

8670DIG

Digital Air Machine

Manual



TABLE OF CONTENTS

● PRODUCT INFORMATION.....	3
● SPECIFICATIONS.....	4
● IMPORTANT SAFETY INSTRUCTIONS.....	4
● INSTALLATION INFORMATION.....	5-6
● GENERAL INFORMATION.....	5
● WIRING INFO.....	6
● MOUNTING DIMENSIONS.....	6
● MACHINE PROGRAMMING/SET-UP.....	7-10
● QUICK PROGRAMMING SET-UP.....	7
● COUNTER	7-8
● ADVANCED PROGRAMMING SET-UP.....	8-10
● PARTS BREAKDOWN.....	11
● ELECTRICAL SCHEMATICS.....	12
● BASIC TROUBLESHOOTING / MAINTENANCE.....	13-14

PRODUCT INFORMATION

Please take a moment to fill out the information below in order to aid us with any future sales or service inquiries. Model number and serial number information can be found on the serial tag located inside the control box and/or on the lower exterior of the can. Key number can be found on the tag that comes attached to the keys. There may be more than one key number depending on unit.

Please keep this information with your records.

MODEL#: _____

SERIAL#: _____

KEY NUMBER(S): _____

DATE PURCHASED: _____

DISTRIBUTOR: _____

J.E. Adams Industries
1025 63rd Ave. S.W.
Cedar Rapids, IA 52404
1-800-553-8861
www.jeadams.com

SPECIFICATIONS:

Unit specifications:

Voltage: 120v, 60Hz
Amperage: (1) 10 amp service required for Digital Air.

Weight: 80lbs with packaging

Air specifications:

Compressor: Thomas 120vac@60hz, ¾ hp twin head

Timer: Excel control panel, coin or free vend.

NOTE: “UNIT INTENDED FOR COMMERCIAL USE ONLY”

Duty cycle: 4 minutes run time- max
4 minutes off time

IMPORTANT SAFETY INSTRUCTIONS

When using an electrical appliance, basic precautions should always be followed, including the following:

READ ALL INSTRUCTIONS BEFORE USING (THIS APPLIANCE)

WARNING – To reduce the risk of fire, electric shock, or injury:

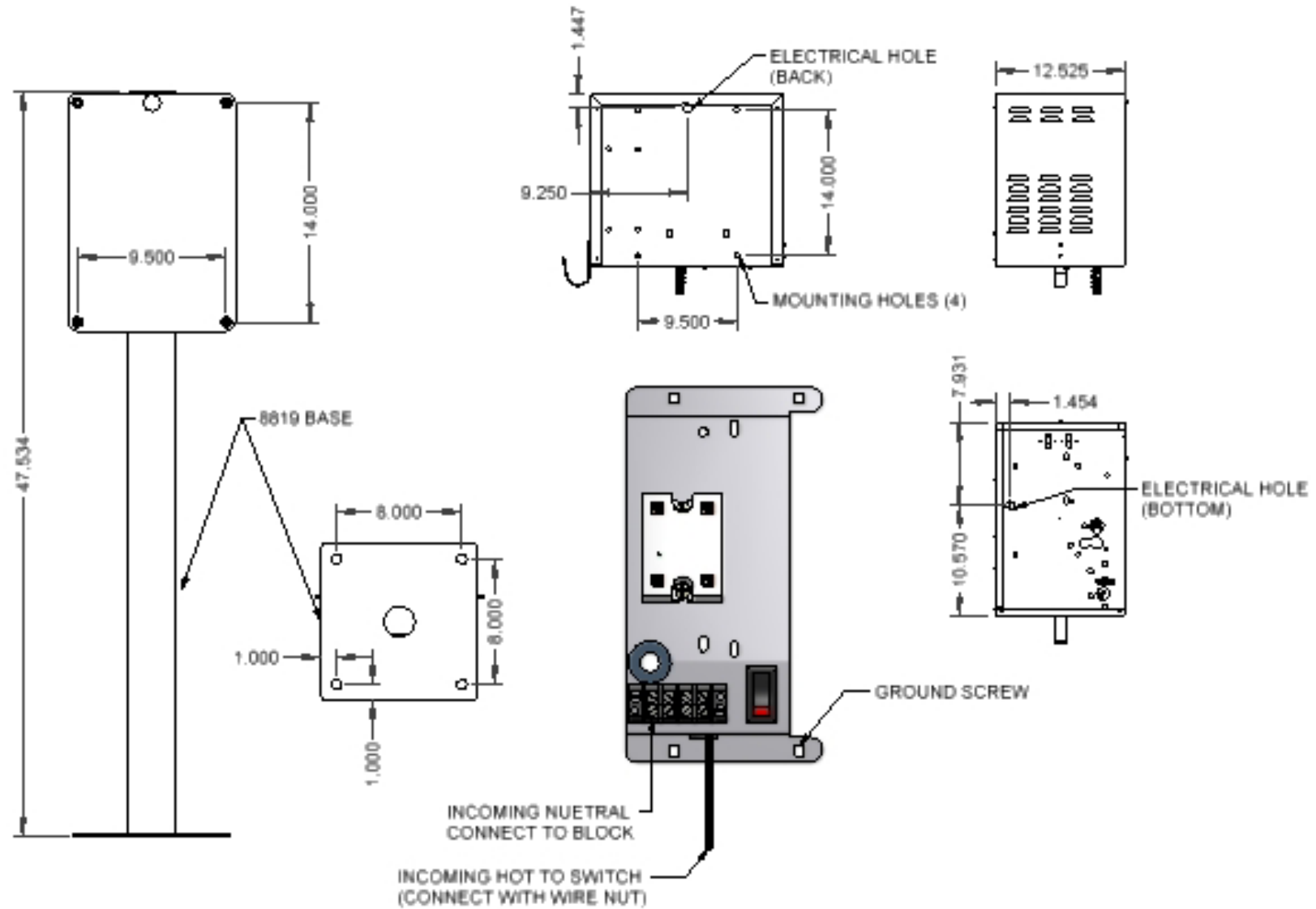
- Use only as described in manual. Use only manufactures recommended attachments.
- Do not allow to be used as a toy. Close attention is necessary when used by or near children.
- Keep hair, loose clothing, fingers, and all parts of body away from openings and moving parts.
- Never use air nozzle for anything other than for its intended use.
- Make sure power is disconnected from unit when servicing.

SAVE THESE INSTRUCTIONS

Installation Instructions:

- Determine location to mount unit (“**DANGER**” “**THIS EQUIPMENT INCORPORATES PARTS SUCH AS SWITCHES, MOTORS, OR THE LIKE THAT TEND TO PRODUCE ARCS OR SPARKS THAT CAN CAUSE AN EXPLOSION. WHEN LOCATED IN GASOLINE-DISPENSING AND SERVICE STATIONS INSTALL AND USE AT LEAST 20 FEET (6 M) HORIZONTALLY FROM THE EXTERIOR ENCLOSURE OF ANY DISPENSING PUMP AND AT LEAST 18 INCHES (450 MM) ABOVE A DRIVEWAY OR GROUND LEVEL.**”
- Run service to that location (*NOTE UNIT HAS WIRE PROVIDED UNDERNEATH TO CONNECT INCOMING POWER SUPPLY*)
- **Grounding Instructions:** This appliance must be connected to a grounded metal, permanent wiring system; or an equipment-grounding conductor must be run with the circuit conductors and connected to the equipment-grounding terminal or lead on the appliance.
- Unit must be level for proper operation.
- See next page for bolt pattern.

AIR MACHINE MOUNTING & WIRING (W/ COLUMN OR WALL MOUNT)



Changing settings: quick method

Free vend or pay mode, number of coins, time per coin, and compressor mode.

1. Turn unit off.
2. Hold coin switch lever in the down position.
3. Turn unit on.
4. Units display "t4" after a short boot up sequence.
5. Release coin mechanism switch lever.
6. As soon as coin mech switch lever is released, "No PU" will appear (number of pulses) for a short time and then will automatically scroll to the input quantity. The unit now displays a two digit number. This is the minimum number of coins to make the unit engage for the programmed time. "00" unit is free air, 01 for 1 coin, 02 for two coins, etc. Adjust by using + or – buttons on the control panel.
7. Press i button to continue: Unit now advances to "Dur" (duration or amount of time per coin) on the display and will automatically scroll to the amount of time in seconds per coin. Adjust this amount by using + or – buttons.
Example: For 4 minutes of vend time for \$ 0.75 – using the plus or minus button set the duration to 80. This means 80 seconds per coin (Quarter) for a total of 240 seconds or 4 minutes running time. **(note: this parameter will not show up if the unit is set to free vend, "00", in the previous step).**
8. Press i button to continue and unit will display "COnn" (compressor) for a short time and then automatically scroll to the compressor operation mode. Choose which mode you would like by using the +/- buttons; "no" = none or no compressor, "denn" = on demand, and "cont" = continuous. "Cont" is recommended as it seems to cause the least amount of confusion to the end user.
9. Press i button to continue and unit will now display "nnod" which is a setting for a modem (Y or N). Most applications will not have a modem so this will need to be set to "N" (no).
10. Press i button to continue and unit now displays "End".

Turn unit off for 10 seconds and then back on. Now controller has the new parameters.

Counter:

To access the counter:

In normal operation mode, press i button and just after the beep press the minus button.

This unit has two counters:

The first one is a non-resettable 8 digit number shown in two steps: CnH 0000 and the CnL 0000.

When pay air mode the counter shows the number of coins put through the machine (not the number of vends).

When free air mode the counter shows the number of vends.

Changing settings – advanced programming.

Before beginning, most domestic applications will require “PSI” rather than "BARS" at the gauge and on the display. These settings are factory set at JE Adams. Only access these settings if absolutely necessary and write down settings before you change them.

1. Turn power switch to off.
Hold coin switch lever in the down position.
2. Turn power switch to on, and wait for first audible “beep.”
Just after first “beep” press (“+”) button followed by the (“-”) button. “Prtr” is shown on the display.
(if Prtr is not displayed, turn unit off and try again)
3. Release the coin switch lever and press “i” button once, “T-4” blinks on display and will then disappear.
4. “1 Un” is now shown on the display for a brief moment and will automatically scroll to the setting.
At this step, set the pressure unit for the gauge.
"PSI" or "BAR" are the options. Choose PSI for most applications by using the + or - buttons on the control panel.
Press “i” button to continue
5. “2 Un” is now shown on the display for a brief moment and will automatically scroll to the setting. "PSI" should be shown, if not change to PSI.
Press “i” button to continue



6. “dE” is now shown on the display for a brief moment.
At this step, set the default tire pressure, value which is factory set at 32 PSI. Use + or - buttons to set.

Press “i” button to continue.

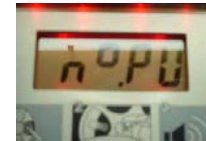


7. “LS” is now shown on the display. This is typically set to 70 PSI which is the maximum pressure value.

Press “i” button to continue.



8. “n° PU” is shown on the display for a short moment and then a two digit value is displayed. This represents the number of coins to activate machine.



9. 00 is for free vend, 01 for one coin, 02 for two coins, and so on. Choose by using + or - buttons.

Press “i” button to continue



10. “Dur” is now shown on the display which represents the amount of time per coin in seconds. **If machine is set to “00” free vend, this option will not be present.** Set time per coin by using “-” or “+” buttons.
Press “i” button to continue

11. “Conn” is now shown for a brief moment and then the setting. Leave this at "cont". See quick programming



section of manual for full explanation.

Press “i” button to continue

12. “nnod” is shown on the display which is for the modem setting.

Most machines will not have a modem so choose "no."

Press “i” button to continue

13. **“End” is shown on the display,**

This indicates the setup is finished.

Turn tire gauge off, wait 10 seconds minimum before turning on.




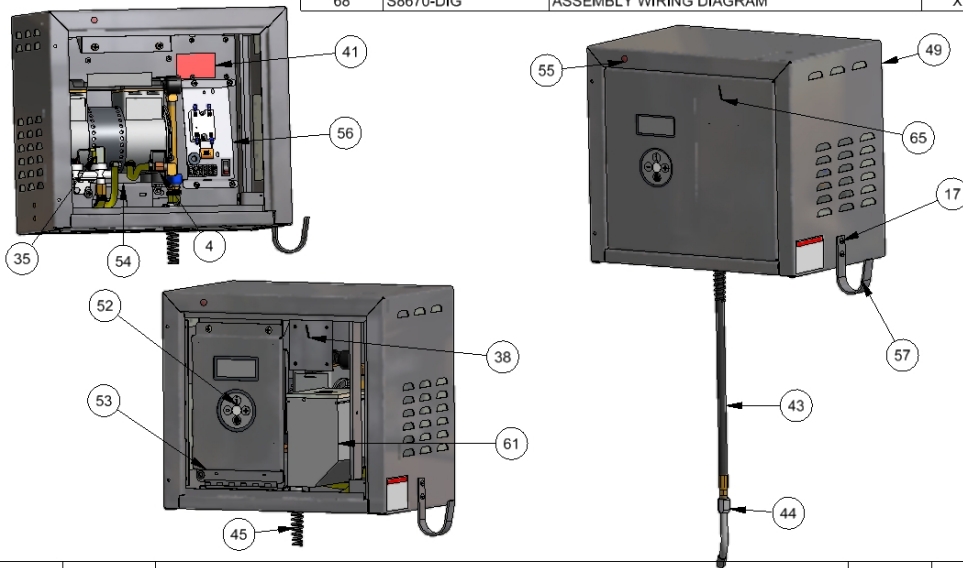
Next time the tire gauge is on, it will work with the new settings

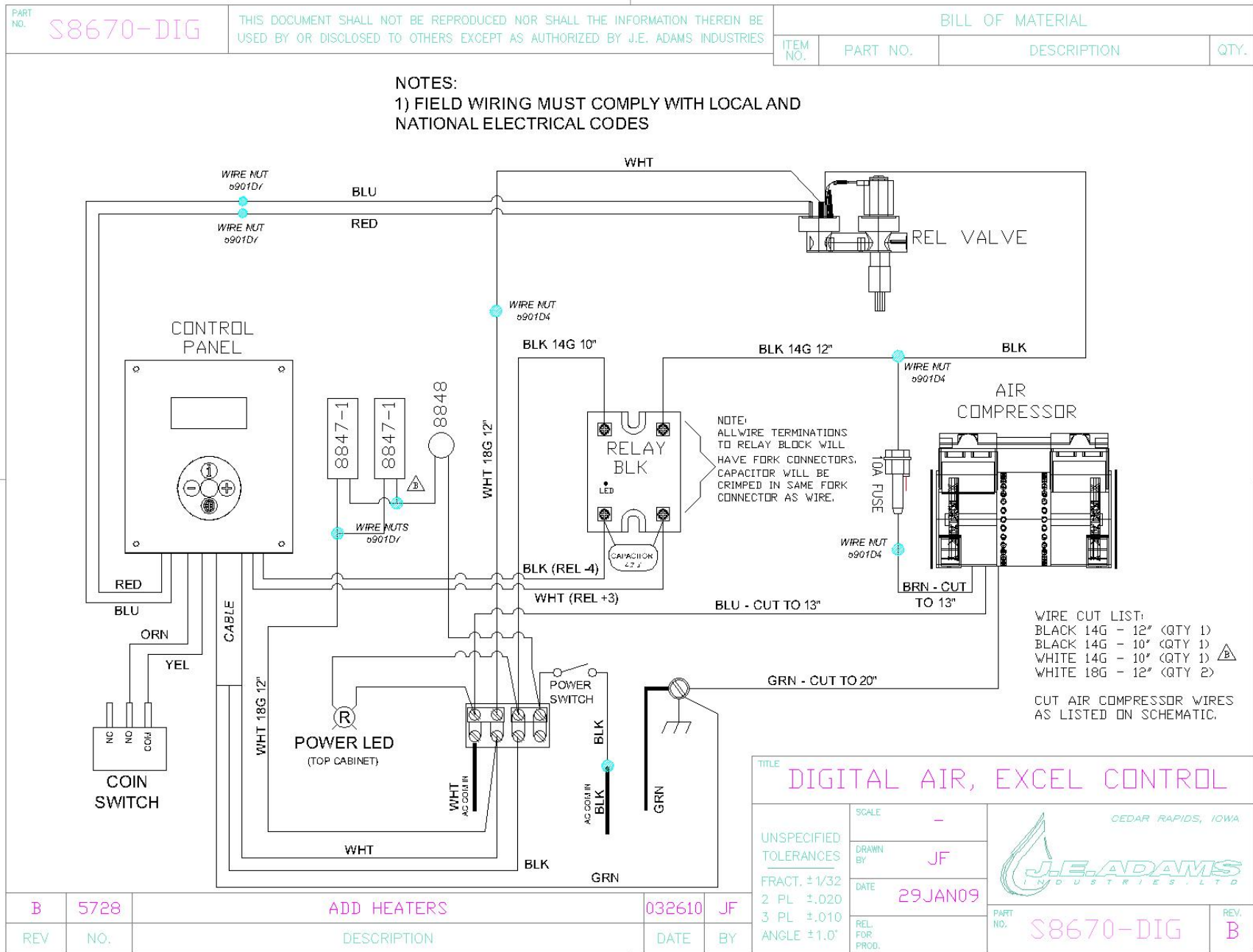
PART NO.		8670-DIG		BILL OF MATERIALS				BILL OF MATERIALS			
		ITEM	PART NUMBER	DESCRIPTION	QTY	ITEM	PART NUMBER	DESCRIPTION	QTY		
		48	8598	5/16 LOCK WASHER	4	1	1079-3	GASKET, RUBBER SEAL	60"		
		49	8659-3W-3	WELDMENT, AIR MACHINE, JEA	1	2	1079-5	GASKET, LIGHT FOAM, BLK	2		
		50	8659-75	LOCK BAR AIR EXPRESS	1	3	3049	1/4" ID GOODYEAR GORRILLA 500PSI	41"		
		51	8670-12W	STOP BRACKET ASSY	1	4	3054	1/4" HOSE BARB X 1/4" MPT	2		
		52	8670-19	DIGITAL AIR CNTRL PAN, EXCEL TIRE	1	5	3054-1	1/4 HOSE BARB, 1/4" NPT FEMALE	3		
		53	8670-20W	CNTRL HEAD MOUNT BRKT WLDMNT	1	6	5590D02	CAPACITOR, 4.7uf 250VDC	1		
		54	8670-8	COMPRESSOR MOUNT	1	7	5600D2	5/16-18 x .75 CARR BOLT	2		
		55	8673-9	NEON LIGHT, RED, 18IN. BLK	1	8	5601D4	1/4-20 x 3/4 HHCS-SS	1		
		56	8673DIG	TIMER ASSEMBLY- DIGITAL AIR	1	9	5601D8	1/4-20 x 3/8 HHCS-ZINC PLATED	7		
		57	8678	HOSE HANGER	1	10	5603D1	10 Std NC Nylock Nut	8		
		58	8687	HOLE PLUG - 1/2"	1	11	5603D10	6 Std NC Nylock Nut	2		
		59	8687-1	HOLE PLUG - 3/4"	1	12	5603D2	1/4 Std NC Nylock Nut	2		
		60	8754	DECAL, DANGER EXPLOSION	1	13	5603D5	1/4 Std NC Nylock Nut	3		
		61	8773-A	CUST, JB7 BOX	1	14	5606D1	#10 SAE WASHER	4		
		62	8847-1	FLEX HEATER, DUAL V	2	15	5606D21	WASHER, FLAT, 3/4 SAE, ID 13/16	1		
		63	8848	THERMOSTAT	1	16	5611D2	NUT, 10-24 UNC KEPP- ZINC	4		
		64	9862	3/4 HP TWIN HEAD GAST COMPRESSOR	1	17	5631d1	1/4-20 SCREW, ONE-WAY HEAD	2		
		65	9870W-1	DIGITAL AIR MACH DOOR WELDMENT	1	18	5639D2	RUBBER GROMMET	1		
		66	B5996-010	FUSE, 10A	1	19	5640D1	1/4-20 x 1/2 PHIL PAN HEAD SCREW	2		
		67	B5997-001	FUSE HOLDER, 10A	1	20	5643D2	SS HOSE CLAMP, 7/16-25/32"	8		
		68	S8670-DIG	ASSEMBLY WIRING DIAGRAM	X	21	5662D2	6-32 x 1/2 PHIL. PAN -MACHINE SCREW	2		
						22	5684D2	1/2" DIA. HOSE CLAMP	1		
						23	5800D6	90 DEG. NPT STREET ELBOW	1		
						24	5813D3	3 WAY MANIFOLD, 1/4-20 NPT	1		
						25	5827D1	45 DEG. STREET ELBOW	2		
						26	5871B4	CAPS, VINYL TP-9 .30 X 1" BROWN	2		
						27	5901D4	WIRE NUT, ORANGE IDEAL #18G	3		
						28	5901D7	WIRE NUT, GREY IDEAL #22G	4		
						29	5902D1	TERMINAL, RING BLUE #14-16	2		
						30	5943B3229	WIRE, 18G WHT	24"		
						31	5943D3220	WIRE, BLK 14G	22"		
						32	5943D3229	WIRE, WHT 14G	12"		
						33	6301-3	BRASS PIPE, 1/4NPT BOTH ENDS	1		
						34	7052-1	CHECK VALVE, 1/4 NPT	1		
						35	7122-DIG	AIR SOLENOID, EXCEL TIRE W/MNT BRKT	1		
						36	8036	NUT, 1/4-20 UNC KEPS	4		
						37	8113	TERMINAL, FORK BLUE	4		
						38	8124B001	COIN ACCEPTOR, IMONEX	1		
						39	8155	LOCK ASSY	1		
						40	8157	NUT, #6-32 KEPP NUT STAINLESS	4		
						41	8183	DECAL, "DISCONNECT POWER"	1		
						42	8430-9AKIT	DIGITAL AIR DECAL	1		
						43	8532-25	AIR HOSE ASSY, 1/4" X 25'	1		
						44	8533-13	OPEN FLOW CHUCK	1		
						45	8549	FLEX STRAIN RELIEF	1		
						46	8596	NUT, 5/16-18 HEX	4		
						47	8597	5/16 WASHER	4		

E	6401	CHANGE TO GAST TWIN, REMOVE ISOLATORS, DECALS	032511	JF
D	6184	REVISE HEATER STRIP LOCATION ON BACK OF CONTROL PANEL	121310	JF
C	5728	ADD HEATER COMPONENTS	032310	JF
B	5277	ADD IN-LINE FUSE, WIRE NUTS, & FUSE FOR COMPRESSOR	100209	JF
REV	NO.	DESCRIPTION	DATE	BY

THIS DOCUMENT SHALL NOT BE REPRODUCED NOR SHALL THE INFORMATION THEREIN BE USED BY OR DISCLOSED TO OTHERS EXCEPT AS AUTHORIZED BY J.E. ADAMS INDUSTRIES

TITLE		ASSEMBLY, AIR MACHINE, JEA			
UNSPECIFIED TOLERANCES	MATERIAL	 CEDAR RAPIDS, IOWA			
1 PL ±.030	SCALE				
2 PL ±.010	DRAWN BY JOHN F.				
3 PL ±.003	DATE				
ANGLE ±1.0°	8/27/2008	PART NO.	8670-DIG	REV.	E





ALWAYS DISCONNECT POWER BEFORE TROUBLESHOOTING!!		
Problem	Possible cause	Solution
Unit is not powered.	Switch inside unit is not in the on position.	Turn switch to on position.
Compressor will not come on.	Capacitor on compressor has failed.	Replace capacitor.
	Compressor in-line fuse has blown (some units).	Replace fuse.
	Compressor mode is not set to "cont" in set-up.	Check this by applying chuck to inflated tire. If compressor comes on, compressor is set to "dem" in set-up. Change to "cont."
Unit runs but will not inflate tire.	Air is leaking from unit somewhere.	Turn power off to unit, apply chuck to air source with at least 30lbs of pressure and listen carefully for leaks inside cabinet or air hose.
	Chuck washer worn out?	Replace with special JE Adams PN 8533-13CW
	No air coming out of chuck, might be clogged or frozen.	Press flat tire button. Air should burst out of chuck. If not, remove chuck/hose to find obstruction.
Unit keeps tripping breaker from incoming power source	Wrong size breaker or other components running on same circuit.	Install correct breaker for compressor and make sure line is a dedicated power source.

Digital Air Machine "Error Codes"
err 1 = board malfunction err 2 = valve malfunction err 3 = unit can't get to set pressure (generally means there is a leak in system) err 4 = pressure sensor fault err 5 = low voltage err 7 = air chuck or air line is frozen (common during cold weather) err 8 = unit reading pressure when turned on (pressure sensor malfunction) t - 4 = coin switch closed (coin jam or coin switch malfunction)

MAINTENANCE

- Check air nozzle for signs of wear and abuse. Replace as needed.
- Clean air cabinet as needed with a non abrasive stainless steel cleaner.
- Examine air hose for cuts or wear and replace as needed.
- Every month remove filter from compressor and clean.