

Models - **8670-7**, **8670-7**L

Page 2 Product Information

Page 3 Specifications

Page 4 Important Safety Instructions

Page 5 Product Dimensions

Page 6-7 Installation & Wiring

Page 8 Timer Set-Up

Page 9 Operating Instructions & Maintenance

Page 9-10 Troubleshooting

Page 11-13 Protel Specific Troubleshooting

Page 14-17 Parts List

Page 18-19 Wiring Diagram



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

8670-7 specifications:

Voltage: 120vac, 60hz

Amperage: (1) 30 amp service

Compressors: Max pressure 125 PSI

Timer: 8712-JEA

Weight: 136 lbs, no pallet

8670-7L specifications:

Voltage: 120vac, 60hz

Amperage: (1) 15 amp service

Compressors: Max pressure 110 PSI

Timer: 8712-JEA

Weight: 120 lbs no pallet

FEATURES:

Available in free vend only.

Lighted push button.

Digital air functionality with LED display.

Alarm to alert user when desired pressure is reached.

Unit is designed for larger tires using 70 PSI and higher.

Unit is not designed for passenger cars and trucks.

DUTY CYCLE: 4 minutes on, 6 minutes off.

NOTE: "UNIT INTENDED FOR HIGH PRESSURE TRUCK/RV TIRES ONLY"

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.
- Do not put any object into openings. Do not use with any opening blocked; keep free of dirt and anything that may reduce flow.
- Keep hair, loose clothing, fingers, and all parts of body away from openings and moving parts.
- Do not use near flammable or combustible liquids, such as gasoline, or use in areas where they may be present.
- Do not use near anything that is burning or smoking, such as cigarettes, matches, or hot ashes.
- Products such as "Fix-A-Flat" are highly combustible and cannot be used in conjunction with air machine!



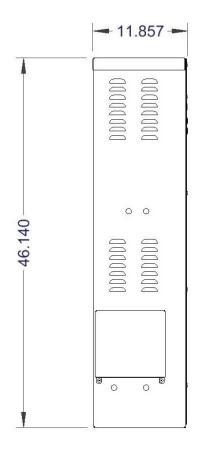
SAVE THESE INSTRUCTIONS

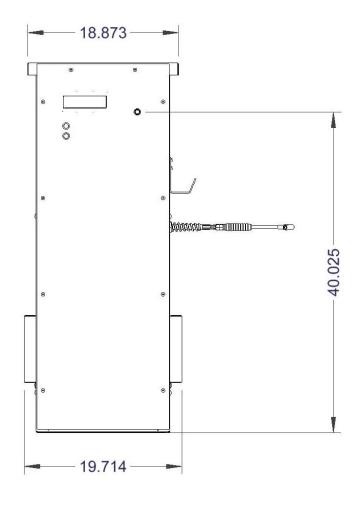


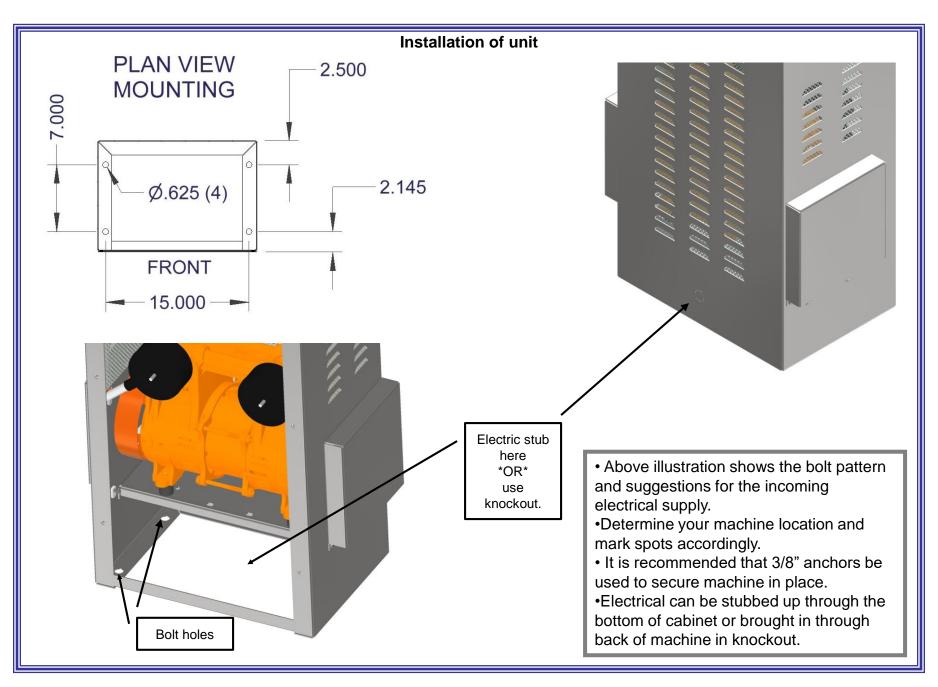
- Installation Instructions:
- Determine location to mount unit ("DANGER" "THIS EQUIPMENT INCORPORATES PARTS SUCH AS SWITCHES, MOTORS, OR THE LIKE THAT TEND TO PRODUCE ARCS OR SPARKS THAT CAN CAUSE AN EXPLOSION. WHEN LOCATED IN GASOLINE-DISPENSING AND SERVICE STATIONS INSTALL AND USE AT LEAST 20 FEET (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 electrical service to that location.
- **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.
- All local and national electric codes must be followed for installation and use.
- Licensed electricians are recommended for installation.

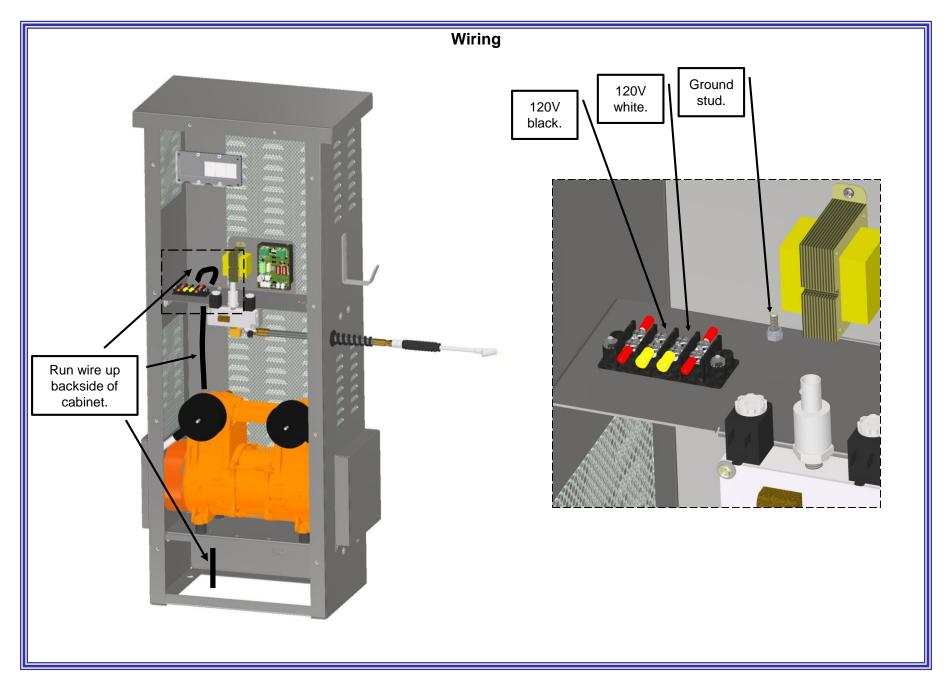
PRODUCT DIMENSIONS

8670-7 AIR MACHINE





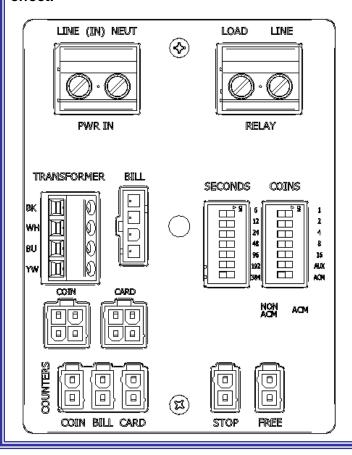


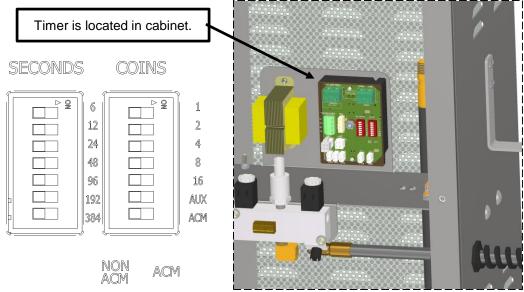


Programming (JEA Timer):

JE Adams timer programs as follows: when using in paid vend situation select mode, "ACM" for accumulating or "NON ACM" for non-accumulating (bottom dip switch under "coins"). For a non-accumulating function machine will run for total of seconds selected under "Seconds" switches and will start once "Coins" value is inputted by user through pay methods. If extra money is added while machine is running it will not add time. If choosing to run in Accumulating mode, set time for unit to run <u>PER COIN</u> not total time, then set for number of coins to start. In accumulating mode if money is added while machine is running extra time will be added. If machine is free vend start/stop switches are connected to "free" and "stop" ports on timer and unit will only run in non-accumulating mode for time set. NOTE: 8670-7 models are factory programmed for NON_ACCUMULATING MODE and wired through the coin port to get power to the lighted push button.

Any time switch settings are changed on timer, timer must be powered off for minimum of 10 seconds for changes to take effect.





Example setting for, non accumulating function for 4 minutes of run time 4 min X 60 secs. = 240 seconds would be:

Move DIP 1 under COINS switches to the right (to activate push button).

Move DIP 4 (48 sec) and DIP 6 (192 sec) under SECONDS switches to the right. = 48 + 192 = 240 seconds.

8 REV 6-29-23

Machine Operating Instructions:

- 1) Read safety instructions on previous pages.
- 2) Press push button to start.
- 4) Use increase or decrease buttons select desired pressure.
- 5) Apply chuck to tire valve stem and fill to desired pressure. NOTE: For best results, remove valve stem covers on all tires before stating machine.
- 6) Hang hose up when finished.

Maintenance:

- All servicing of machine should be conducted by an authorized service representative!
- Periodically inspect hose, chuck, and chuck washer for wear or fatigue.
- Every month remove filter from compressor and clean.
- Periodically inspect electrical wires and connections for wear or fatigue.
- Clean cabinet with a stainless steel cleaner as needed.
- Decals can be cleaned with mild soap and water.
- Replacement parts can be ordered through JE Adams or your nearest dealer.

WHEN PERFORMING MAINTENANCE OR TROUBLE-SHOOTING, TURN POWER OFF! QUALIFIED PERSONNEL ONLY!

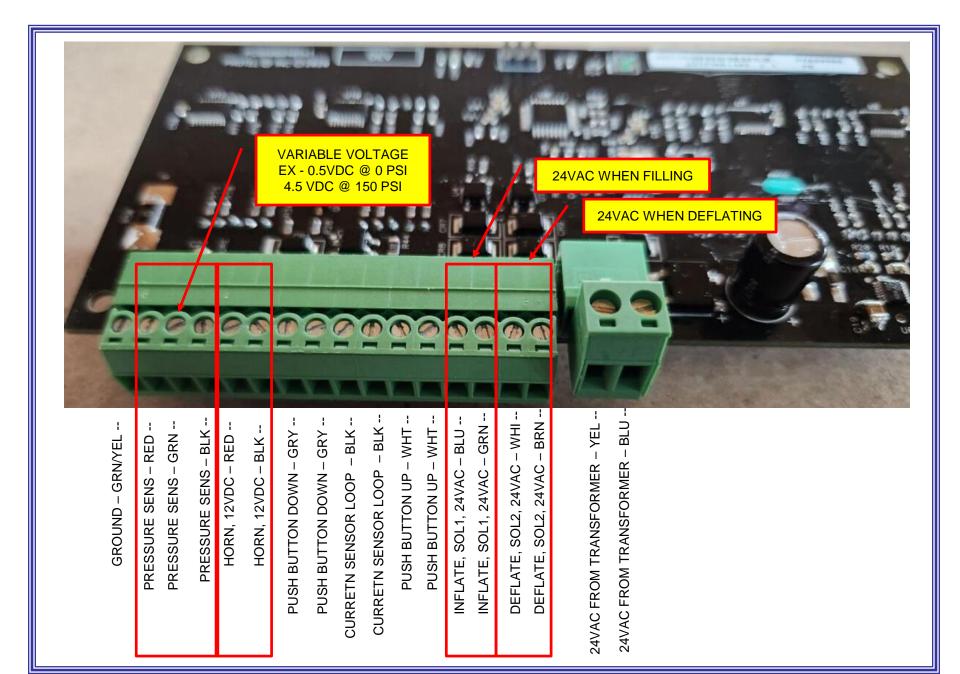




GENERAL TROUBLESHOOTING:

ALWAYS DISCONNECT POWER BEFORE TROUBLESHOOTING!!								
Problem	Possible cause	Solution						
	Breaker inside fuse panel is not in the on position.	Turn breaker on.						
Unit is not powered.	No power to machine.	Check incoming power line voltage.						
Officis flot powered.	Machine power switch is not on.	Remove dome and flip switch.						
	Loose connection.	Check incoming power connection.						

	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. Replace faulty component if leaking.			
•	If no system leaks, is compressor putting out enough pressure?	If compressor cannot force air into tire, the compressor may have exceeded its life span and need rebuilt (about 1000 hours).			
	Temperature is below freezing and condensation off compressor has froze in air hose.	warm area to thaw. Optional air dry systems are available through JE Adams if frequent problem- please call.			
Unit keeps tripping breaker from	Wrong size breaker or other components running on same circuit.	Install correct breaker for compressor and make sure line is a dedicated power source.			
incoming power source	Compressor or timer might be shorted out?	Isolate problem component and replace if necessary.			
		Check key components to isolate failure:			
Unit will not start		Timer: Verify proper input voltage. Activate timer. If no output voltage is present when timer should be active, replace timer.			
	Possible component failure	Coin mech: If using a mechanical coin mech, remove the wires leading to the timer from the coin mech and tap the together one time for each coin necessary to start the timer. If machine starts, replace the coin mech.			
Unit will not dispense water (water	Is source water turned on and not frozen?	Turn on water to system and make sure temperature is above 32 deg.			
machines only).	Is water solenoid getting power from timer?	If getting power from timer, replace solenoid.			



11 REV 1-8-24

Protel Digi-Air Troubleshooting

Caution! -lethal voltage is present in all compressed air vending machines. Repair should only be attempted by trained technicians. Note -Tests should be performed in order for proper diagnosis.

1.00 Check for loose connections:

Loose or broken wires can cause misleading symptoms. Check all connections before proceeding.

2.00 Check AC power:

The pressure regulator circuit board and solenoids operate from a 24VAC power transformer. The LED display should have green digits. If the display fails this check, the board is most likely not receiving 24VAC power. If power is present at the 0.250" tab terminals, replace the digital pressure board and/or display.

3.00 Adjust set point :

Adjust the set point with the up and down buttons. The buzzer should beep with every adjustment.

3.01 Potential faults if set point does not increment or decrement:

Loose or broken push button wires.

Push button.

Digital pressure board.

3.02 Potential faults if the buzzer does not beep:

Loose or broken buzzer wiring.

Buzzer.

Digital pressure board.

4.01 Potential faults if pressure is not within a few psi of measured tire pressure:

Tire chuck or tire chuck washer.

Leaks in fittings or hose.

Loose or broken pressure sensor cable.

Solenoid stuck open – check by applying 24VAC, if does not activate, solenoid is bad.

Pressure sensor.

Digital pressure board:

4.02 Potential faults if pressure is within a few psi of measure tire pressure:

Digital pressure board requires calibration

Faults listed under 4.01

5.00 Calibration:

Skip this step if tire accuracy is within acceptable limits.

Tools:

Michelin MN-12279 Tire Gauge recommended (displays pressure to 0.1 PSI resolution).

Notes:

Make sure the compressor is off before entering the calibration mode and remains off during the entire calibration process.

- **5.01** Press PB1 button until unit beeps. Display will now read "CAL" for calibration mode. After a few seconds it is back to 35/00. Machine is now zeroed out/recalibrated.
- Adjust the set point to the desired tire pressure. Attach the tire chuck to the tire and verify a good seal is achieved. The digital pressure board should detect the tire and begin the process.

 The buzzer should beep several times when the tire pressure matches the set point.

6.02 Potential faults during inflation/deflation test:

Loose or broken solenoid wires.

Current sensor cable that reads current flow of hot lead of compressor.

Leaks between compressor and manifold.

Foreign debris in solenoid seal area.

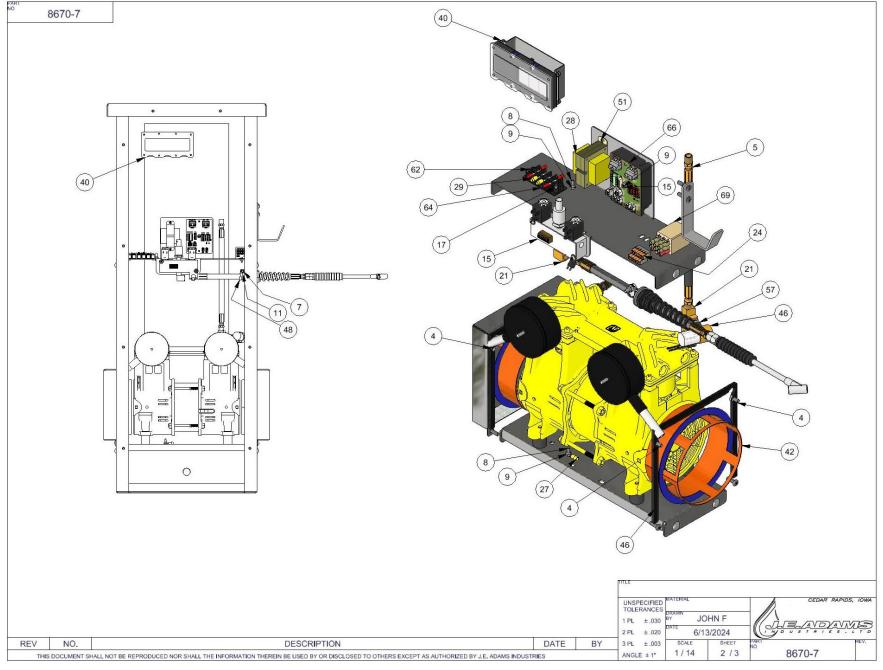
Solenoid.

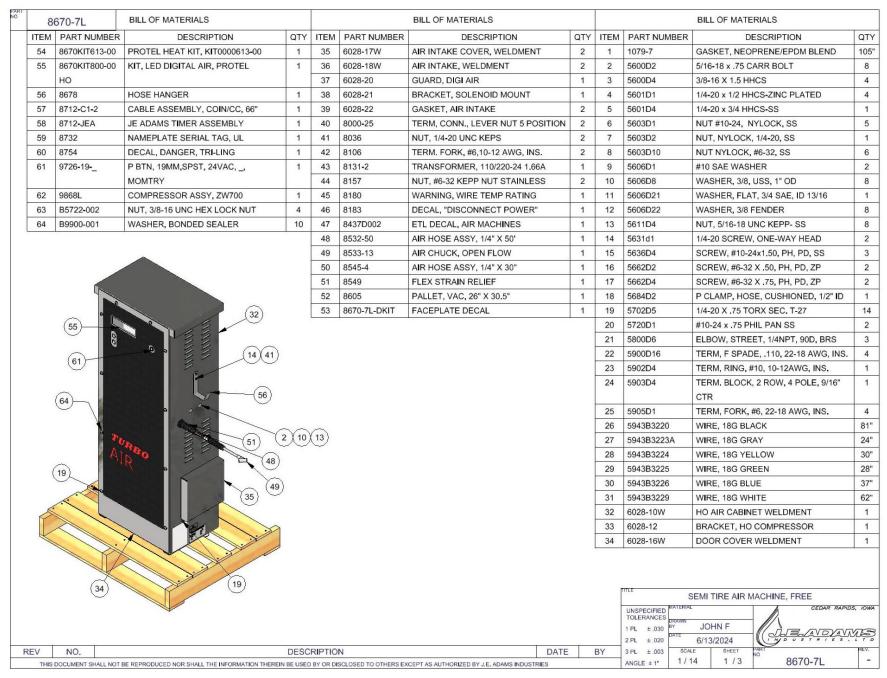
Weak compressor.

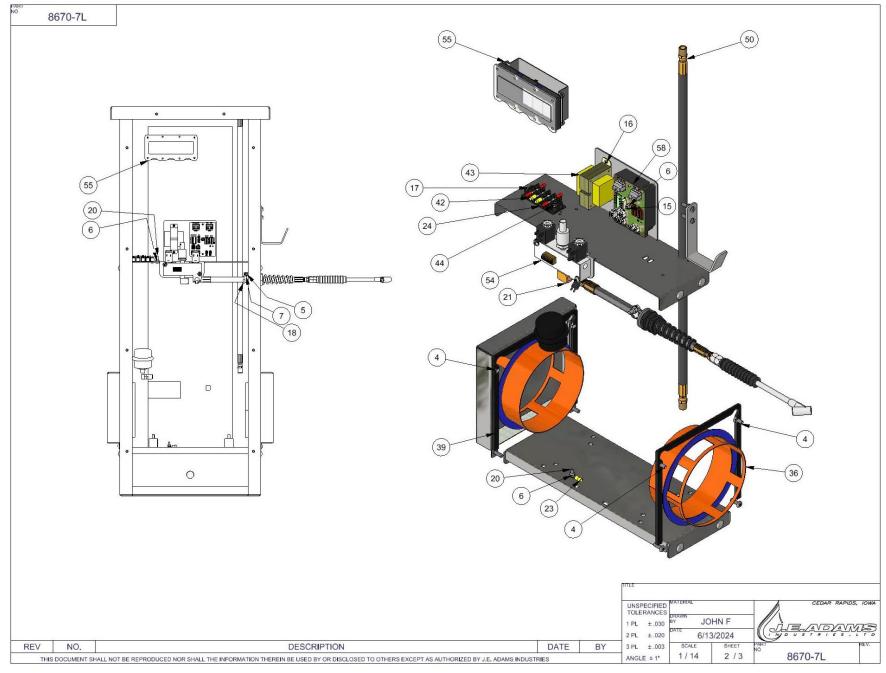
Faulty over-pressure relief valve.

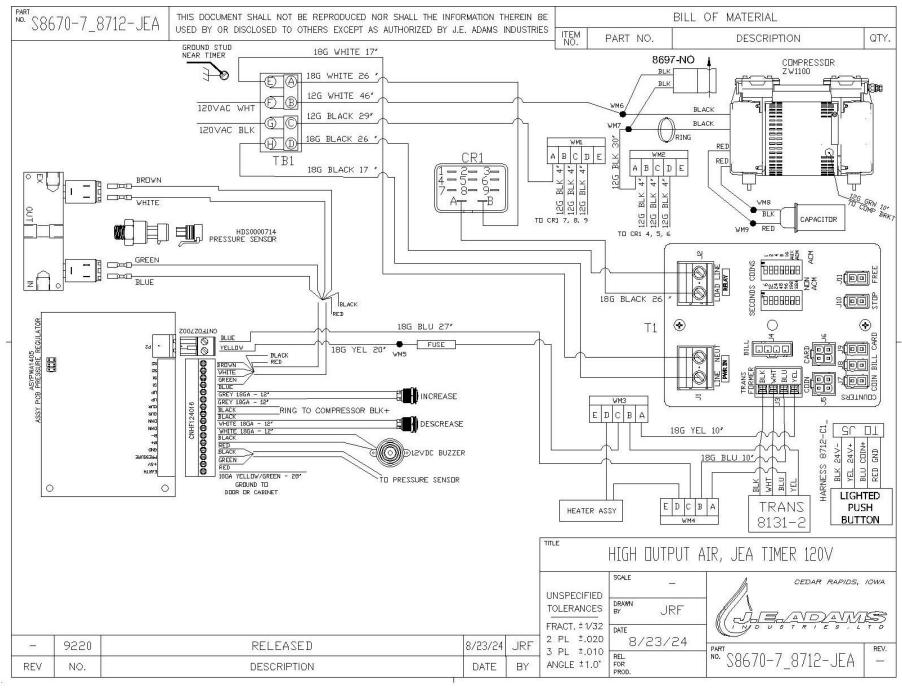
Digital pressure board.

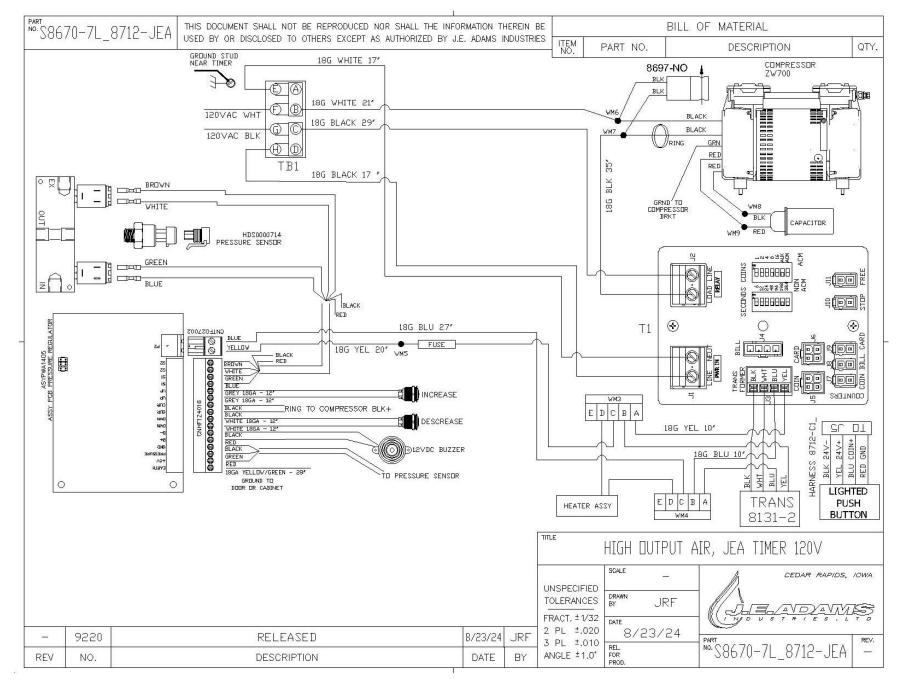
8670-7 BILL OF MATERIALS				BILL OF MATERIALS			BILL OF MATERIALS				
ITEM	PART NUMBER	DESCRIPTION	QTY	ITEM	PART NUMBER	DESCRIPTION	QTY	ITEM	PART NUMBER	DESCRIPTION	QTY
63	8670KIT800-00H	KIT, LED DIGITAL AIR, PROTEL	1	37	5943E3225	WIRE, 12G GREEN	10"	1	1079-7	GASKET, NEOPRENE/EPDM BLEND	105"
	0			38	5943E3229	WIRE, 12G WHITE	46"	2	5600D2	5/16-18 x .75 CARR BOLT	8
64	8678	HOSE HANGER	1	39	6028-10W	HO AIR CABINET WELDMENT	1	3	5600D4	3/8-16 X 1,5 HHCS	4
65	8697-NO	SOLENOID, 120/60-KIP-NORGREN	1	40	6028-12	BRACKET, HO COMPRESSOR	1	4	5601D1	1/4-20 x 1/2 HHCS-ZINC PLATED	4
66	8712-C1-2	CABLE ASSEMBLY, COIN/CC, 66"	1	41	6028-16W	DOOR COVER WELDMENT	1	5	5601D4	1/4-20 x 3/4 HHCS-SS	1
67	8712-JEA	JE ADAMS TIMER ASSEMBLY	-1	42	6028-17W	AIR INTAKE COVER, WELDMENT	2	6	5603D1	NUT #10-24, NYLOCK, SS	5
68	8732	NAMEPLATE SERIAL TAG, UL	1	43	6028-18W	AIR INTAKE, WELDMENT	2	7	5603D2	NUT, NYLOCK, 1/4-20, SS	1
69	8754	DECAL, DANGER, TRI-LING	1	44	6028-20	GUARD, DIGI AIR	1	8	5603D10	NUT NYLOCK, #6-32, SS	8
70	8761-110	RELAY, 3PDT-120VAC-20A@1HP	1	45	6028-21	BRACKET, SOLENOID MOUNT	1	9	5606D1	#10 SAE WASHER	2
71	9726-19	P BTN, 19MM,SPST, 24VAC, _, MOMTRY	1	46	6028-22	GASKET, AIR INTAKE	2	10	5606D8	WASHER, 3/8, USS, 1" OD	8
72	9868	COMPRESSOR ASSEMBLY, HIGH	1	47	7722S	1/4" NPT SST HEX NIPPLE MALE	1	11	5606D21	WASHER, FLAT, 3/4 SAE, ID 13/16	1
		OUTPUT		48	8000-25	TERM, CONN., LEVER NUT 5 POSITION	4	12	5606D22	WASHER, 3/8 FENDER	8
73	B5722-002	NUT, 3/8-16 UNC HEX LOCK NUT	4	49	8036	NUT, 1/4-20 UNC KEPS	2	13	5611D4	NUT, 5/16-18 UNC KEPP- SS	8
74	B9900-001	WASHER, BONDED SEALER	10	50	8106	TERM. FORK, #6,10-12 AWG, INS.	2	14	5631d1	1/4-20 SCREW, ONE-WAY HEAD	2
				51	8131-2	TRANSFORMER, 110/220-24 1.66A	1	15	5636D4	SCREW, #10-24x1.50, PH, PD, SS	3
				52	8157	NUT, #6-32 KEPP NUT STAINLESS	2	16	5662D2	SCREW, #6-32 X .50, PH, PD, ZP	4
				53	8180	WARNING, WIRE TEMP RATING	1	17	5662D4	SCREW, #6-32 X .75, PH, PD, ZP	2
				54	8183	DECAL, "DISCONNECT POWER"	1	18	5684D2	P CLAMP, HOSE, CUSHIONED, 1/2" ID	1
	<u> </u>	(39)		55	8437D002	ETL DECAL, AIR MACHINES	1	19	5702D5	1/4-20 X .75 TORX SEC. T-27	14
63				56	8532-50	AIR HOSE ASSY, 1/4" X 50'	1	20	5720D1	#10-24 x .75 PHIL PAN SS	2
71 14 49				57	8533-13	AIR CHUCK, OPEN FLOW	1	21	5800D6	ELBOW, STREET, 1/4NPT, 90D, BRS	2
)	58	8545-13	AIR HOSE ASSY, 1/4" X 15"	1	22	5814D4	PIPE BUSHING 3/8" MNPT X 1/4" FNPT	1
	•			59	8549	FLEX STRAIN RELIEF	1	23	5816D1	1/4" STREET TEE	1
				60	8605	PALLET, VAC, 26" X 30.5"	1	24	5900D3	TERM, F SPADE, 1/4, 12-10 AWG, INS.	6
(74)				61	8670-7-DKIT	FACEPLATE DECAL	1	25	5900D4	TERM, F SPADE, 1/4, 22-18 AWG INS.	2
19 (59) (2) (10)				62	8670KIT613-00	PROTEL HEAT KIT, KIT0000613-00	1	26	5900D16	TERM, F SPADE, .110, 22-18 AWG, INS.	4
				(13)				27	5902D4	TERM, RING, #10, 10-12AWG, INS.	2
							28	5903D4	TERM. BLOCK, 2 ROW, 4 POLE, 9/16"	1	
	1	56)							CTR	
	1							29	5905D1	TERM, FORK, #6, 22-18 AWG, INS.	4
	, a	5	17)					30	5943B3220	WIRE, 18G BLACK	69"
		(42)						31	5943B3223A	WIRE, 18G GRAY	24"
								32	5943B3224	WIRE, 18G YELLOW	30"
			7					33	5943B3225	WIRE, 18G GREEN	28"
								34	5943B3226	WIRE, 18G BLUE	37"
								35	5943B3229	WIRE, 18G WHITE	67"
								36	5943E3220	WIRE, 12G BLACK	83"
	(41)	(19)							MITLE		200
										SEMI TIRE AIR MACHINE, FREE	
									UNSPECIFIED TOLERANCES	CEDAR RAP	DS, IOWA
									1 PL ± .030 BY	JOHN F	MAS
	1 1/0		-	20015	100	1	T.E.	BY	2 PL ± .020 SCA	6/13/2024	LID
REV NO. DESCRIPTION DATE 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											











19