

## **AIR SHAMMEE 240 VOLT**

**TOUCHLESS SPOTFREE  
DRYING SYSTEM**

**OWNERS MANUAL  
AND  
MAINTENANCE GUIDE**

(FOR MODEL ASHRND SERIES II DRYER UNIT)

DISKIN SYSTEMS INC.  
8400 MASON DR.  
NEWAYGO MI 49337  
231-652-5612

**SAFETY FIRST: ALWAYS OBSERVE ALL SAFETY GUIDELINES PROVIDED BY MANUFACTURER WHEN INSTALLING OR SERVICING VACUUM OR AIR SHAMMEE UNIT.**

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## ***Installation Manual***

**WARNING: READ ENTIRE INSTALLATION MANUAL BEFORE ATTEMPTING TO INSTALL UNIT. FAILURE TO READ AND UNDERSTAND INSTALLATION PROCESS CAN LEAD TO DAMAGE TO AIR SHAMMEE UNIT, VACUUM UNIT AND/OR SERIOUS INJURY.**

### **PRIOR TO INSTALLATION:**

BEFORE ATTEMPTING AIR SHAMMEE INSTALLATION PLEASE CHECK THE FOLLOWING REQUIREMENTS:

#### **ELECTRICAL REQUIREMENTS**

1. 30 AMP 240V SINGLE PHASE SERVICE TO VACUUM UNIT.
2. 30 AMP CIRCUIT BREAKER AT ELECTRICAL DISTRIBUTION BOX.
3. DROP LINE RATED TO CARRY 30 AMP 240V SERVICE.

#### **POSITIONING REQUIREMENTS**

1. THE AIR SHAMMEE DRYER UNIT IS DESIGNED TO ALLOW FOR THE MOTOR ASSEMBLY TO BE REMOVED TO ALLOW ACCESS AND MAINTENANCE OF THE VACUUM MOTORS AND ASSOCIATED COMPONENTS. IN ORDER FOR THE UNIT TO BE SERVICED AT LEAST 20" OF CLEARANCE MUST BE AVAILABLE ABOVE THE VACUUM UNIT.
2. THE AIR SHAMMEE HAS TWO HOSE HANGING BRACKETS ATTACHED TO EITHER SIDE OF THE UNIT. MAKE SURE AT LEAST 16" OF CLEARANCE EXISTS TO EITHER SIDE OF VACUUM UNIT. IF THIS IS NOT THE CASE, THEN ADJUST THE POSITION OF THE AIR SHAMMEE ON TOP OF THE VACUUM TO ALLOW SPACE FOR THE BRACKETS. ANOTHER OPTION IS TO ELIMINATE ONE OF THE BRACKETS AND USE THE EXISTING VAC BRACKET FOR THE VAC HOSE.

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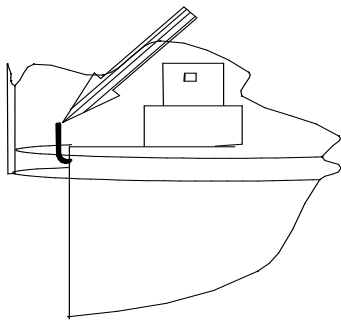
## **AIR SHAMMEE DRYER SYSTEM INSTALLATION**

### **MOUNTING OF THE DRYER UNIT:**

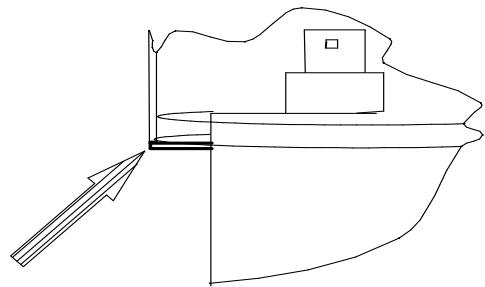
1. DISCONNECT ALL ELECTRICAL SEVICE TO THE VACUUM UNIT AND CHECK TO ENSURE CURCUIT BREAKER IS IN THE OFF POSITION.
2. REMOVE LIGHT COVER FROM TOP OF VACUUM UNIT.
3. THE EXISTING LIGHT COVER BRACKETS MAY NOT CLEAR THE AIR SHAMMEE OUTER HOUSING. LIGHT COVER BRACKETS CAN ONLY EXTEND APPROXIMATELY 10 3/4" FROM THE CENTER OF THE VACUUM UNIT, IN ORDER TO CLEAR THE OUTER HOUSING OF THE UNIT.

IF NECESSARY, USE PLIERS OR A HAMMER AND GENTLY BEND THE LIGHT COVER BRACKETS UP UNTIL THEY CLEAR THE OUTER HOUSING. A SMALL INDENTATION MAY FORM WHERE THE BRACKET IS WELDED TO THE VACUUM HOUSING. IF THIS IS UNACCEPTABLE THEN THE LIGHT COVER TABS MUST BE CUT DOWN USING A HACK SAW OR POWER SAW UNTIL THE AIR SHAMMEE OUTER HOUSING CLEARS EACH TAB. (SEE DIAGRAM BELOW)

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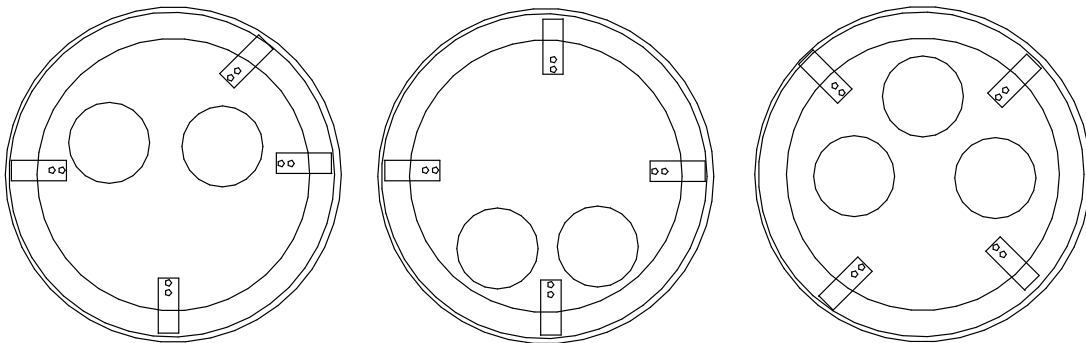


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**SAFETY FIRST:** ALWAYS OBSERVE ALL SAFETY GUIDELINES PROVIDED BY MANUFACTURER WHEN INSTALLING OR SERVICING VACUUM OR AIR SHAMMEE UNIT.

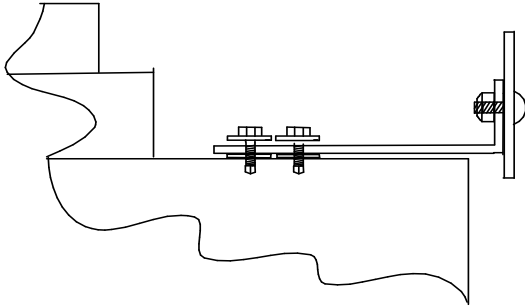
4. **(LIGHTED VACUUM UNITS ONLY)** THE EXISTING LIGHT FIXTURES AND ASSOCIATED WIRING MUST BE REMOVED PRIOR TO AIR SHAMMEE ELECTRICAL INSTALLATION. REMOVE THE LIGHT RECEPTACLE FROM THEIR MOUNT AND REMOVE THE LIGHT POWER WIRES FROM THE TOP OF THE VACUUM, THE WIRING CHANNEL, AND THE VACUUM POWER BUS (ALSO CALLED A TERMINAL STRIP) USUALLY LOCATED IN THE COIN BOX. A GROUND WIRE (GREEN) IS SOMETIMES CONNECTED TO THE LIGHT AND CAN BE DISCONNECTED ALSO. IF ANY QUESTIONS ARISE ALWAYS CONSULT THE VACUUM OWNERS MANUAL.
  
5. REMOVE THE MOTOR ASSEMBLY FROM THE AIR SHAMMEE UNIT. THIS IS ACCOMPLISHED BY REMOVING THE FOUR WING NUTS FOUND ON THE TOP OF THE MOTOR PLATE LOCATED WITHIN THE UNIT HOUSING. LIFT THE ENTIRE MOTOR ASSEMBLY UP AND OUT OF THE UNIT.
  
6. BOLT ON THE HOSE HANGING BRACKETS IN THE FOUR BOLT PATTERNS FOUND ON EITHER SIDE OF THE OUTER HOUSING. REMEMBER THAT YOU MIGHT HAVE TO ELIMINATE ONE OF THE BRACKETS DUE TO POSITIONING REQUIREMENTS. (SEE POSITIONING REQUIREMENTS PAGE 2)
  
7. POSITION AND INSTALL AT LEAST **FOUR** UNIT MOUNTING BRACKETS MAKING SURE EACH BRACKET CLEARS ALL MOTORS OR COMPONENTS ON THE TOP OF THE VACUUM UNIT. 10 MOUNTING HOLES ARE PROVIDED AROUND THE INSIDE BOTTOM OF THE OUTER HOUSING ALLOWING FOR UNIVERSAL MOTOR CONFIGURATIONS. (SEE FIGURE BELOW)



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8. AFTER MOUNTING THE HOSE AND UNIT MOUNTING BRACKETS TO THE OUTER HOUSING, CENTER ON TOP OF VACUUM AND MARK PILOT HOLES FOR THE SELF-TAPPING STAINLESS STEEL SCREWS FOUND IN THE HARDWARE PACKET. SIGHT THE INTERIOR OF THE HOUSING AND CHECK FOR OBSTRUCTIONS ON THE INSIDE OF THE VACUUM UNIT. IF NO OBSTRUCTIONS ARE PRESENT, MARK THE HOLE POSITIONS AND REMOVE THE HOUSING. DRILL THE PILOT HOLES WITH A 1/8" DRILL BIT. PLACE THE HOUSING BACK ON THE VACUUM. USE SILICONE SEALANT TO SEAL THE PILOT HOLES, THEN SECURE THE OUTER HOUSING WITH THE SELF-TAPPING SCREWS.

**NOTE:** STAINLESS STEEL IS A VERY HARD METAL, THE TRICK TO DRILLING THROUGH IT IS TO IS **SLOW SPEED ON THE DRILL** AND EVEN PRESSURE. HIGH SPEED WILL BURN OUT THE BIT VERY QUICKLY. ALSO **DO NOT OVER TORQUE THE SELF-TAPPING SCREWS!**



9. THE AIR SHAMMEE OUTER HOUSING SHOULD NOW BE SECURE TO THE TOP OF VACUUM. THE NEXT STEP IS TO WIRE THE UNIT TO THE VACUUM SYSTEM. THIS PROCESS IS COVERED IN THE NEXT SECTION. THE WIRING REQUIRES SOME WORK ON THE UNIT WITHOUT THE MOTOR PLATE INSTALLED, **DO NOT INSTALL THE MOTOR ASSEMBLY AT THIS TIME!**

**WARNING:** NEVER ATTEMPT INSTALLATION OR MAINTENANCE OF AIR SHAMMEE/VACUUM UNIT WITHOUT DICONNECTING ELECTRICAL SERVICE. FAILURE TO DISCONNECT ELECTRICAL SERVICE CAN RESULT IN PROPERTY DAMAGE, SERIOUS INJURY OR DEATH BY ELECTROCUTION.

**SAFETY FIRST:** ALWAYS OBSERVE ALL SAFETY GUIDELINES PROVIDED BY MANUFACTURER WHEN INSTALLING OR SERVICING VACUUM OR AIR SHAMMEE UNIT.

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**AIR SHAMMEE UNIT ELECTRICAL INSTALLATION**

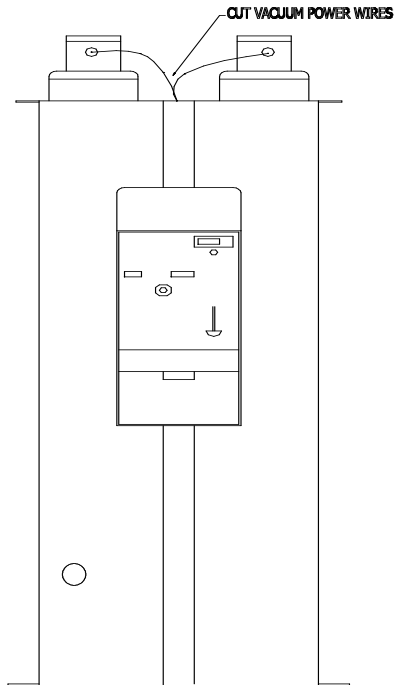
**IMPORTANT: ALWAYS OBSERVE ALL NATIONAL AND LOCAL ELECTRICAL CODES WHEN INSTALLING THIS UNIT.**

1. DISCONNECT ALL ELECTRICAL SERVICE TO THE VACUUM UNIT AND CHECK TO ENSURE CURCUIT BREAKER IS IN THE OFF POSITION.
2. LOCATE VACUUM INPUT POWER WIRES. THESE ARE TWO WIRES THAT RUN FROM THE VACUUM TIMER/RELAY AND SUPPLY POWER TO THE VACUUM MOTORS. (USUALLY BROWN AND BLUE)
3. CUT BOTH VACUUM INPUT POWER WIRES NEAR THE CENTER OF THE DISTANCE BETWEEN THE VACUUM MOTORS AND THE POINT WHERE THE WIRES EXIT THE VACUUM HOUSING OR WIRE CHANNEL. BE SURE TO LEAVE AT LEAST 4" OF WIRE ON EITHER SIDE. THE VACUUM INPUT POWER WIRES ARE USUALLY CONNECTED TO AN INLINE FUSE TO PROTECT THE MOTORS. DO NOT CUT THE FUSE OUT! CUT THE WIRE AHEAD OF THE FUSE. (SEE FIGURE ON NEXT PAGE)
4. SET MOTOR ASSEMBLY ON TOP OF UNIT AND SUPPORT WITH WOOD OR OTHER MEANS SO MOTOR ASSEMBLY RESTS ON CANISTER TOP WHILE STILL ALLOWING ACCESS TO VACUUM WIRES. **DO NOT LET MOTOR PLATE FALL.**

**WARNING: NEVER ATTEMPT INSTALLATION OR MAINTENANCE OF AIR SHAMMEE/VACUUM UNIT WITHOUT DICONNECTING ELECTRICAL SERVICE. FAILURE TO DISCONNECT ELECTRICAL SERVICE CAN RESULT IN PROPERTY DAMAGE, SERIOUS INJURY OR DEATH BY ELECTROCUTION.**

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**WARNING:** NEVER ATTEMPT INSTALLATION OR MAINTENANCE OF AIR SHAMMEE/VACUUM UNIT WITHOUT DICONNECTING ELECTRICAL SERVICE. FAILURE TO DISCONNECT ELECTRICAL SERVICE CAN RESULT IN PROPERTY DAMAGE, SERIOUS INJURY OR DEATH BY ELECTROCUTION.



4. CONNECT THE TWO WIRES FROM THE VACUUM MOTORS (THE CUT WIRES) TO THE TWO HARNESS WIRES LABELED **TO VAC MOTORS**. (BROWN TO BROWN AND BLUE TO BLUE). THE ACTUAL WIRE COLORS MAY VARY DEPENDING ON MANUFACTURER. IF SO CONSULT THE VACUUM UNIT OWNERS MANUAL.

5. CONNECT THE REMAINING TWO WIRES RUNNING FROM THE VACUUM CANISTER OR WIRE CHANNEL (THESE WIRES RUN FROM THE VACUUM TIMER/RELAY LOCATED IN THE COIN BOX) TO THE TWO HARNESS WIRES LABELED **TO VAC TIMER OUTPUT**. AGAIN BLUE TO BLUE AND BROWN TO BROWN .

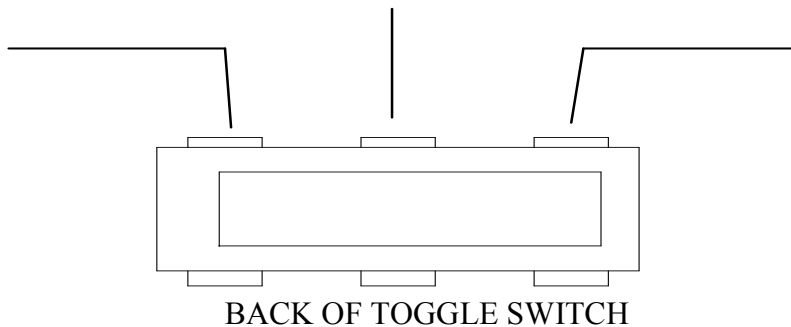
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**NOTE:** OPEN THE COIN BOX AND REMOVE THE FACE PLATE. ALWAYS MARK OR LABEL ANY DISCONNECTED WIRES IN ORDER TO REMEMBER WHERE THEY CONNECT.

6. DRILL A 3/8" HOLE IN THE CENTER OF THE FACE PLATE TO MOUNT THE VAC/DRYER TOGGLE SWITCH. THE FACE PLATE IS MADE OF THICK STAINLESS STEEL AND REQUIRES A HIGH STRENGTH DRILL BIT (COBALT BIT IS RECOMMENDED) IN ORDER TO DRILL THE HOLE. A GOOD METHOD IS TO DRILL A PILOT HOLE USING A SMALLER BIT, THEN DRILL THE HOLE BIGGER USING THE 3/8" BIT. ALSO BE SURE THERE IS PROPER CLEARANCE BETWEEN THE FACE PLATE AND ANY COMPONENTS LOCATED BEHIND THE FACE PLATE. ADJUST THE SWITCH POSITION AS NECESSARY. **REMEMBER: DRILL SLOWLY TO PREVENT BURN OUT OF THE BIT!**

7. RUN THE THREE SMALL SIGNAL WIRES LABELED TO TOGGLE SWITCH (GREEN, RED, AND BLUE 22 GA), DOWN TO THE COIN BOX AND CONNECT TO THE TOGGLE SWITCH USING THE DIAGRAM SHOWN BELOW:

VAC RELAY(GREEN) SIGNAL OUT(RED) DRYER RELAY(BLUE)



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10. RUN A BROWN 12 GA AND A BLUE 12 GA WIRE FROM THE VACUUM POWER BUS (ALSO CALLED A TERMINAL SWITCH) TO THE TWO HARNESS WIRES LABELED **TO MAIN POWER** (BROWN AND BLUE) AND CONNECT.

11. THE ONLY WIRE THAT HAS NOT BEEN CONNECTED SHOULD BE THE GREEN GROUND WIRE IN THE HARNESS. CONNECT THIS WIRE TO A POINT WHERE AN EXISTING GROUND WIRE IS CONNECTED SUCH AS IN THE COIN BOX OR SPLICE DIRECTLY INTO THE GROUND WIRE THAT RUNS TO THE VACUUM UNIT FROM THE DISTRIBUTION BOX.

12. THE AIR SHAMMEE UNIT IS NOW WIRED FOR SERVICE. TEST UNIT BY TURNING ON MAIN CIRCUIT BREAKER TO THE UNIT, AND INSERT COINS TO START UNIT. SLOWLY CYCLE THE TOGGLE SWITCH FROM VAC POSITION TO DRYER POSITION TO CHECK FOR PROPER OPERATION. IF THE SWITCH OPERATES BACKWARDS SIMPLY TURN THE TOGGLE SWITCH UPSIDE DOWN IN THE FACE PLATE.

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## **GENERAL MAINTENANCE OF UNIT**

### **REPLACING A BLOWN FUSE:**

IF A FUSE BURNS OUT A MOTOR WILL CEASE TO OPERATE. LOCATED ALONG THE WIRING OF EACH MOTOR ARE SEALED FUSE HOLDERS. FIND THE FUSE HOLDER ATTACHED TO THE BLACK OUTPUT WIRE FROM THE NON-WORKING MOTOR AND TWIST OPEN THE FUSE HOLDER. REPLACE THE FUSE WITH THE FOLLOWING:

5.7 MOTOR:                    11.8 AMP      ABC TYPE 1.25" TUBE FUSE

### **REPLACING A MOTOR:**

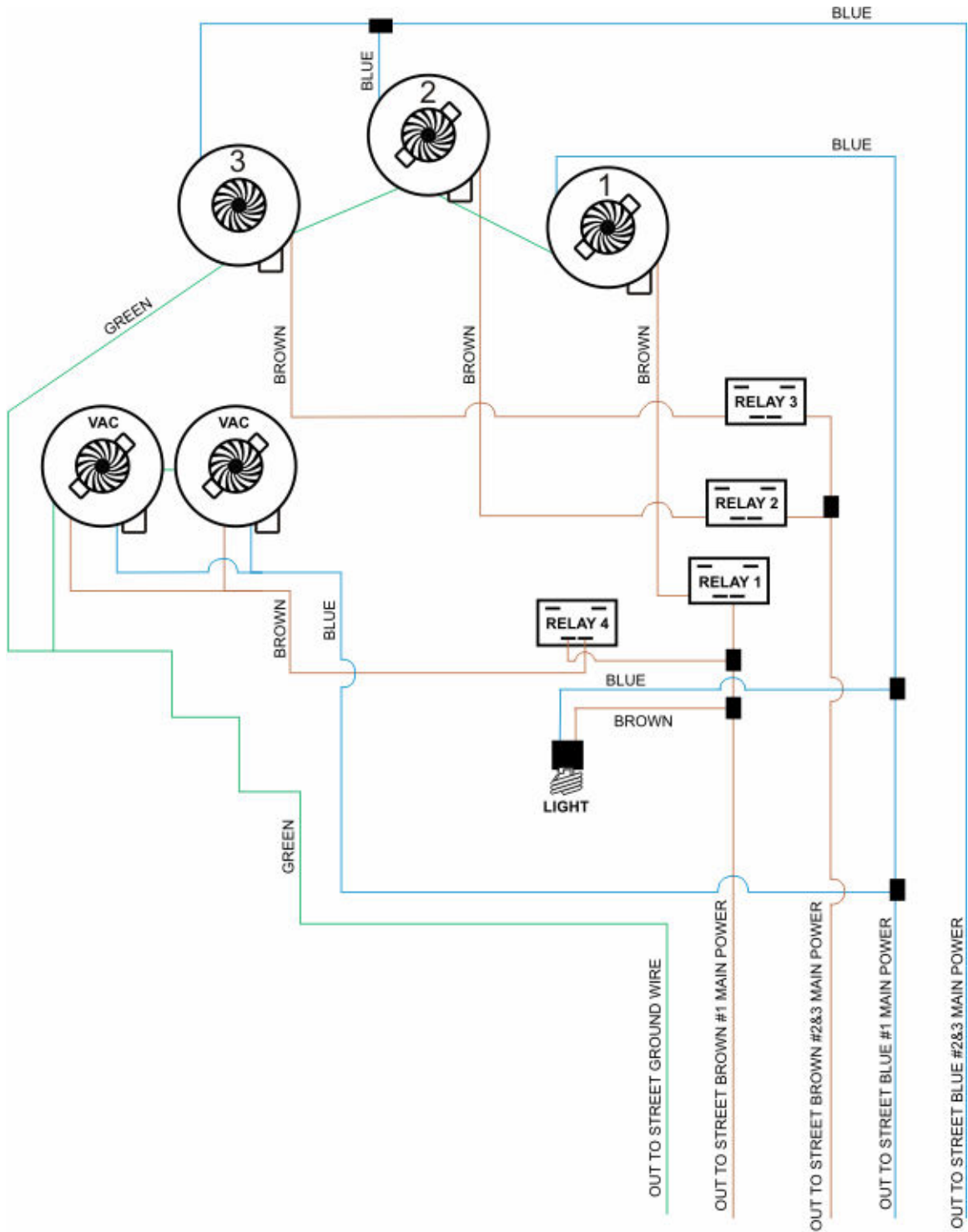
IF A MOTOR STOPS WORKING AND IT IS NOT THE FUSE, SOMETIMES THE MOTOR BRUSHES HAVE WORN DOWN AND NEED TO BE REPLACED. A REPLACEMENT KIT CAN BE ORDERED BY CALLING (231)-652-5555.

IF THE MOTOR IS DAMAGED AND NEEDS TO BE REPLACED, SIMPLY DISCONNECT THE MOTOR WIRES FROM THE HARNESS (LEAVE THE FUSE HOLDERS IN PLACE) AND UNBOLT THE MOTOR FROM THE MOUNTING BOLTS. ALSO LOOSEN THE STAINLESS STEEL BAND CLAMP FROM THE EXHAUST MANIFOLD AND REMOVE THE MOTOR. REPLACE THE MOTOR BY FIRST SLIPPING THE MOTOR OUTLET INTO THE EXHAUST MANIFOLD THEN PLACE THE MOTOR DOWN ON THE MOUNTING BOLTS. TIGHTEN ALL NUTS AND TIGHTEN CLAMP. RECONNECT THE MOTOR WIRING TO THE HARNESS.

**ANY REPLACEMENT PARTS CAN BE ORDERED DIRECTLY THROUGH:**

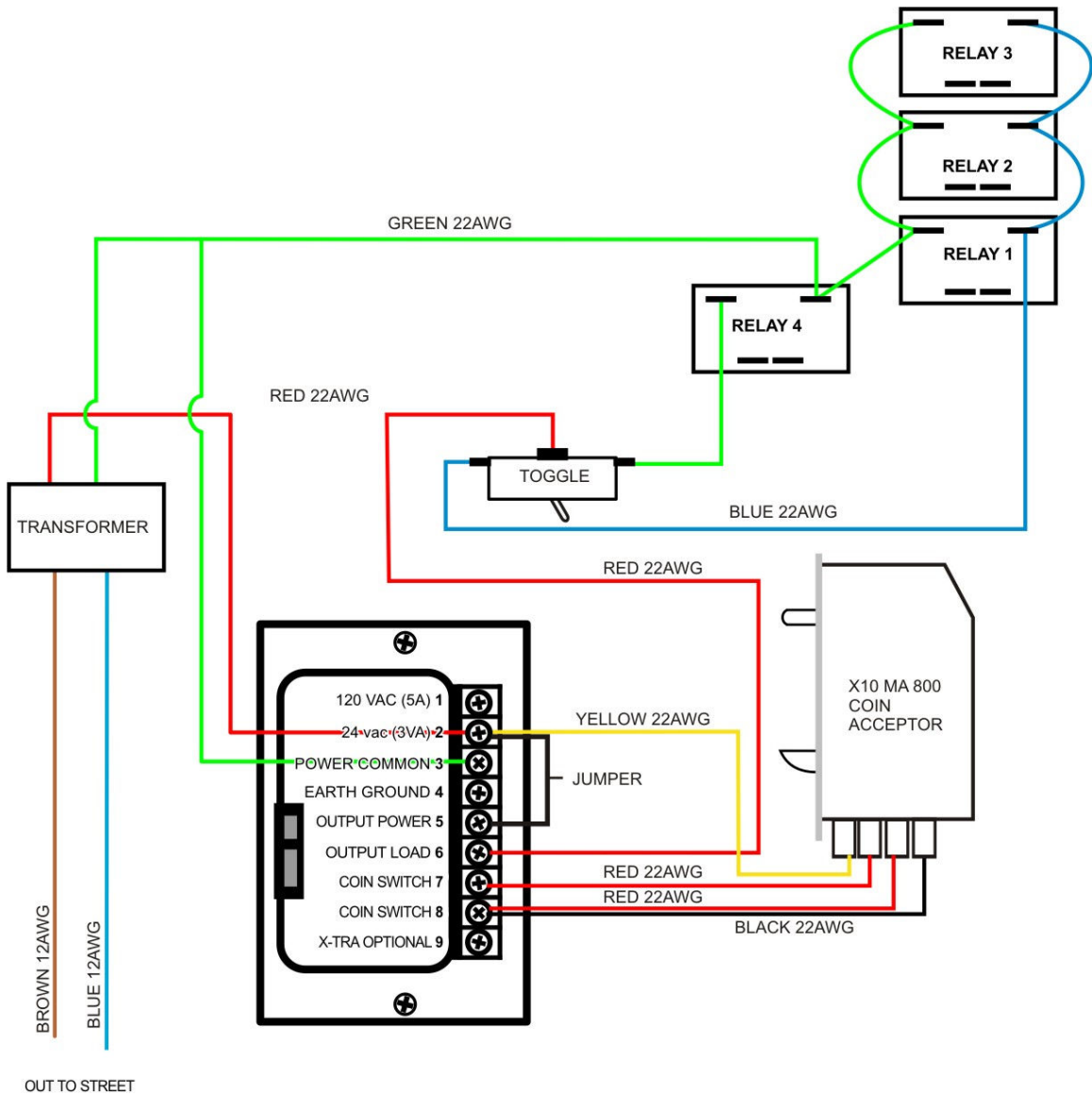
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## VAC ADAPT 240 VOLT WIRING SCHEMATIC

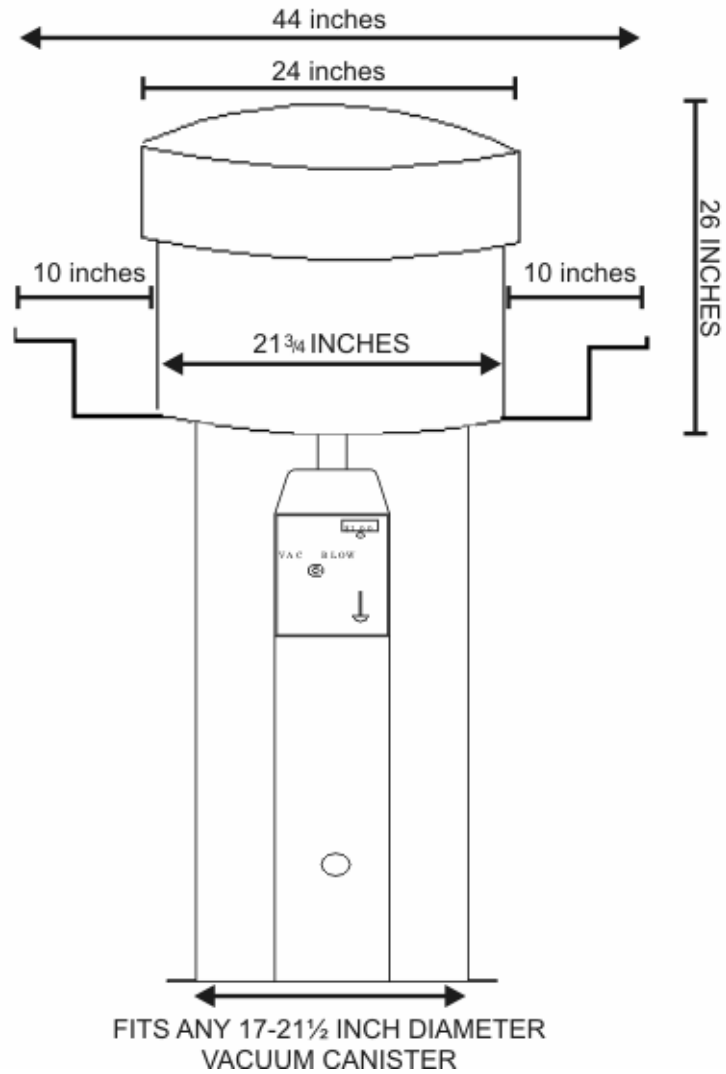


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## VAC ADAPT LOW VOLTAGE 24 VOLT WIRING SCHEMATIC



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