & slow motor down if needed, hydraulic plumbing of the compressor is incorrect **(see page 28)**
Excessive moisture in discharge	1. excessive water in air tank 2. high humidity	1. drain tank, drain tank more frequently 2. move compressor to area with less humidity.
Hydraulic motor front seal leakage	1. case drain clogged or unplugged 2. case drain not plumbed correctly	1. remove case drain plumbing and clean out debris/obstruction, replace seal 2. Plumb case drain according to the instructions **(see pages 27 & 28)**, replace seal
The 2940-162 Dump Valve Harness is not labeled on the 4) 2 pin pigtails	labels missing on the 2 pin cables on the harness	Label as follows: RM UP DUMP → Yellow/Black RM DOWN DUMP → Orange/Black AUX 3 → White/Black AUX 4 → Purple/Black

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Our name
Is getting known

Just a few years ago, Yetter products were sold primarily to the Midwest only. Then we embarked on a program of expansion and moved into the East, the South, the West and now north into Canada. We're even getting orders from as far away as Australia and Africa.

So, when you buy Yetter products . . .you're buying a name that's recognized. A name that's known and respected. A name that's become a part of American agriculture and has become synonymous with quality and satisfaction in the field of conservation tillage.

Thank you.

2565-779_REV_D • 01/16

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