OPERATING INSTRUCTIONS AND REPLACEMENT PARTS

Model: MP-TR1

WARNING

This manual must be read carefully and followed by all persons who have or will have the responsibility for using or servicing this equipment. This equipment will perform as designed only if used according to the instructions. Otherwise it could fail to perform as designed, causing personal injury or death.

AIR SYSTEMS INTERNATIONAL, INC.
829 Juniper Crescent, Chesapeake, Va, 23320
Telephone (757) 424-3967
Toll Free 1-800-866-8100
Fax No. (757) 424-5348
www.airsystems.com.
e-mail: sales@airsystems.com

Warranty

Air Systems' manufactured equipment is warranted to the original user against defects in workmanship or materials under normal use for one year from the date of purchase. Any part which is determined by Air Systems to be defective in material or workmanship will be, as the exclusive remedy, repaired or replaced at Air Systems' option. This warranty does not apply to electrical systems or electronic components. Electrical parts are warranted, to the original user, for 90 days from the date of sale. During the warranty period, electrical components will be repaired or replaced at Air Systems' option.

NO OTHER WARRANTY, EXPRESSED OR IMPLIED, AS TO DESCRIPTION, QUALITY, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ANY OTHER MATTER IS GIVEN BY AIR SYSTEMS IN CONNECTION HEREWITH. UNDER NO CIRCUMSTANCES SHALL THE SELLER BE LIABLE FOR LOSS OF PROFITS, ANY OTHER DIRECT OR INDIRECT COSTS, EXPENSES, LOSSES, OR DAMAGES ARISING OUT OF DEFECTS IN, OR FAILURE OF THE PRODUCT OR ANY PART THEREOF.

The purchaser shall be solely responsible for compliance with all applicable Federal, State and Local OSHA and/or MSHA requirements. Although Air Systems International believes that its products, if operated and maintained as shipped from the factory and in accordance with our "operations manual", conform to OSHA and/or MSHA requirements, there are no implied or expressed warranties of such compliance extending beyond the limited warranty described herein. Product designs and specifications are subject to change without notice. Rev. 2, 12/98

Air leaks are not covered under warranty except when they result from a defective system component, i.e. an on/off valve or regulator or upon initial delivery due to poor workmanship. Air leaks due to poor delivery or damage will be covered under delivery claims. Minor air leaks are part of routine service and maintenance and are the responsibility of the customer just as are filters and oil changes.

Specifications

Dimensions with Handle Down	35”H X 20.5”W X 15”D
Dimensions with Handle Up	41.5”H X 20.5”W X 15”D
Weight	54 Lbs.
Frame	Stainless Steel
Panel	Stainless Steel
Cylinder Straps	(4) Adjustable Nylon Straps
Whips	Thermo-Plastic Hose Rated @ 5000 PSI with a 4:1 Safety Factor
Low Pressure Alarms	Whistle and Bell Set @ 500 PSI
High Pressure Regulator (Yellow Side)	5500 PSI Max Inlet Pressure / 125 PSI Max Outlet Pressure Flow Rate - 28 CFM @ 500 PSI Inlet Pressure and 80 PSI Outlet Pressure
High Pressure Regulator (Blue Side)	5500 PSI Max Inlet Pressure / 275 PSI Max Outlet Pressure Flow Rate - 28 CFM @ 500 PSI Inlet Pressure and 80 PSI Outlet Pressure
Low Pressure Tool Regulator (Blue Side)	300 PSI Max Inlet Pressure / 125 PSI Max Outlet Pressure Flow Rate - 14 CFM @ 100 PSI Inlet Pressure and 90 PSI Outlet Pressure
High Pressure Auxiliary Inlet	CGA-347 Male, 5000 PSI Max
Relief Valve (Yellow Side)	125 PSI ASME Preset
Relief Valve (Blue Side)	275 PSI or 125 PSI relief valves manually selected by pneumatic toggle switch
Air Distribution	4 Respirator Connections (Yellow Side) 4 Tool Connections (Blue Side) 1 Low Pressure Tool Connection (Blue Side)
Air Supply	2 Onboard Air Cylinders (5000 PSI Max) Auxiliary High Pressure Inlet (5000 PSI Max)
Cylinder Connections	CGA-346/347 Universal Hand-Tight
Intrinsically Safe	Yes, No Electronic Devices

Set-Up/Operation

STEP 1)
Secure cylinders by tightening straps at the buckle and mating the velcro sections to prevent slipping. 2216 PSI and 4500 PSI cylinders can be used.

STEP 2)
Install the CGA-347 hand-tight nuts/stems to the cylinder valves. Close bleeder valves by turning the knobs clockwise.

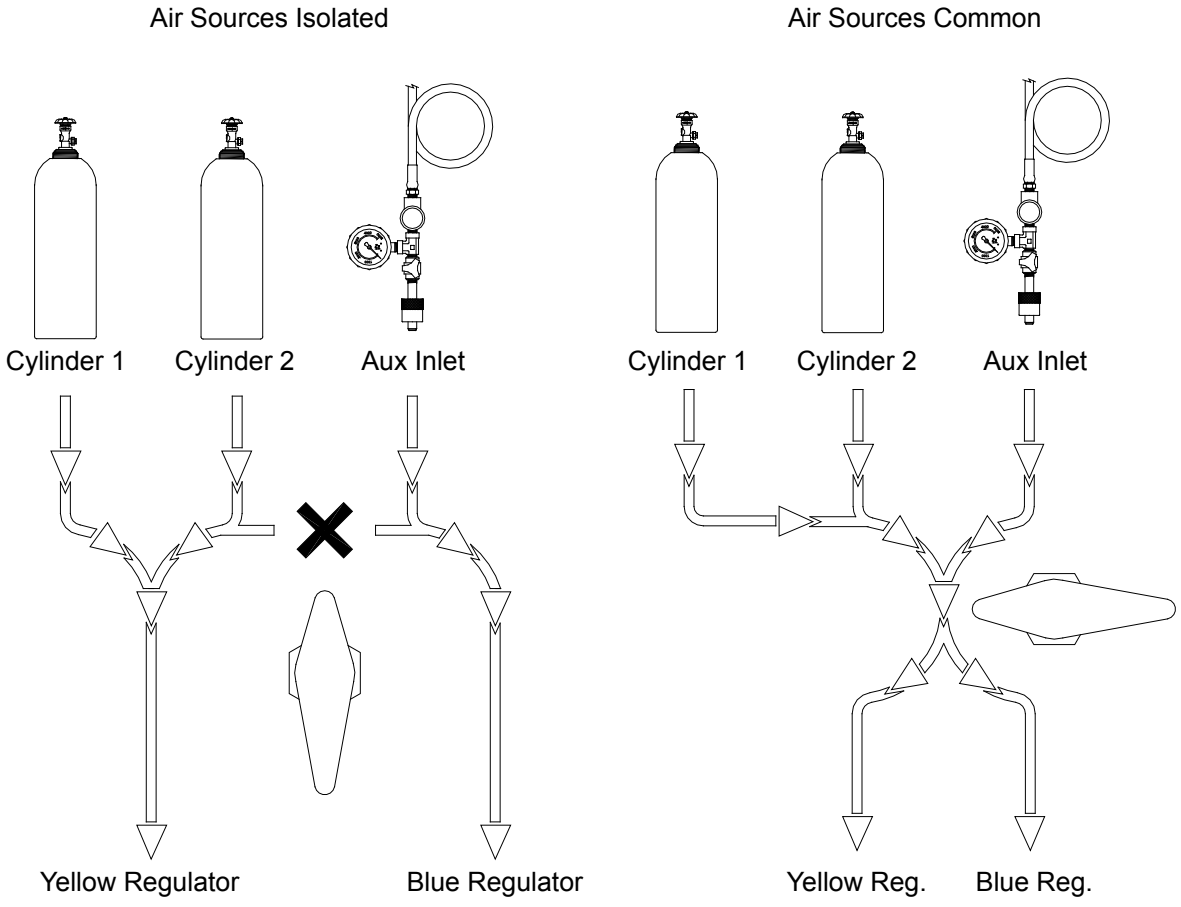
STEP 3)
Index the air source selector valve to the “Air Sources Common” position.

STEP 4)
Open one cylinder. The low pressure whistle and bell will sound until pressure reaches approximately 1000 PSI. Check reading on inlet pressure gauges to verify cylinder is full. Close the cylinder valve.

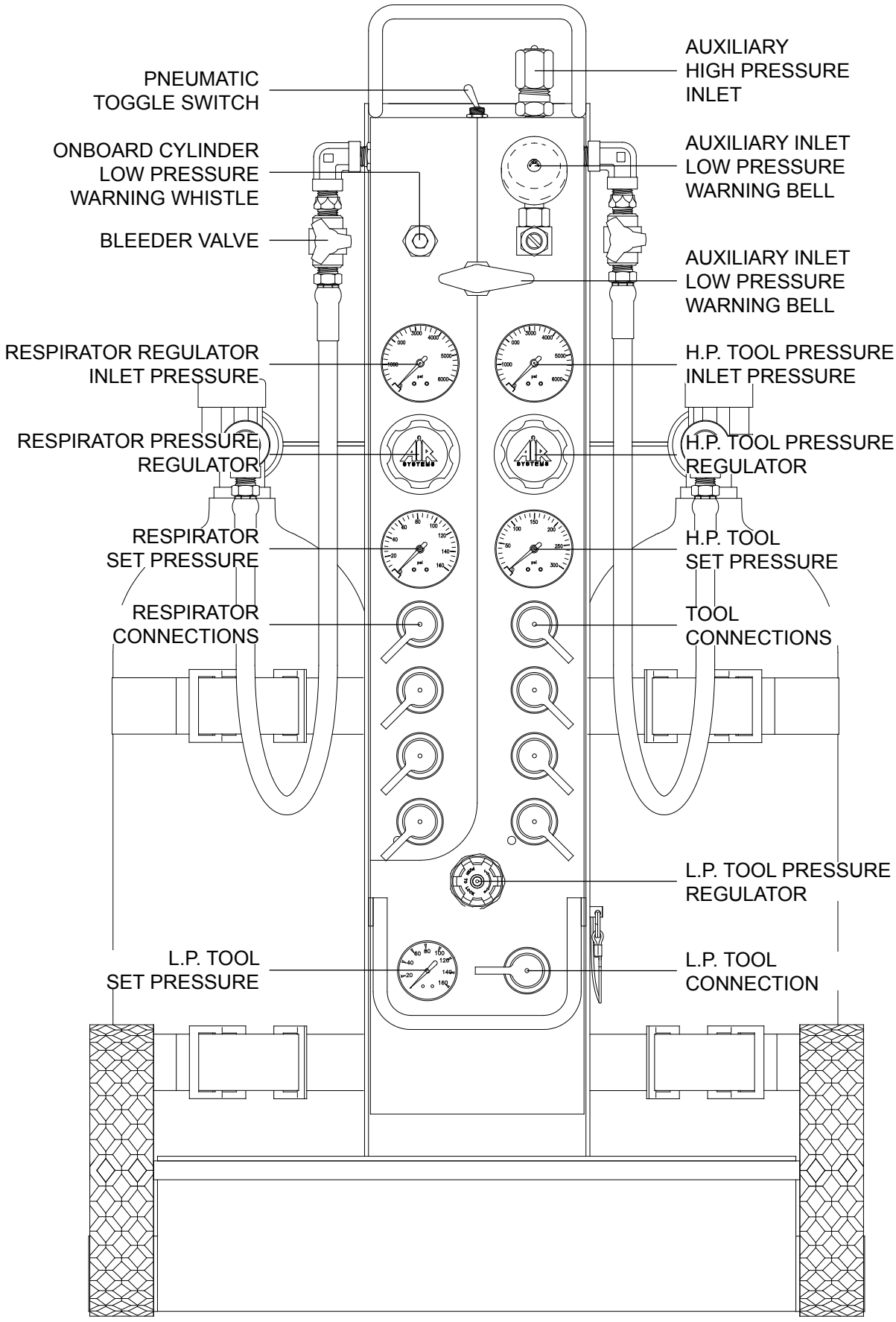
STEP 5) LOW PRESSURE ALARM TEST
Set the required respirator pressure with the “Respirator Pressure Regulator” by turning the pressure regulator knob clockwise to increase pressure or counterclockwise to decrease pressure. Partially engage a male plug into one of the respirator connections on the yellow side of the panel while watching the inlet pressure gauge. As pressure decreases to approximately 500 PSI the low pressure whistle and bell will begin to sound.

STEP 6)
Open the second cylinder. The low pressure whistle and bell will sound until pressure reaches approximately 1000 PSI. Check reading on inlet pressure gauges to verify cylinder is full. Close the cylinder valve.

STEP 7)
Proceed to a specific operation.
Page 6-7, for simultaneous operation of respirators and high pressure tools.
Page 8-9, for isolating two respiratory systems.



General Set-Up



Simultaneous Operation of Respirators and High Pressure Tools

STEP 1)
Position the pneumatic toggle valve in the “Tool Air Relief” position.

STEP 2)
Open both cylinders.

STEP 3)
Index the air sources selector valve handle to the “Air Source Common” position.

STEP 4)
Set the required respirator pressure with the “Respirator Pressure Regulator”.

STEP 5)
Couple hose(s) and respirator(s) to the respirator connections located in the yellow area of the control panel. Readjust respirator pressure regulator if necessary. The “Yellow Air Distribution” supply system is now operational.

STEP 6)
Adjust the H.P. tool pressure regulator to satisfy the device with the highest pressure requirement. Maximum outlet pressure is 275 PSI. The pressure relief valve has a +/- 10% variance which may affect the maximum output pressure.

STEP 7)
Couple hose(s) and tool(s) to the tool connections located in the blue area of the control panel. Readjust the H.P. tool pressure regulator if necessary.

STEP 8)
Adjust the L.P. tool pressure regulator to satisfy the device with the lowest pressure requirement. Maximum outlet pressure is 125 PSI. The air supply for the L.P. tool pressure regulator comes thru the H.P. tool pressure regulator, therefore the H.P. tool pressure regulator output pressure must be set at or above the set output pressure of the L.P. tool pressure regulator. The “Blue Air Distribution” supply system is now operational.

Important Usage Notice:
Due to the high air consumption rate of pneumatic tools, an auxiliary high pressure air source should be used. If a high pressure auxiliary air source is not going to be used, skip steps 9 and 10 of this procedure.

STEP 9)
Remove pressure cap from auxiliary inlet. Connect a high pressure connect whip, 5000 PSI max. to the auxiliary inlet, CGA-347 male. This step can be done anytime during operation of system.
NOTE: A check valve is installed below the auxiliary inlet port to prevent back flow. If air flows out of auxiliary inlet when pressure cap is removed consult factory.

STEP 10)
Index the air sources selector valve handle to the “Air Source Isolated” position.
NOTE: The onboard cylinders are now dedicated to the “Yellow” air distribution side and the high pressure auxiliary air source is dedicated to the “Blue” air distribution side.

Cylinder Change

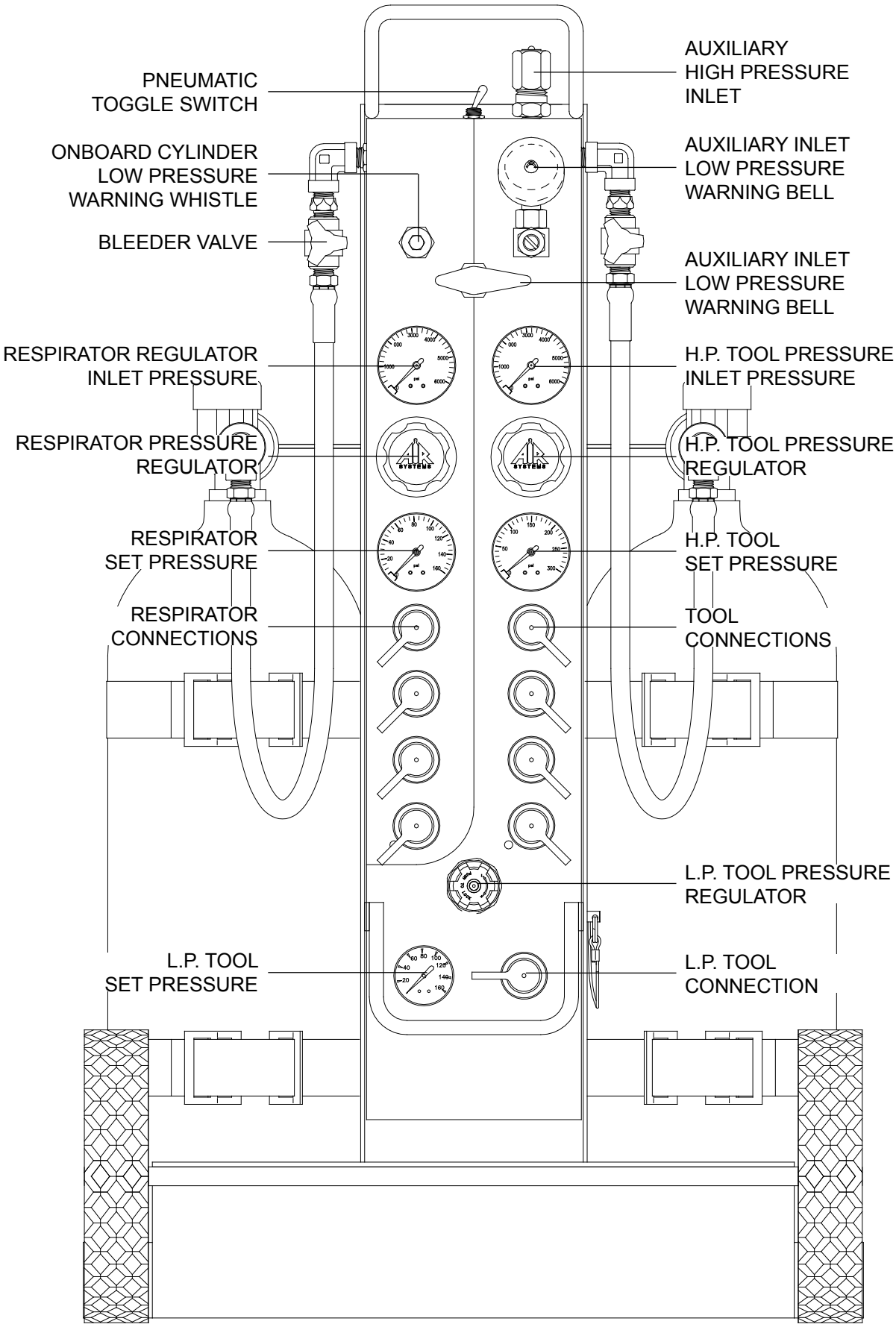
When the cylinder in use has been depleted to approximately 500 PSI , the low pressure warning alarm will sound indicating the cylinder needs to be replaced. To change a cylinder while the cart is in use:

STEP 1)
Open the second cylinder and check the incoming pressure gauge to verify cylinder is full.

STEP 2)
Close the spent cylinder and open the bleeder valve to relieve pressure on the hand-tight nut.

STEP 3)
Remove the drained cylinder and replace it with a full cylinder. Connect the CGA-347 hand-tight nut to the cylinder valve and close the bleeder valve.

Simultaneous Operation of Respirators and High Pressure Tools



Isolating Two Respirator Systems

STEP 1)
Position the pneumatic toggle valve in the “Respirator Air Relief” position.

STEP 2)
Index the air sources selector valve handle to the “Air Source Isolated” position.
NOTE: The onboard cylinders are now dedicated to the “Yellow” air distribution side and the high pressure auxiliary air source is dedicated to the “Blue” air distribution side.

STEP 3)
Open the onboard air cylinders.

STEP 4)
Remove pressure cap from auxiliary inlet. Connect a high pressure connect whip, 5000 PSI max. to the auxiliary inlet, CGA-347 male. This step can be done anytime during operation of system.
NOTE: A check valve is installed below the auxiliary inlet port to prevent back flow. If air flows out of auxiliary inlet when pressure cap is removed consult factory.

STEP 5)
Set the required respirator pressure with the respirator pressure regulator.

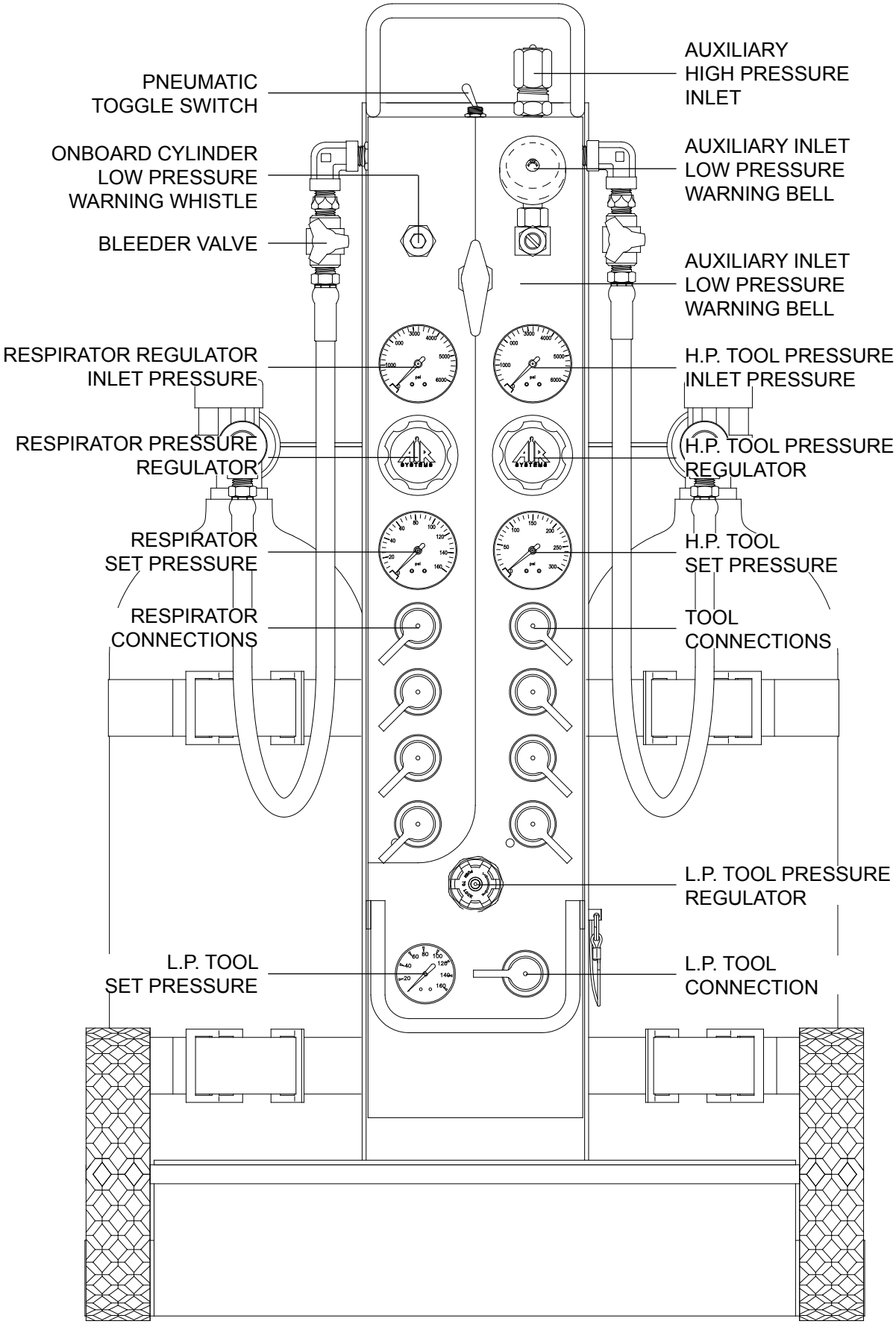
STEP 6)
Couple hose(s) and respirator(s) to the respirator connections located in the yellow area of the control panel. Readjust respirator pressure regulator if necessary. The “Yellow Air Distribution” supply system is now operational.

STEP 7)
Set the required respirator pressure with the H.P. tool pressure regulator.

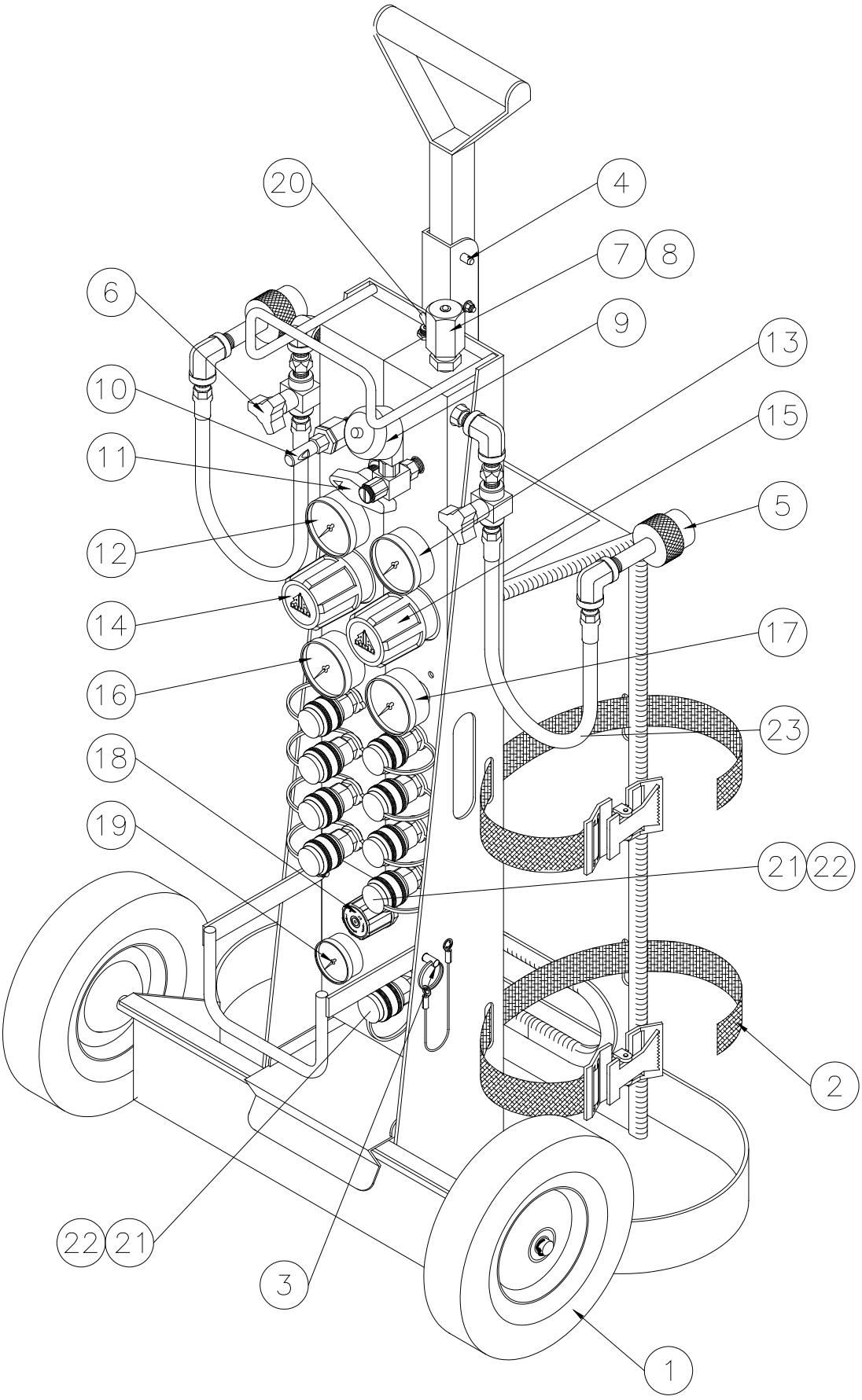
STEP 8)
Couple hose(s) and respirator(s) to the tool connections located in the blue area of the control panel. Readjust the H.P. tool pressure regulator if necessary.
NOTE: Tool to respirator fitting adapters may be required before respirator hoses can be connected to connections in the blue area of the control panel. The “Blue Air Distribution” supply system is now operational.

Note: This operation satisfies NFPA’s recommended general practices for isolated/indepen–dent air sources and delivery systems for both primary and back-up rescue teams when operated in this condition. In the event of only one air supply source available, or one of the two air supply sources become depleted and not replenishable, the air source valve can be indexed to the “Air Sources Common” position. This will supply both sides with a supply of high pressure air from either of the sources that are still of sufficient pressure. This does not meet the above NFPA’s recommended practices but will allow for safe evacuation of all personnel.

Isolating Two Respirator Systems



System Components



System Components

ITEM #	DESCRIPTION	PART #
1	8” WHEEL	HDWR100
2	NYLON CYLINDER STRAP	HDWR113A
3	PULL PIN FOR HOSE BRACKET	HDWR130
4	PULL PIN FOR HANDLE	HDWR114
5	CGA-346/347 HAND-TIGHT NUT/STEM	SS347HT
6	BLEEDER VALVE	VAL030
7	CGA-347 MALE ADAPTER	SS4F347AM
8	PRESSURE CAP	SS347CAP
9	LOW PRESSURE BELL	AC-PA25B
10	LOW PRESSURE WHISTLE	AC-PA25
11	AIR SUPPLY ISOLATION VALVE	VAL073
12	RESPIRATOR REGULATOR INLET PRESSURE GAUGE	GA207KB
13	HIGH PRESSURE TOOL REGULATOR INLET PRESSURE GAUGE	GA207KB
14	RESPIRATOR PRESSURE REGULATOR	REG004
15	HIGH PRESSURE TOOL PRESSURE REGULATOR	REG008
16	RESPIRATOR SET PRESSURE GAUGE	GA20160B
17	HIGH PRESSURE TOOL SET PRESSURE GAUGE	GA20300B
18	LOW PRESSURE TOOL PRESSURE REGULATOR	WL013
19	LOW PRESSURE TOOL SET PRESSURE GAUGE	GA15160B
20	2 WAY TOGGLE VALVE	PSVLV095
21	HANSEN COUPLING	QDH3SL4M
21A	SCHRADER COUPLING	QDSSL4M
22	HANSEN DUST CAP	QDH3DCAP
22A	SCHRADER DUST CAP	QDSDCAP
23	22” CONNECT WHIP, 1/4” MPT X 1/4” MPT	PHA050-22M

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AIR SYSTEMS INTERNATIONAL, INC.
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e-mail: sales@airsystems.com