



ANIMATED
ELECTRONICS INC.

lucky eggs

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SERVICE MANUAL

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INTRODUCTION

THE LUCKY EGG MACHINE IS A UNIQUE ELECTRONIC VENDING MACHINE THAT IS PACKAGED IN A DISTINCTIVELY STYLED UPRIGHT CABINET THAT RESTS DIRECTLY ON THE FLOOR.

THE PURCHASER, AFTER INSERTING A QUARTER, RECEIVES A PLASTIC EGG WITH A SURPRISE TOY INSIDE. IN THE PROCESS OF VENDING THIS EGG, THE PURCHASER IS TREATED TO A BRIEF, BUT, HUMOROUS SHOW OF A CHEERFULL CHICKEN CLUCKING AND SQUAWKING AND TURNING AND APPARENTLY LAYING THE EGG.

IT IS THIS SPECIAL SHOW, IN ADDITION TO THE SURPRISE TOY, THAT HAS MADE BULK MANUFACTURING'S LUCKY EGG MACHINE A NATIONAL SUCCESS.

UNPACKING AND INSPECTION

BEFORE SHIPPING FROM THE FACTORY, EACH LUCKY EGG MACHINE IS CAREFULLY CHECKED FOR PROPER OPERATION. HOWEVER, DURING SHIPPING SOME CONNECTORS MAY SHAKE LOOSE OR SHIPPING DAMAGE DUE TO ROUGH HANDLING MAY OCCUR. UPON REMOVAL OF THE MACHINE FROM THE SHIPPING CONTAINER, EXAMINE THE EXTERIOR OF THE CABINET FOR OBVIOUS DAMAGE, SUCH AS BROKEN WINDOWS OR CRACKED CABINETRY, THEN OPEN BOTH THE UPPER AND LOWER DOORS AND EXAMINE THE CABINET INTERIORS. ANY DAMAGE SHOULD BE IMMEDIATELY REPORTED TO THE SHIPPING CARRIER.

AFTER DETERMINING THAT THE LUCKY EGG MACHINE HAS BEEN RECEIVED IN GOOD CONDITION, CAREFULLY INSPECT AND VERIFY THAT:

- a) ALL PLUG IN CONNECTORS ARE FIRMLY SEATED.
- b) THE FUSE IS SEATED IN ITS HOLDER.
- c) NO HARNESS WIRES HAVE BECOME DISCONNECTED OR PULLED LOOSE.
- d) NO FOREIGN OBJECTS ARE PRESENT, ESPECIALLY METAL OBJECTS THAT COULD CAUSE ELECTRICAL PROBLEMS.

DO NOT PROCEED TO THE REMAINING PARAGRAPHS UNTIL THE ABOVE MECHANICAL INSPECTION HAS BEEN COMPLETED.

INSTALLATION REQUIREMENTS

BULK MANUFACTURING SHIPS THE LUCKY EGG MACHINE SET FOR DOMESTIC OPERATION ON 115 VOLTS AC 60 HZ.

LOCATION AND STORAGE TEMPERATURES SHOULD NOT BE BELOW 45°F AND ABOVE 120°F AND RELATIVE HUMIDITY NO MORE THAN 95% (WITHOUT CONDENSATION) FOR PROPER OPERATION.

THE LUCKY EGG MACHINE REQUIRES A MINIMUM OF 57" VERTICAL CLEARANCE, 24" WIDTH CLEARANCE AND 24" DEPTH CLEARANCE, OR 4 SQUARE FEET OF FLOOR SPACE.

SO THAT YOU CAN TAYLOR THE LUCKY EGG MACHINE INTERIAL LIGHTING TO THE AMBIENT LOCATION LIGHTING, AND ALSO; TO CONSERVE ENERGY, AN ON-OFF SWITCH HAS BEEN ADDED TO THE FLORESCENT LAMP.

NO OTHER EXTERNAL SWITCH IS PROVIDED, SINCE THERE IS NO ENERGY CONSUMED BY THE MACHINE WHEN IT IS NOT ACTUALLY IN A VENDING CYCLE.(EXCEPT FOR THE LOW POWER LAMP.)

MAINTENANCE AND ADJUSTMENTS

DUE TO IT'S SOLID STATE CIRCUITRY AND DIRECT DRIVE MOTOR, THE LUCKY EGG MACHINE REQUIRES VERY LITTLE MAINTENANCE AND ONLY OCCASIONAL ADJUSTMENT. INFORMATION IN THIS SECTION IS INTENDED TO COVER MOST SERVICING SITUATIONS ENCOUNTERED ON LOCATION:

a) CLEANING: THE EXTERIOR OF THE LUCKY EGG MACHINE CABINET AND PLEXI-GLASS PANELS MAY BE CLEANED WITH ANY NORMAL UNABRASIVE HOUSEHOLD CLEANER. DO NOT DRY-WIPE THE PLEX PANELS BECAUSE ANY DUST CAN SCRATCH THE SURFACE.

b) FUSE REPLACEMENT: THE FUSE IS LOCATED IN THE LOWER CABINET AREA. IT IS ENCLOSED IN A PLASTIC CAPSULE THAT IS ATTACHED TO THE TERMINAL BLOCK BY TWO HEAVY GUAGE RED WIRES, (SEE DIAGRAM.) TO CHANGE THE FUSE, GRASP THE FUSE

THEORY OF OPERATION

CAPSULE BY EACH END, PUSH IN, TWIST, AND PULL APART THE CAPSULE. CHANGE THE FUSE AND REVERSE THE PROCEEDURE TO REASSEMBLE THE FUSE HOLDER.

c) LAMP REPLACEMENT: TURN OFF THE LAMP. REMOVE THE WHITE PLUG THAT GOES INTO THE END OF THE LAMP. UNSNAP THE LAMP FROM ITS MOUNTING TOOLS BY GRASPING EACH END FIRMLY AND PULLING DOWNWARD UNTIL THE LAMP RELEASES. SNAP ON A NEW FLORESCENT TUBE AND INSERT THE WHITE PLUG INTO THE END OF THE LAMP.

d) LUBRICATION: THE PORTION WHEEL MOTOR AND DRIVE TRANSMISSION ARE SEALED AND ARE LIFETIME LUBRICATED. THEREFORE, NO SERVICING IN THIS AREA IS REQUIRED. REFER TO THE SECTION ON THE COIN MECHANISM FOR DETAILED INSTRUCTIONS ON THAT ASSEMBLY.

REFER TO THE SCHEMATIC OF THE LUCKY EGG MACHINE DURING THE FOLLOWING EXPLANATION OF THE SEQUENCE OF OPERATION:

AS A COIN PASSES THROUGH THE COIN MECHANISM, THE NORMALLY OPEN CONTACTS ON THE SWITCH ARE CLOSED. THIS FURNISHES A CURRENT PATH TO THE CONTROL RELAY WHICH ENERGIZES AND PULLS IN ITS ARMATURE, THEREBY CLOSING THE "R" CONTACTS AND FURNISHING A SECOND PATH FOR CURRENT TO THE CONTROL RELAY THROUGH THE NORMALLY CLOSED POINTS OF THE EGG TRIP SWITCH. THE EFFECT THIS SECOND PATH HAS IS TO CAUSE THE RELAY TO LATCH UP AND REMAIN ENERGIZED EVEN WHEN THE COIN SWITCH RETURNS TO ITS NORMALLY OPEN POSITION. ONCE THE COIN SWITCH IS RETURNED TO ITS REST POSITION, THE DRIVE MOTOR AND SOUND GENERATOR ARE CONNECTED TO THE CONTROL RELAY THROUGH THE COIN SWITCH NORMALLY CLOSED CONTACTS AND RECEIVES POWER FROM THE SAME PATH THAT THE RELAY DOES.

THE RELAY REMAINS ENERGIZED, THE MOTOR TURNS THE PORTION WHEEL, AND THE SOUND GENERATOR CONTINUES TO CLUCK UNTIL AN EGG IS DROPPED THROUGH THE EGG CHUTE, AND TRIPS THE EGG TRIP SWITCH, WHICH OPENS UP THE NORMALLY CLOSED CONTACTS AND BREAKS THE CURRENT PATH TO THE RELAY. THIS CAUSES THE RELAY TO RELEASE, OPENING UP THE "R" CONTACTS AND BREAKING THE CIRCUIT TO THE MOTOR AND SOUND GENERATOR. THIS COMPLETES A VENDING CYCLE.

GENERAL TROUBLE-SHOOTING

THE LUCKY EGG MACHINE HAS BEEN DESIGNED TO BE A RELIABLE AND EASILY MAINTAINED UNIT. THE RELAY, CONTROL BOARD ASSEMBLY, AND LAMP UNIT ARE EASILY DISCONNECTED AND UNPLUGGED IN A MODULAR STYLE IN ORDER TO SIMPLIFY THE REPAIR PROCEDURES NECESSARY TO THE MACHINE BACK "ON LINE".

SHOULD THE LUCKY EGG MACHINE FAIL TO OPERATE PROPERLY IT IS ALWAYS BEST TO CHECK SYSTEM OPERATIONS IN A LOGICAL STEP-BY-STEP MANNER. DOING SO WILL MANY TIMES REVEAL A RATHER SIMPLE PROBLEM THAT IS EASILY CORRECTED.

WITH ANY PROBLEM REPORTED, THE FIRST ACTION TO LOOK FOR IS JAMMED COINS. AFTER THESE HAVE BEEN REMOVED, EXAMINE THE COIN PATH FOR THE PRESENCE OF FOREIGN MATERIAL OR LOOSE OBJECTS (SUCH AS CHEWING GUM, METAL OBJECTS, PAPER WADS, ETC.) REFER TO THE SECTION ON THE COIN MECHANISM FOR SPECIFIC REMOVAL TECHNIQUES. IN CASES WHERE MACHINE USAGE IS HEAVY, IT MAY BE NECESSARY TO CLEAN THE ENTIRE COIN PATH PERIODICALLY IN ORDER TO PREVENT THE BUILDING UP OF MATERIAL THAT CAN HINDER THE MOVEMENT OF COINS THROUGH THE MECHANISM.

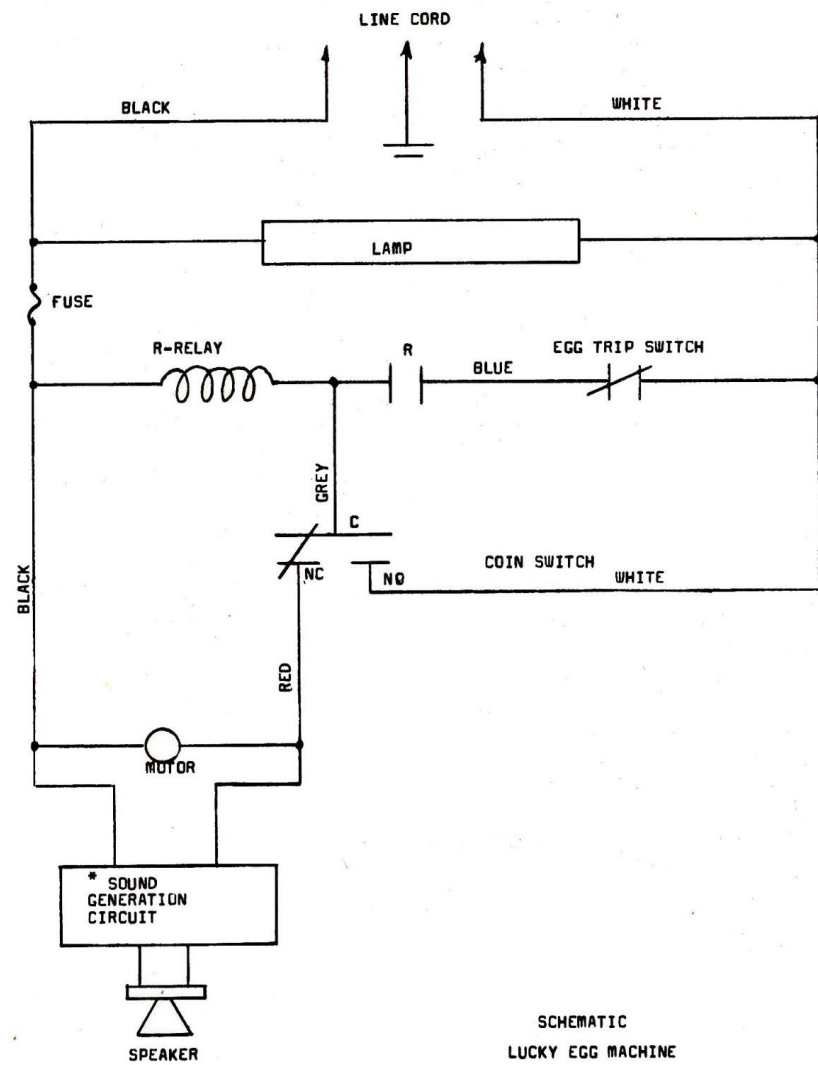
THE FOLLOWING ARE SYMPTOMS OF MOST PROBLEMS THAT ONE MIGHT POSSIBLY ENCOUNTER, ALONG WITH THE SOLUTIONS TO THOSE PROBLEMS. WHEN MORE THAN ONE PROBLEM CAN CAUSE THE SAME SYMPTOMS, TROUBLE AREAS ARE LISTED IN ORDER OF MOST LIKELY TO LEAST LIKELY TO FAIL.

1. LAMP WILL LIGHT UP, BUT NOTHING ELSE OPERATES - NO SOUND, NO MOTOR, NO RELAY ACTION. THIS INDICATES A BLOWN FUSE, REPLACE IT.

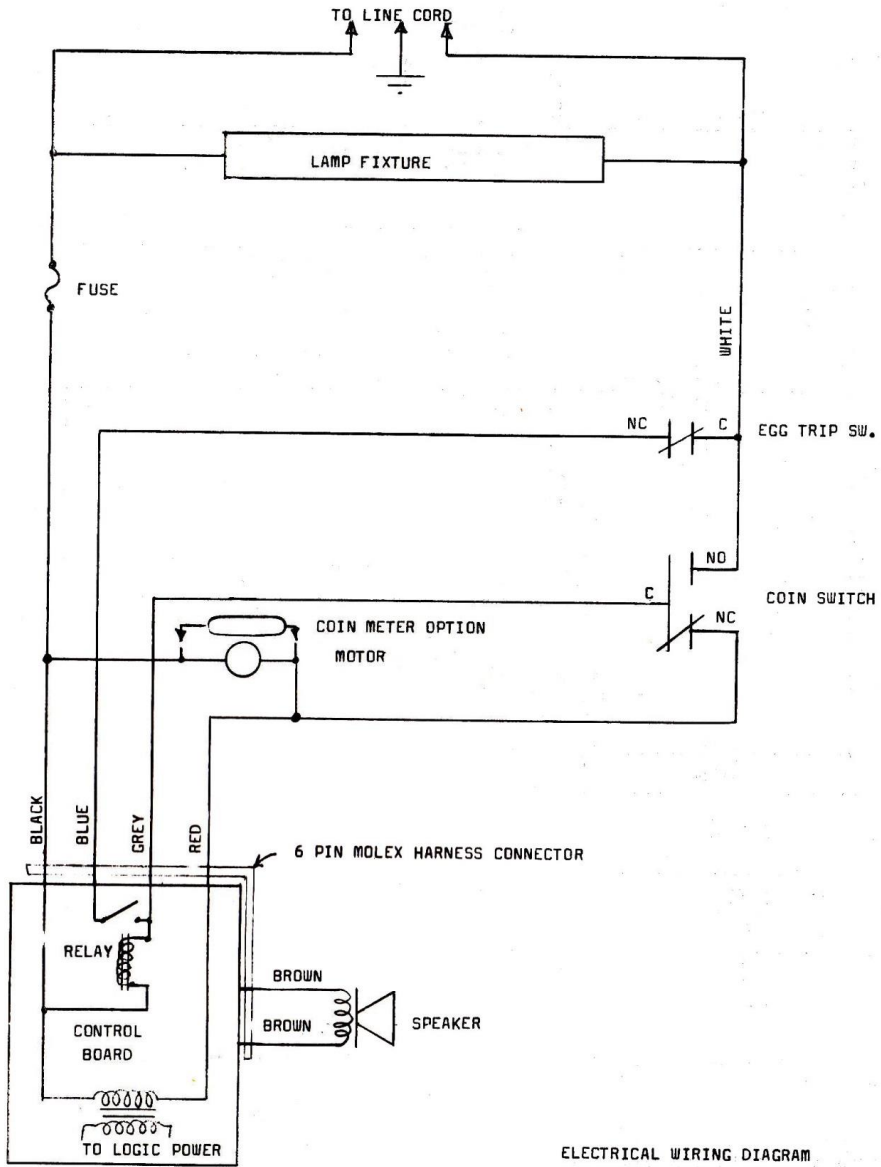
(CAUTION: A BLOWN FUSE INDICATES AN OVERLOAD CONDITION, OCCASIONALLY, A FUSE WILL FAIL FOR NO APPARENT REASON, BUT TO BE SURE, CHECK FOR A JAMMED EGG OR A STALLED MOTOR THAT MIGHT CAUSE THIS.)
2. MACHINE VENDS EGGS, BUT NO SOUND IS PRODUCED:
 - a.) SPEAKER WIRE CONNECTOR IS LOOSE OR HAS FALLEN OFF.
 - b.) VOLUME CONTROL ON CONTROL PCB IS TURNED ALL THE WAY DOWN, TURN IT UP.
 - c.) THE CONTROL PCB IS DEFECTIVE, REPLACE IT.
 - d.) THE SPEAKER IS BAD, REPLACE IT.

3. MACHINE WILL NOT STOP VENDING CYCLE ONCE INITIATED:
 - a.) THE EGG TRIP SWITCH WIRE IS BROKEN OR HAS FALLEN OFF. REPLACE IT. (THIS WIRE SPANS THE CENTER OF THE WHITE PLASTIC EGG CHUTE, AND IS LOCATED UNDERNEATH THE MOTOR MOUNTING BOARD.)
4. RELAY PULLS IN WITH A COIN DROP, BUT IT DOES NOT LATCH, IT IMMEDIATELY DROPS OUT AFTER THE COIN CLEARS THE COIN MECHANISM. CHECK:
 - a.) THE EGG TRIP SWITCH MAY BE HANGING UP AND NOT RETURNING TO ITS REST POSITION. THIS IS CAUSED BY THE TRIP WIRE RUBBING ALONG SIDE THE CHANNEL IN THE DELIVERY CHUTE. ADJUST IT TO BE SURE IT OPERATES FREELY AND RETURNS ALL THE WAY BACK TO ITS REST POSITION. THE SWITCH IS OPERATING PROPERLY WHEN IT "CLICKS".
 - b.) THE MOLEX PLUG ON THE CONTROL BOARD MAY BE LOOSE; PRESS IT TO BE SURE IT IS FIRMLY SEATED.
 - c.) THE HARNESS CONNECTORS TO THE EGG TRIP SWITCH MAY BE LOOSE OR OFF.
 - d.) THE RELAY CONTACTS MAY BE PITTED, UNPLUG AND REPLACE THE RELAY. (NOTE: OCCASIONALLY ON LOCATION, THE RELAY MAY DROP OUT IN THE MIDDLE OF A VENDING CYCLE AND NOT DELIVER AN EGG, THIS HAS BEEN TRACED TO LARGE MACHINERY ON THE LOCATION. (SUCH AS COMMERCIAL REFRIGERATION UNITS, FREEZER COMPRESSORS, POWER TOOLS.) WHICH WHEN INITIALLY POWERED UP, CAN CAUSE A MOMENTARY POWER LOSS TO ADJACENT MCHINERY. THE NET EFFECT ON THE LUCKY EGG MACHINE IS THAT THE RELAY LOSES POWER AND RELEASES, CAUSING THE PORTION WHEEL TO STOP BEFORE DELIVERY OF THE EGG. THIS IS BEST REMEDIED BY MOVING THE LUCKY EGG MACHINE AWAY FROM THE HEAVY MACHINERY OR BY SWITCHING TO ANOTHER ELECTRICAL OUTLET.
5. RELAY PULLS IN WHEN A COIN IS DROPPED, BUT NOTHING ELSE HAPPENS, THERE IS NO SOUND OR EGG DELIVERY:
 - a.) THE COIN SWITCH TRIP WIRE IS OUT OF ADJUSTMENT AND IT ISN'T RETURNING TO ITS NORMAL REST POSITION. (NOTE: IF YOUR EGG MACHINE HAS A PUSH CHUTE INSTEAD OF A DROP CHUTE, THE COIN SWITCH IS A TOGGLE TYPE REQUIRING FULL INSERTION WITH A

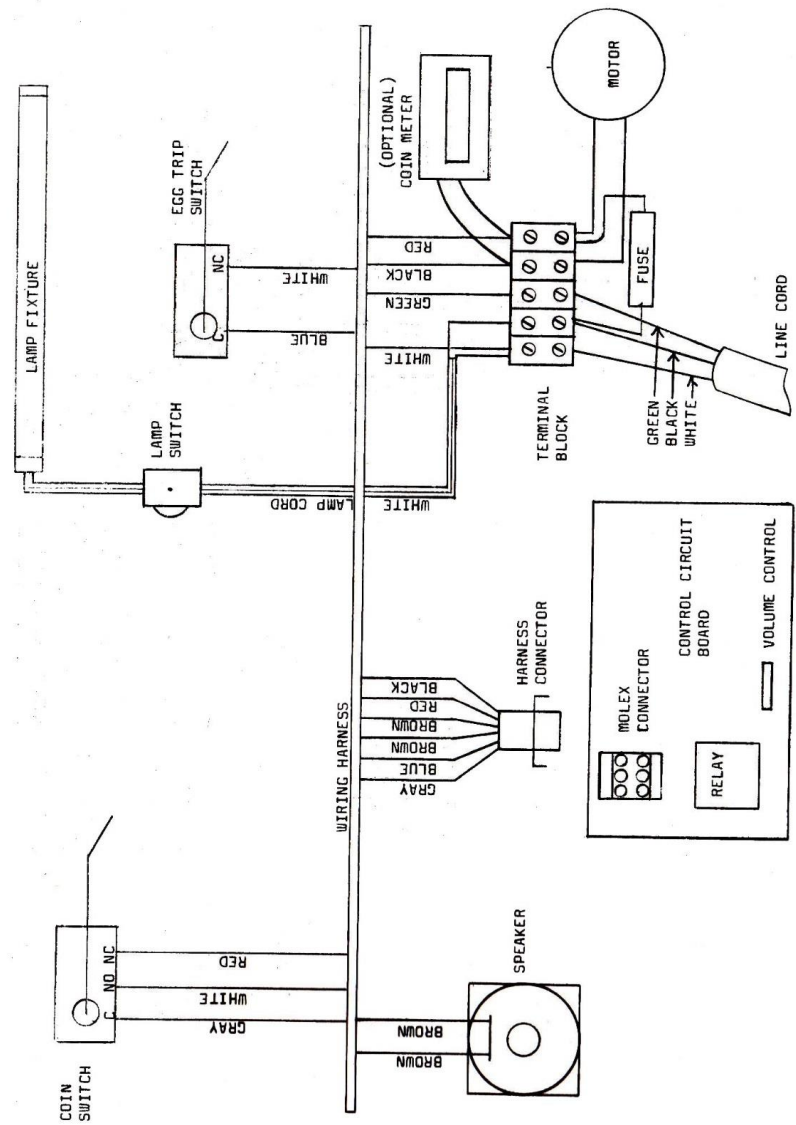
VALID COIN AND COMPLETE RELEASE OF THE SLIDE BEFORE ANY ACTION OCCURS.) INCREASE SLIGHTLY THE BEND IN THE COIN SWITCH TRIP WIRE SO THAT THE MICRO SWITCH "CLICKS" WHEN OPERATED MANUALLY. CHECK HARNESS CONNECTORS ON THE COIN SWITCH FOR A FIRM, TIGHT FIT. CHECK THE CONNECTOR ON THE CONTROL CIRCUIT BOARD FOR A TIGHT FIT.

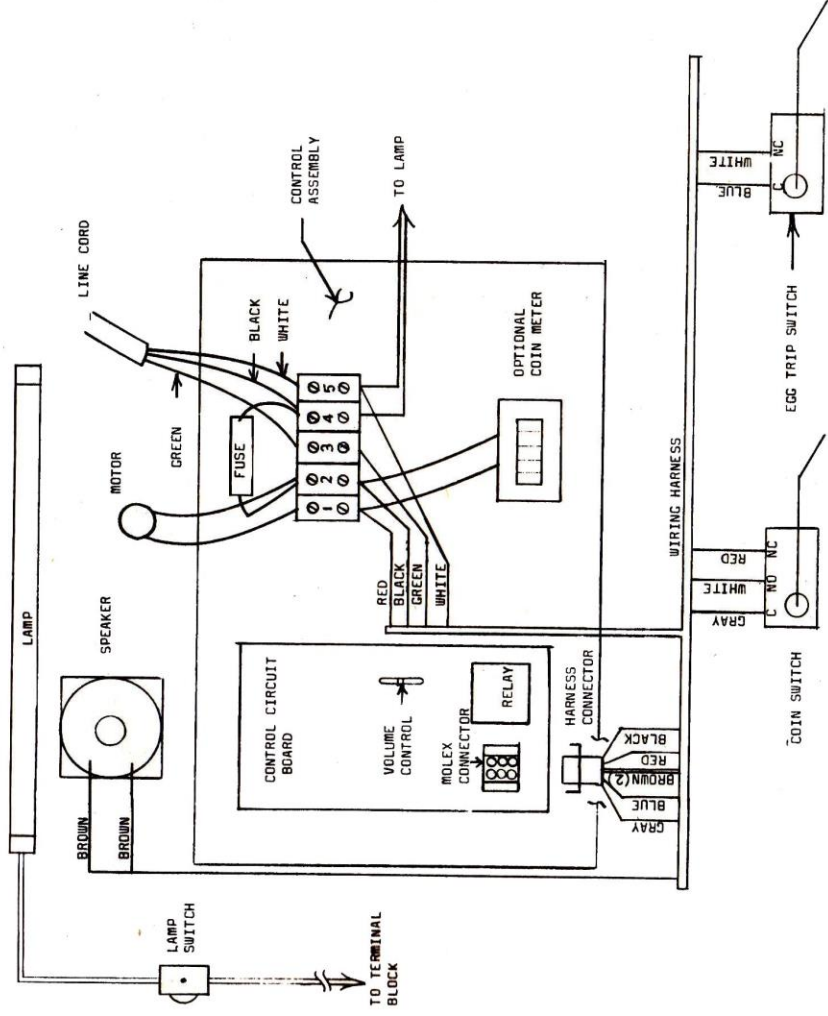
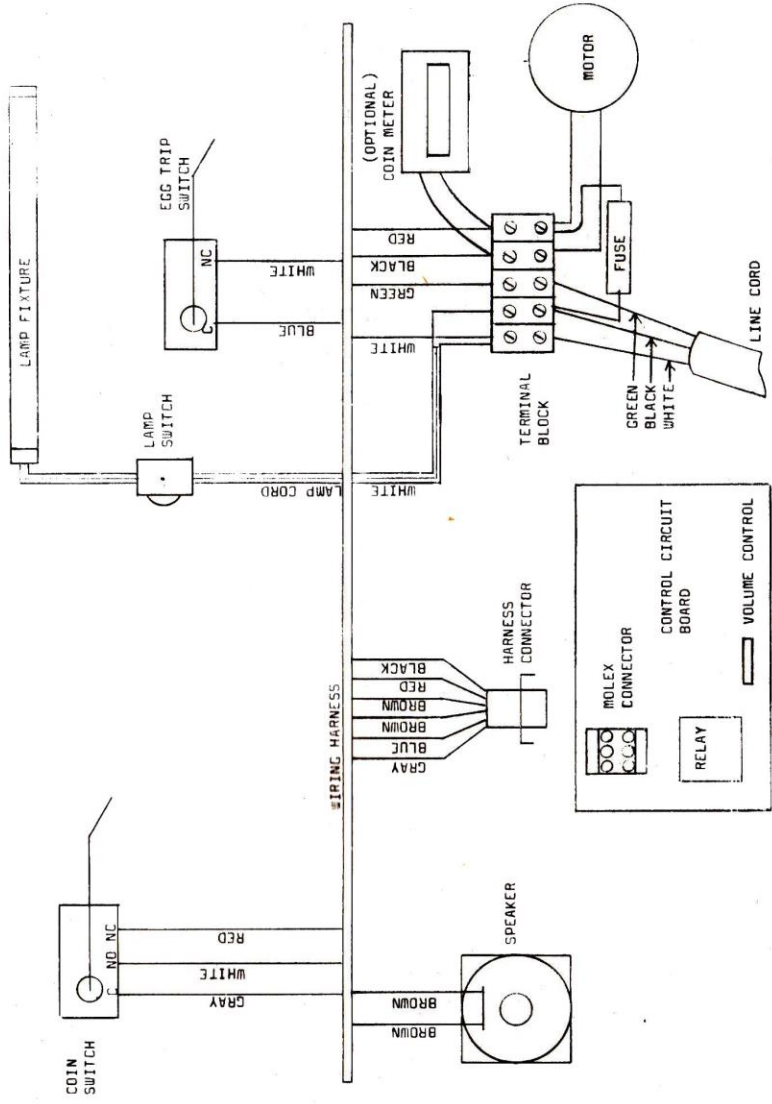


* SCHEMATIC FOR SOUND GENERATOR ON SEPARATE SHEET



ELECTRICAL WIRING DIAGRAM
REV. C
LUCKY EGG MACHINE





NOTES