



PARTS FAX (561) 493-2990  
PARTS: (561)253-3311 SERVICE: (561)253-3310

# GOLDZONE



06MAN-01

**PLEASE READ FIRST BEFORE  
PLUGGING IN MACHINE**

ALL RIGHT RESERVED. PAT. PENDING



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**DEAR CUSTOMER:**

**THANK YOU FOR PURCHASING BENCHMARK GAME'S GOLD ZONE GAME.**

**BECAUSE OF THE DIFFERENT NEEDS OF EVERY LOCATION, YOU MAY NEED TO FINE TUNE THE MACHINE IN THE FUTURE. WE STRONGLY SUGGEST THAT YOU LEAVE THE MACHINE AT FACTORY SETTINGS FOR AT LEAST 2 TO 3 WEEKS. AFTER THIS TIME IF YOU FIND NECESSARY YOUR PAYOUT TOO LOW OR TOO HIGH, THEN MAKE THE PROPER ADJUSTMENTS. START FIRST WITH THE FACTORY DEFAULT SETTINGS.**

**YOU WILL FIND ENCLOSED IN THE MANUAL A SET OF INSTRUCTIONS ON HOW TO PROGRAM YOUR MACHINE SHOULD YOU NEED TO.**

**PLEASE READ THE MANUAL BEFORE YOU CALL US FOR ANY INFORMATION. WHEN YOU CALL PLEASE HAVE THE SERIAL NUMBER FOR YOUR GAME IN HAND.**

**BENCHMARK GAMES, INC.  
51 HYPOLUXO RD.  
HYPOLUXO, FL 33462  
561-588-5200  
PARTS FAX: 561-493-2990**

# WARNING:

DO NOT TURN GAME ON UNTIL THE FOLLOWING INSTRUCTIONS ARE READ AND UNDERSTOOD.

FAILURE TO ADHERE TO THE FOLLOWING INSTRUCTIONS WILL VOID ANY FACTORY WARRANTIES AND COULD RESULT IN DAMAGE TO THE GAME AND OR INJURY TO THE PLAYER OR TECHNICIAN.

THIS GAME SHOULD BE PLUGGED INTO A 3 WIRE GROUNDED OUTLET 115VAC 60 HZ. UNLESS OTHERWISE SPECIFIED.

FCC PART 15 RULE:

THIS EQUIPMENT HAS BEEN TESTED AND FOUND TO COMPLY WITH THE LIMITS FOR A CLASS A COMPUTING DEVICE PURSUANT TO SUB-PART J OF PART 15 OF FCC RULES.

ELECTRICAL SPECIFICATIONS:

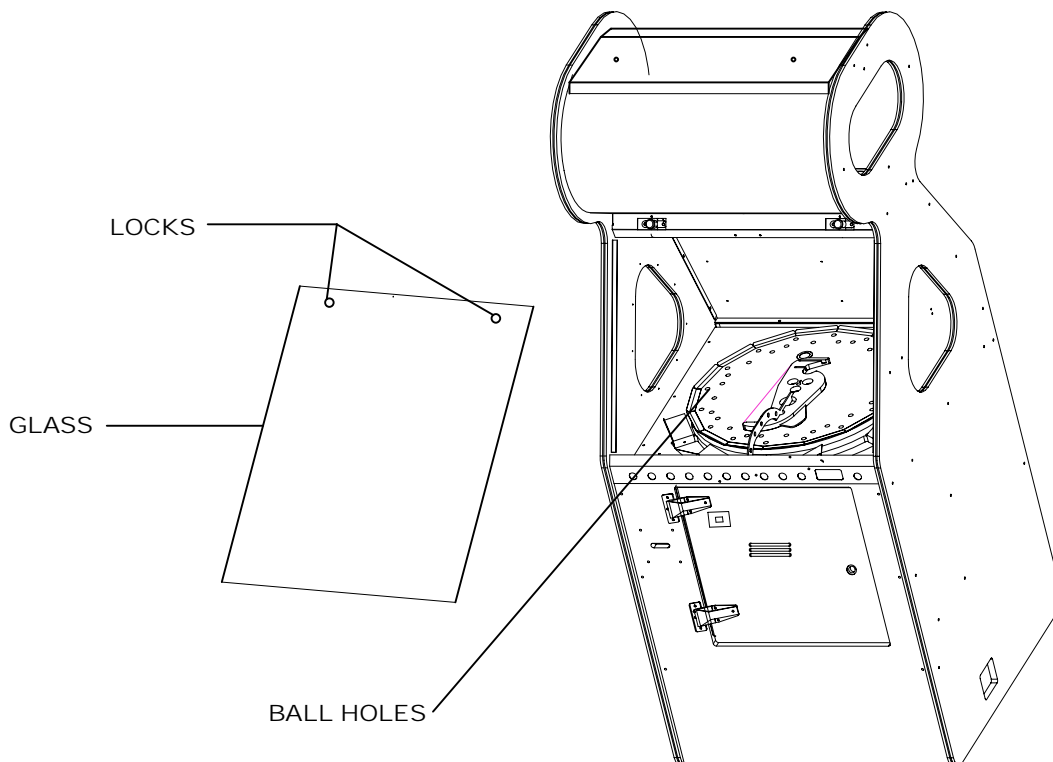
POWER CONSUMPTION	1.5 AMP 180 WATT
LINE VOLTAGE	100-130VAC 60HZ.
LINE FUSE	5 AMP

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## GOLDZONE SETUP

1. REMOVE GAME FROM BOX.
2. OPEN WOOD DOOR AND REMOVE CASHBOX. REMOVE THE POWER PLUG, SPINNER ASSEMBLY AND THE PLATTER BALLS,(7/16" METAL BALLS).
3. REMOVE THE GLASS BY UNLOCKING THE LOCK AT THE TOP CORNERS OF THE GLASS AND PULLING THE GLASS OUT,(NOTE: THE COIN MECH WILL BECOME UNPLUGGED).
4. INSTALL THE 3 WHEELED HUB ONTO THE CENTER SHAFT OF THE ROTATING PLATTER, THEN INSTALL THE ALUMINUM SPINDLES ON TOP OF THE HUBS.
5. INSTALL THE PLATTER BALLS INTO THE HOLES ON THE PLATTER.
6. TURN GAME ON AND SLOWLY START PUTTING COINS ONTO THE PLAYFIELD TO SEED THE GAME. KEEP PUTTING ON COINS UNTIL COINS ARE FALLING OFF THE PLAYFIELD ALL AROUND THE PLATTER,(THE PLATTER IS NOW FULLY SEEDDED).
7. REASSEMBLE THE GLASS ON ALL ,(MAKING SURE YOU PLUG IN THE COIN MECHS WHILE INSTALLING THE GLASS).
8. USING THE POWER PLUG, PLUG IN THE GAME ON THE RIGHT SIDE OF THE GAME ON THE OUTSIDE AND TURN POWER SWITCH ON,(LOCATED WHERE THE PLUG GOES INTO THE CABINET).



## GAME DESCRIPTION

THERE IS A ROTATING PLATTER THAT TURNS AT A CONSTANT SPEED. THE 4 DIGIT LED'S AT THE TOP OF EACH PLAYER KEEPS TRACK OF THE JACKPOT AMOUNT AND THE TICKETS OWED. COINS CAN BE INSERTED AS FAST,(RAPID PLAY), AS THE PLAYER CAN INSERT THEM.

## GAMEPLAY

THE PLAYER INSERTS A COIN INTO THE GAME, THE COIN THEN SLIDES DOWN THE COIN RAMPS ONTO THE ROTATING PLATTER. THE ROTATING PLATTER CAUSES THE COIN TO MOVE DOWN THE POINTER TO THE OUTSIDE OF THE PLATTER . IF THE COIN FALLS INTO THE JACKPOT HOLES, THEN THE JACKPOT AMOUNT ON THE LEFT 4 DIGIT DISPLAY IS PAID.

NOTE: THE JACKPOT COUNTER WILL INCREMENT FOR EVERY COIN PLAYED .

IF COINS FALL OFF THE PLAYFIELD THEY ARE COUNTED BY THE HOPPER AND THE APPROPRIATE AMOUNT OF TICKETS ARE PAID OUT.

SECURITY: ON POWER UP THE HOPPER EMPTIES ANY COINS IN IT BUT DOES NOT PAY OUT THE TICKETS. THE SAME ACTION HAPPENS IF THE GAME IS TILTED. THE TILT BOB IS LOCATED ON THE LEFT INSIDE CABINET. THERE IS A TIMER BUILT INTO THE SOFTWARE THAT ONLY ALLOWS TICKETS TO BE PAID OUT AFTER VERIFYING THAT A COIN WENT THROUGH THE COIN MECH.

VER. 01.2

## COIN MECH SETUP

WHEEL DEAL USES A COIN COMPARATOR. A SAMPLE COIN MUST BE INSERTED AND LEFT IN THE MECH AS SHOWN BELOW. WHEN THE PLAYER INSERTS A COIN FOR GAMEPLAY, THE MASS OF THE COIN IS MEASURED AGAINST THE SAMPLE COIN AND IS ACCEPTED OR REJECTED.

THE COIN MECH SWITCH ON THE SIDE MUST BE SET TO N.O.(NORMALLY OPEN), NOT N.C. (NORMALLY CLOSED).

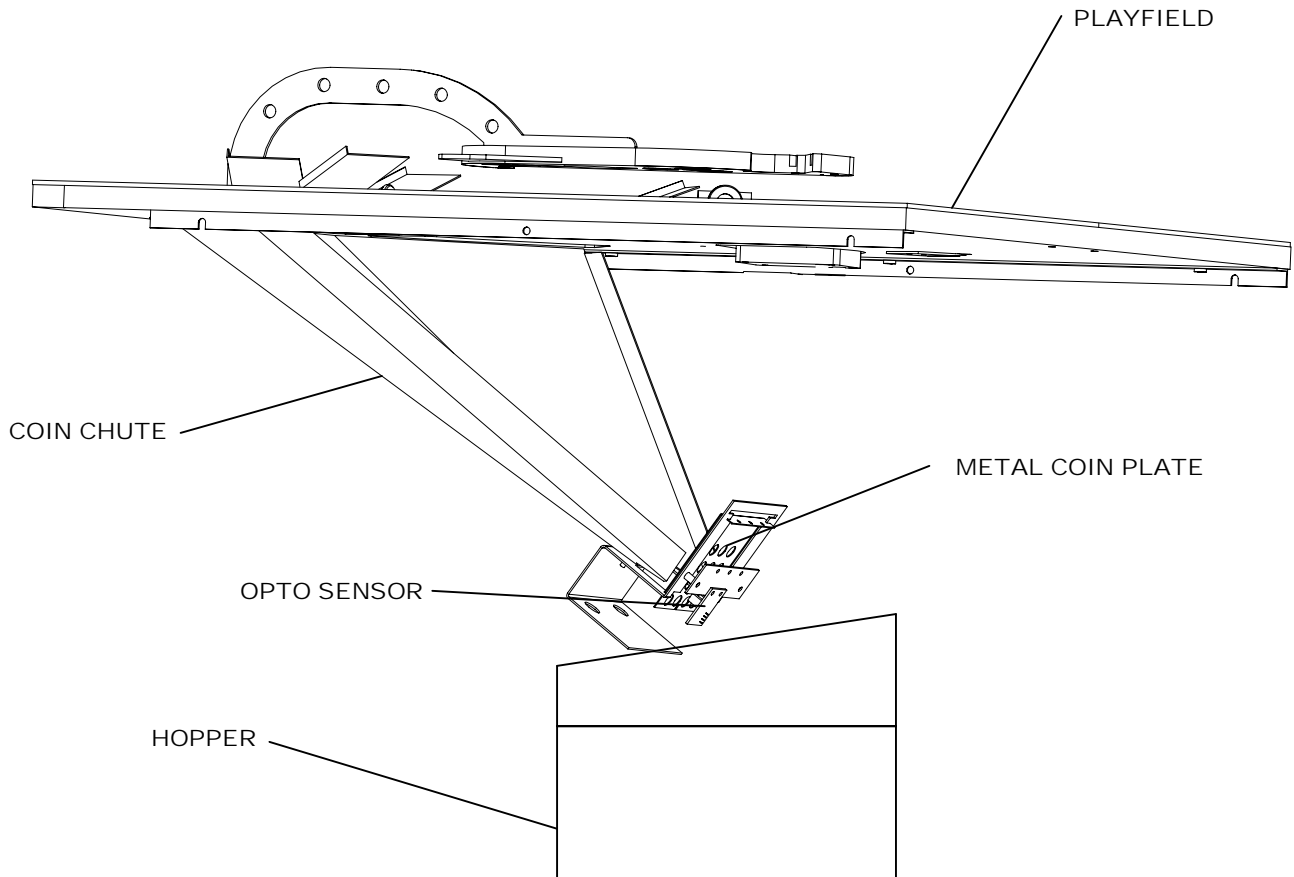
THE PULSE TIME 3 POSITION SWITCH SHOULD BE SET AT THE SHORTEST PULSE TIME.

THERE IS A SENSITIVITY ADJUSTMENT ON THE SIDE OF THE MECH. STRICT MAKES THE MECH MORE DISCREET,(WILL REJECT MORE COINS IF THEY ARE NOT PERFECT). SLACK MAKES THE MECH NOT SO DIFFICULT ABOUT THE COINS IT WILL ACCEPT.

## COIN CHUTE DESCRIPTION

WHEN COINS FALLS OFF THE PLAYFIELD, THEY SLIDES DOWN THE COIN CHUTE. IT THEN HITS THE METAL COIN PLATE WHICH ACTIVATES THE OPTO SENSOR. WHEN THE OPTO SENSOR IT ACTIVATED, IT STARTS THE HOPPER. THE HOPPER WILL CONTINUE TO RUN UNTIL THERE ARE NO MORE COINS IN IT. AT THIS POINT THE APPROPRIATE AMOUNT OF TICKETS ARE PAID OUT.

THERE IS A LED ON THE BACK OF THE OPTO SENSOR. TO CHECK THAT THE SWITCH AND OPTO ARE WORKING PROPERLY: HIT THE METAL COIN PLATE WITH YOUR HAND AND OBSERVE THE LED ON THE BACK OF THE OPTO SENSOR.





## FLOURESCENT AND INCANDESCENT LIGHTS

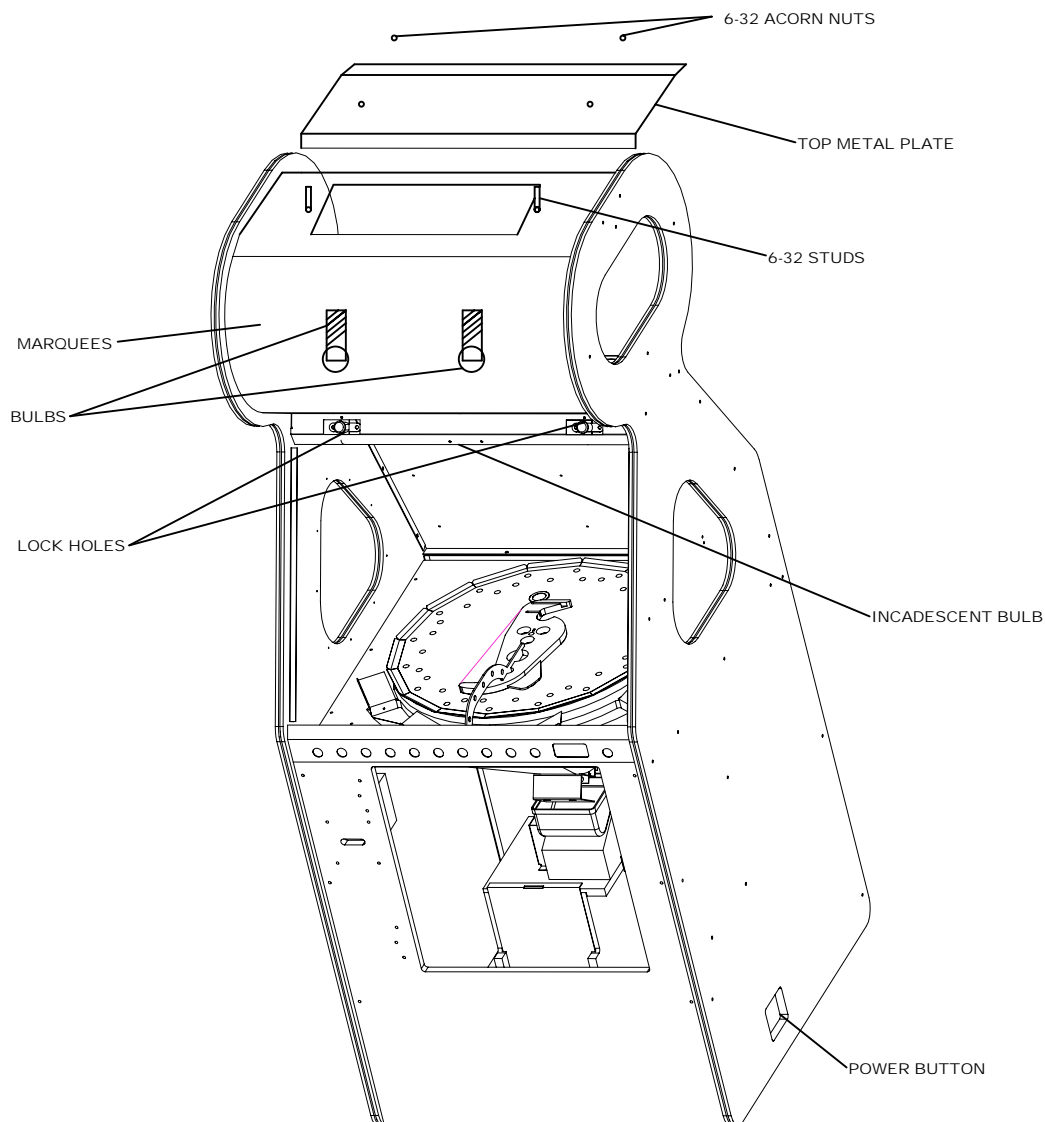
TO REPLACE THE FLOURESCENT LIGHT IN A GOLD ZONE:

1. REMOVE THE 2 6-32 ACORN NUTS AND THE TOP METAL PLATE ON THE TOP OF THE GAME.
2. REPLACE THE BULBS.
3. REPLACE THE TOP PLATE WITH THE ACORN NUTS.

NOTE: THE FLOURESCENT LIGHTS ARE 100 WATT SPIRAL FLOURESCENT BULBS AVAILABLE AT MOST HARDWARE STORES.

TO REPLACE INCANDESCENT BULB: NOTE: THE INCANDESCENT BULBS ARE 60 WATT FLOOD LIGHTS.

1. UNSCREW BULB AND REPLACE WITH SAME TYPE.

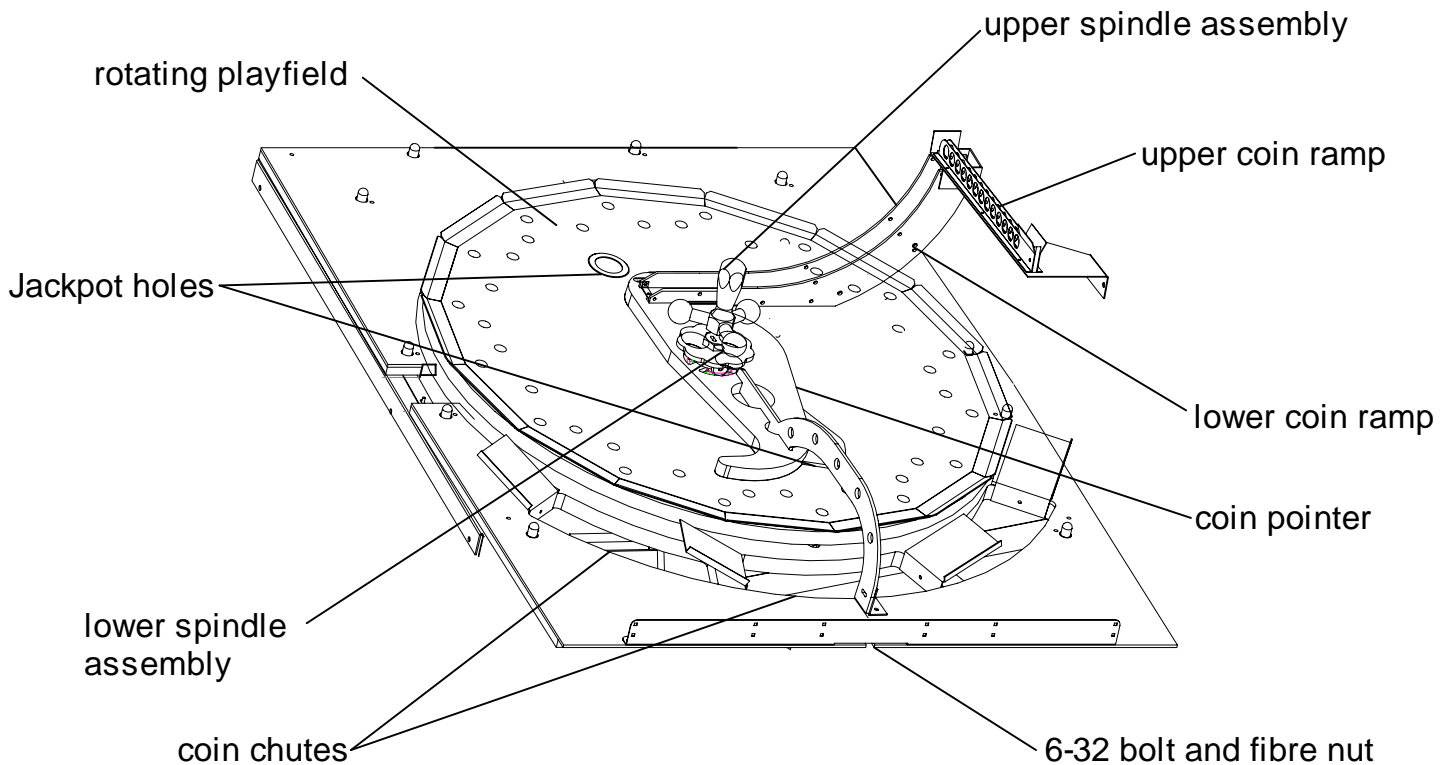


## PLAYFIELD ASSEMBLY AND ADJUSTMENTS

IF YOUR COINS ARE GOING UNDERNEATH THE COIN POINTER BEFORE THEY GET TO THE END OF THE POINTER, OR IF YOUR ROTATING PLAYFIELD IS GETTING SCRATCHED IN A CIRCULAR PATTERN, YOU MAY NEED TO ADJUST THE COIN POINTER HEIGHT.

HOW TO ADJUST:

1. OPEN THE WOOD FRONT DOOR AND LOCATE THE 6-32 BOLT AND FIBER NUT HOLDING THE RED PLASTIC COIN POINTER TO THE METAL BRACKET.
2. LOOSEN THE NUT AND PLACE A .012 FEELER GAUGE IN BETWEEN THE COIN POINTER AND THE ROTATING PLAYFIELD AND TIGHTEN THE NUT.
3. CHECK THE CLEARANCE AT DIFFERENT POINTS ALONG THE COIN POINTER TO MAKE SURE IT HAS EVEN CLEARANCE. RECLEARANCE AS NECESSARY.



## GoldZone Programming

THE BUTTONS USED FOR PROGRAMMING ARE ON THE POWER DISTRIBUTION BLOCK. THEY ARE 3 SMALL BLACK PUSH BUTTONS (UNDERNEATH THE COMPUTER ON THE SAME BOARD AS THE FUSES).

1. Press the bottom button ONCE to go into programming mode.
2. Press the top button to go to the mode you want to set (shown on the left LEDs of Player 1).
3. Press the bottom button to lock the mode for changing.
4. Use the middle and top buttons to adjust the value of that mode (shown on the right LEDs of Player 1).
5. Hit the bottom button the set the change (the right LED flashes **OH**),
6. Press the top button until the LEDs show **ehit** on the left LED (short for **exit**).
7. Press the bottom button one more time, then either turn the game off and on, or put in a coin to play the game. The changes are now locked into memory.

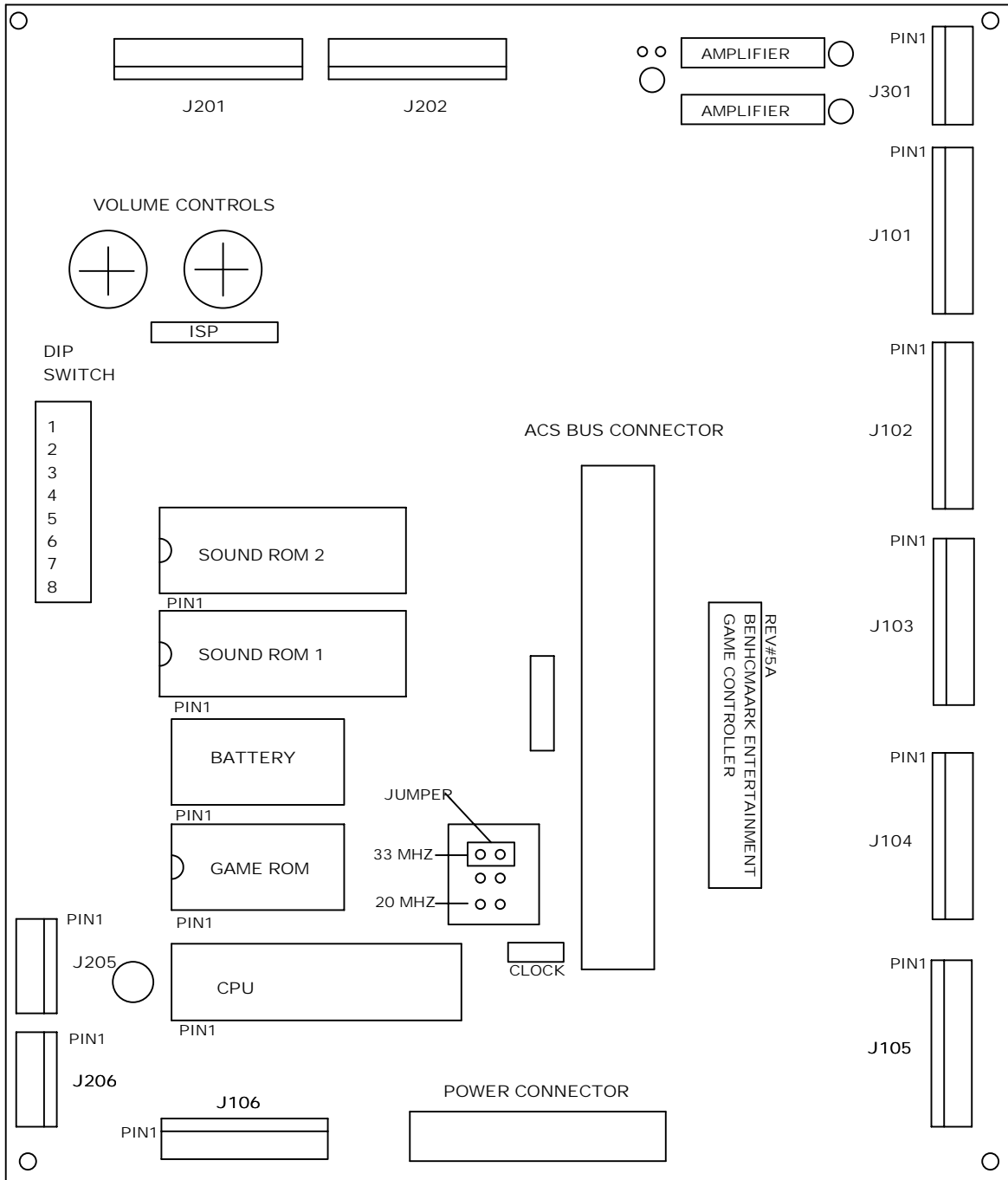
### MODES:

- 0000 **DEFAULT** (will set game back to factory default programming)  
To use: Change value of mode to 2, press bottom button and exit programming normally.
- 0001 **TICKETS PER COIN** (The number of tickets dispensed ofr each coin that falls off the playfield.  
Default is 7. Range is 1-12
- 0002 **NOT USED**
- 0003 **JACKPOT START NUMBER** (The number of points at which the jackpot starts)  
Factory Default is 0. Range is 0-255 in multiples of 25, eg: a value of 2 would start the Jackpot at 50.  
Player 1(right side cabinet).
- 0004 **JACKPOT START NUMBER** (The number of points at which the jackpot starts)  
Factory Default is 0. Range is 0-255 in multiples of 25, eg: a value of 2 would start the Jackpot at 50.  
Player 2(middle cabinet).
- 0005 **JACKPOT START NUMBER** (The number of points at which the jackpot starts)  
Factory Default is 0. Range is 0-255 in multiples of 25, eg: a value of 2 would start the Jackpot at 50.  
Player 3(left side cabinet).
- 0006 **JACKPOT INCREMENTER**. This is how much the jackpot increments for every coin inserted into the coin mech. Default is 3. Range is 1-10. Player 1 (right side cabinet).
- 0007 **JACKPOT INCREMENTER**. This is how much the jackpot increments for every coin inserted into the coin mech. Default is 3. Range is 1-10. Player 2 (middle cabinet).
- 0008 **JACKPOT INCREMENTER**. This is how much the jackpot increments for every coin inserted into the coin mech. Default is 3. Range is 1-10. Player 3 (left side cabinet).
- 0009 **MAXIMUM JACKPOT**. This is the maximum number the jackpot will go to if nobody hits the jackpot. In multiples of 250. Default is 4, which = 1000. Range is 2-40. Player 1(right side cabinet)
- 0010 **MAXIMUM JACKPOT**. This is the maximum number the jackpot will go to if nobody hits the jackpot. In multiples of 250. Default is 4, which = 1000. Range is 2-40. Player 2(middle cabinet)
- 0011 **MAXIMUM JACKPOT**. This is the maximum number the jackpot will go to if nobody hits the jackpot. In multiples of 250. Default is 4, which = 1000. Range is 2-40. Player 3(left side cabinet)
- 0012 **INITIALZIE NON-VOLATILE RAM**. Clears tickets owed. Set the same way as mode 0000 (set value to 2, then exit).
- 0013 **NOT USED**
- 0014 **EXIT MODE**. You must exit correctly in order for your changes to be locked into memory.

DIP switch 7 is for 1 mercy ticket. If it is turned on, 1 ticket will be paid when a coin enters the coin mech, plus however many tickets are won. eg: if nothing is won, it will pay 1 ticket. If 7 tickets are won, it will pay the 7, plus 1 ticket.

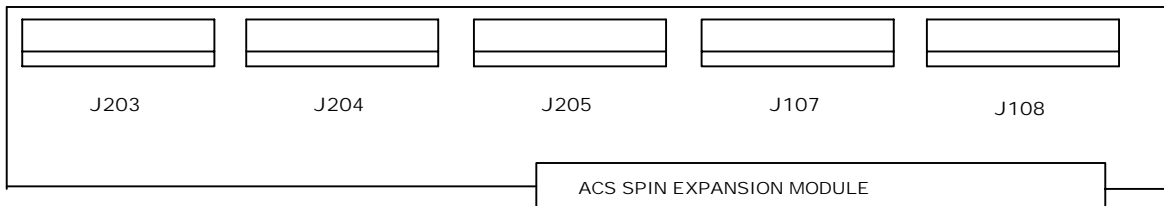
NOTE: You must turn the game off before turning on the DIP switch.

### CPU BOARD BLOCK DIAGRAM

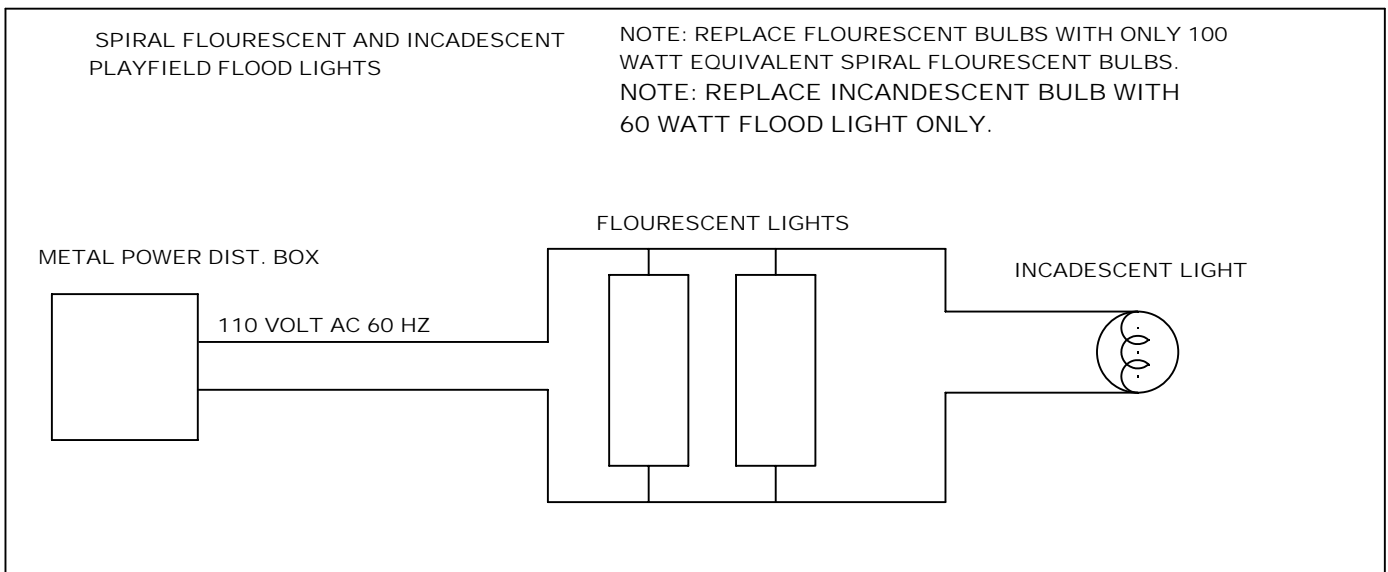
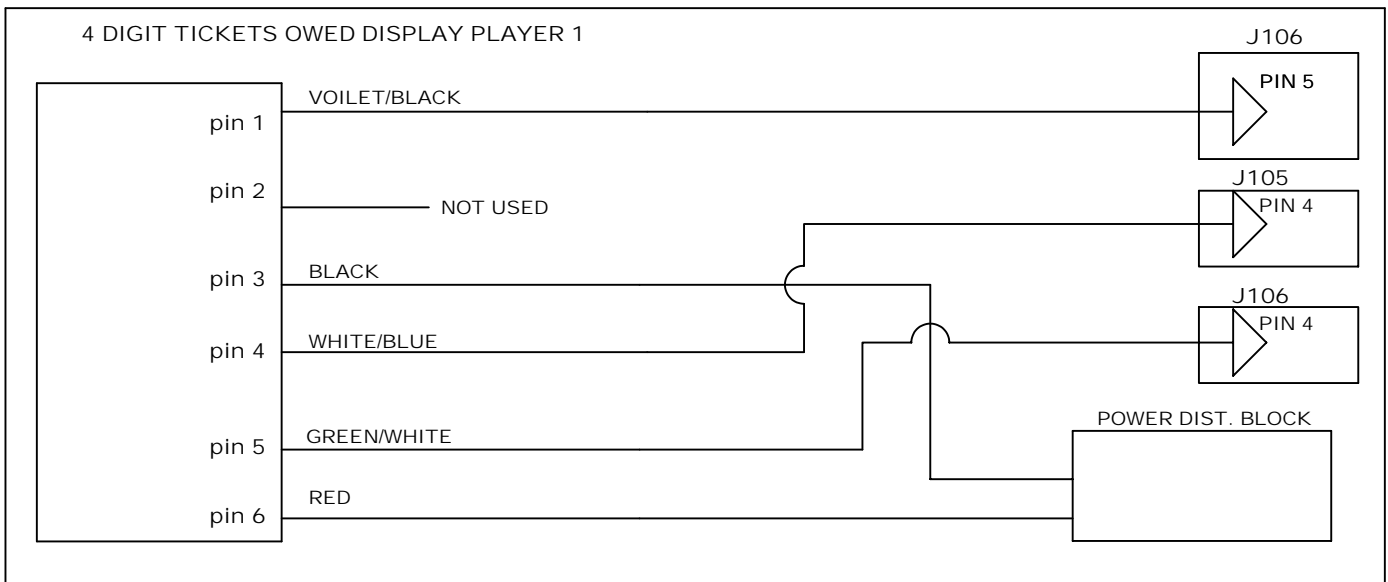
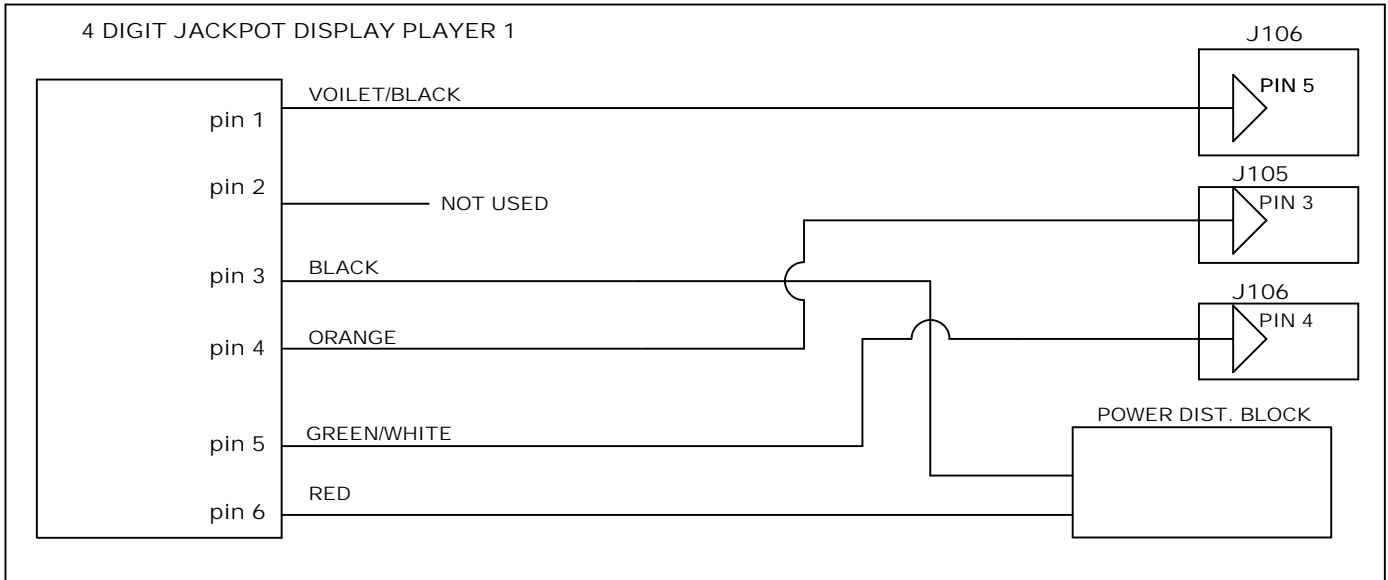


NOTE: THERE HAVE BEEN 5 REVISIONS OF THE BENCHMARK CONTROLLER, ONLY REV 5 WILL WORK IN GOLDZONE. THE JUMPER ON THE MHZ MUST BE SET AT 33 MHZ AS SHOWN ON THE PICTURE ABOVE. BE CAREFULL WITH THE CONNECTORS NOT TO PUT THEM ONE PIN OFF OR BEND ANY OF THE PINS.

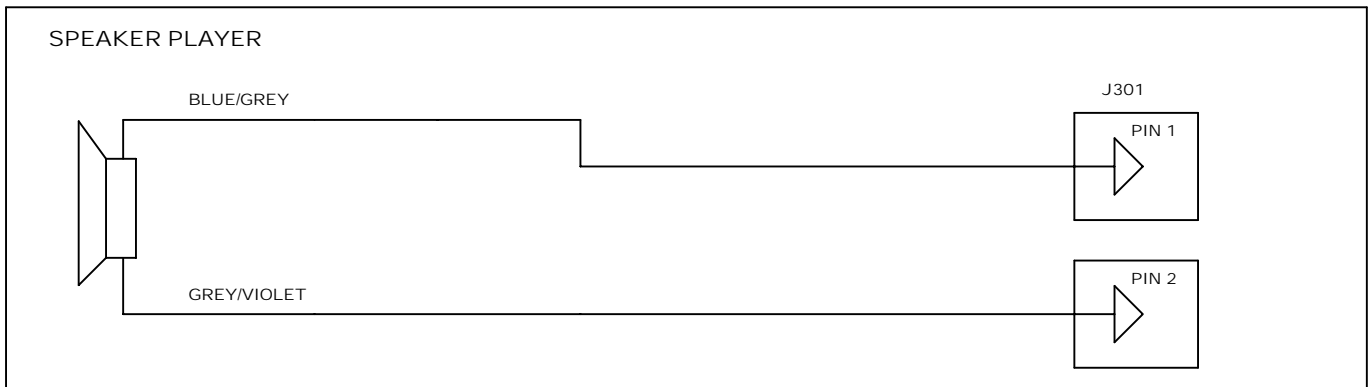
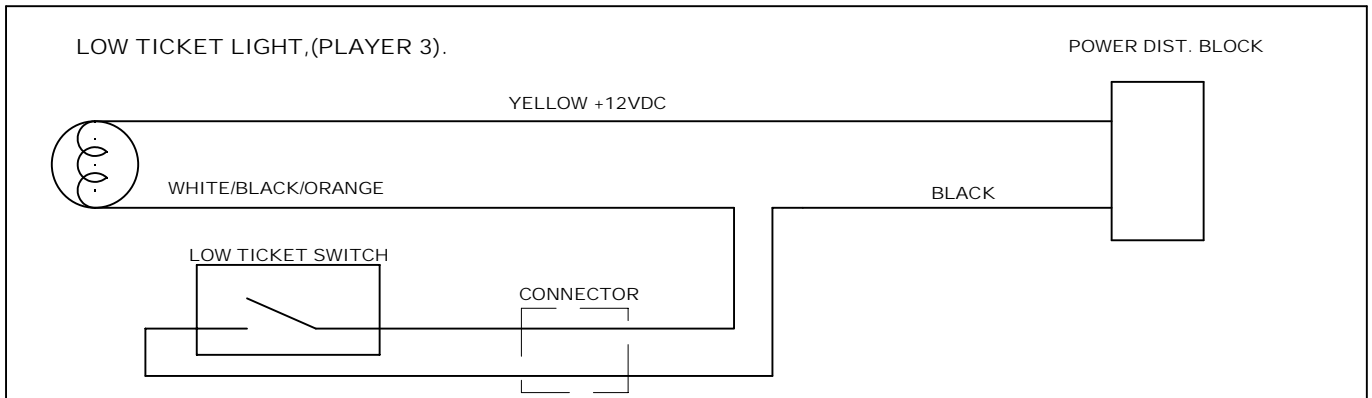
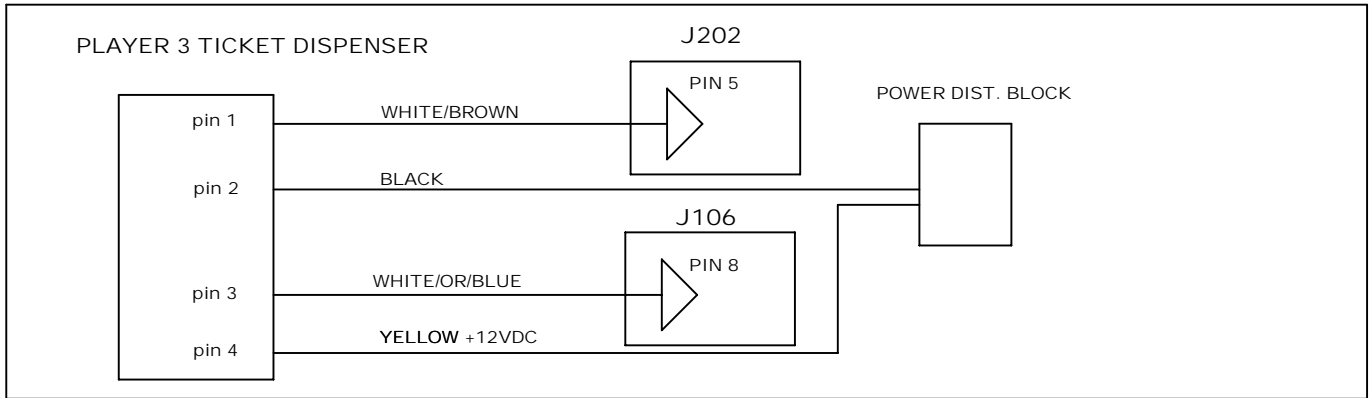
### EXPANSION BOARD



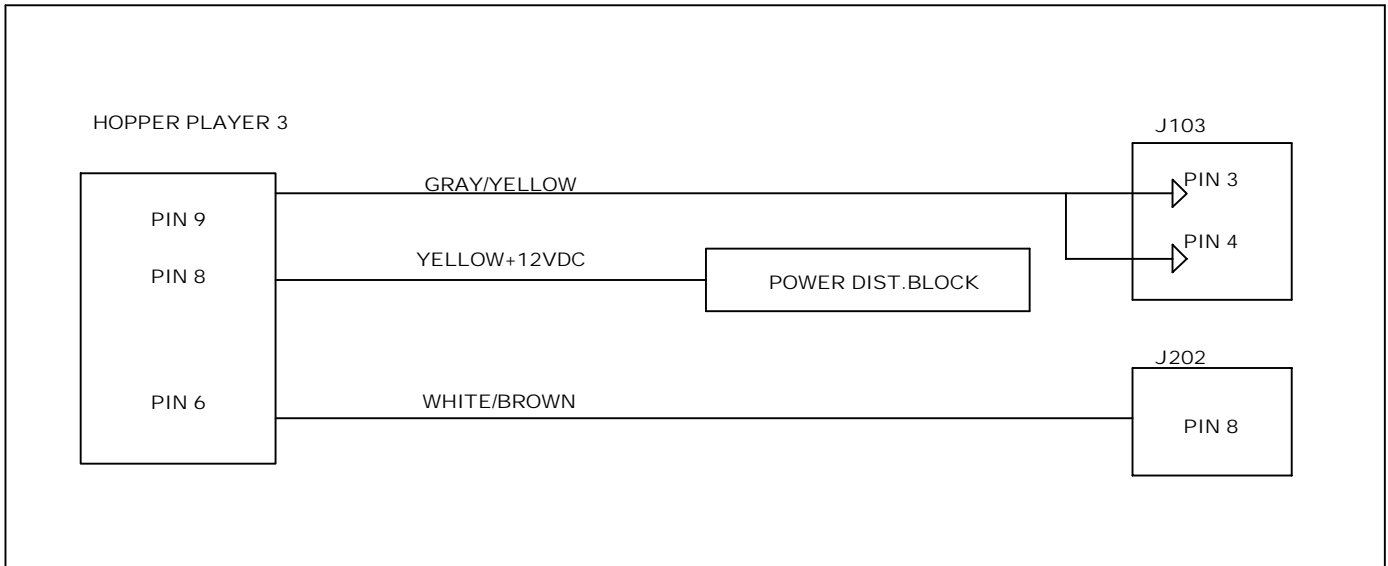
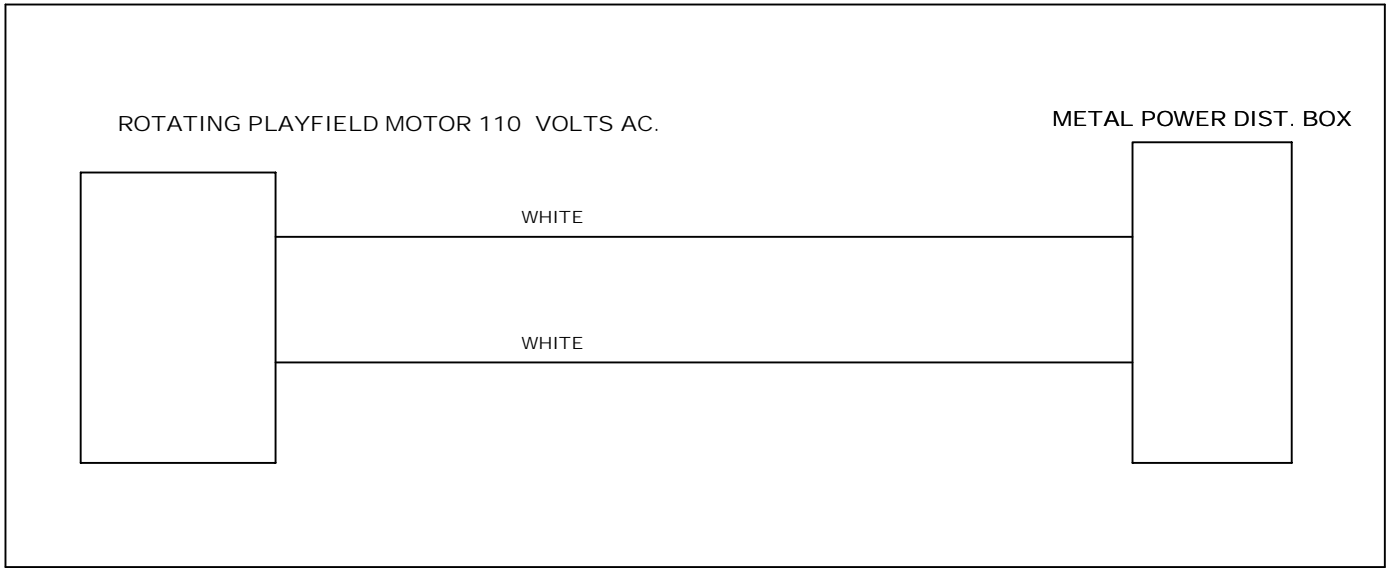
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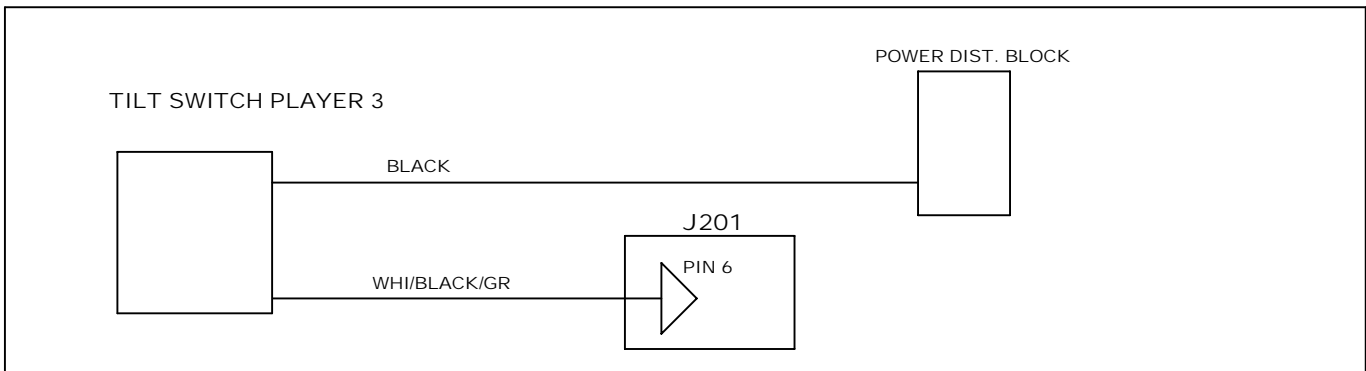
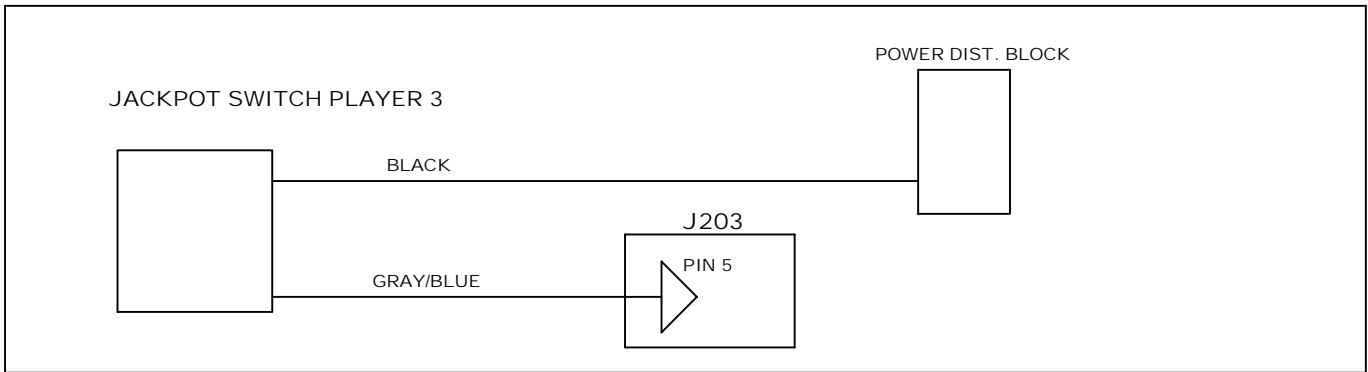
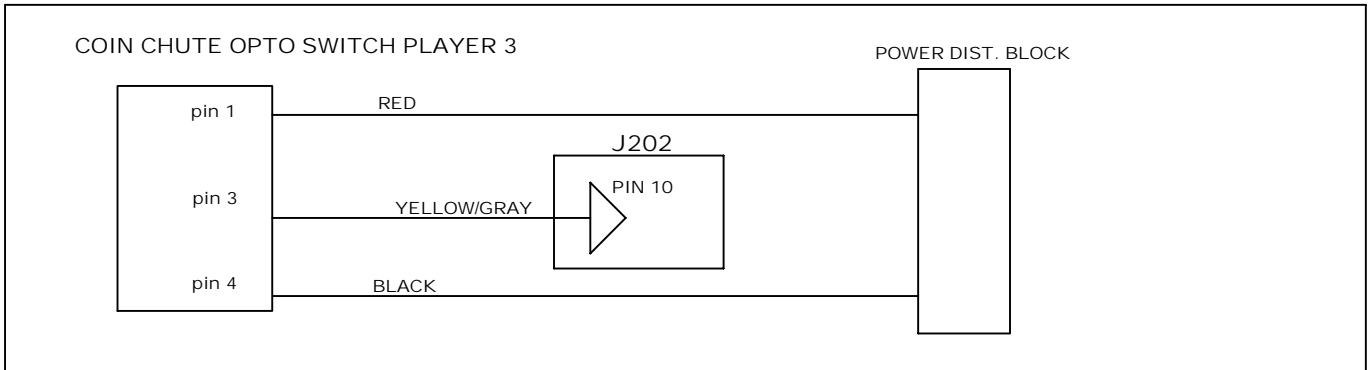
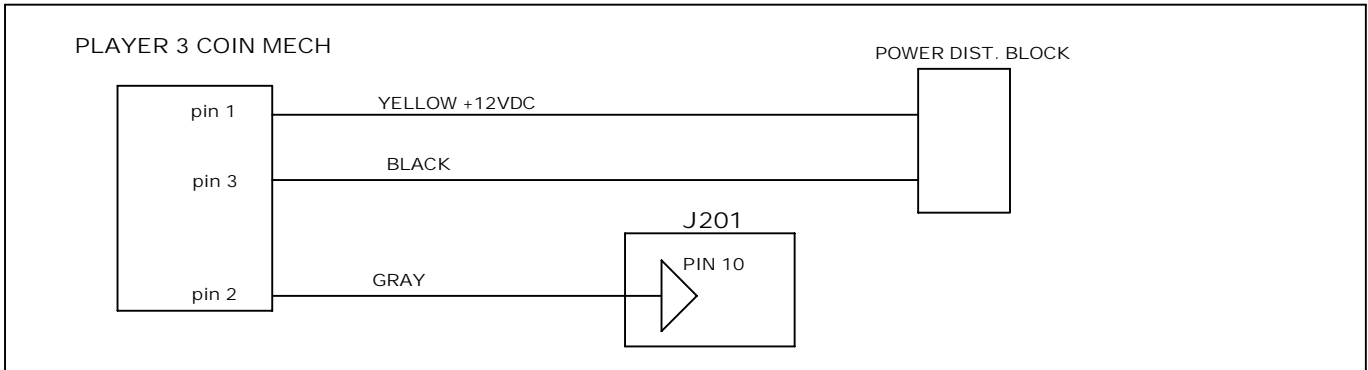
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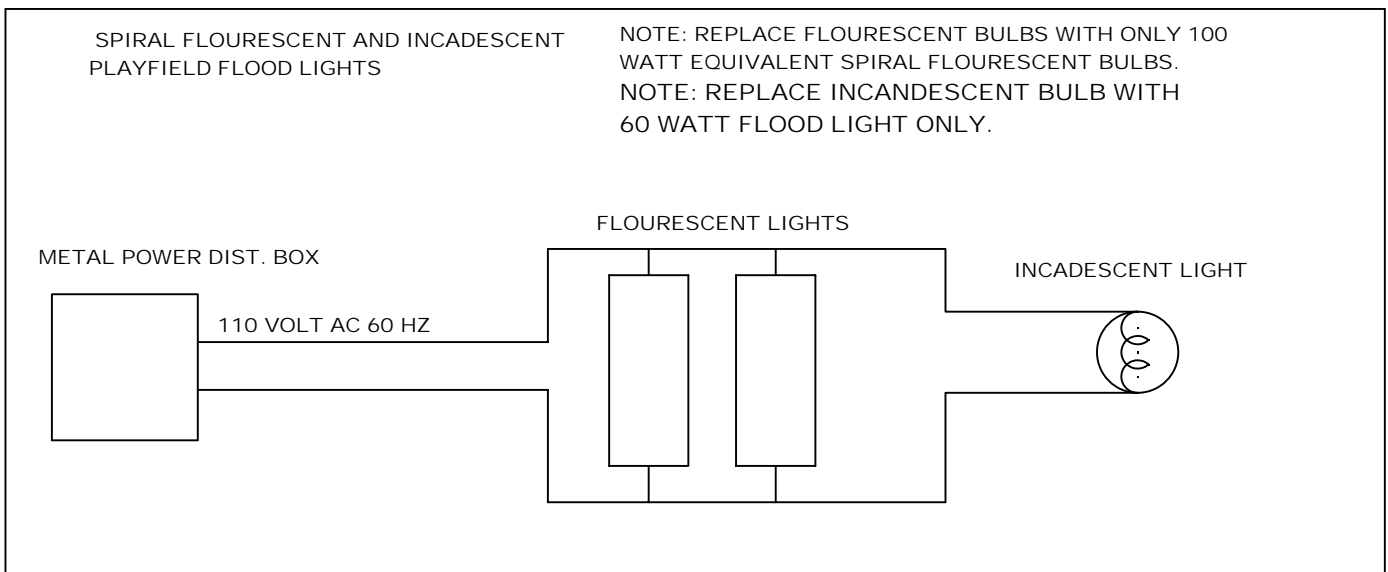
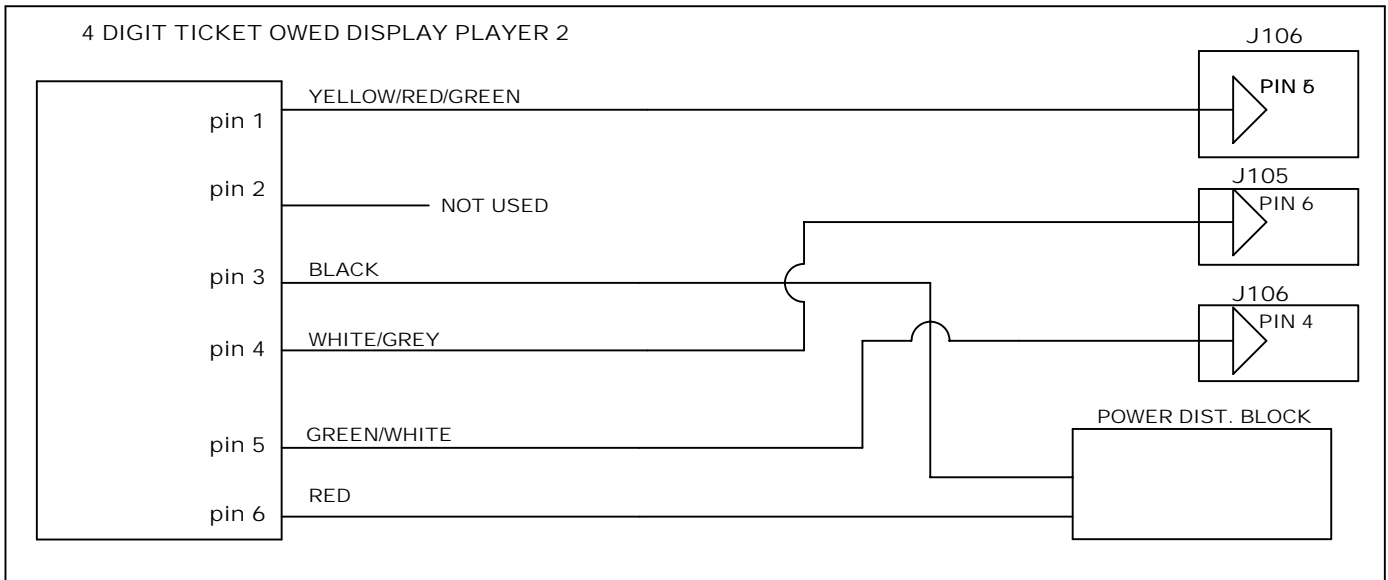
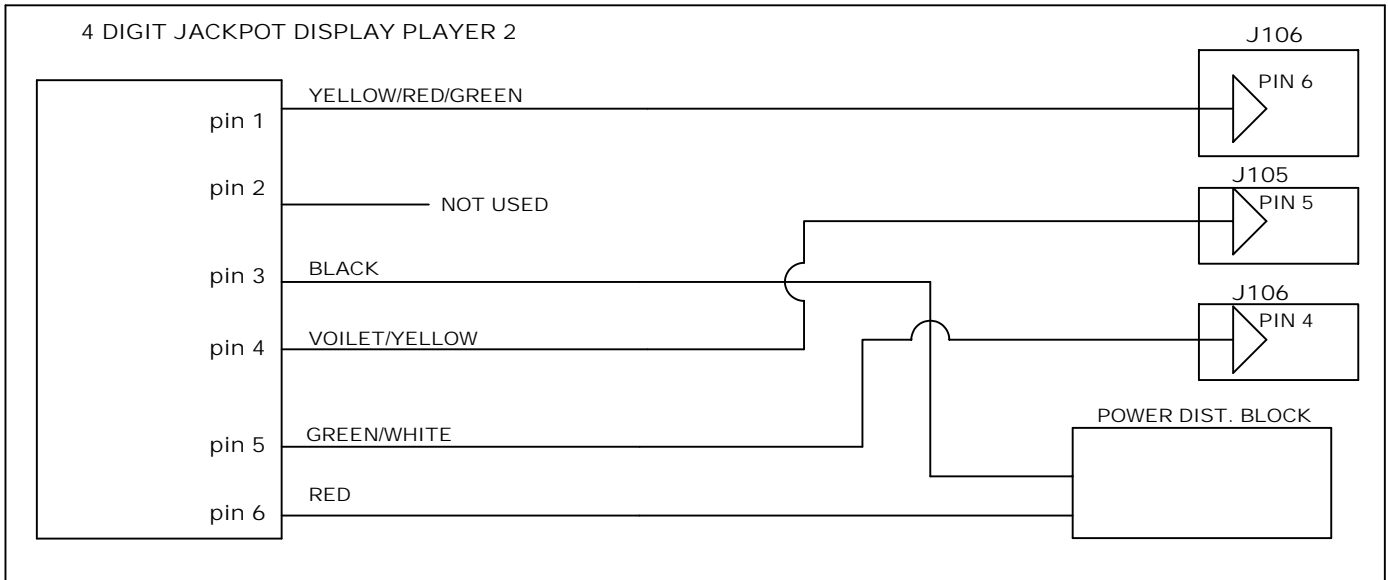


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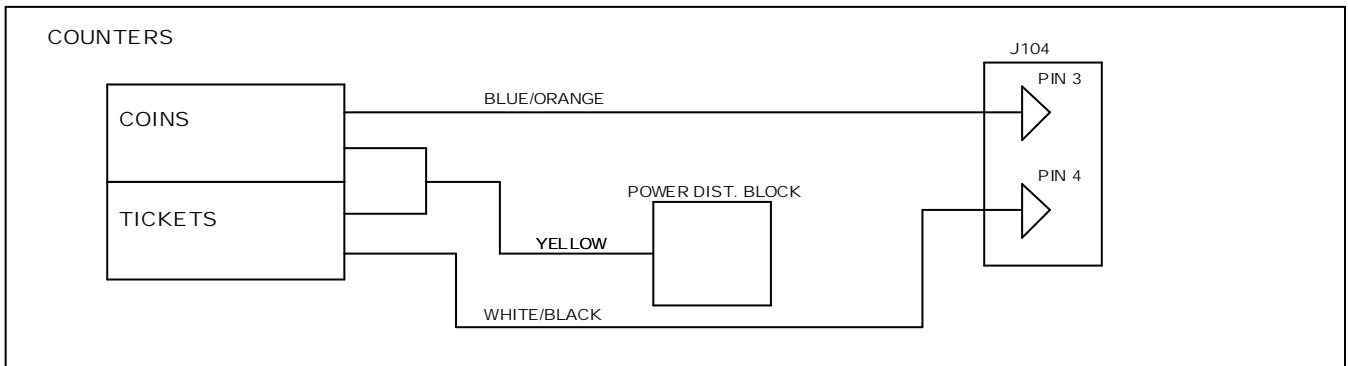
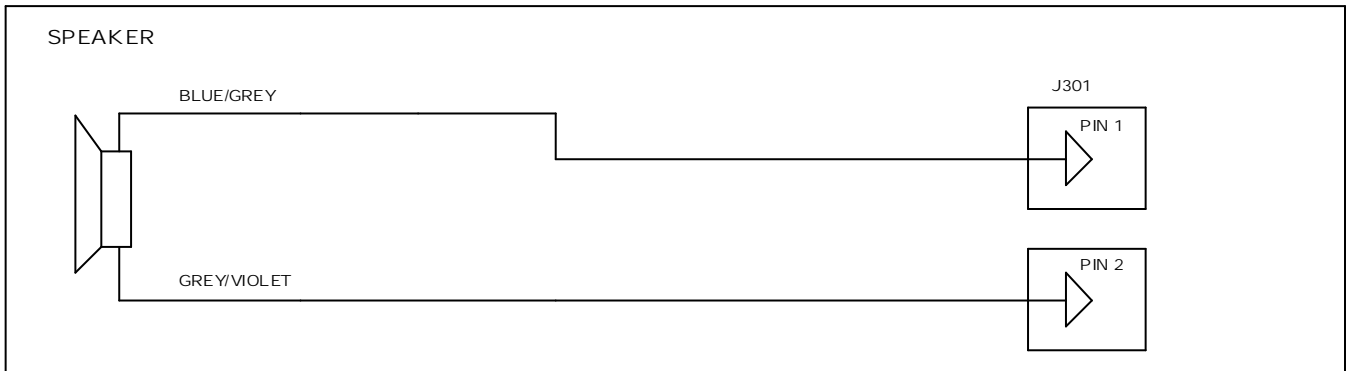
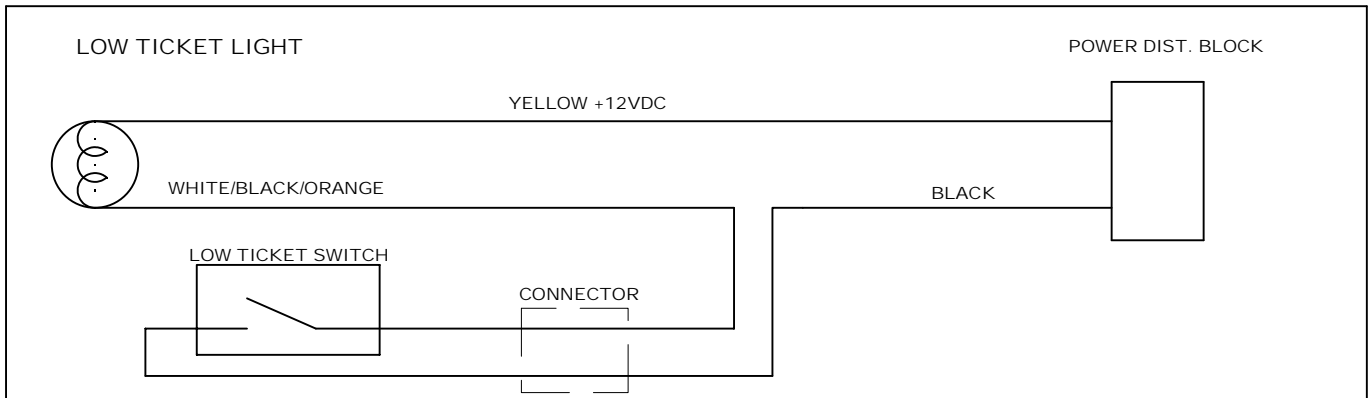
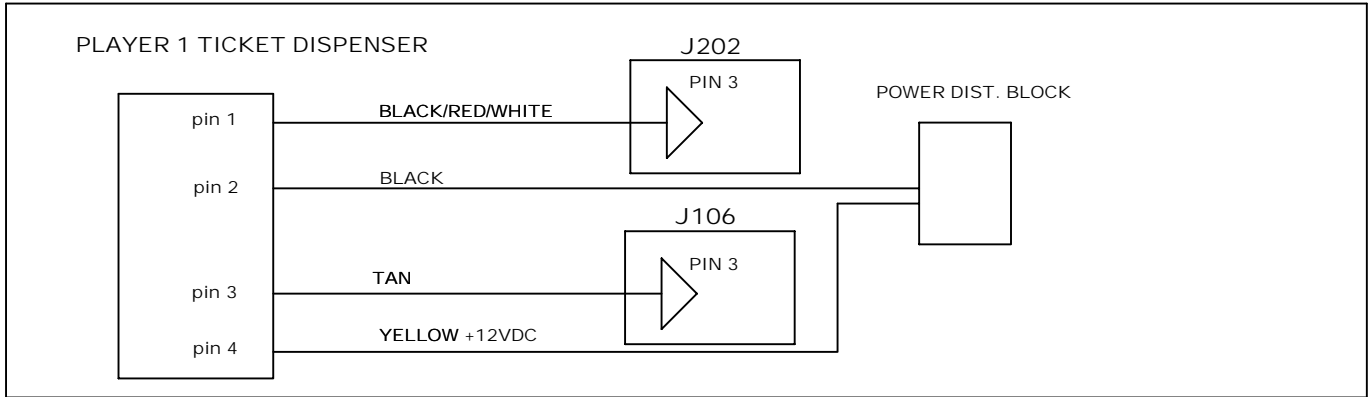




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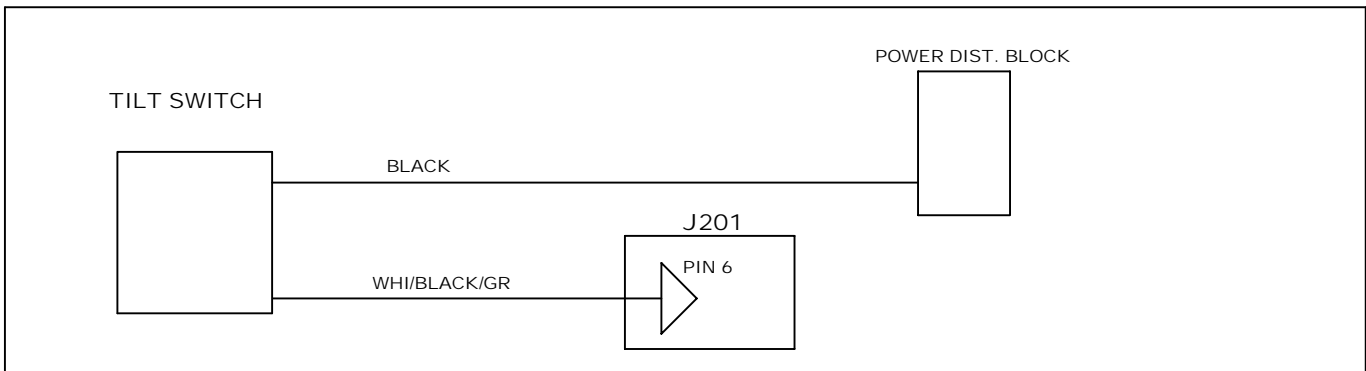
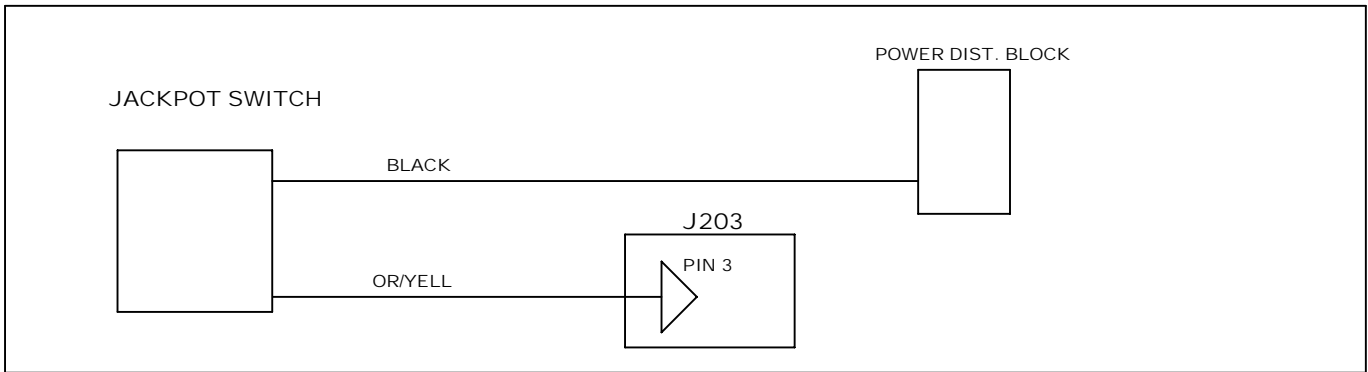
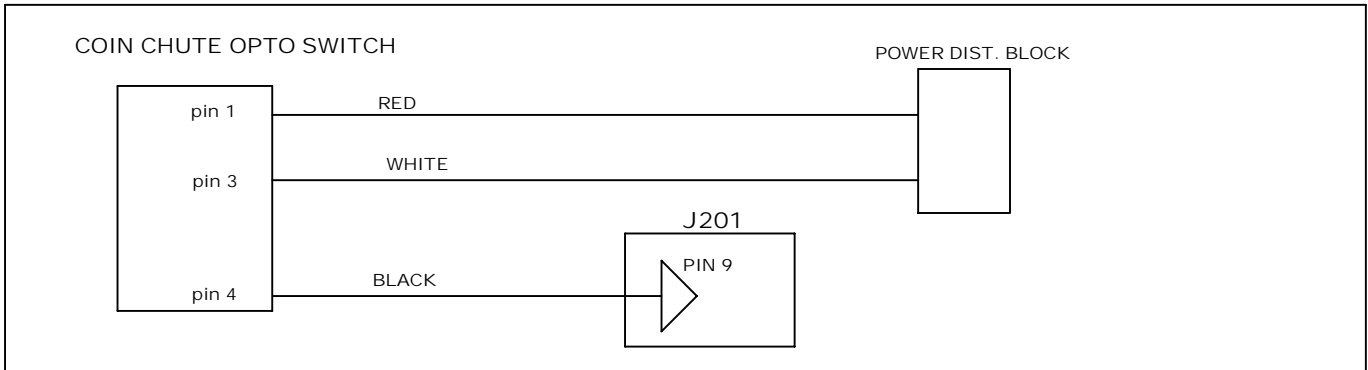
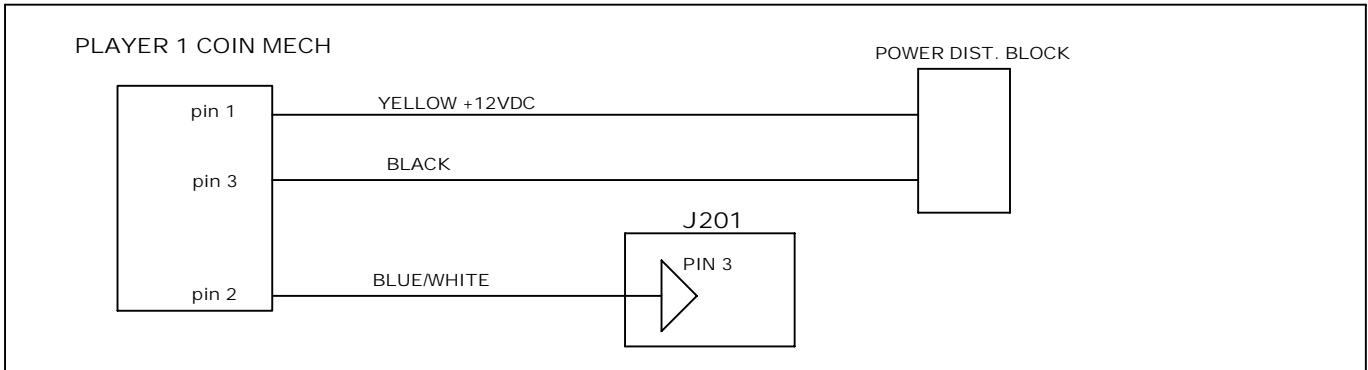


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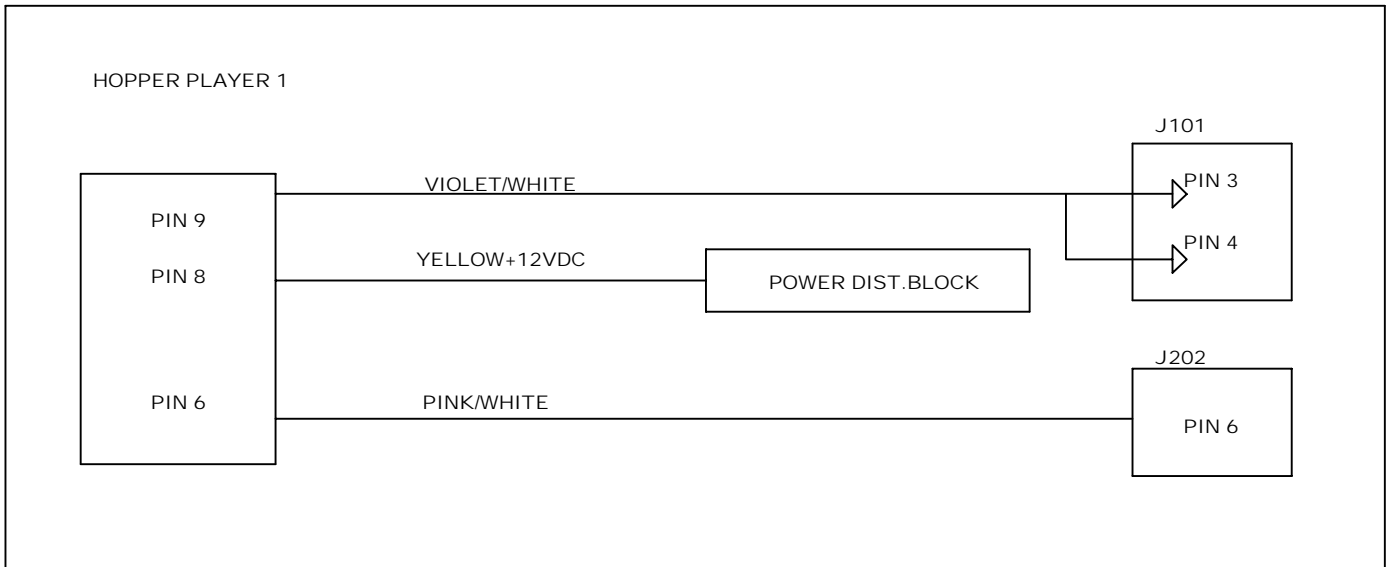
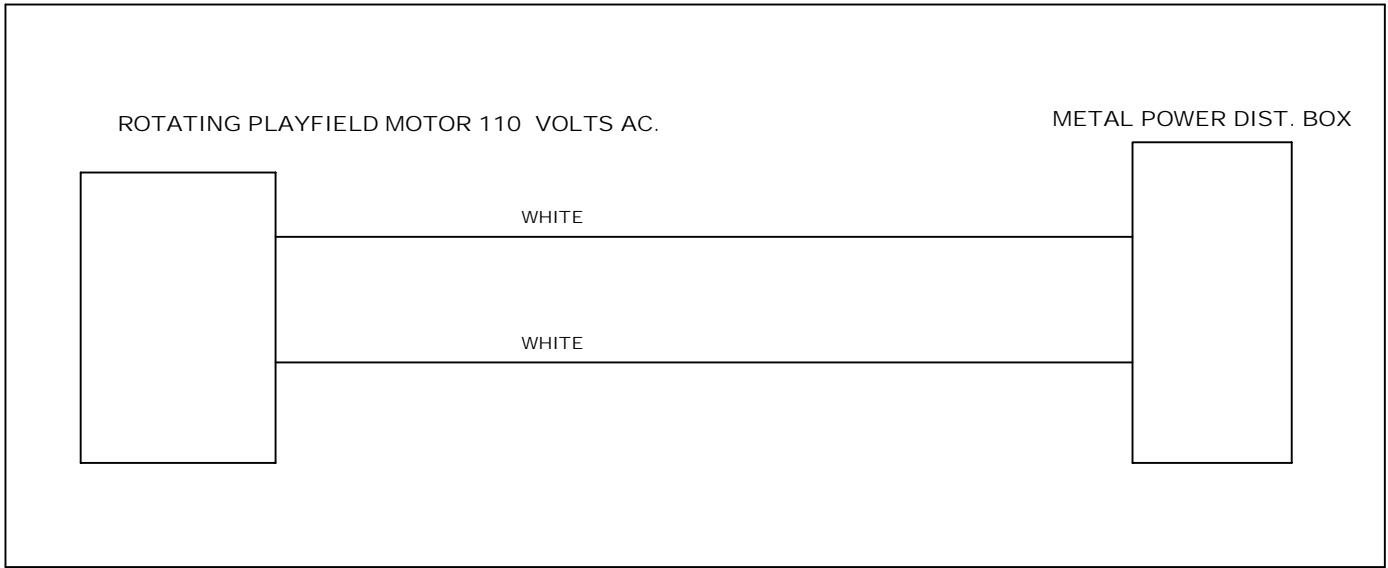


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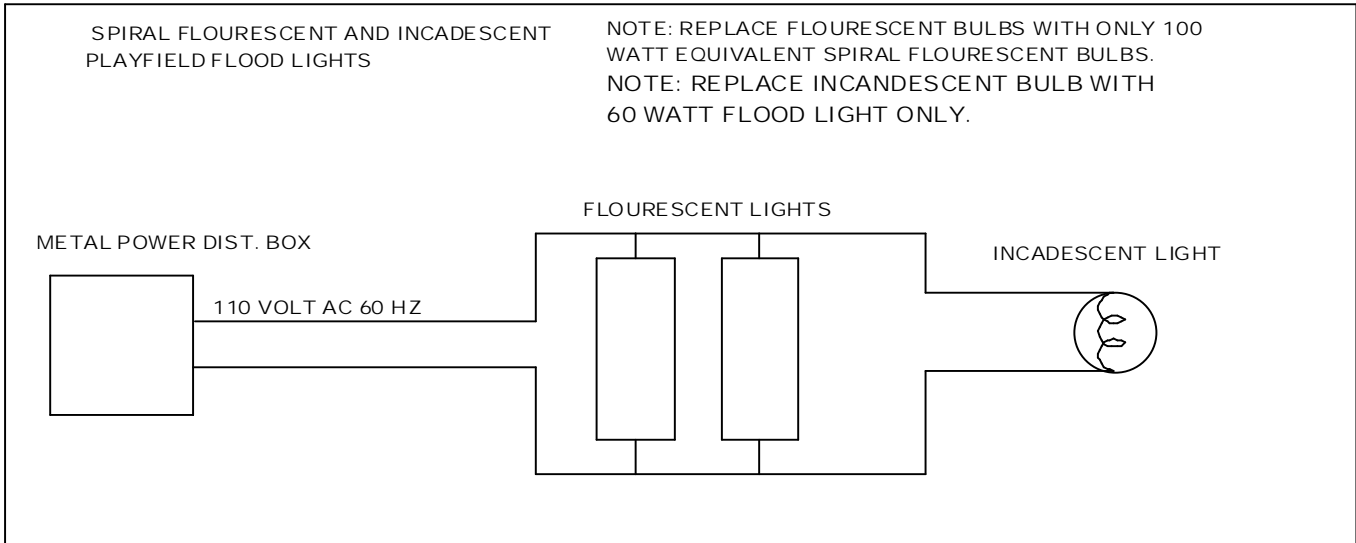
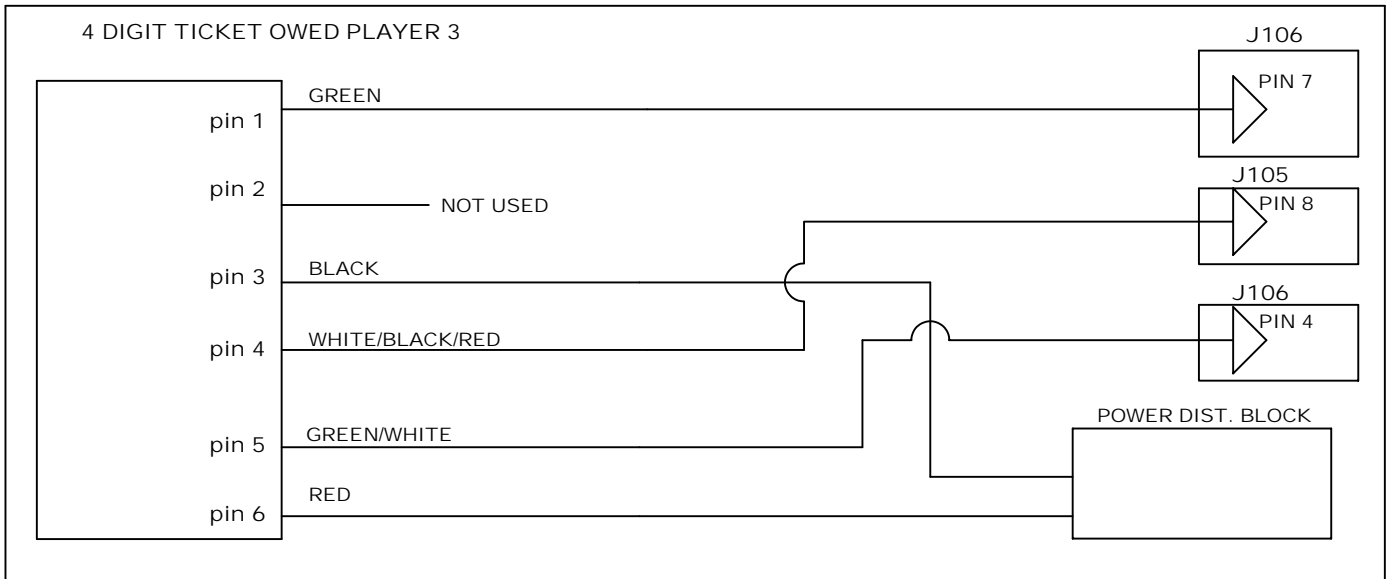
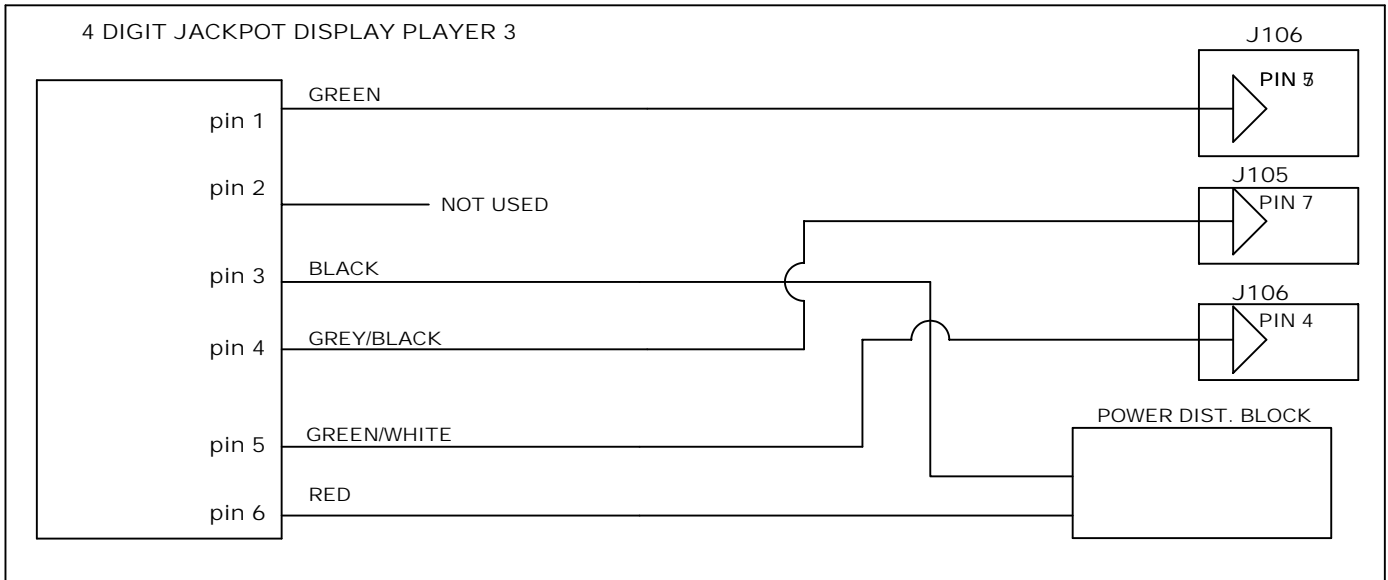
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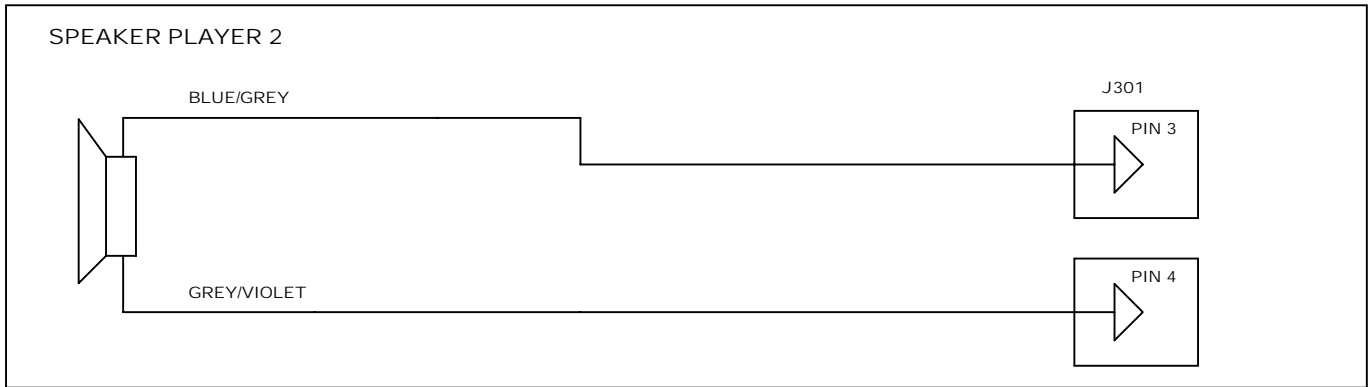
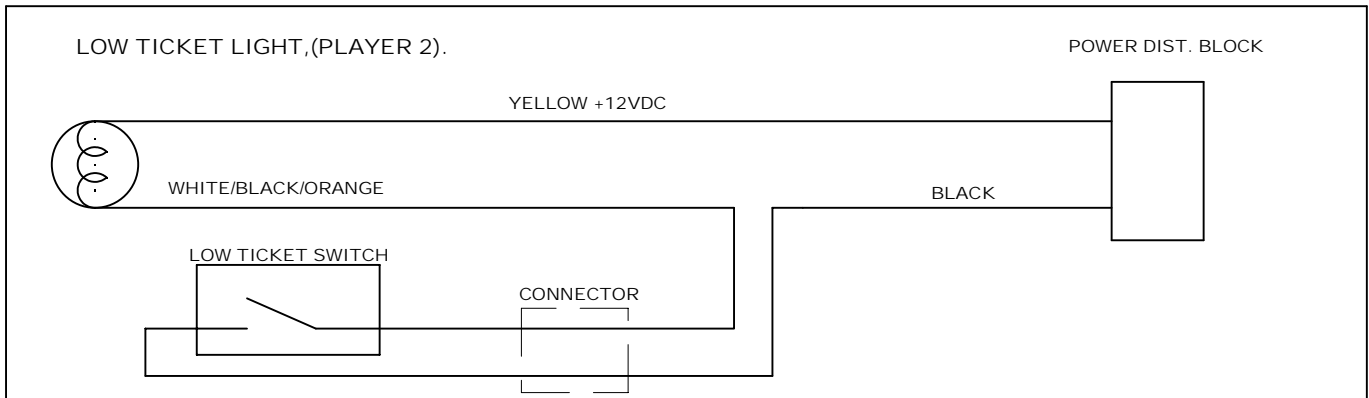
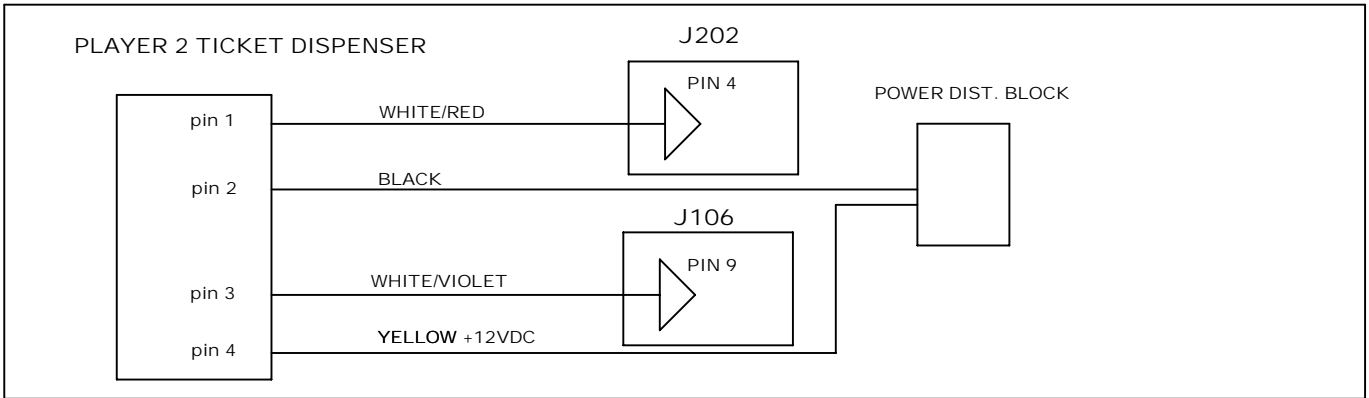


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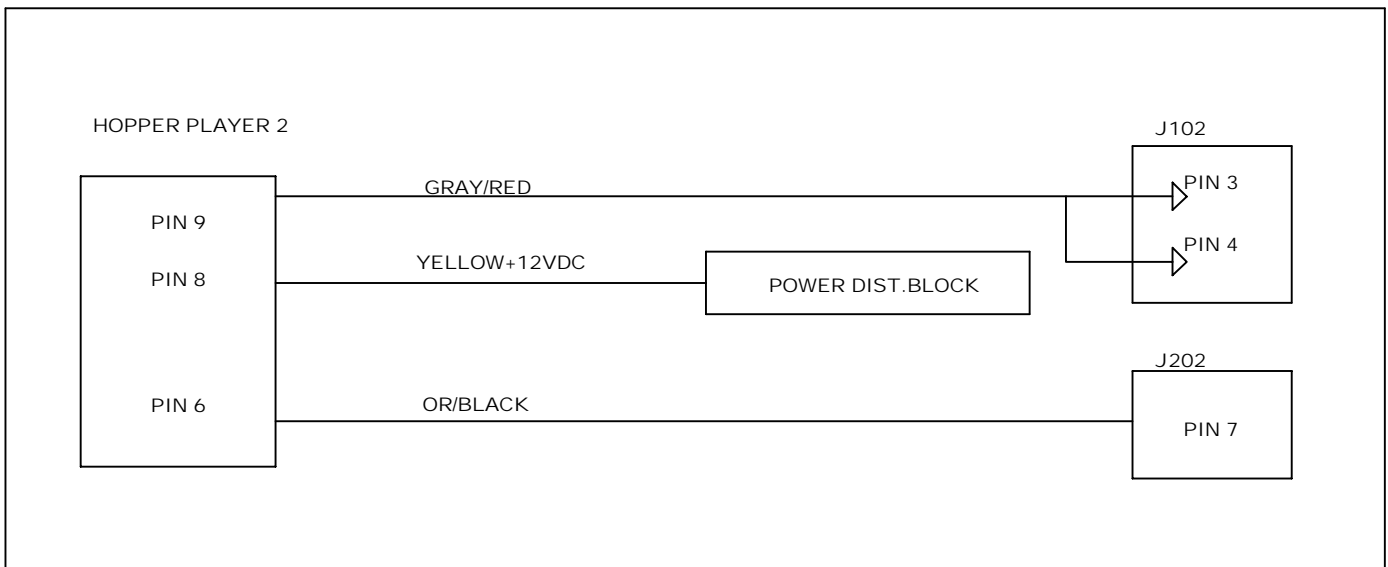
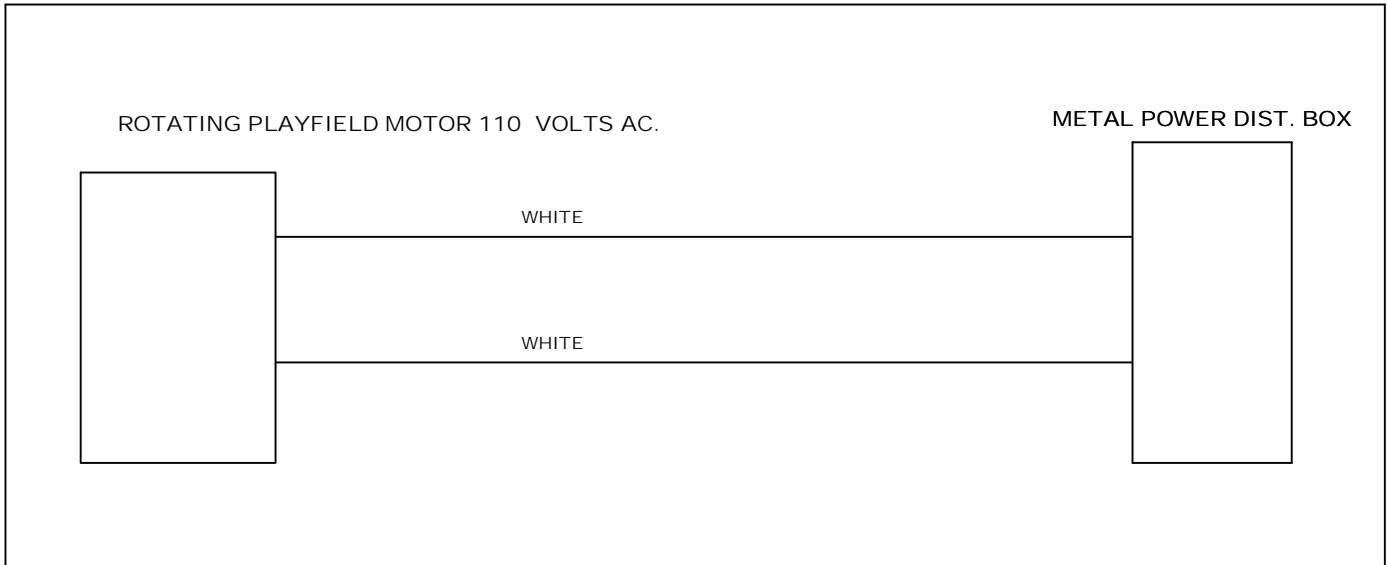


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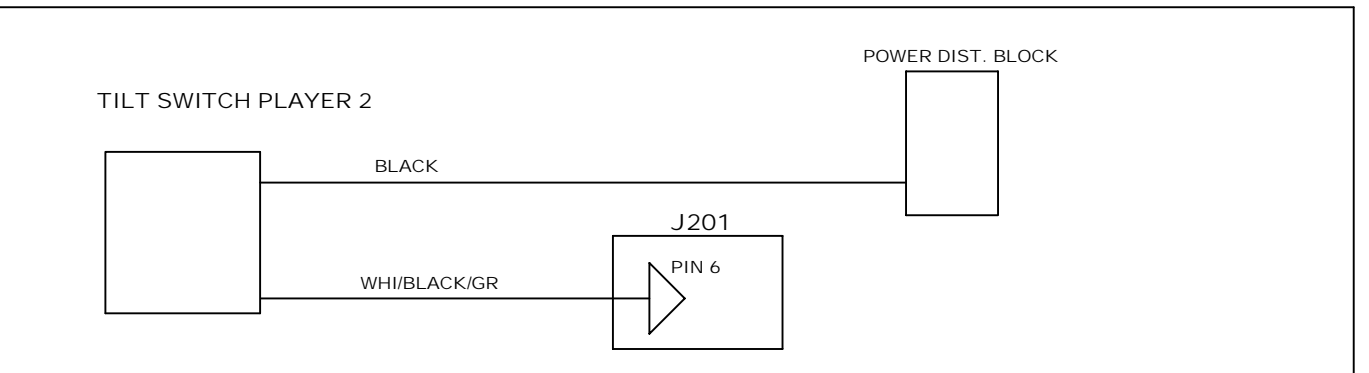
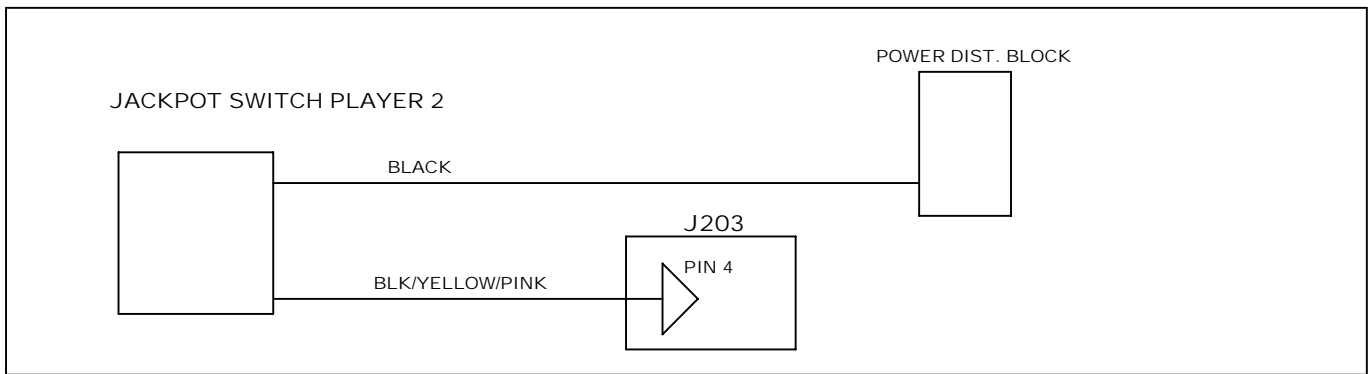
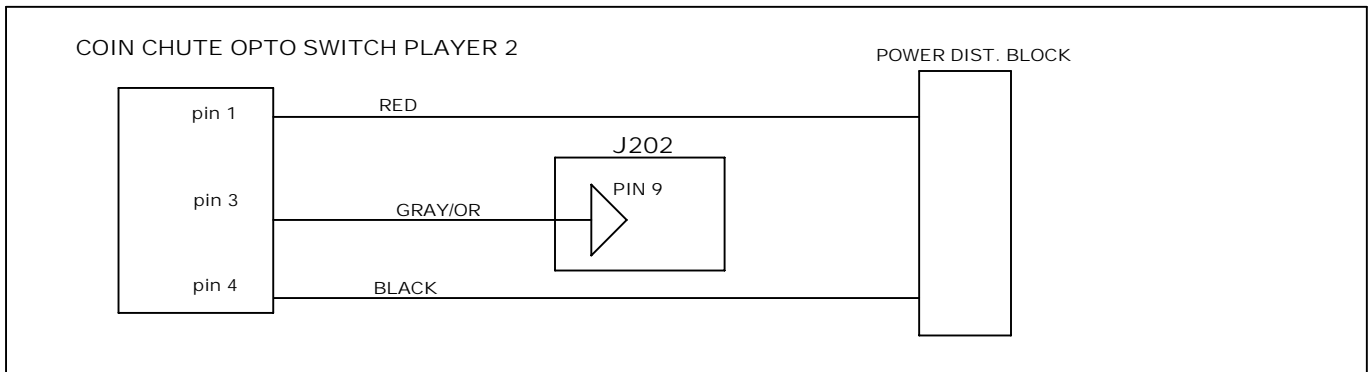
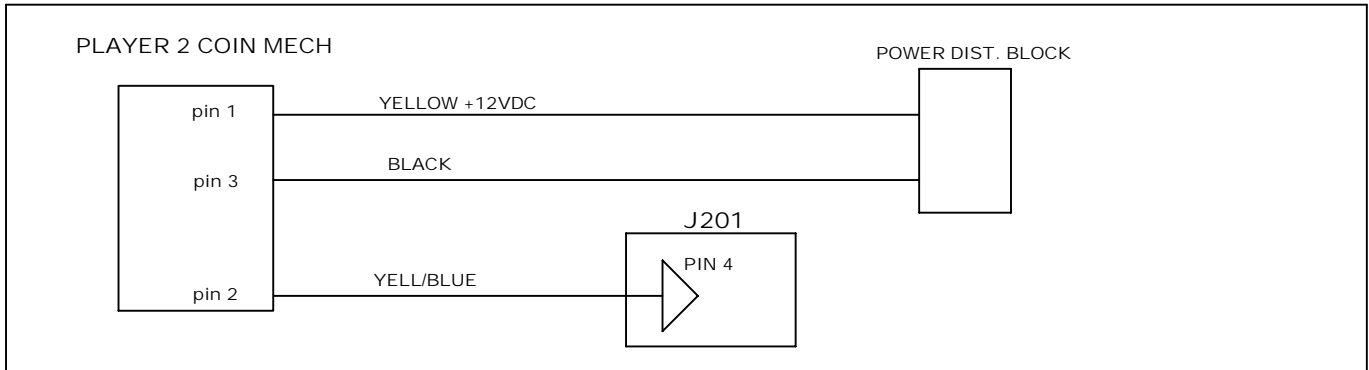
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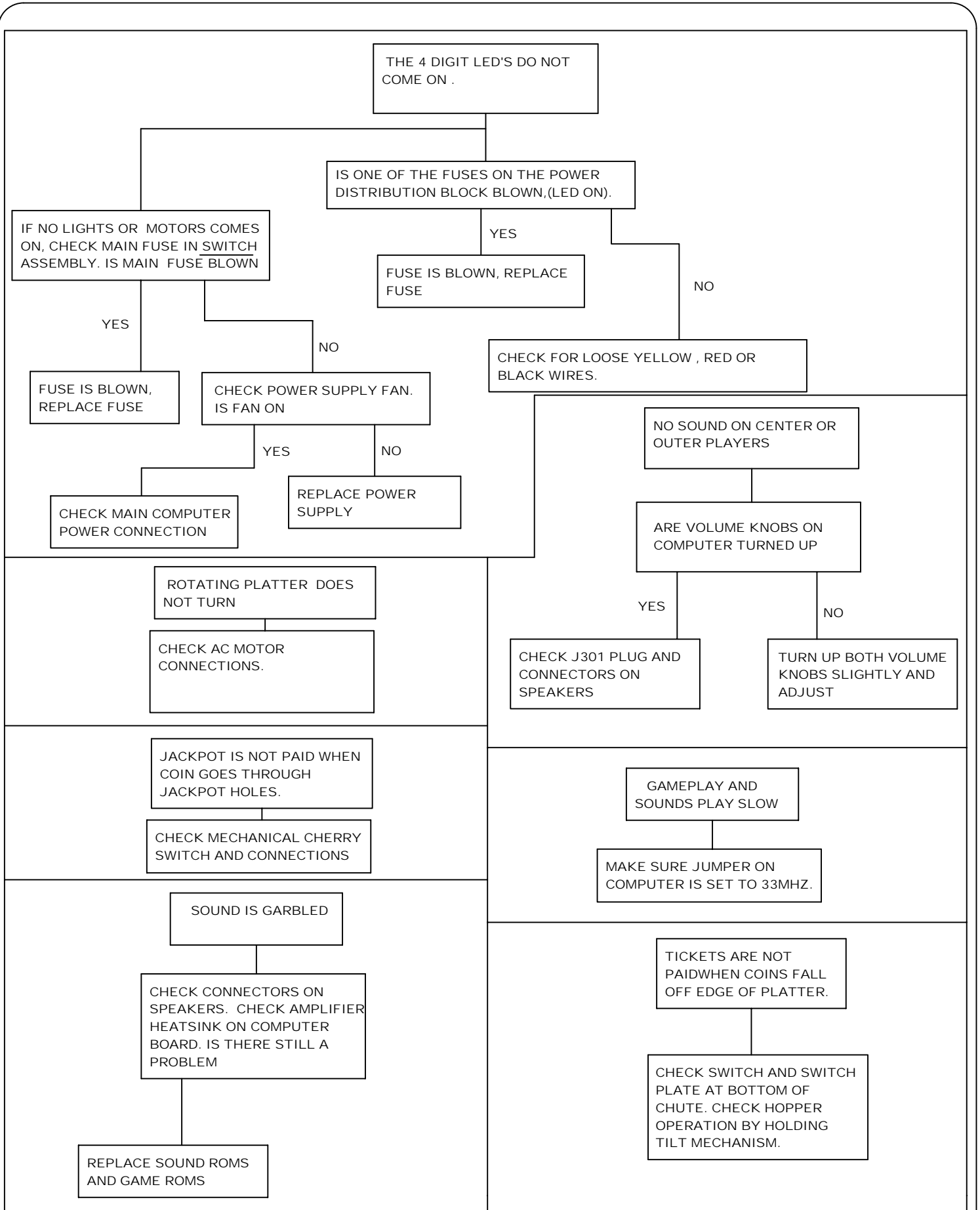


# Schematic:





## TROUBLESHOOTING GUIDE



## TROUBLESHOOTING GUIDE CONT'D

