

CEDAR RAPIDS, IOWA



J.E. ADAMS INDUSTRIES
OWNERS MANUAL

MODEL 29027-220V

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SPECIFICATIONS:

Unit specifications:

Voltage: 220v, 50Hz
Amperage: (1)15 amp service is required for this unit
Weight: 260 lbs with pallet attached

Vac specifications:

Motors: (3) Ametek 220v motors
Fuses: (3) 5 amp inline fuses
Relays: (2) contactors SPDT 30 amp rating per contact

Installation Instructions:

- Determine location to mount unit
- Run 15 amp service to that location (*NOTE UNIT HAS WIRE PROVIDED UNDERNEATH TO CONNECT INCOMING POWER SUPPLY*)
- Mount unit to location and use fig. 1 for mount pattern
- If unit is vault ready configuration see fig. 1 for mounting and fig. 2 for vault tube location.

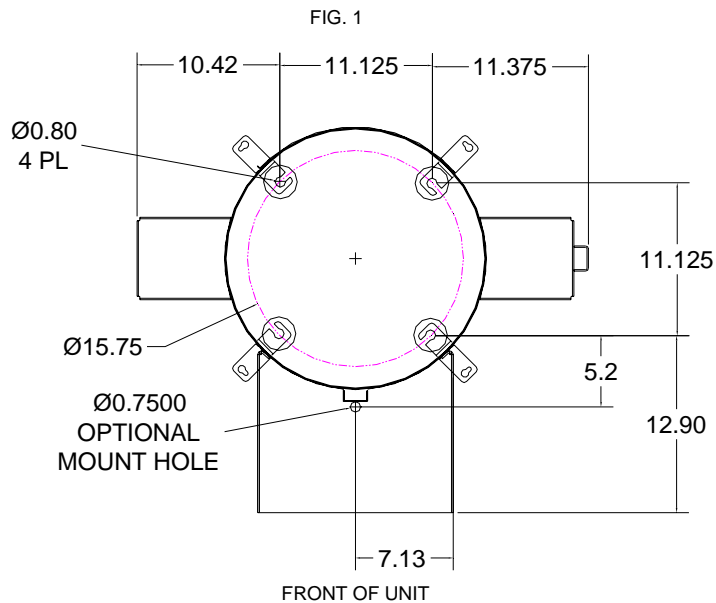
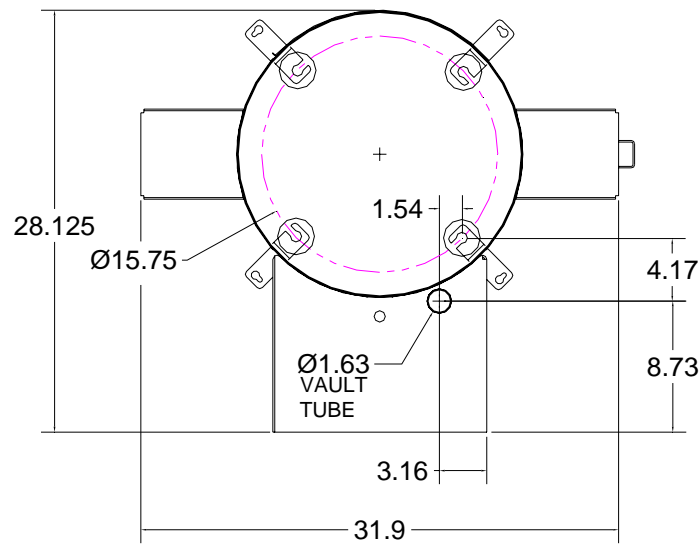


FIG. 2 (VAULT TUBE LOCATION)
TOP VIEW



- Once unit has been installed use 5871B8 cap plugs supplied with unit to seal holes in canister bottom located in lower cleanout door. Turn unit on and move to program instructions.

Programming Instructions:

Coin acceptor:

- See additional literature sent along with unit for programming info.

Display:

- Unit may be programmed when received depending on information given at that the time of order.
- To program follow the instructions below.

Display programming with remote:

- 1) Press the red power button.
- 2) Timer will display 0000. At this time type in 4 digit access code. Note code will be 1234 until changed by customer.
- 3) Once code has been entered display should read ok. If display does not read ok, repeat step 1 and 2.
- 4) Press **CH +** button. Timer will display coin value. This should \$.25 and should not be changed.
- 5) Press the **CH +** button. Display will now read (**A: 30**) or may be a different time. (**A**) Will be the time per coin for the **VAC**. Set desired time per coin by using the **VOL -** to decrease or the **VOL +** to increase. Once time is entered move to next step.
- 6) Press the **CH +** button. Display will now read (**B: 30**) or may be different time. (**B**) Will be the time per coin for **TURBO**. Set desired time per coin

by using the **VOL –** to decrease or the **VOL +** to increase. Once time is entered move to next step.

- 7) Press the **CH +** button. Display will now read **C**. **C** is not used.
- 8) Press the **CH +** button. Display will now read **D**. **D** is not used.
- 9) Press the **CH +** button. Display will now read **E**. **E** is not used.
- 10) Press the **CH +** button. Display will now read **F**. **F** is not used.
- 11) Press the **CH +** button. Display will now read (on A). This is the number of coins to start **VAC**. Use the **VOL –** and **VOL +** to adjust. Once this is done press the **CH+** button and repeat for (B) **TURBO**.
- 12) Press the **CH +** button. Display will read bonus time. Set if desired. See explanation at the end programming instructions.
- 13) Press the **CH +** button. Display will read debit mode. Set if desired. See explanation at the end programming instructions.
- 14) Press the **CH +** button. Display will read delayed start. Set if desired. See explanation at the end programming instructions.
- 15) Press the **CH +** button. Display will read **HLxx**. Set if desired. See explanation at the end programming instructions.
- 16) Press the **CH +** button. Display will read Restart off or restart on depending on what is set. Restart off will require a person to put in full amount after unit is turned off to reactivate. Restart on allows for additional coins to be put in the machine to keep unit running. To set use **VOL –** or **VOL +** to change.
- 17) Press the **CH +** button. Display will now read **STD** or **USER** or **MIX**. To make a custom message use **VOL +** button to scroll to **USER**. At this point press and hold **CH +** button until original message appears. At this time you may change the message simply by using the **VOL –** or **VOL +** buttons to change letters. **Once message has been entered you must put the symbol / at the end of message**. This will tell display that this is the end of the message.
- 18) Press the **CH +** button now 5 more times to exit programming.
- 19) Unit should now be programmed.

Program definitions:

- Bonus time settings:
 - Amount of time set in bonus time is added to regular time per coin/pulse(e.g. if you want to give 45 seconds for bonus time and your regular time per coin is 30 seconds, you would set bonus time at 00:15)
 - Bonus is disabled by setting bonus time to 00:00.
 - If bonus time is set to less than one minute, bonus time is added when bonus coin is reached and every coin after that until time expires.
 - If bonus time is set at 1:00 or more, bonus will be a “one time” bonus. Bonus time will only be added for bonus coin

or multiples of bonus coin (e.g. 16th coin, 32nd coin, etc). Any other coin will on receive regular time per coin.

- If bonus time is set to 99:00, when bonus coin is deposited, timer will show "-on-" and timer will continue to run until coin switch wire is shorted to ground by a loop detector or other switch closure for a minimum of two seconds.
- Debit and credit mode:
 - Debit mode: As coins are deposited display shows "\$1.75 MORE, \$1.50 MORE, \$1.25 MORE" etc. until start price is reached. Once start price is reached display switches to time accumulating until no more coins have been deposited.
 - Credit mode: As coins are deposited display shows money accumulating (\$.25, \$.50, \$.75 etc). If timer is also set to delayed start mode timer will continue to show money accumulating until no more coins have been deposited. If timer is set to instant start, as soon as start price is reached, timer will change to time counting down.
 - Both mode: As coins are deposited display shows money accumulating (\$.25, \$.50, \$.75 etc). If start price is not reached, after 5 seconds timer will alternate between "add \$x.xx more" and amount of money already deposited.

Display programming with push button:

- Unit can be programmed using buttons that are located inside display. One is labeled **S2**, which is used to change from item to item. One is labeled **S1** which is used to set desired value. If you hold down **S1** this will cause numbers to decrease. If you repeatedly push **S1** numbers will increase.
- When programming with buttons use same instructions as remote except for the following. Where it says to press **CH +** use **S2** and where it says to use **VOL +** or **-** use **S1**.

Operating Instructions:

- Select desired function.
- Insert coins or bills to start desired function.
- If other function is selected other than original selected item unit will recalculate timer based on the amount of money it takes to start the specific function.
- Once service is used, hang up hose.

Maintenance:

- Filter bags should be taken out weekly and shaken out. Also it might be a good idea to keep a new set of bags on hand so that once a month or longer you can take original bags out and wash them.
- Check vac hose for cracks on a weekly basis.
- Check shampoo and spot formula bottles to assure that they are full.
- Clean canister with a stainless steel cleaner as needed.
- Check motor brushes approx. every 3 months for excessive wear. Motor brushes should be changed if they are shorter than ¼". ***Please disconnect power before doing this.***

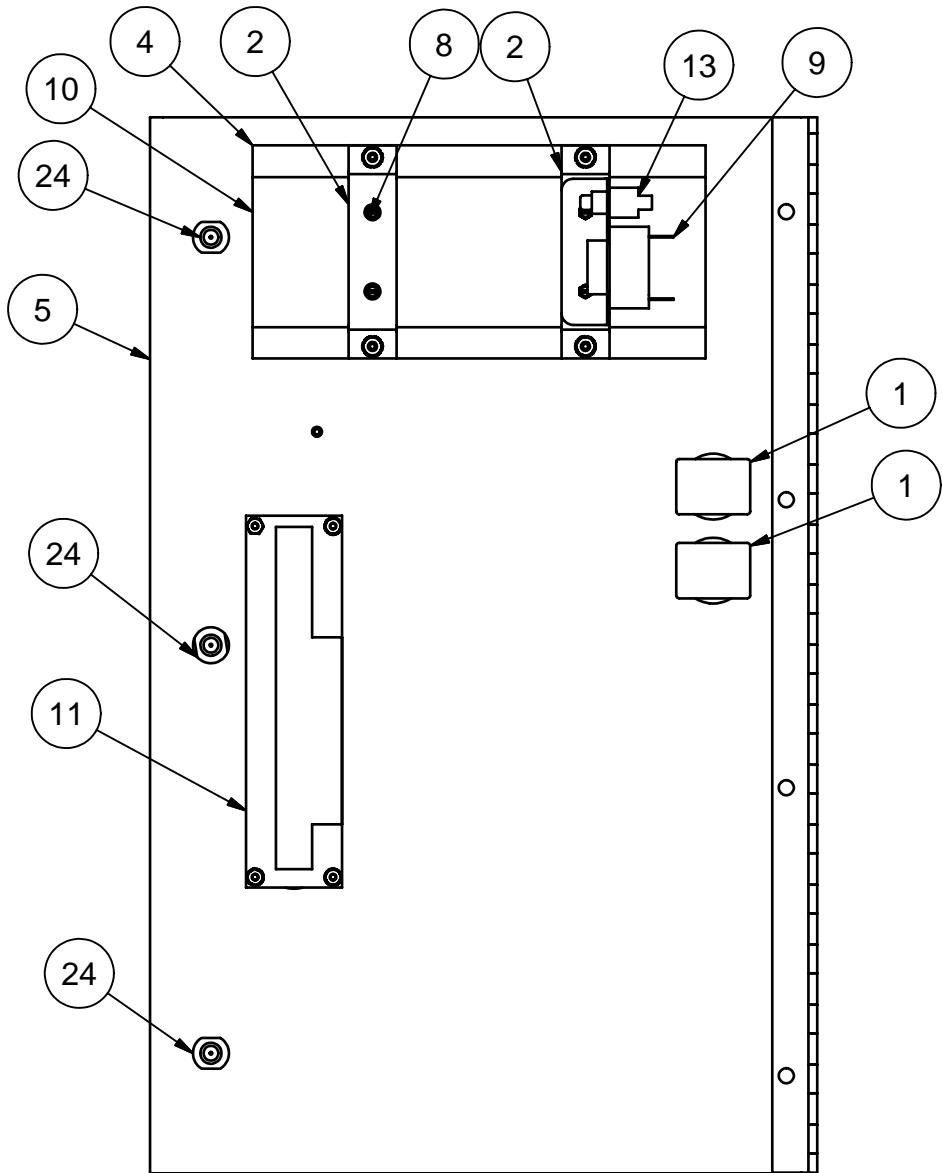
Troubleshooting:

DISCONNECT POWER BEFORE SERVICING

Problem	Possible cause	Solution
Unit is not powered	Breaker inside unit is not in the on position	Flip breaker on
Display is not powering	Breaker inside unit is not in the on position	Flip breaker on
	Check transformer inside main power box in unit. Is there 24VAC at output terminal?	Replace transformer (8131-2)
Display reads "fail"	Coin acceptor putting out continuous pulse	Press mode button on display. If fail does not go away replace coin acceptor.
	Program in display may be lost	Reprogram display. If fail goes away and then comes back, replace battery in display.


Unit keeps blowing my breaker from my incoming power source	Inadequate wire size supplied to machine	Call electrician and install proper wire size for 15amp service versus length or run.
	Wrong size breaker	Install correct breaker(only use wire size that is adequate to handle 15 amp breaker)
Fuses for vac motors keep blowing.	Inadequate wire size supplied to machine	Call electrician and install proper wire size for 15amp service versus length or run.
	Motor brushes may be bad or too short	Replace motor brushes (8055BR)
Vac motors will not shut off after display has timed out	Check contactors for vac and turbo located in relay control box	If contact is stuck open replace with new contactor. (5967D001)
Unit has lost suction	Vac hose clogged	Clean out debris from vac hose
	Filter bags need cleaned	Clean out filter bags or replace (8076)
	Vac hose is damaged	Replace vac hose (2036)
	Cleanout door gaskets torn or worn	Replace gaskets (8159)

PART NO. 29027-7A-220V



BILL OF MATERIALS

ITEM	PART NUMB	DESCRIPTION	QTY
1	20000-72A	SWITCH, ILLUMINATED PUSHBUTTON	2
2	29000-24	DISPLAY BRACKET	2
3	29000-25	HORN BRACKET	1
4	29000-34	LEXAN WINDOW	1
5	29027-7W	CONTROL DOOR WELDMENT- NO VAL	1
6	8157	NUT, #6-32 KEPP NUT STAINLESS	4
7	5611D2	NUT, 10-24 UNC KEPP- ZINC	4
8	5629D2	#8 x 1/2 SELF TAPPING SCREW	4
9	8000-11	ALARM, LAST COIN ALERT	1
10	8000-15	BIG DIXMOR DISPLAY	1
11	8131-11	COIN ACCEPTOR, IDX MA800	1
12	8659-24	LOCK COLLAR -SS	3
13	8726	PUSH BUTTON	1
14	5905D1	SPADE TERMINAL	5
15	5943B3222	18GA RED WIRE	34"
16	5943B3223	18GA ORANGE WIRE	18"
17	5943B3223A	18GA GREY WIRE	21"
18	5943B3224	18GA YELLOW WIRE	92"
19	5943B3224A	18GA PURPLE WIRE	30"
20	5943B3226	18GA BLUE WIRE	57"
21	5943N0122	26GA RED WIRE	32"
22	8000-21	2 POLE FEMALE CONNECTOR	5
23	8000-23	5 POLE FEMALE CONNECTOR	1
24	8958-1	MEDECO SCREW LOCK	3

TITLE		TURBO DOOR ASSEMBLY		
UNSPECIFIED TOLERANCES	MATERIAL	CEDAR RAPIDS, IOWA		
1 PL ±.030	SCALE			
2 PL ±.010	DRAWN BY			CHAD K.
3 PL ±.003	DATE			6/14/2006
ANGLE ±1.0°		PART NO.	29027-7A-220V	
		REV.		

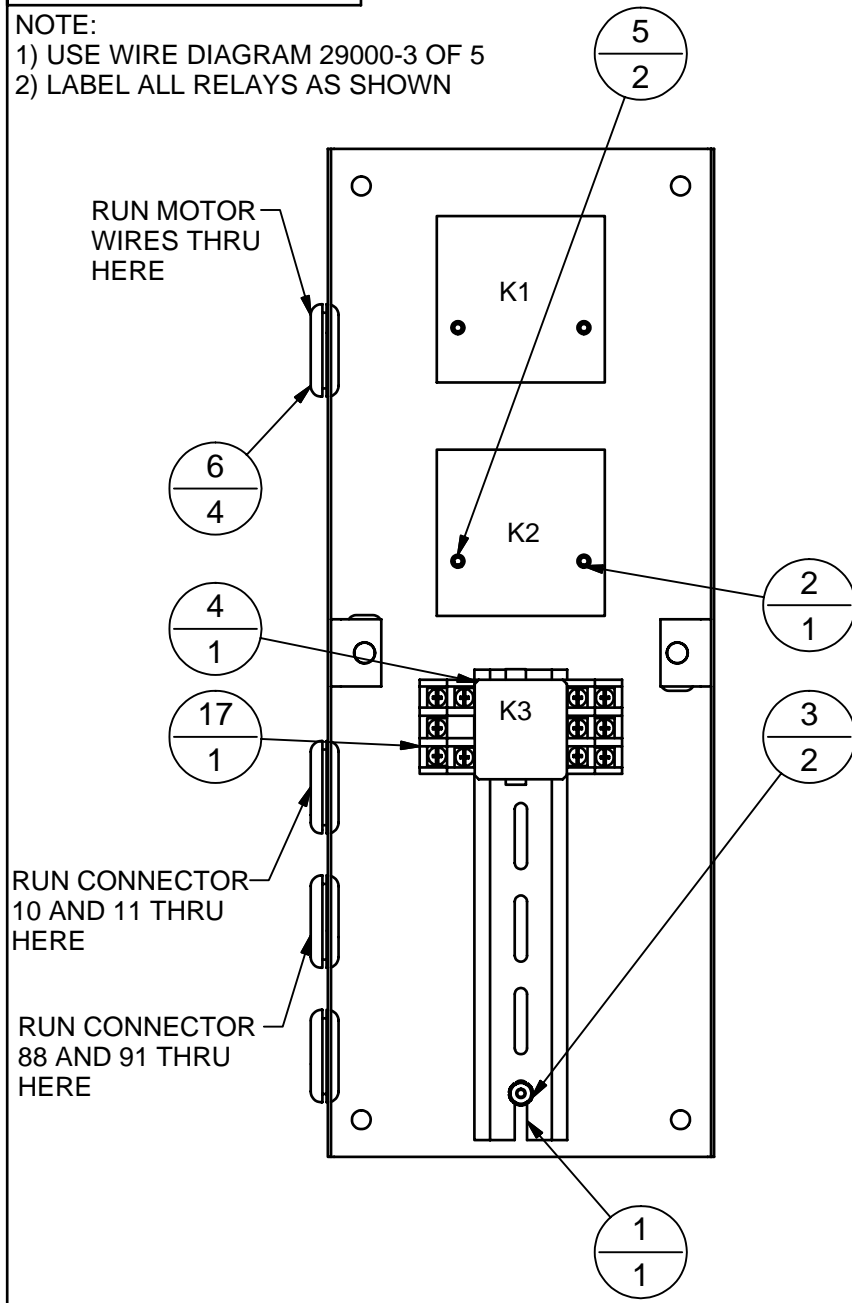
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PART NO.

29025-19A

NOTE:

- 1) USE WIRE DIAGRAM 29000-3 OF 5
- 2) LABEL ALL RELAYS AS SHOWN



BILL OF MATERIALS

ITEM	PART NUMBE	DESCRIPTION	QTY
1	28000-95	DIN RAIL 7IN	1
2	29000-19W	RELAY CONTROL PLATE WELDMENT	1
3	8157	NUT, #6-32 KEPP NUT STAINLESS	2
4	8768	RELAY 24VAC	1
5	5967D001	CONTACTOR RELAY	2
6	5639D6	RUBBER GROMMET	4
7	5943B3223	18GA ORANGE WIRE	20"
8	5943B3223A	18GA GREY WIRE	14"
9	5943B3224	18GA YELLOW WIRE	79"
10	5943B3224A	18GA PURPLE WIRE	11"
11	5943B3226	18GA BLUE WIRE	26"
12	5943D3220	14GA BLACK WIRE	117"
13	8000-21	2 POLE FEMALE CONNECTOR	1
14	8000-22	2 POLE MALE CONNECTOR	1
15	8000-23	5 POLE FEMALE CONNECTOR	1
16	8000-24	5 POLE MALE CONNECTOR	2
17	8768B	RELAY DIN MOUNT BLOCK	1

TITLE

RELAY CONTROL ASSEMBLY

UNSPECIFIED TOLERANCES

1 PL ±.030

2 PL ±.010

3 PL ±.003

ANGLE ±1.0°

MATERIAL

SCALE

DRAWN BY
CHAD K.DATE
11/14/2005

CEDAR RAPIDS, IOWA



PART NO.

29025-19A

REV.

REV

NO.

DESCRIPTION

DATE

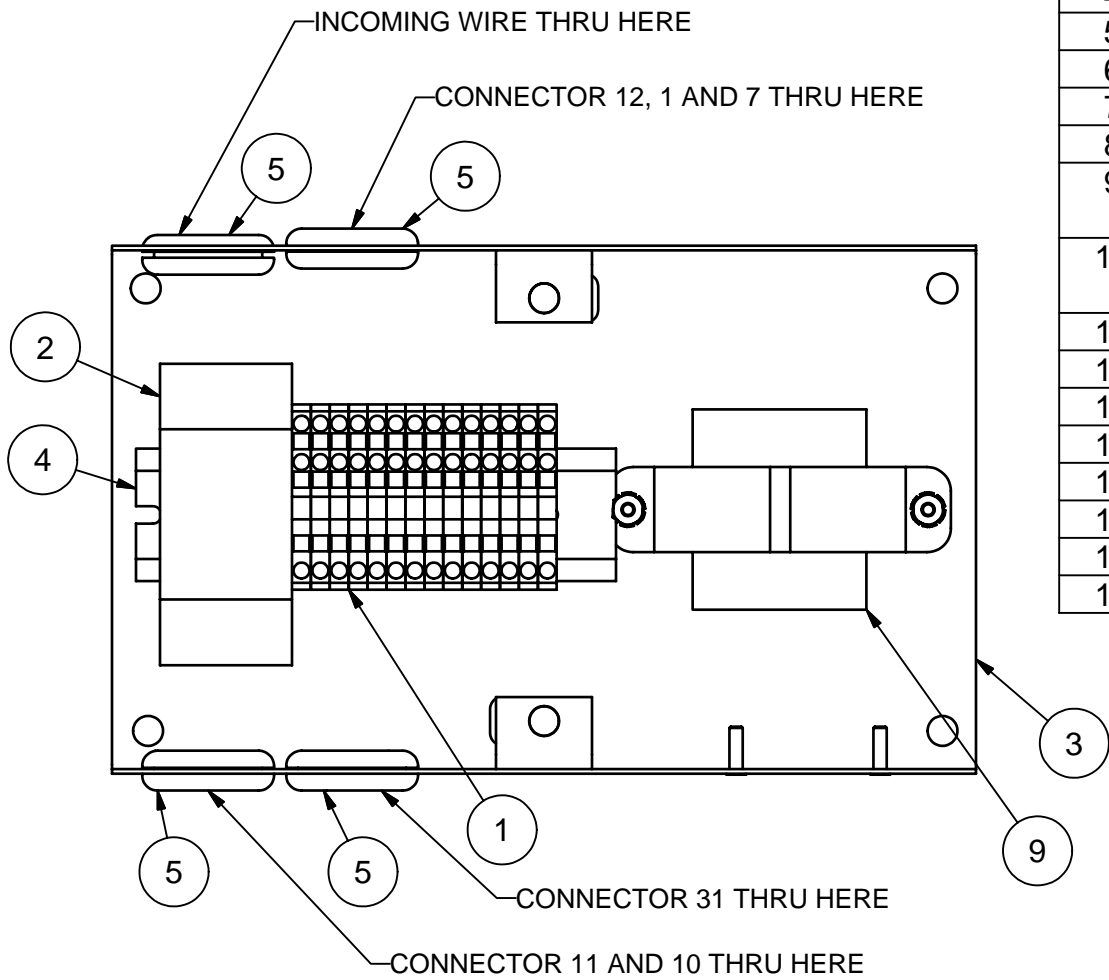
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PART NO. **29027-17A-220V**

BILL OF MATERIALS

ITEM	PART NUMB	DESCRIPTION	QTY
1	28000-80	3 CONDUCTOR TERMINAL BLOCK	14
2	29000-128-2P	BREAKER, 2 POLE 16 AMPS	1
3	29000-17W	MAIN CONTROL WELDMENT	1
4	29000-79	DIN RAIL CUT TO 5IN	1
5	5639D6	RUBBER GROMMET	4
6	5943B3222	18GA RED WIRE	20"
7	5943B3224	18GA YELLOW WIRE	70"
8	5943B3226	18GA BLUE WIRE	69"
9	8131-2	TRANSFORMER, 110/220-24 1.66A	1
10	8157	NUT, #6-32 KEPP NUT STAINLESS	4
11	5943E3220	12GA BLACK WIRE	55"
12	5943E3220	18GA BLACK WIRE	21"
13	5943D3220	14GA BLACK WIRE	54"
14	5943E3222	12GA RED WIRE	74"
15	5943E3225	12GA GREEN WIRE	35"
16	5943D3222	14GA RED WIRE	90"
17	8000-22	2 POLE MALE CONNECTOR	4
18	8000-24	5 POLE MALE CONNECTOR	2



TITLE MAIN CONTROL ASSEMBLY-220V 50HZ

UNSPECIFIED TOLERANCES	MATERIAL	 CEDAR RAPIDS, IOWA
1 PL ±.030	SCALE	
2 PL ±.010	DRAWN BY	CHAD K. DATE 6/14/2006
3 PL ±.003	DATE	
ANGLE ±1.0°		PART NO. 29027-17A-220V

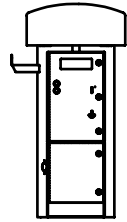
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PART NO. 29027-220v

BILL OF MATERIALS			
ITEM	PART NUMBE	DESCRIPTION	QTY
23	8000-23	5 POLE FEMALE CONNECTOR	2
24	8000-25	WAGO WALL NUT	2
25	8057	MOTOR GASKET	3
26	8076	FILTER BAG	4
27	8108	#10 x 1/2 TAP SCREW	6
28	8159	DOOR GASKET	2
29	8182	DISCONNECT POWER DECAL	3
30	8306	24" PLASTIC DOME	1
31	5901D4	ORANGE WIRE NUT	6
32	8055-220V	MOTOR, AMETEK 220V	3
33	8153-1	LATCH	4
34	8615-5W	CLEANOUT DOOR	2
35	8659-24	LOCK COLLAR -SS	2
36	8939	PALLET	1
37	8958-1	MEDECO SCREW LOCK	1
38	8958-2	MEDECO SCREW LOCK	2
39	B5996-005	5 AMP FUSE	3
40	B5997-001	FUSE HOLDER	3

BILL OF MATERIALS			
ITEM	PART NUMBE	DESCRIPTION	QTY
1	2036	2 x 15' HOSE	1
2	2058	CLAW AND CUFF	1
3	28000-36	MOTOR MOUNT	6
4	29000-14W	BOTTOM DOOR WELDMENT	1
5	29000-21	COVER-RELAY CONTROL	1
6	29000-47W	COIN BOX ENCLOSURE WELDMENT	1
7	29000-52W	COIN BOX WELDMENT	1
8	29002-22-220V	COVER, MAIN CONTROL	1
9	29025-19A	RELAY CONTROL ASSEMBLY	1
10	29025-1W	CANISTER WELD COMPLETE	1
11	29025Y-KIT	DECAL SET	1
12	29027-17A-220V	MAIN CONTROL ASSEMBLY-220V 50HZ	1
13	29027-7A-220V	TURBO DOOR ASSEMBLY	1
14	5601D1	1/4-20 x 1/2 HHCS-ZINC PLATED	10
15	5640D1	1/4-20 x 1/2 PHIL PAN HEAD SCREW	4
16	5644D1	CAGE NUT	3
17	5721D1	HEAT SHRINK	60"
18	5647D2	RIVET 1/8	16
19	5611D4	NUT, 5/16-18 UNC KEPP- SS	3
20	5603D5	1/4 Std NC Nylock Nut	8
21	5647D8	RIVET 3/16	14
22	5871B8	CAP PLUG	4



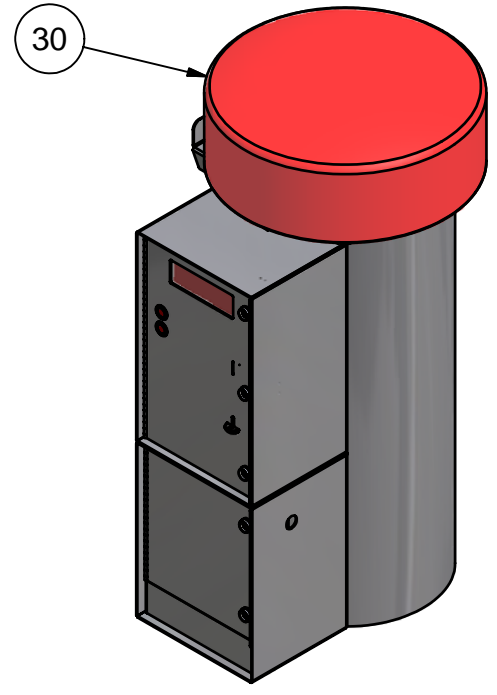
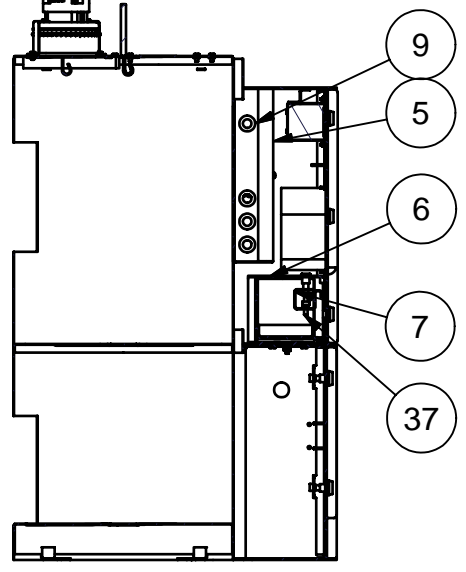
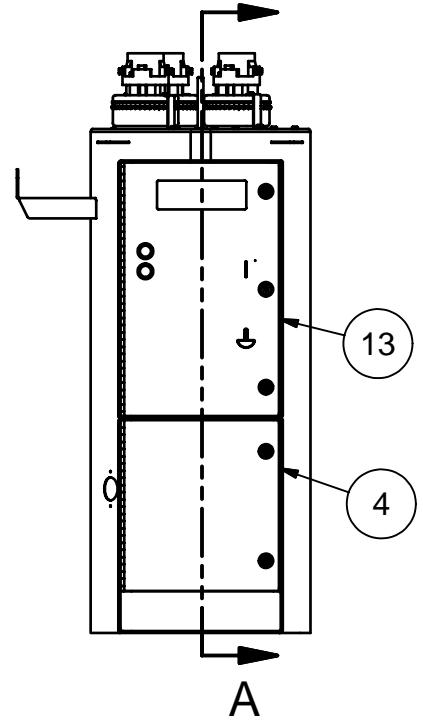
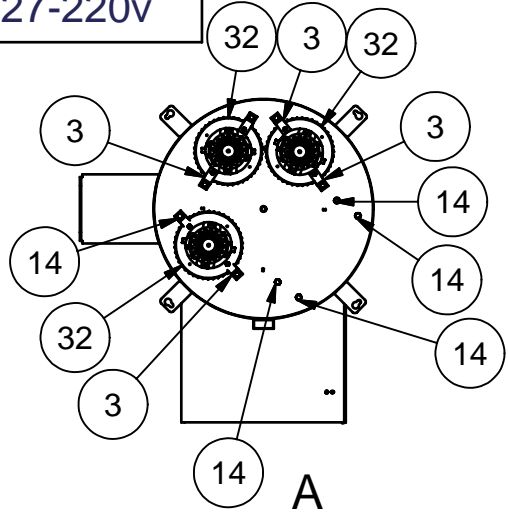
TITLE		TURBO VAC- 220V 50HZ		
UNSPECIFIED TOLERANCES	MATERIAL	CEDAR RAPIDS, IOWA		
1 PL ±.030	SCALE			
2 PL ±.010	DRAWN BY			CHAD K.
3 PL ±.003	DATE			6/14/2006
ANGLE ±1.0°	PART NO.	29027-220v	REV. A	


REV	NO.	DESCRIPTION	DATE	BY

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PART NO.

29027-220v



TITLE		TURBO VAC- 220V 50HZ	
UNSPECIFIED TOLERANCES	MATERIAL	 CEDAR RAPIDS, IOWA	
1 PL ±.030	SCALE		
2 PL ±.010	DRAWN BY CHAD K.		
3 PL ±.003	DATE 6/14/2006	PART NO. 29027-220v	REV. A
ANGLE ±1.0°			

REV	NO.	DESCRIPTION	DATE	BY
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DOOR
S29027-220V-2 OF 5

ⓕ FEMALE CONNECTOR
Ⓜ MALE CONNECTOR

DISPLAY

HOLE FOR
MACHINE WIRING

1 2 3 4 5 6 7 8 9 10 11 12

HORN

18GA BLUE [16J]

18GA YELLOW [16J]

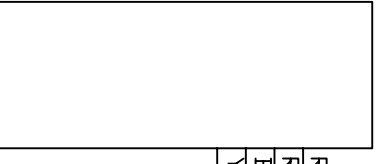
18GA RED [17J]
18GA RED [17J]

PUSH BUTTON

26GA RED [16J]
26GA RED [16J]

COIN MECH

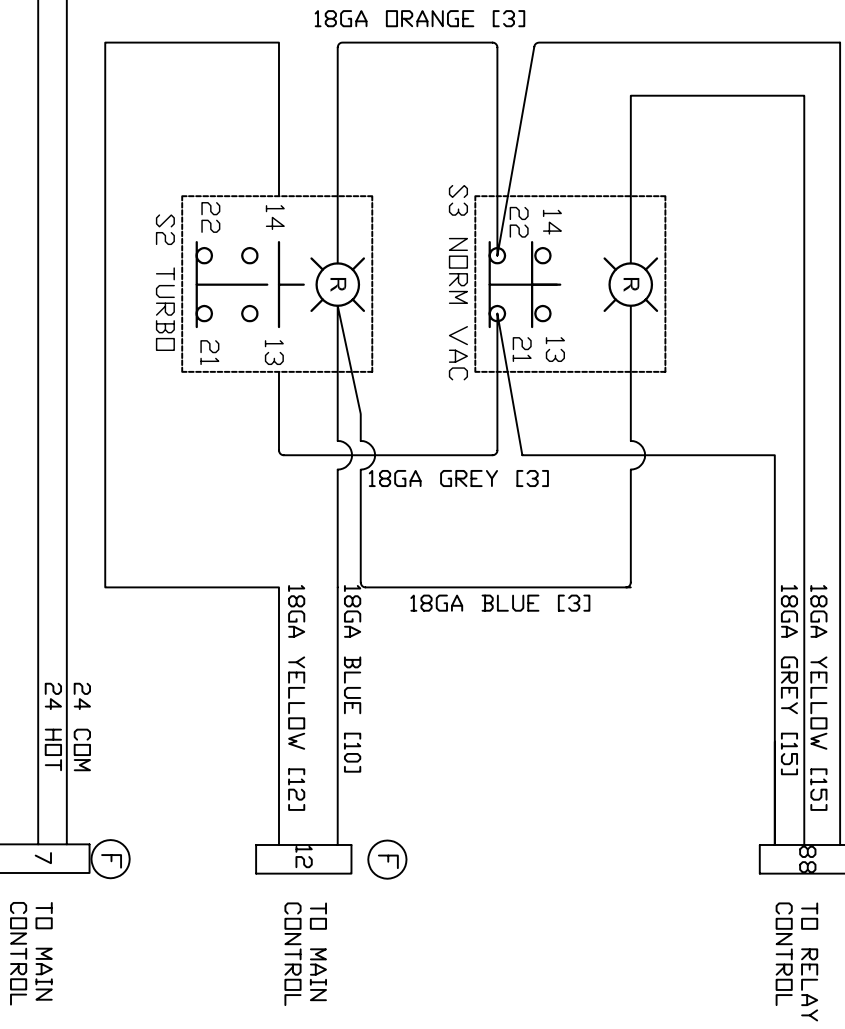
RED/GREEN
RED/GREEN
BLACK
YELLOW



ⓕ 18 GA YELLOW [30J]
ⓕ 18 GA PURPLE [30J]
ⓕ 18 GA YELLOW (24 HOT) [28J]
ⓕ 18 GA BLUE (24 CDM) [28J]

ⓕ 18 GA DRANGE [15J]
ⓕ 18 GA YELLOW [15J]
ⓕ 18 GA GREY [15J]

ⓕ 18GA BLUE [3]
ⓕ 18GA GREY [3]



ⓕ 24 CDM
ⓕ 24 HOT
ⓕ TO MAIN CONTROL

ⓕ TO MAIN CONTROL

ⓕ TO RELAY CONTROL

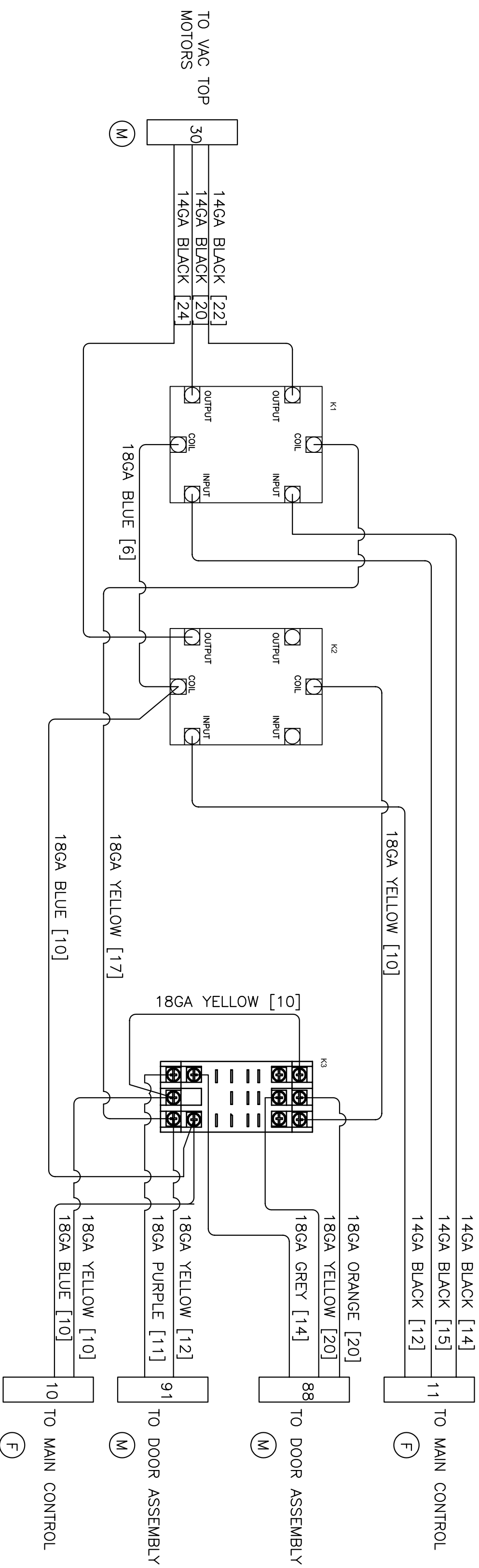
ⓕ TO MAIN CONTROL

ⓕ TO RELAY CONTROL

RELAY CONTROL
S29027-220V-3 OF 5

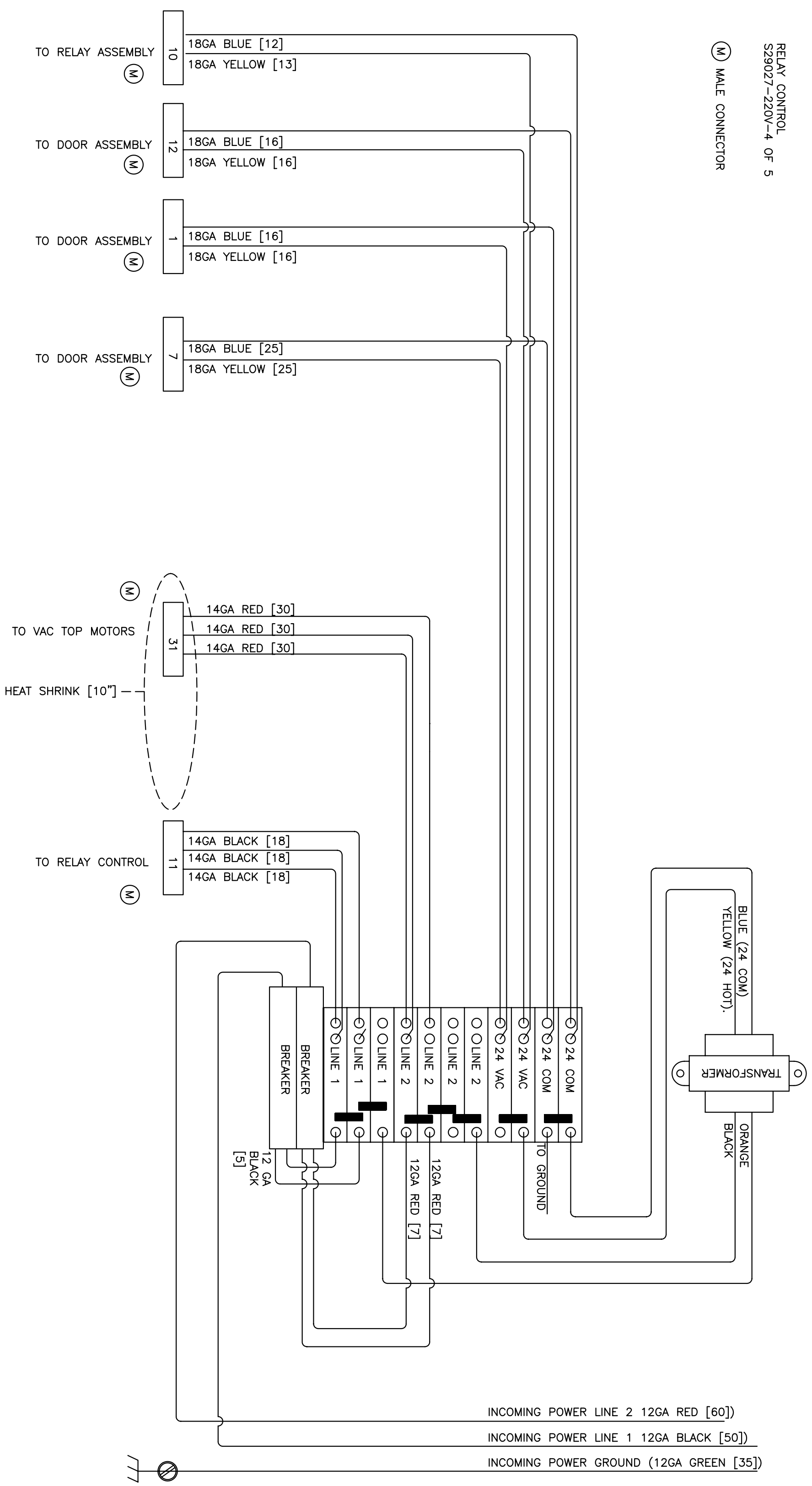
(F) FEMALE CONNECTOR

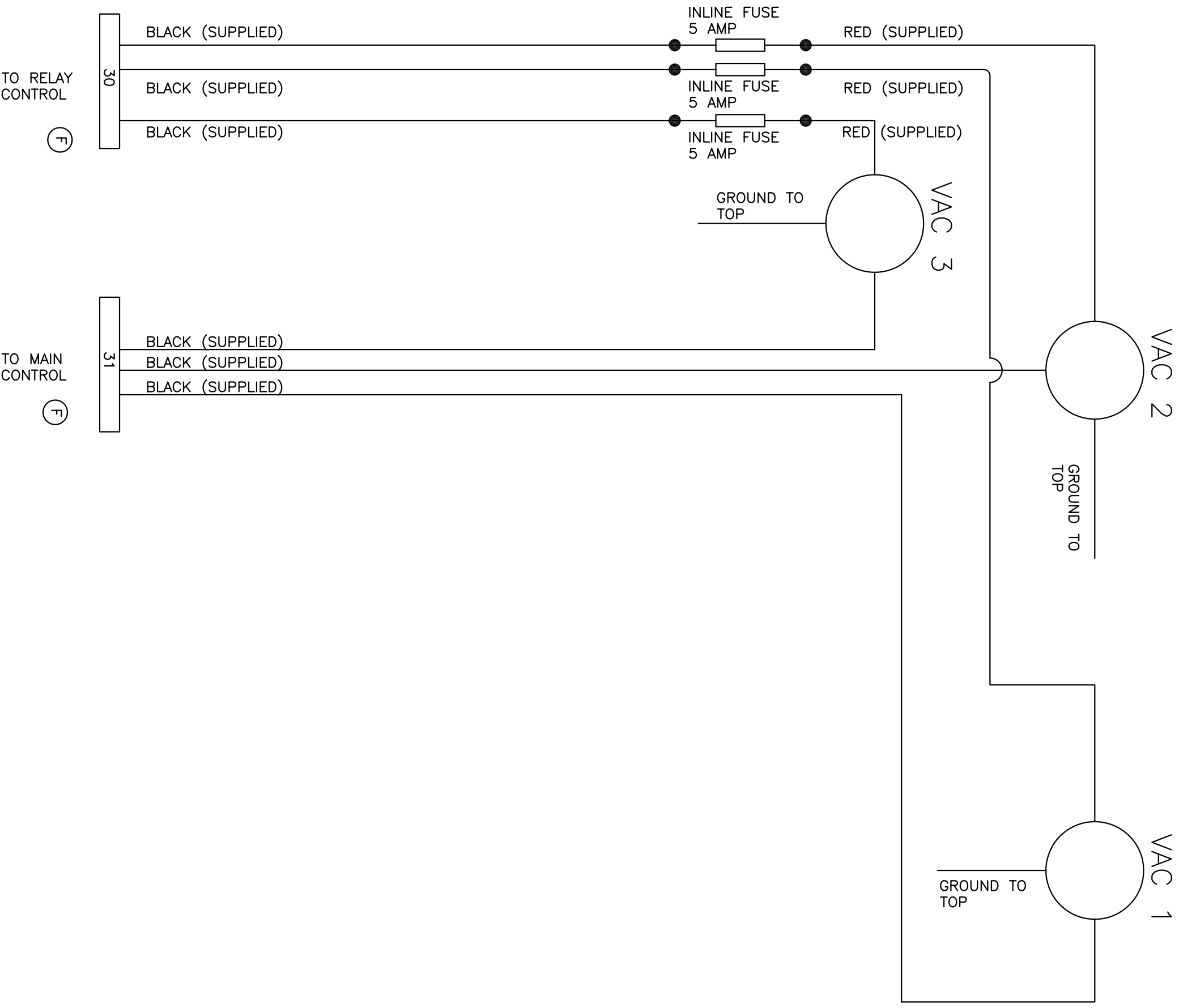
(M) MALE CONNECTOR



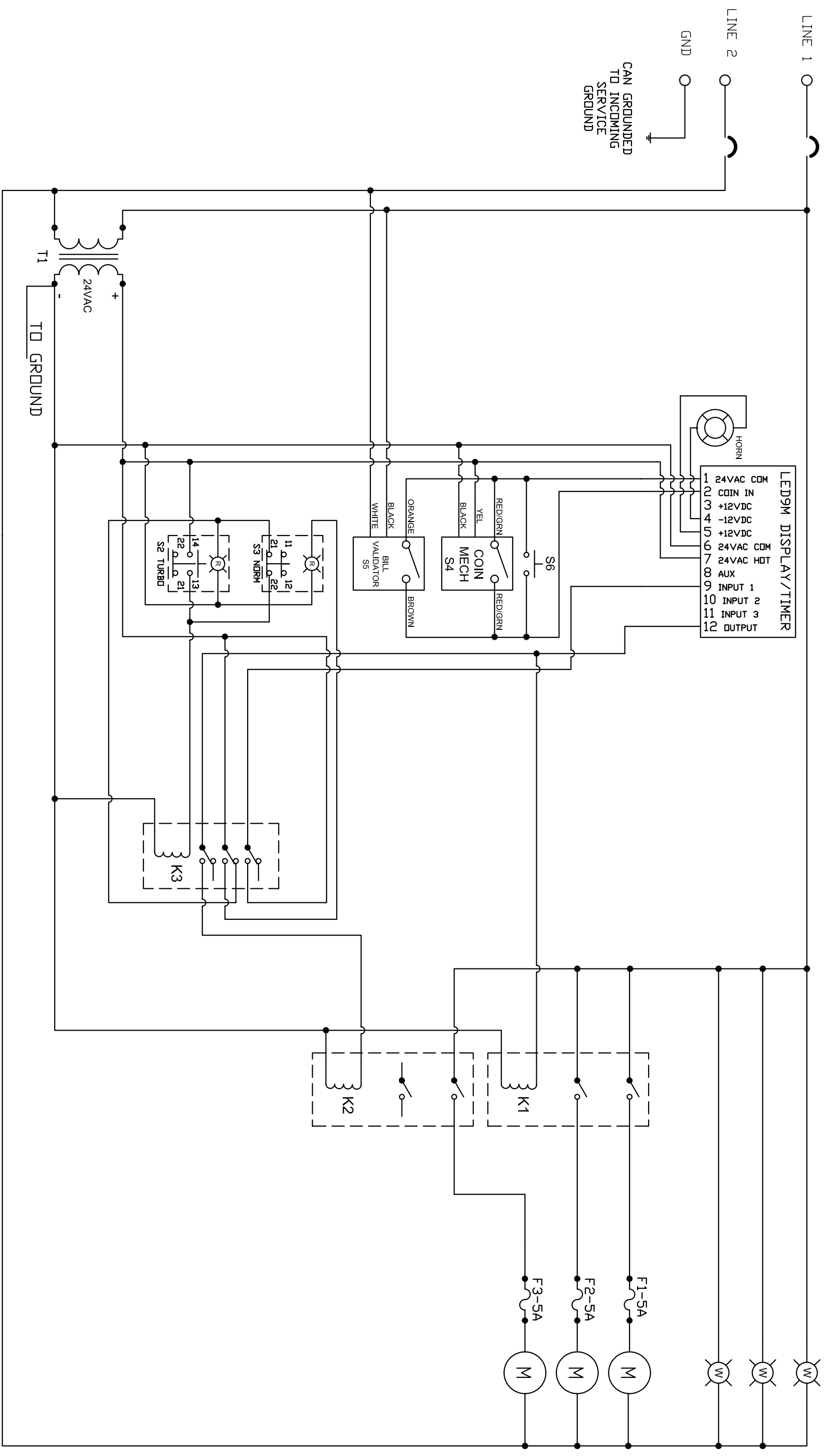
RELAY CONTROL
S29027-220V-4 OF 5

(M) MALE CONNECTOR





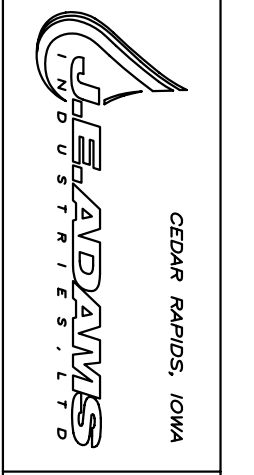
- VAC TOP
- S29027-220V-5 OF 5
- (F) MALE CONNECTOR
- WIRE NUT



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PART NO. S29027-220V-ELEC



UNSPECIFIED TOLERANCES
 FRACT. ±1/32
 2 PL ±.020
 3 PL ±.010
 ANGLE ±1.0°

TITLE				
29027-220V ELECTRICAL SCHEMATIC				
DRAWN BY	CK	DATE	6-06	SCALE
				NONE
				REL. FOR PROD.
				REV. LEVEL