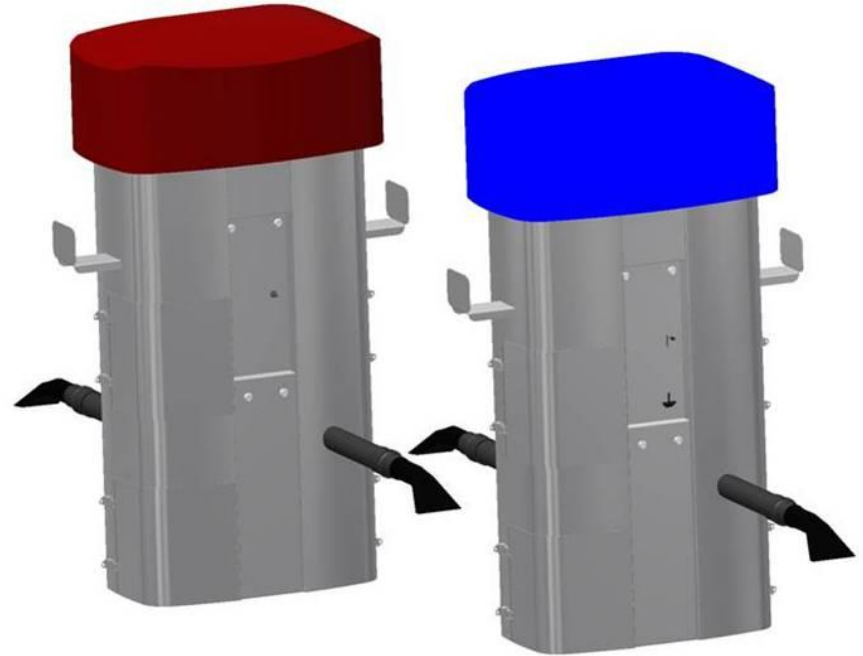




Models- 8960, 8970, 8960-C
8960-220, 8960C220
Oval Vacuums

Page 2	Product Information
Page 3	Specifications
Page 4	Important Safety Instructions
Page 5	Product Dimensions
Page 6-8	Installation
Page 9	Programming Timer
Page 10	Operating & Maintenance
Page 11	Troubleshooting
Page 12-18	Parts List & 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

Unit specifications: 8960, 8970, 8960-C
Voltage: 120vac @ 60hz
Amperage: (2) 20 amp dedicated services are required for this unit (vacs operate independently)

Motors: (2) 120vac vacuum motors per side
Fuses: (2) 10 amp inline fuses per side
Weight: 213 lbs with pallet attached

Unit specifications: 8960-220, 8960C220
Voltage: 220vac @ 50hz
Amperage: (2) 15 amp dedicated services are required for this unit (vacs operate independently)

Motors: (2) 220vac vacuum motors per side
Fuses: (2) 8 amp inline fuses per side
Weight: 213 lbs with pallet attached

Duty cycle time 4 minutes on, 4 minutes off.

NOTE: "UNIT INTENDED FOR COMMECIAL USE 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:

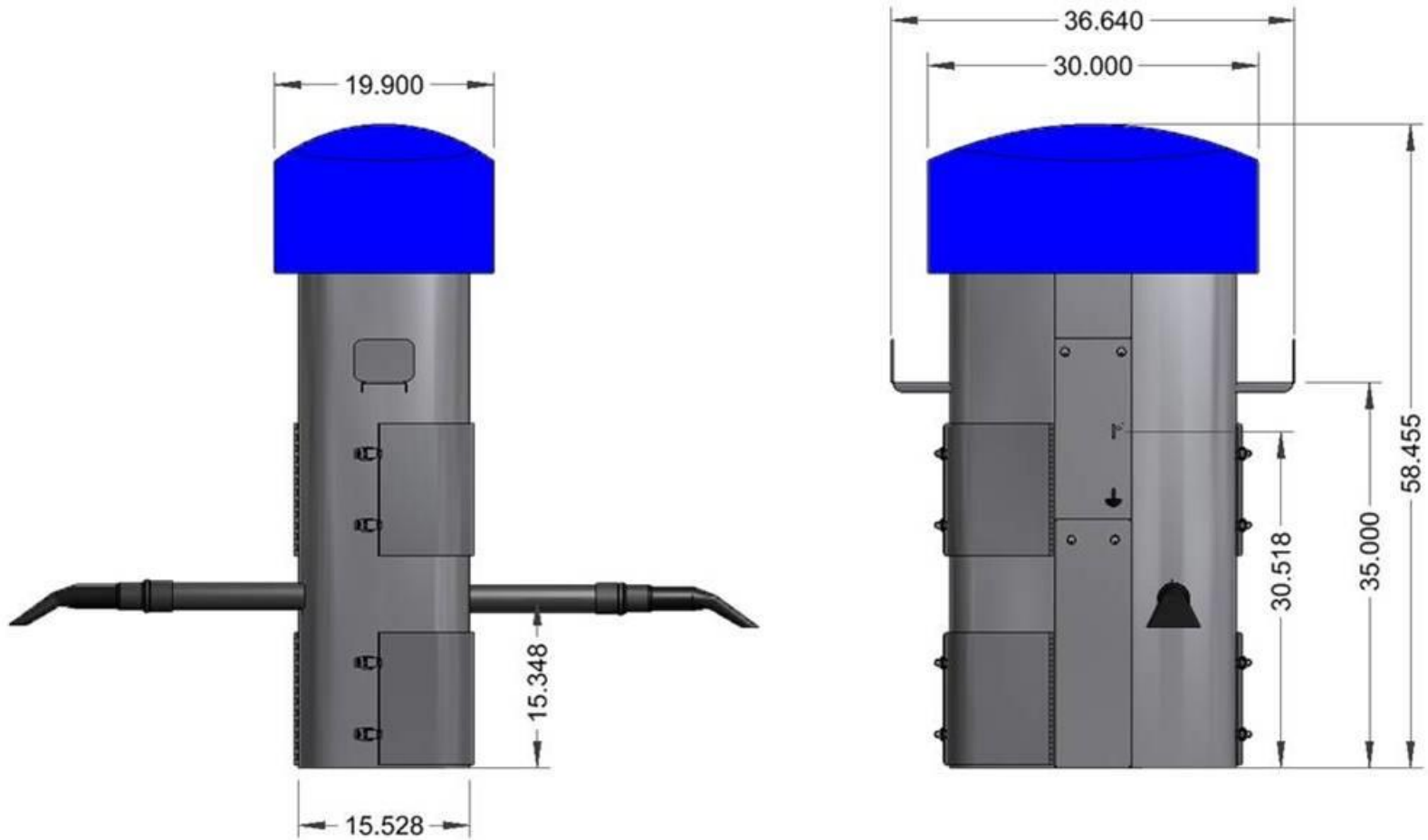
- Do not use on wet surfaces.
- Use only as described in manual. Use only manufactures recommended attachments.
- Do not allow to be used as a toy. Close attention is necessary when used by or near children.
- Do not put any object into openings. Do not use with any opening blocked; keep free of dust, lint, hair and anything that may reduce air flow.
- Keep hair, loose clothing, fingers, and all parts of body away from openings and moving parts.
- Do not use to pick up flammable or combustible liquids, such as gasoline, or use in areas where they may be present.
- Do not pick up anything that is burning or smoking, such as cigarettes, matches, or hot ashes.
- Do not use without dust bag and/or filters in place.



SAVE THESE INSTRUCTIONS

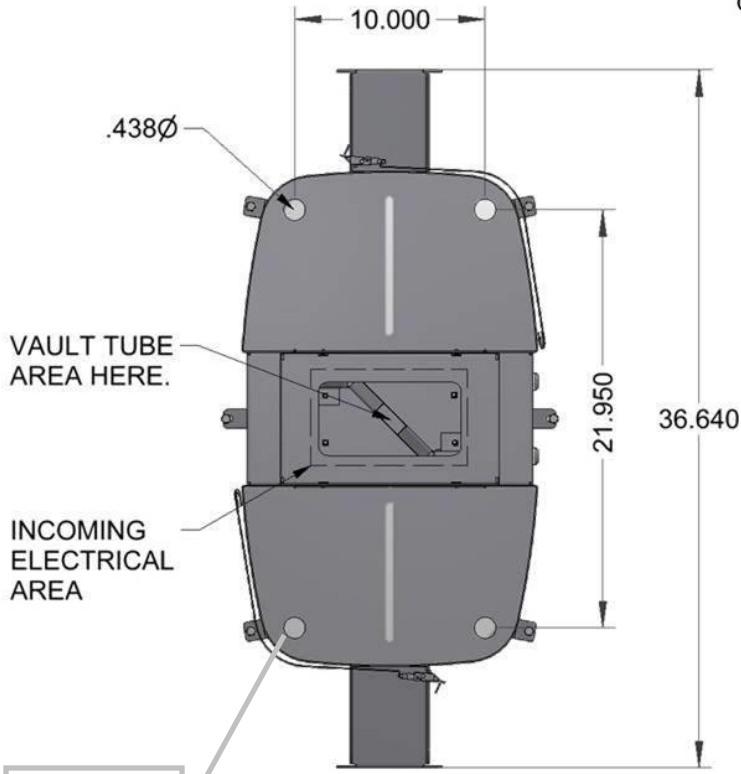
- **Installation Instructions:**
- Determine location to mount unit (“**DANGER**” “**THIS EQUIPMENT INCORPORATES PARTS SUCH AS SWITCHES, MOTORS, OR THE LIKE THAT TEND TO PRODUCE ARCS OR SPARKS THAT CAN CAUSE AN EXPLOSION. WHEN LOCATED IN GASOLINE-DISPENSING AND SERVICE STATIONS INSTALL AND USE AT LEAST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

PRODUCT DIMENSIONS



INSTALLATION:

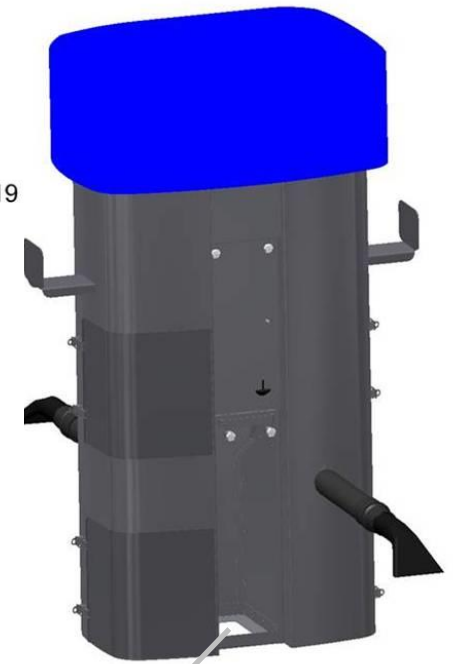
PLAN VIEW



VAULT TUBE
O.D. & I.D.

Ø1.500

Ø1.919

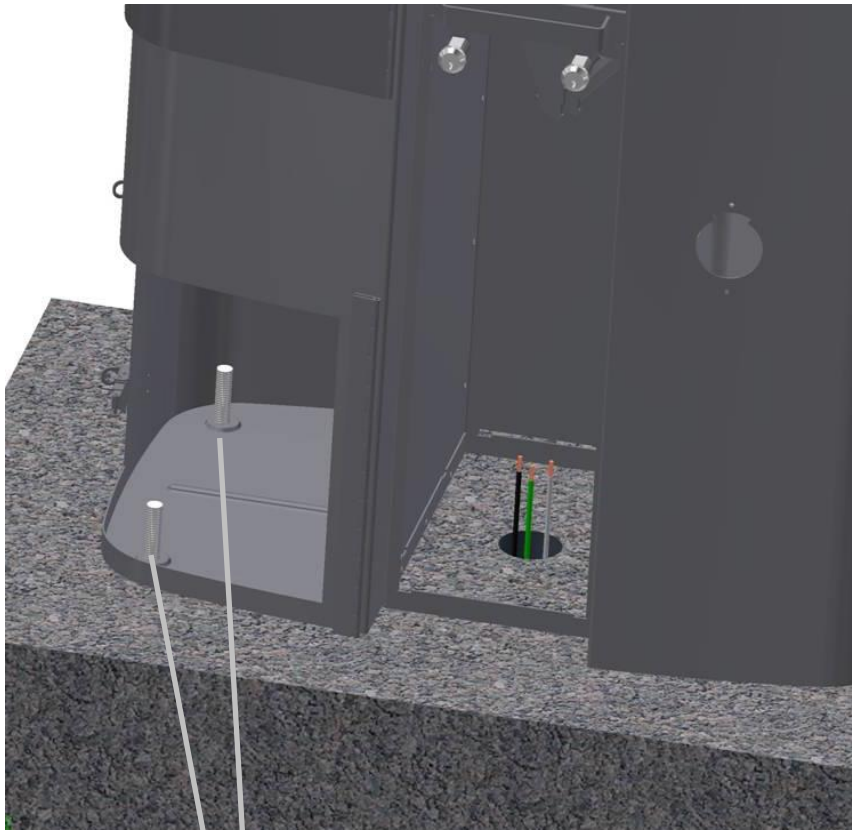


Bolt mounting pattern.

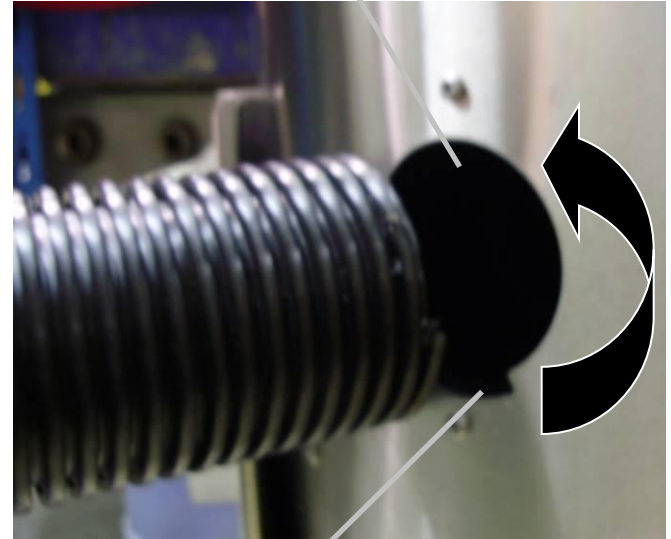
Bring incoming power up through the center area and tie to factory supplied connection.

Drill holes into concrete surface and install 3/8" studs (4).

NOTE: when mounting, provide clearance so cleanout doors can open!!



To attach hose, thread into metal hole counter clockwise.

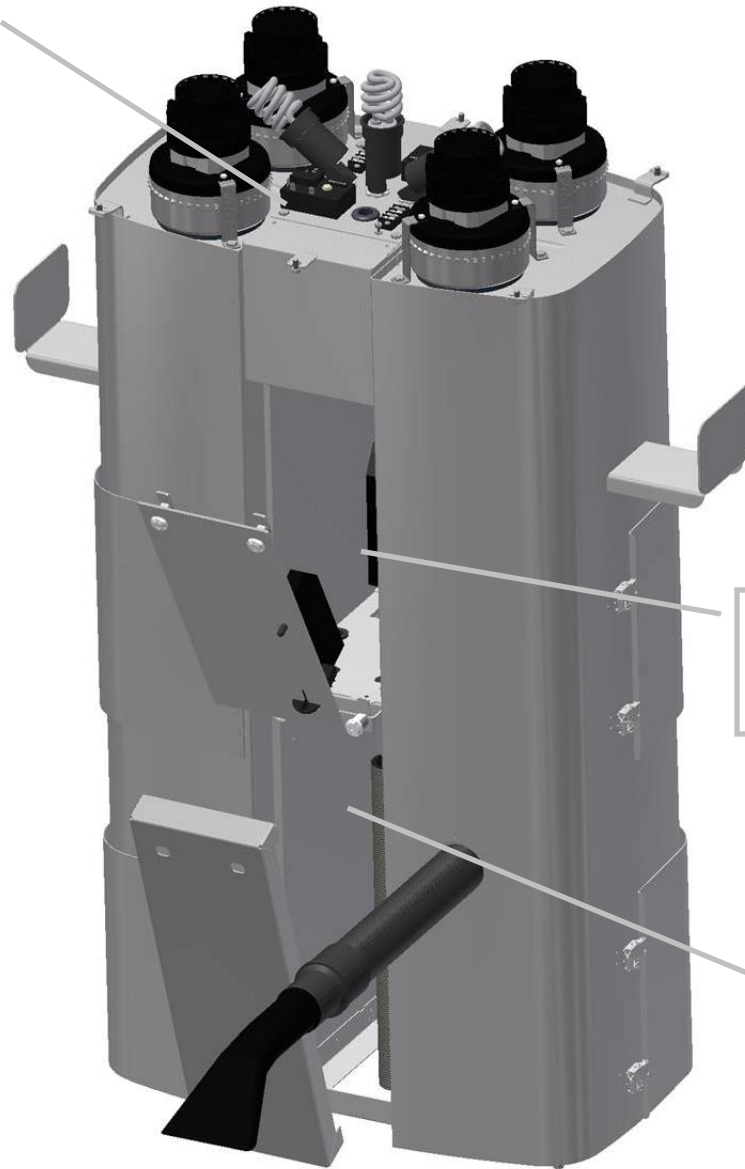


Edge of hose will need to start here.

Using two people, set vacuum onto mounting studs and align bolts through holes in bottom. Use a washer and nut to tighten vacuum into place – DO NOT over tighten!! NOTE: JE Adams recommends using a sealer such as silicon underneath the washer to eliminate any loss of suction through the mounting holes.

After positioning vac can, cut bolt lengths down to a maximum height of 3/4" to allow clearance/ use of dirt bin.

Timers are kept under the dome. Electrical troubleshooting can also be done here.

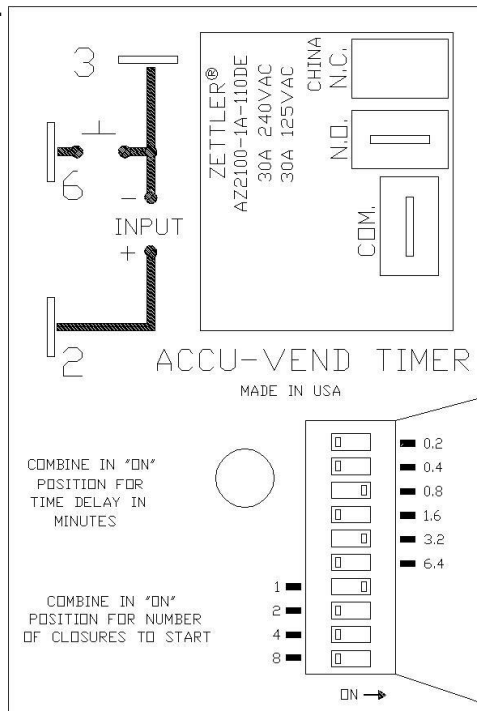


Upper faceplate can be accessed for coin jams or to empty optional bill validator.

Lower chamber allows access to coin box or flexible vault tube. Field electrical connections are also made here.

Programming:

The below timer pictured is the standard SSAC model that allows the end user to select the "coins to start" and the "time per coin" by settings series of dip switches. The number of "coins to start" dip switch is how many quarters are needed to make the machine come on. In the below example, the "one coin" dip is selected which makes the unit come on with one coin. The "time per coins" will then need to be set, but a good rule of thumb would be 4 minutes which requires dip switches 3.2 and .8 to be set to on. This scenario means 1 quarter will provide 4 minutes of vacuum time. The time per coin setting can be modified as desired by simply adding or subtracting time. If the operator would later decide to increase the cost of the unit to "2" quarters, the 2 dip switch would need to be in the on position (all others off) and the time dip switches would need to have the 1.6 and 0.4 dips selected. This would allow 2 minutes of time for each quarter for a total of 4 minutes for two quarters.



Time in minutes/per coin dip switch settings:

0.2 = 12 seconds

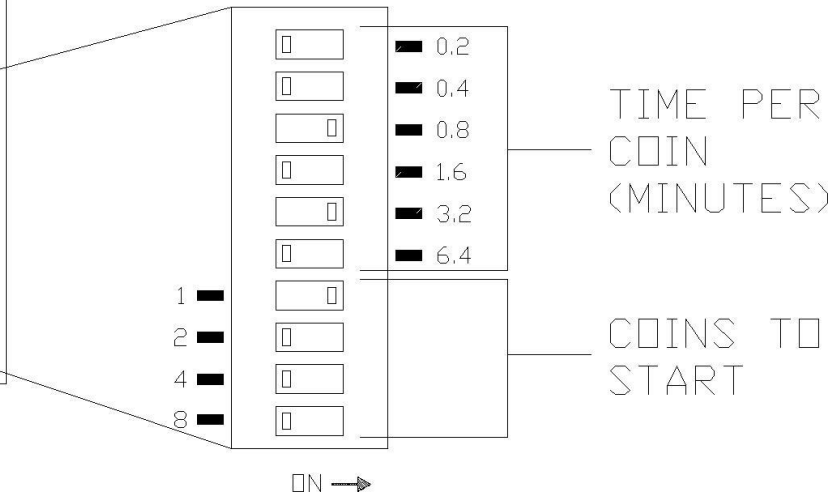
0.4 = 24 seconds

0.8 = 48 seconds

1.6 = 96 seconds

3.2 = 192 seconds

6.4 = 384 seconds



Operating Instructions:

- 1) Insert coins or bills to start.
- 2) Remove vacuum hose from hanger and vacuum subject accordingly. Do not vacuum wet objects or fine dust (ex- drywall dust).
- 3) For best results, have floor mats already removed from car.
- 4) Hang hose up when finished.

Maintenance:

- **All servicing of machine should be conducted by an authorized service representative!**
- Filter bags should be accessed and shaken down weekly. It is recommended to keep a new set of bags on hand so that once every few months the bags can be replaced and then laundered.
- To maintain performance, empty dirt bin from the canister on a regular basis.
- Periodically inspect wires and connections for wear or fatigue.
- Check vac hose for cracks on a weekly basis.
- Clean canister with a stainless steel cleaner as needed. Decals can be cleaned with mild soap and water.
- Check motor brushes approx. every 3 months for excessive wear. Motor brushes should be changed if they are shorter than 3/8". ***Please disconnect power before doing this.***

DISCONNECT POWER BEFORE SERVICING OR TROUBLESHOOTING!

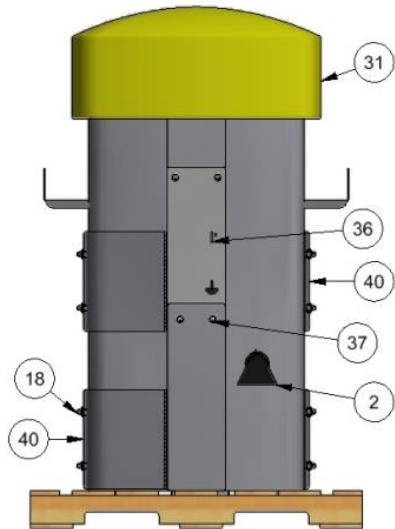


Troubleshooting: !DISCONNECT POWER BEFORE SERVICING OR TROUBLESHOOTING!


Problem	Possible cause	Solution
Unit is not powered.	Breaker inside fuse panel is not in the on position.	Turn breaker on.
	No power to machine.	Check incoming power line voltage.
	Loose connection.	Check incoming power connection.
Machine is behaving erratically.	Is the incoming power at 120V?	Check voltage and monitor while machine runs. Low voltage can cause erratic behavior.
	Are any of the machines wires worn through or connections not making contact?	Inspect wiring and connections. Look for sharp bends in wires and places where wire is against the metal chassis.
Unit keeps tripping breaker.	Inadequate wire size ran to machine.	Call electrician and install proper wire size for electrical service versus length or run.
	Wrong size breaker.	Install correct breaker (only if wire size is adequate to handle breaker).
Fuses for vac motors keep blowing.	Inadequate wire size ran to machine.	Call electrician and install proper wire size for electrical service versus length or run.
	Motor brushes may be bad or too short.	Replace motor brushes.
Lack of vacuum suction.	Vac hose clogged?	Clean debris from vac hose.
	Filter bags need cleaned or dirt chamber needs emptied?	Shake or clean filter bags or replace and empty lower dirt chamber.
	Vac hose is split?	Replace/repair vac hose.
	Cleanout door gaskets torn or worn?	Replace gaskets.
	Vac motor gaskets are worn or motor is not tight against.	Inspect/replace gaskets and assure motor is tight against them.
	Cleanout door gaskets torn or worn?	Replace gaskets.
	One of the vac motors is not working?	Check line motor fuse and replace. Replace motor if necessary.

PART NO. 8960

BILL OF MATERIALS				BILL OF MATERIALS			
ITEM	PART NUMBER	DESCRIPTION	QTY	ITEM	PART NUMBER	DESCRIPTION	QTY
31	8915	DOME, VACUUM, OVAL-DUAL	1	1	2036	HOSE, 2" X 15' BLACK VACUUM	2
32	8920-71	BOX	1	2	2058	CLAW/CUFF ASSEMBLY, 2"	2
33	8921-7W	DOME CLAMP WELDMENT	4	3	28000-36	MOTOR MOUNT	8
34	8925	FLOURESCENT BULB	3	4	5261D5	1/4-20 ZINC PLATED STEEL, RIVET NUT	12
35	8939	PALLET, DUAL, OVAL, SPECIALITY, 30" X 40"	1	5	5601D1	1/4-20 x 1/2 HHCS-ZINC PLATED	18
36	8952-11A	FACEPLATE ASSEMBLY, DUAL LONG PLATE	2	6	5639D1	RUBBER GROMMET	4
37	8953	MEDECO CAM LOCK W/2 KEYS	2	7	5641D4	5/16-18 x 2.5" HHCS, ZINC PLATED	4
38	8960FPD	FACEPLATE DECAL & PRICE, TOKEN	2	8	5647D2	RIVET, 1/8 SS POP RIVET 1/16	32
39	8961W-1	DUAL VAC CANISTER W/C	1	9	6024	ABUS DISKUS 26/70 LOCK	1
40	8962-5W	CLEANOUT DOOR WELDMENT, DUAL VAC	4	10	6082	BAG, 9 X 12	1
41	8963	SPACER, FACEPLATE	2	11	8047	BAG, 60 X 72	1
42	8964-1W-1	BOTTOM COVER, LATCHED	1	12	8055EM	MOTOR, ELECTRO 120V	4
43	8968-5W / E	COIN BOX HOUSING, DUAL VAC	1	13	8057	MOTOR GASKET	4
44	8968-6W / E	COIN BOX, DUAL VAC	1	14	8076	FILTER BAG	4
45	8972SS4-1	TIMER & LIGHT KIT ASSEMBLY	1	15	8081	CABLE TIE	20
46	8975	DIRT BIN	2	16	8084	CABLE TIE MOUNT	6
				17	8108	#10 x 1/2 TAP SCREW	8
				18	8153-1	LATCH, CLEANOUT DOOR	16
				19	8159	DOOR GASKET	4
				20	8183	DECAL, WARNING	4
				21	8425-1-1	DECAL, LOWER DOOR	2
				22	8425-2	DECAL, UPPER CANISITER	2
				23	8429-1	HANG HOSE DECAL	2
				24	8437D001	DECAL, ETL LISTED	1
				25	8596	NUT, 5/16-18 HEX	4
				26	8597	5/16 WASHER	8
				27	8598	5/16 LOCK WASHER	4
				28	8732	NAMEPLATE, PRODUCT SPECIFICATION	1
				29	8753	DECAL, WARNING	1
				30	8754	WARING DECAL	1

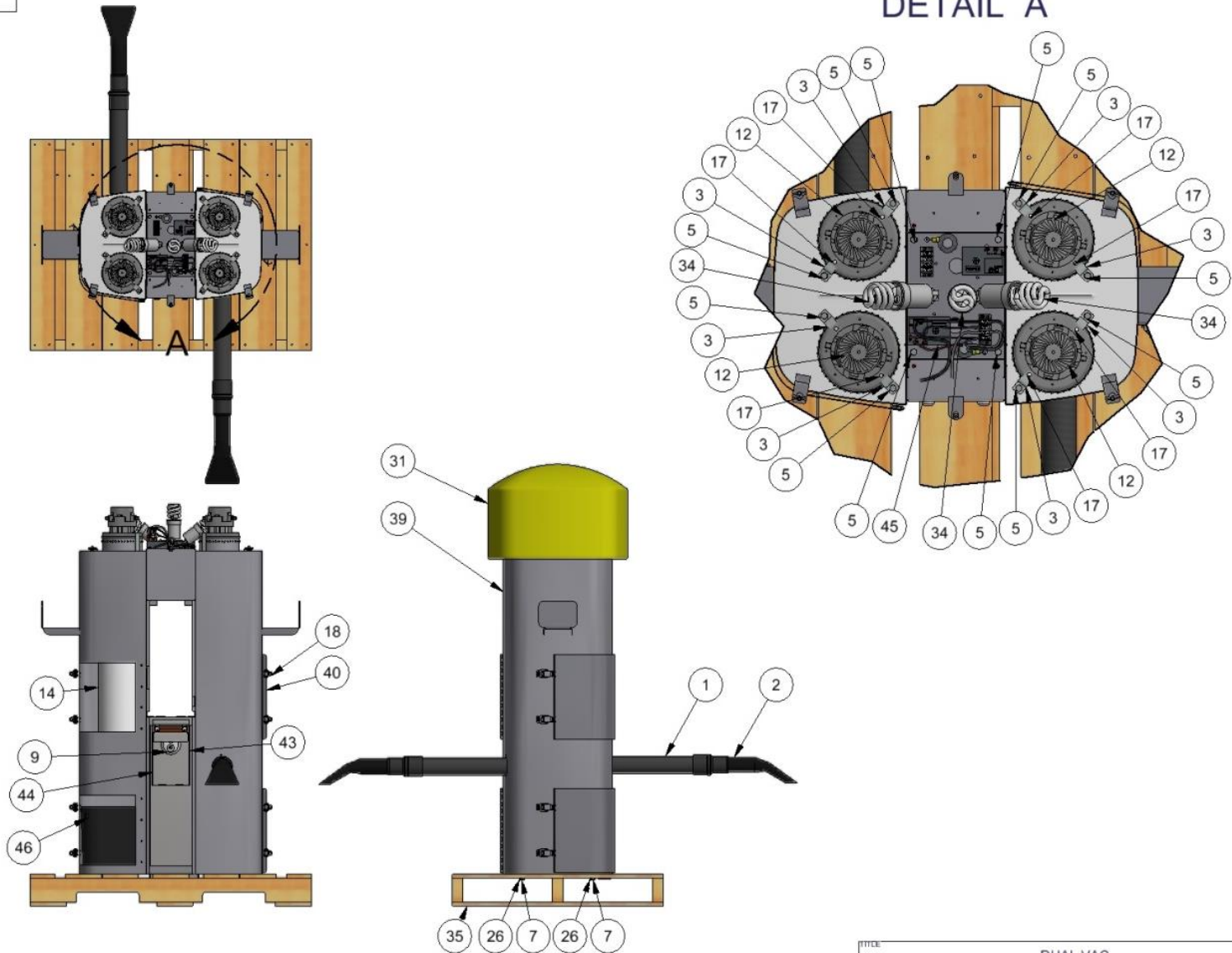



FOR BILL VALIDATOR OPTION,
REPLACE 8952-11A WITH 8952-10A.

REV	NO.	DESCRIPTION	DATE	BY	TITLE	MATERIAL	SCALE	SHEET	PART NO.	REV.
E	8435	CHANGED COIN BOX AND COIN BOX ENCLOSURE WAS 8968-3W AND 8968-4W	04/26/19	JRF	DUAL VAC				8960	E
D	7633	REVISE FACE PLATE DECAL QTY, WAS 1	123015	JF						
C	7489	NEW LARGER COIN BOX AND COIN BOX HOUSING	060415	JF						
B	6777	REDESIGNED AND DRAWN TO INVENTOR	1-17-12	CK						
UNSPECIFIED TOLERANCES					DRAWN BY CRAIG IRVING		DATE 12/1/2005			
1 PL ±.030					SCALE		SHEET 1 / 2		PART NO. 8960	
2 PL ±.020					ANGLE ± 1°					
3 PL ±.003										

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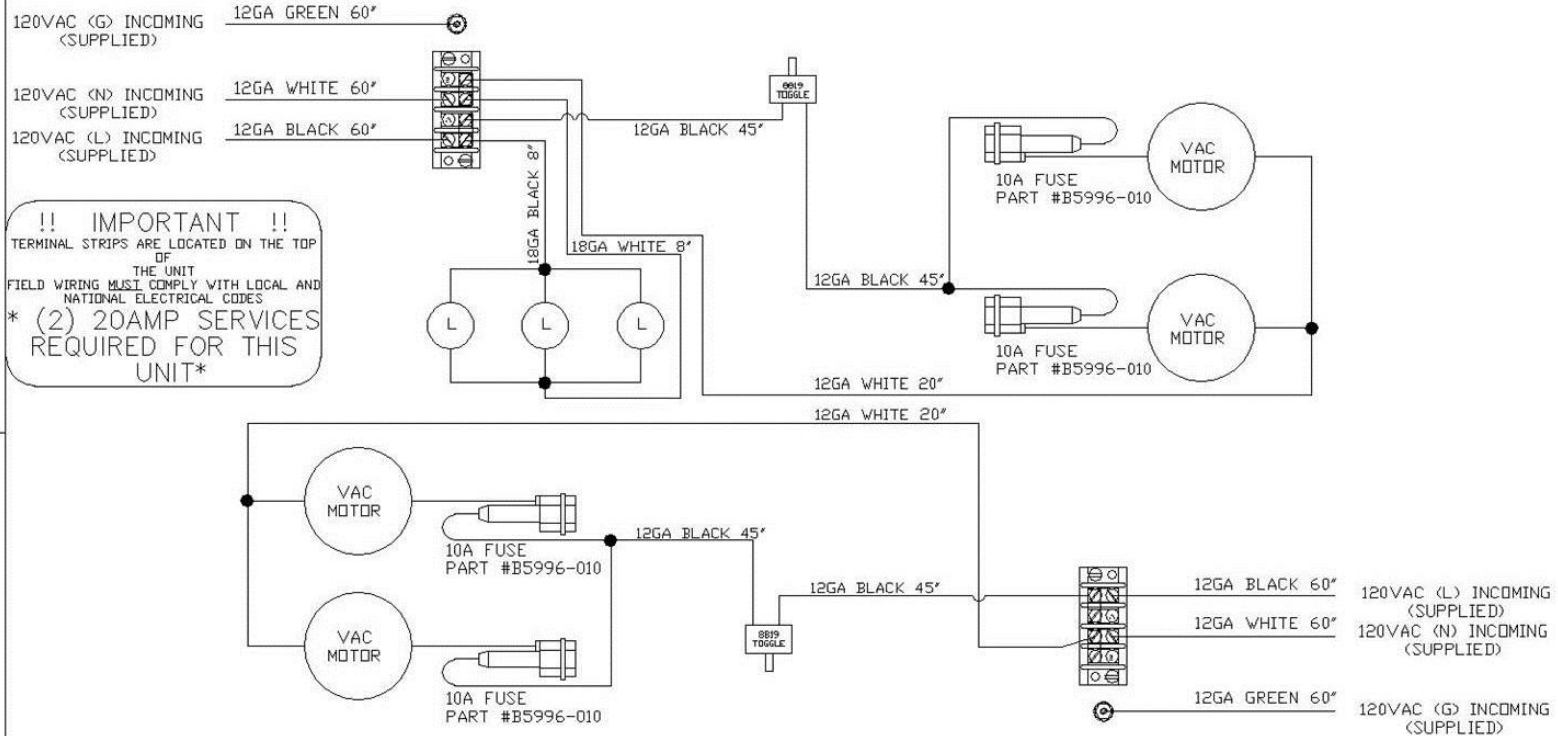
DETAIL A




TITLE		DUAL VAC		CEDAR RAPIDS, IOWA	
UNSPECIFIED TOLERANCES	MATERIAL	DRAWN BY CRAIG IRVING			
1 PL ±.030		DATE	12/1/2005		
2 PL ±.020		SCALE	SHEET	PART NO.	REV.
3 PL ±.003		ANGLE ±1°	2 / 2	8960	E

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				

120V TOGGLE SWITCH



!! IMPORTANT !!
 TERMINAL STRIPS ARE LOCATED ON THE TOP OF THE UNIT
 FIELD WIRING MUST COMPLY WITH LOCAL AND NATIONAL ELECTRICAL CODES
 * (2) 20AMP SERVICES REQUIRED FOR THIS UNIT*

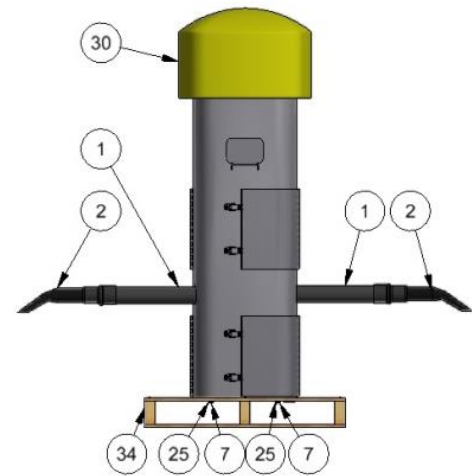
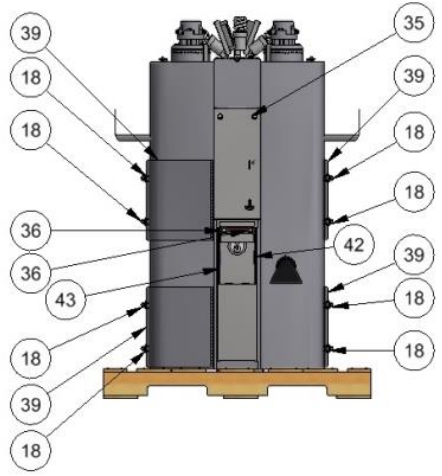
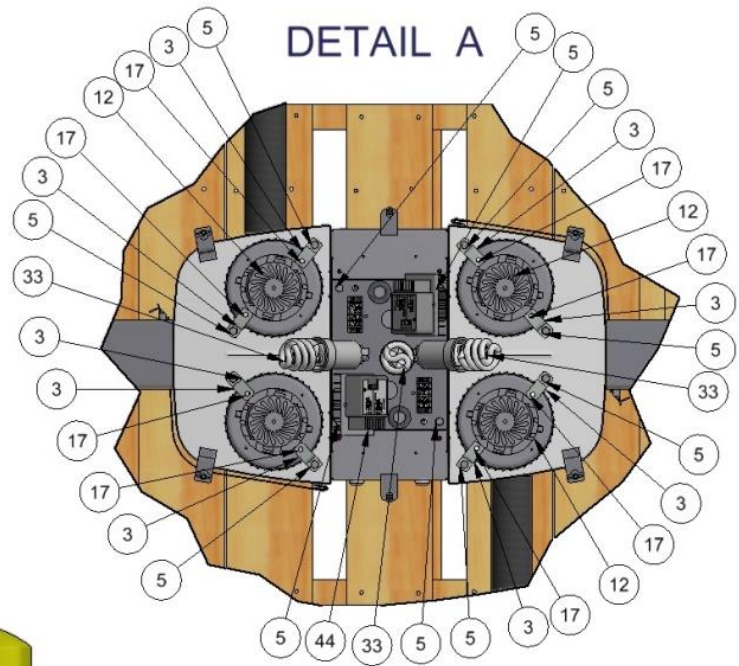
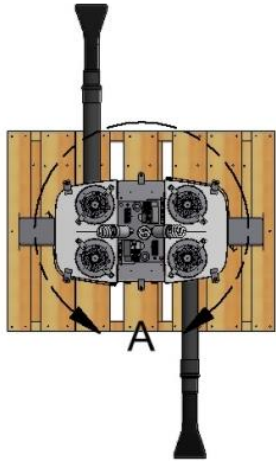
TITLE		DUAL VAC, TOGGLE COMMERCIAL, 120VAC	
MATERIAL		-	
UNSPECIFIED TOLERANCES	SCALE	-	
1 PL ±.030	DRAWN BY	CK	
2 PL ±.010	DATE	1-23-12	
3 PL ±.003	REL. FOR PROD.		
ANGLE ±1.0°			
		CEDAR RAPIDS, IOWA	
			
REV.	NO.	DESCRIPTION	REV.
			DUAL VACUUM

BILL OF MATERIALS				BILL OF MATERIALS			
ITEM	PART NUMBER	DESCRIPTION	QTY	ITEM	PART NUMBER	DESCRIPTION	QTY
32	8921-7W	DOME CLAMP WELDMENT	4	1	2036	HOSE, 2" X 15' BLACK VACUUM	2
33	8925-220	FLOURESCENT BULB, 13W-230VAC, SPIRAL MINI	3	2	2058	CLAW/CUFF ASSEMBLY, 2"	2
34	8939	PALLET, DUAL, OVAL, SPECIALITY, 30" X 40"	1	3	28000-36	MOTOR MOUNT	8
35	8952-11A	FACEPLATE ASSEMBLY, DUAL LONG PLATE	2	4	5261D5	1/4-20 ZINC PLATED STEEL, RIVET NUT	12
36	8953	MEDECO CAM LOCK W/2 KEYS	2	5	5601D1	1/4-20 x 1/2 HHCS-ZINC PLATED	18
37	8960FPD	FACEPLATE DECAL KIT	2	6	5639D1	RUBBER GROMMET	4
38	8961W-1	DUAL VAC CANISTER W/C	1	7	5641D4	5/16-18 x 2.5" HHCS, ZINC PLATED	4
39	8962-5W	CLEANOUT DOOR WELDMENT, DUAL VAC	4	8	5647D2	RIVET, 1/8 SS POP RIVET 1/16	32
40	8963	SPACER, FACEPLATE	2	9	6024	ABUS DISKUS 26/70 LOCK	1
41	8964-1W-1	BOTTOM COVER, LATCHED	1	10	6082	BAG, 9 X 12	1
42	8968-5W	COIN BOX HOUSING, DUAL VAC	1	11	8047	BAG, 60 X 72	1
43	8968-6W	COIN BOX, DUAL VAC	1	12	8055AE-220V	ELECTRO MOTOR 220V	4
44	8972IDX-220V	IDX TIMER & LIGHT KIT ASSEMBLY, 220VAC	1	13	8057	MOTOR GASKET	4
45	8975	DIRT BIN	2	14	8076	FILTER BAG	4
				15	8081	CABLE TIE MOUNT	6
				16	8084	CABLE TIE	20
				17	8108	#10 x 1/2 TAP SCREW	8
				18	8153-1	LATCH, CLEANOUT DOOR	16
				19	8159	DOOR GASKET	4
				20	8183	DECAL, WARNING	4
				21	8425-1-1	DECAL, LOWER DOOR	2
				22	8425-2	DECAL, UPPER CABINET	2
				23	8429-1	DECAL, HANG HOSE	2
				24	8596	NUT, 5/16-18 HEX	4
				25	8597	5/16 WASHER	8
				26	8598	5/16 LOCK WASHER	4
				27	8732	NAMEPLATE, PRODUCT SPECIFICATIONS	1
				28	8753	DECAL, WARNING	1
				29	8754	WARNING DECAL	1
				30	8915	DOME, VACUUM, OVAL-DUAL	1
				31	8920-71	BOX	1



E	8435	CHANGED COIN BOX AND COIN BOX ENCLOSURE, WAS 8968-3W & 8968-4W	04/26/19	JRF	TITLE	DUAL VAC, 220VAC	
D	7908	REMOVED 5911D2 AND ADDED 8925-220	12-22-16	CK	UNSPECIFIED TOLERANCES	DRAWN BY CHAD K.	
C	7489	NEW LARGER COIN BOX AND COIN ENCLOSURE	060415	JF	DATE	1/26/2012	
B	7207	REMOVED 8972SS7 AND ADDED 8972IDX-220V	10-25-13	CK	SCALE	SHEET	PART NO
A	6787	REVISED AND DRAWN TO INVENTOR; NO PREVIOUS DRAWING	1-26-12	CK	ANGLE ±1°	1 / 2	8960-220
REV	NO.	DESCRIPTION	DATE	BY			

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TITLE		DUAL VAC, 220VAC	
UNSPECIFIED TOLERANCES 1 PL ± .030 2 PL ± .020 3 PL ± .003 ANGLE ± 1°	MATERIAL	CEDAR RAPIDS, IOWA	
	DRAWN BY	CHAD K.	
	DATE	1/26/2012	
	SCALE	SHEET	PART NO.
		2 / 2	8960-220
			REV. E

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				

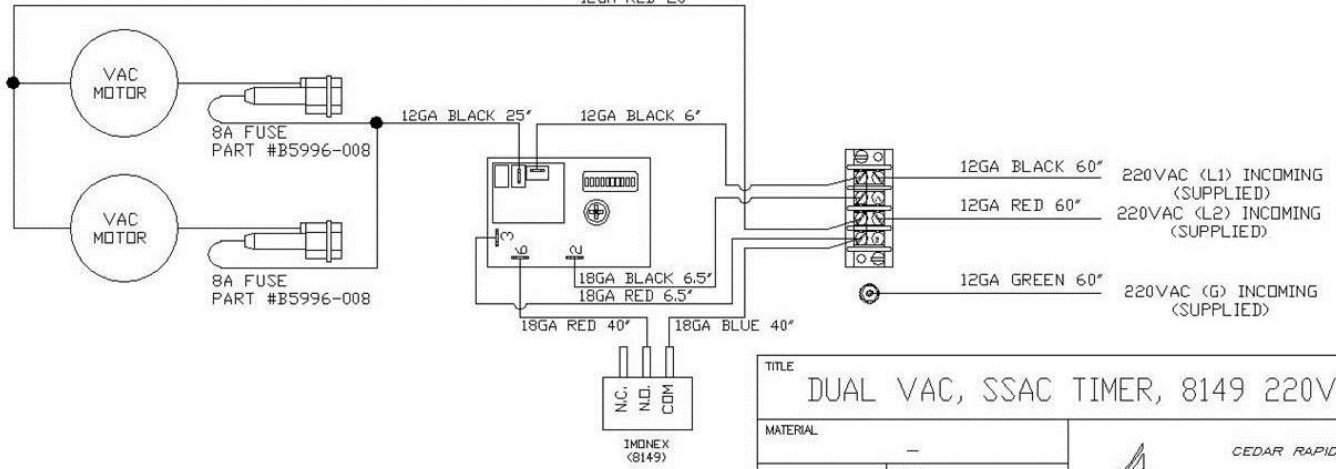
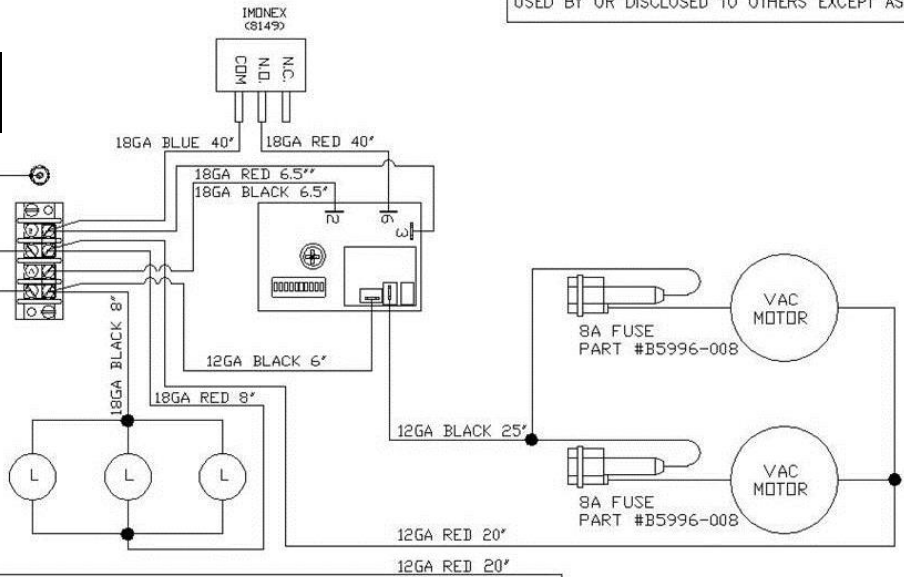
PART NO. **DUAL VACUUM**

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220V COIN OP

220VAC (G) INCOMING (SUPPLIED) 12GA GREEN 60"
 220VAC (L2) INCOMING (SUPPLIED) 12GA RED 60"
 220VAC (L1) INCOMING (SUPPLIED) 12GA BLACK 60"

!! IMPORTANT !!
 TERMINAL STRIPS ARE LOCATED ON THE TOP OF THE UNIT
 FIELD WIRING MUST COMPLY WITH LOCAL AND NATIONAL ELECTRICAL CODES
 * (2) 10AMP SERVICES REQUIRED FOR THIS UNIT*



TITLE		DUAL VAC, SSAC TIMER, 8149 220VAC	
MATERIAL	-	SCALE	-
UNSPECIFIED TOLERANCES	1 PL ±.030 2 PL ±.010 3 PL ±.003 ANGLE ±1.0°	DRAWN BY	CK
		DATE	1-26-12
		REL. FOR PROD.	
PART NO. DUAL VACUUM		REV.	

