

# DOG POUNDER AIR

## OPERATION MANUAL



### WARNING

Be sure to read this Operation Manual before using your machine to ensure safe operation.

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## DOG POUNDER™ ARCADE Air Version



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# 1. SPECIFICATION

## IMPORTANT SETUP INFORMATION

**CENTER LEVELER ADJUSTMENT** – The center foot leveler adjustment is critical to the proper operation of the game. The purpose of this adjuster is to control cabinet vibration to prevent damage to electronic and other components in the game. When the adjuster is properly contacting the floor, any force from the mallet that is transmitted through the pivot mechanism will be transmitted directly to the floor and NOT the bottom of the cabinet. It is important to make sure the weight of the game is equally distributed across all 5 legs to avoid rocking and damage.

**CENTER  
LEVELER**



To ensure the proper operation and longevity of you game, make sure that the center leveler located directly under the pivot mechanism is FULLY extended to the floor. If not, turn the adjusting nut until the leveler is making FULL contact as shown in the illustration.

**DOOR OPERATION** – It is important for the cabinet of the game to be squared up for the front door to open and close smoothly. The squareness of the cabinet is adjusted at the factory; however the floor may not be level where you are installing the game. Check that the space across the top edge of the door is even all the way across the front as shown in the illustration. If it is not, there is threaded adjustment rod inside the game to ensure that the game is square. Loosen and adjust the lower nut set in or out until the cabinet door operates smoothly and the space across the top is even.



**ADJUSTMENT  
ROD**

**FRONT DOOR  
(TOP EDGE)**



**MALLET  
HOLDER**



**MALLET HOLDER INSTALLATION** – Install the mallet holder using the supplied hardware as shown.

## 2. INTRODUCTION

### 2-1. Overview and Technical Features:

#### OVERVIEW

Thank you for purchasing the new Dog Pounder™ arcade game from Bob's Space Racers®. Your new game will provide you and your customers with years of fun and satisfaction. Bob's Space Racers® products are the result of years of arcade and gaming experience.

#### FEATURES

**CABINET DESIGN** – The cabinet has been manufactured from only the best marine grade laminated plywood, powder coated heavy gauge steel and other available materials. All materials going into this game have been thoroughly tested to assure only the finest quality and best results for our customers. All materials are carefully selected to provide the best possible performance for which they are designed.

**ENGINEERING** - Your new Dog Pounder™ game has been designed and engineered using state of the Art 3D solid modeling technology. This assures the best possible design possible. Advanced structural analysis is used to determine the strength and durability of key components to assure years of reliability.

**ELECTRONICS** - The electronics incorporated are proven industrial grade components. Combined with state of the art software design, the implementation is second to none. Combining an elegant design with rock solid reliability, you can be confident that your game will last for years of service.

**PROGRAMMABILITY** - The game incorporates unique self adjusting difficulty levels to aid all players in achieving good play results regardless of their skill level. This helps to make the game more fun and competitive for people of all ages, yet keeps the net earnings consistent regardless of player skill.

**COLORFUL GRAPHICS** - The look and feel of the game has been tailored to fit a wide variety of players, from the youngest kids to adults. The resulting broad player appeal will help to maximize your earnings.

#### GAME PLAY

1. The player begins by inserting enough money into the game to earn a credit and automatically start the game.
2. The game will briefly instruct the player before beginning the game. (If the player is impatient and hits the paw button, the instructions will be bypassed and the game will begin).
3. Once the game begins, the player will use a special foam covered mallet to hit the target button. When the player hits this button, the balls inside the game will be thrown up into the air and into the mouth of the Dog character.
4. The object of the game is to "Fill the Dog's Belly". There is a clear belly view window on the dog character. As the player feeds the dog, the belly can be seen to visibly fill.
5. If the player can fill the belly before time runs out, they win the big Bonus Ticket Prize. If not, they win a pre-determined amount of tickets based on how many balls they did get into the dog's belly.

#### MAINTENANCE

Due to the physical play of the machine, some periodic maintenance is required.

**CLEANING** - Clean the outer surfaces of the game with a commercial spray type cleaner. DO NOT however, use glass cleaner or commercial sprays on the marquee graphic panel. Use a good quality spray type furniture polish to keep the game looking good.

Vacuum the inside of the game occasionally to help keep the dust and ticket debris off of all the optical sensors.

(You might need to replace your mallet every once in a while).

**NOTE: Refer to the weekly preventative maintenance schedules to avoid unnecessary game wear and keep the game in its best condition.**



## 2-2. Important Safety Information:

### IMPORTANT SAFETY INFORMATION

**WARNING: Unplug the game from the AC wall receptacle when servicing this product. Failure to do so could result in serious injury to yourself or others.**

Use only a GROUNDED AC receptacle. Failure to do so could result in improper operation or damage to the game and could void your warranty. If you are unsure that your AC receptacle is properly grounded, have a qualified electrician perform this check for you.

Always be sure power to the game is turned off when doing even routine maintenance. Otherwise moving parts could activate unexpectedly causing injury.

This product is heavy, necessitated by the design. When moving this game, be sure you have adequate help. Use a suitable dolly or hand truck where practical. Use back support when needed.

### SET UP

There is very little to do in the way of set-up in the game.

1. Be sure that the game is on a level surface. If the game is rocking on the floor adjust the legs to remove the rocking of the game. It is very important that the weight is distributed evenly to all the legs. This will help avoid damage or unnecessarily large amounts of weight and pressure on only one or two of the legs.

2. Be sure to plug the game into the proper A.C. GROUNDED receptacle. Do not use long extension cords unless absolutely necessary and if so, be sure it is a heavy duty cord of at least 16 Ga. and no longer than 20 ft. Check the label on the back of the game to make sure the power requirements of the game match that of your location.

3. Turn the game on and check to be sure there are no unusual sounds and that everything appears to be working correctly.

## 3. PROGRAMMING

### 3-1. ENTERING PROGRAMMING MODE:

The programming options are readable only by the game operator for the purpose of customizing the game to suit their location.

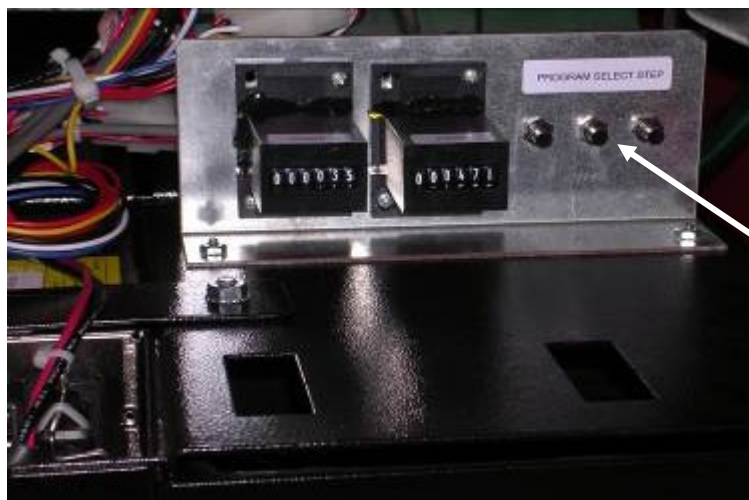
The operator will press the "PROGRAMMING" button once to enter the programming mode.

The operator will press the "SELECT" button to scroll through the various options that are on the left-hand display.

The operator will press the "STEP" button to scroll through the various settings for each option that are shown on the right-hand display.

The operator will press the "PROGRAMMING" button once again to EXIT the programming mode and save all of the new values to the games memory.

Below is detailed information for the operation of each of the programming options.



**PROGRAMMING  
PANEL**

### 3-2. VOLUME:

This option controls the sound volume from the speaker on the front door of the game. The range for this option is **1-6** (6 being the loudest). The default value for this option is 5.

### 3-3. COINS PER CREDIT (COIN/CR):

This option determines how many coins are needed to earn a credit. Each credit will automatically start a game. The range for this option is **1-8**; the default value for this option is **2**.

**NOTE: There is no "free play" option for this game. If free play is desired, set the game to 1 coin per credit and install a momentary contact push button to start the game.**

### 3-4. ATTRACT MODE (ATTRACT):

This option determines how often an audible barking sound will be heard from the game. The range for this option is **0-9** (minutes). Setting a **0** shuts the attract mode off. The default value for this option is **5**.

### 3-5. GAME TYPE (GAME):

This game has the option of being set for 2 different types of game play. The first game option is the **BELY** (Fill the Belly) mode. In this game, the player tries to fill the Dog's belly before time runs out.

The second game option is the **SCR** (Best Score) mode. In this game, the player tries to get the highest score possible before time runs out. In this version, the belly never fills up and the ball gate remains open.

**NOTE: We recommend the Fill the Belly mode of play, but supply both versions to allow the operator more than one type of game play for special applications.**

The default value for this option is **BELY** (Fill the Belly mode).

### 3-6. GAME DIFFICULTY (DIFF):

This option determines how hard the game is for the player to play. The range for this option is as follows:

**AUTO** - Automatic difficulty

**EASY** - The easiest setting. Used for small children

**NORM** - Normal difficulty

**HARD** - For mostly adult clientele

**EXP** - For all adult clientele

**PRO** - For professional grade players

The default value for this option is **AUTO**.

**AUTOMATIC DIFFICULTY** - Whenever practical, we highly recommend using the automatic difficulty setting. This mode is provided to help the game operator and customer alike. The way the game works is that it always begins at the highest degree of difficulty. The game then monitors the score progress in relationship to the time left on the game. If the game determines that a player can not win based on their score and time left, the game will automatically give the that player more time to give them a chance to win. The game will do this twice during the course of the game. The adjusted time is visible to the game player on the time left indicator.

This mode is used to aid players of a lesser degree of skill. It is intended to make the game fairer to less talented players, yet keep the amount of winners consistent. By helping the less skilled players to win, the win percentages are kept consistent, but not excessive since payout percentages are based on the skilled player to begin with.

### 3-7. MINIMUM TICKETS (MINTX):

This option determines the minimum amount of tickets the player will receive for playing regardless of score. The range for this option is **0 - 9**, the default value for this option is **3**.

### 3-8. BALLS PER TICKET (BPT):

This determines how many balls must be scored to pay out 1 ticket. The range for this option is **0 - 9**. The default value for this option is **3**. (1 ticket for every 3 balls scored).

**3-9. BONUS TICKET VALUE (JVAL):** This option determines the amount of bonus tickets paid out if the player wins the game. The range for this option is **0-500**. The default value for this option is **100**.

**NOTE: When the game is won, the bonus ticket value is paid out, and any other ticket payouts for the game are ignored.**

**ALERT: If the games BONUS TICKET VALUE (AKA Jackpot Value or JVAL) has been set to a value of 0, no tickets are awarded but a free game is awarded as the prize for scoring the jackpot. If you want tickets to be offered you must set the BONUS TICKET VALUE (AKA Jackpot Value or JVAL) to at least a value of 10.**



**3-10. HAND:** This option should be set to 1 for Air Version.

**3-11. RESET:** *(Default programming value - reset)*

This option is used as a convenient way of quickly re-setting all of the programming values to their factory default. This is also a handy option to try if the game memory has somehow been corrupted. The value for this option is **0-1**. The default value for this option is **0** (off). Change to **1** to reset the values.

### 3-12. PROGRAMMING OPTIONS:

STANDARD ARCADE OPTIONS	
VOLUME	5
COIN/CR	2
ATTRACT	5
GAME	BELY
DIFF	AUTO
MINTAX	3
BPT	3
JVAL	100
HAND	1
RESET	0

### BALL STOP CURTAIN

The ball stop curtain should be used to make scoring easier if your customers are **VERY YOUNG**. This should NOT be used with older customers or the scoring will be way too easy.

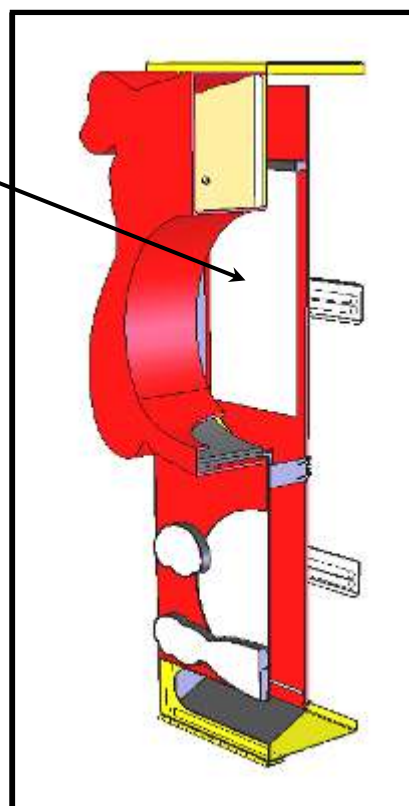
This should be used in conjunction with the set up for Kiddie arcades.

To use the BALL STOP CURTAIN:

1. Turn off AC Power and unplug the game
2. Open the front of the game by removing the front glass retaining bracket and bolts.
3. Remove the front window assembly by lifting straight up on it and then tilting it out from the bottom.
4. Loosen the 2 thumb screws that are located above the Dog head and push the playfield retaining bracket up. Re-tighten the thumb screws to hold the bracket in the up position.
5. Tilt the playfield all the way forwards to gain access to the sensors. Do this by grabbing onto the Dog's head and pulling forwards.

**NOTE: PUT A PROTECTIVE CLOTH DOWN ON THE SCORE HOUSING BEFORE TILTING THE PLAYFIELD FORWARD TO PREVENT SCRATCHING ON THE DOGS HEAD.**

**BALL  
STOP  
CURTAIN**



6. Un-tape the clear plastic curtain from the top rear of the playfield backing panel and push it over to the front side of the backing panel so the balls will hit it when entering the Dog's mouth.

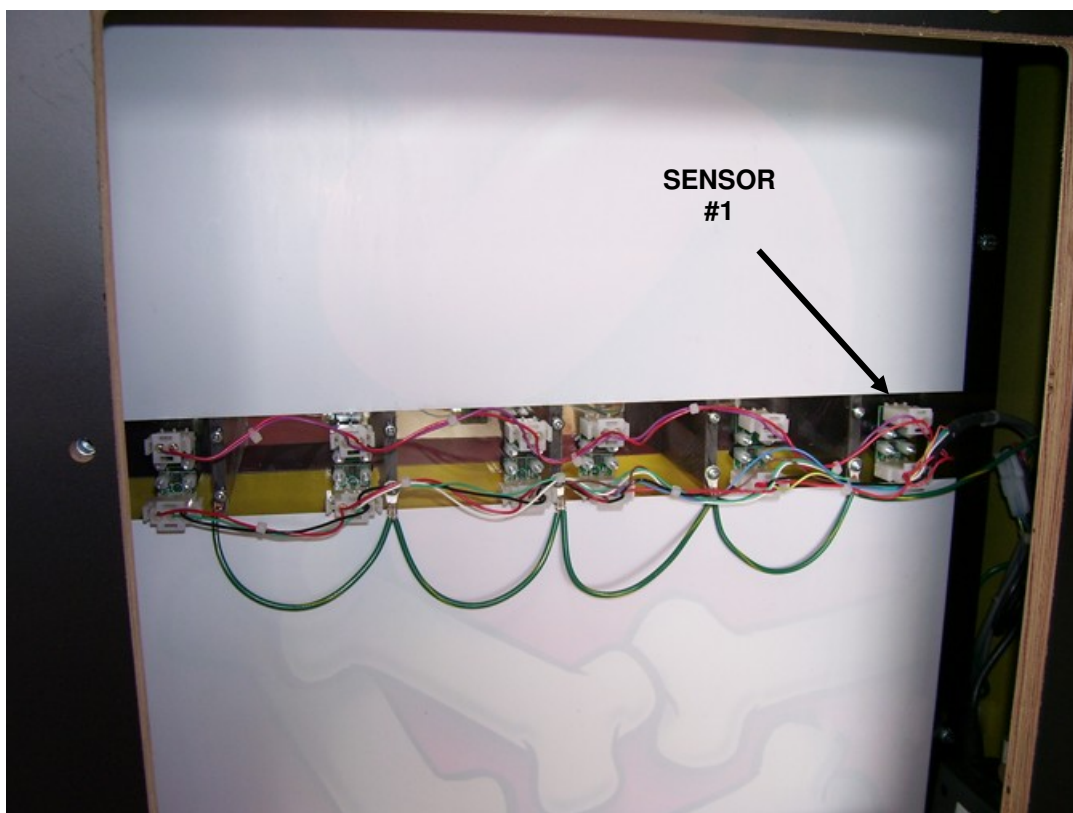
KIDDIE ARCADE OPTIONS	
VOLUME	5
COIN/CR	1
ATTRACT	5
GAME	BELY
DIFF	NORM
MINTAX	2
BPT	9
JVAL	10
HAND	1
RESET	0

## 4. ERROR MESSAGES

If the game displays a **GET HELP** message, press the programming button to read the error messages.

### SEN (Sensor error)

This message displays the score sensor that is faulty. The sensors are numbered 1 thru 6 from the left-hand side of the game as viewed from the front.



## 5. MAINTENANCE AND TROUBLESHOOTING

### 5-1. Quick Troubleshooting:



#### **WARNING**

For your safety and to reduce risk of damage to your game read the Important Safety Information in Chapter 2-2 before attempting any troubleshooting procedure.

### TROUBLESHOOTING PHILOSOPHY

When troubleshooting any product, certain general guidelines should be followed.

1. Always check to be sure that your game is turned on. Be sure that all of the fuses in the game are functional and check to see that the AC voltage is in the proper operating range for your game.
2. Check to be sure that all of the game harnessing is plugged in properly and that all of the pins are firmly seated in the connectors. It is always possible that a harness can be damaged by rough shipping or moving.
3. Check game harnessing to be sure that none of the wires have become damaged. Using a handheld multi-meter, check continuity of the wires to make sure they are not broken.
4. Check for obvious damage to any P.C. Boards or electrical components.
5. If you have multiple games or multiple parts on a game, change or exchange the parts and see if the problem goes away or moves to another location. This way you can quickly eliminate certain parts as being the problem with the game.
6. When changing electronic or electrical components, ALWAYS turn off and unplug the game.
7. Check to see that all power supplies are delivering the specified voltages to the P.C. Boards and components as shown in the manual.

### TROUBLESHOOTING

If the rubber ball hammock does not move, be sure to check the following for possible problems in this order:

1. Check game for proper power source at game and main fuse.
2. Check to be sure that you are supplying at least 90 PSI of clean compressed air to the game and that the pressure regulator is set for 90 PSI (pounds per square inch). The air line must be connected to the pressure regulator inside the game.
3. Check all wiring connections and ground wires inside lower cabinet.
4. Check hand option is set to 1.
5. Check that the Push button assembly LED sensor boards are working properly. There are 2 boards on the button assembly. Each one has a test LED on it. Slowly push the button down and you should notice that the left sensor LED should flash off and back on when the button is pushed down slowly. The sensor on the right hand side should also flash the same way as the button is pushed down further. If one of the sensors LED's do not flash when the button is moved slowly, one of the sensors is either dirty and needs cleaned; or faulty and must be replaced. Both sensors must be working for the game to function properly. On a rare occasion a faulty board might be the cause.

6. If the protector diode to the air valve is bad, the air valve will not work correctly. To test for proper operation of the diode, disconnect the connector to the air valve. Disconnect the other end of the harness at the Main P.C. Board. Insert a test meter into the connector that plugs into the air valve and do a diode check. If the diode is bad, replace the diode.

7. If the diode checks O.K., apply 12 volt DC to the 2 pin connector of the air valve. This should fire the air valve. If it does not, the air valve is bad. If it does fire, then there is a problem with the Main P.C. board and it should be replaced.

**NOTE: IT IS POSSIBLE THAT A BAD DIODE CAN CAUSE DAMAGE TO THE MAIN P.C. BOARD. IF REPLACING THE DIODE DOES NOT FIX THE PROBLEM, REPLACE THE MAIN P.C. BOARD ALSO.**

**COMPONENT PARTS ARE NOT SERVICED SEPARATELY. THEY MUST BE PURCHASED AS COMPLETE PARTS.**

If the game displays a "GET HELP" message on the display, press the PROGRAMMING button to check for error messages. (See the ERROR MESSAGES section in this manual for explanations).

For detailed servicing and repair information see the full the full repair section of this manual.

Symptom	Possible Problem	Solution
	<b>Power</b>	<b>Power</b>
Sound Problems -No sound -Low Sound -Intermittent Sound	Low Volume Faulty speaker harnessing Faulty speaker Faulty sound board or sound board harnessing Faulty Main P.C. Board	Check Volume Control and adjust as necessary Check connections and/or repair harnessing Check and/or replace speaker Check connections or Replace Sound Board Check and/or repair or replace Main P.C. Board
Game does not take or add money correctly	Coin switch out of adjustment Coin mech dirty or improperly adjusted Faulty Coin switch Faulty coin switch harness or connector Improperly programmed electronic mech Game improperly programmed Faulty Front Panel Board Faulty Main P.C. Board or component	Re-bend coin switch wire Clean and adjust mech as necessary Check and/or replace switch Check and/or repair harnessing Reprogram or replace electronic mech Check programming options and adjust Repair and/or replace Front Panel Board Repair and/or replace Main P.C. board
Ticket Dispenser not working properly, or no tickets being dispensed	No tickets in the game Tickets jammed in dispenser Ticket dispenser sensor blocked with debris Poor connection on the ticket dispenser Game improperly programmed Faulty ticket dispenser Faulty ticket dispenser harnessing Repair and/or replace Front Panel Board Faulty Main P.C. Board	Refill ticket dispenser and press the reset button Clear ticket jam Clean off sensor Check and/or replace connectors Check ticket programming options Replace dispenser Check and/or repair harnessing Faulty Front Panel Board Replace or repair Main P.C. Board
Game will not start	Game power off Main fuse blown Ground wire broken or loose Power Supply problem or failure Faulty P.C. board or component	Check on/off switch and power cord Check and/or replace fuse as necessary Replace or tighten faulty ground wire Check Power Supply output and connections Repair and/or replace main P.C. board
Game stops or is stopped with nothing displayed	The power connector is disconnected. Possible faulty connection or short circuit.	Reconnect the connector securely. Check all circuitry for faulty connections or short circuits.
Game resets when hit	Ground wire broken or loose Check AC plug in at power supply	Replace or tighten faulty ground wire Insert A.C .power plug into power supply and secure
Balls will not launch into the air	Hand Program option set wrong Ground wire broken or loose Low or no air pressure Ball hammock broken Pivot arm issue Faulty valve harness or solid state relay Faulty main P.C. board	Set or reset Hand Program option to 1 Replace or tighten faulty ground wire Check air supply to game (90 psi) Replace ball hammock Check pivot arm Check valve harness and solid state relay Replace P.C. board
Players not winning game enough	Game set too difficult	Re-program to easier setting (Set game to auto-difficulty mode)
Players winning game too much	Game set too easy	Re-program to harder setting (Set game to auto-difficulty mode)
Button must be hit very hard to launch balls	Hand Program option set wrong	Set or reset Hand Program option to 1

## 5-2. Detailed Troubleshooting and Repair:

### WEEKLY MAINTENANCE SCHEDULE

1. Check mallet for wear and tear. Replace as required. Dog Pounder Air Mallet:(Part #MX800445)
2. Clean game, clean glass and Plexiglas inside and out.
3. Check balls for wear and tear. Replace as required. Ball Kit (100 assorted color): (Part #MX800450)
4. Clean inside Dogs mouth and Belly (Sensors and mirror).
5. Inspect display LED boards for proper attachment and operation.
6. Check the hammock for wear and tear (see pictures below).

**Hammock Version 1: (PART #) MX800462**



**Hammock Version 2: (PART #) MX800463**



7. Check hammock is secure and nuts and bolts are tight.
  - a. Tighten Bolt first
  - b. Affix and tighten the nut down once bolt is tightened
  - c. Adjust bolt tightness by releasing the nut slightly then tighten the bolt and re-tighten the nut.
8. Check power supply for loose hardware
9. Check all grounding wires and connections
10. Check speaker conditions and mounting
11. Check coin mechanism's condition and mounting
12. Check all electrical and mechanical components for wear  
Be sure all components are tightened and properly adjusted
13. Check that wiring in the game is properly secured and is not located in areas damage could occur.

**NOTE: IF COMPONENTS CONSTANTLY COME LOOSE A THREAD LOCKING COMPOUND IS RECOMMENDED.**



## 5-2-1. Mechanical / Motor Repair:

### HAMMOCK REPLACEMENT

A common service on this game will be occasional replacement of the ball hammock.

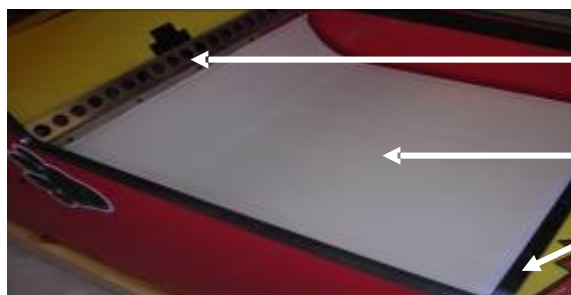
**NOTE: THE MATERIAL USED IN THIS GAME HAS BEEN CAREFULLY SELECTED FOR MAXIMUM PERFORMANCE AND RELIABILITY. USE OF ANY OTHER MATERIAL WILL ADVERSELY AFFECT THE PERFORMANCE OF THE GAME AND COULD ACTUALLY DAMAGE COMPONENTS OF THE AIR LEVER ASSEMBLY. USE OF ANY MATERIAL OTHER THAN THAT SUPPLIED BY BSR GAMES, WILL CONSTITUTE A BREACH OF WARRANTY QUALIFICATIONS AND WILL VOID YOUR WARRANTY ON THOSE RELATED COMPONENTS.**

1. To replace the hammock, remove the 3 screws that hold the window retainer bracket to the top of the control panel and remove the bracket.
2. Remove the front window assembly by lifting straight up on it and then tilting it out from the bottom.
3. Remove the 5 screws that hold the front of the hammock to the lever assembly.
4. Remove the 5 nuts and bolts that hold the rear of the hammock to the metal shelf.
5. Install the new hammock to the metal shelf. Be sure that the reinforcement strip is facing up so that it clamps the hammock material to the shelf. Tighten the bolts securely, but not so much as to excessively distort the reinforcement strip.
6. Attach the front of the hammock to the lever assembly with the 5 bolts. After tightening bolts place and tighten the nuts on the back side accordingly to double lock the fasteners.



FRONT  
WINDOW

WINDOW  
RETAINER  
BRACKET



LEVER  
ASSEMBLY

HAMMOCK

METAL  
SHELF

- A) Hammock placed against lever assembly.
- B) Aluminum angle bracket with rubber facing the plastic strips.
- C) Use only BSR complete assembled hammocks as replacement parts.

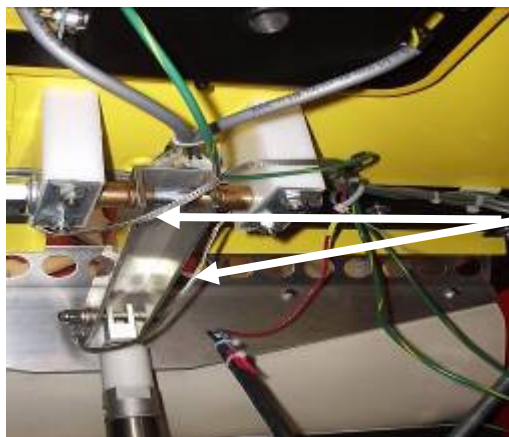
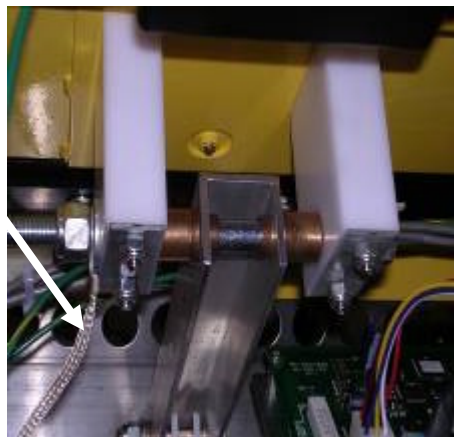
7. Tighten the nuts and bolts securely, but not so much as to excessively distort the reinforcement strip.
8. Test the unit for proper operation including the proper operation of the release lever.

**NOTE: IT IS CRITICAL TO THE OPERATION OF THE GAME THAT THIS INSTALLATION IS FOLLOWED CORRECTLY. IF YOU HAVE ANY CONCERNS, PLEASE CALL OUR SERVICE DEPARTMENT BEFORE PROCEEDING.**

### PIVOT MECHANISM GROUND WIRES REPLACEMENT

1. Remove A.C. power to the game.
2. Unlock and open front door.
3. Remove nut from bolt to release ground wires from the top left corner of coin box.
4. Remove nut from bolt to release ground wire on pivot mechanism towards the front near the hammock.
5. Replace braided ground wire (Part # EX800429) and reattach nut. **DO NOT OVERTIGHTEN THIS NUT!**
6. Remove nut from bolt to release ground wire on pivot mechanism under counter.
7. Replace braided ground wire (Part # EX800433) and reattach nut. **DO NOT OVERTIGHTEN THIS NUT!**

8. Reattach new ground wires to the top left corner of coin box and return the nut. **MAKE SURE THIS NUT IS TIGHT!**
9. Close and lock front door.
10. Reattach A.C. power to the game.

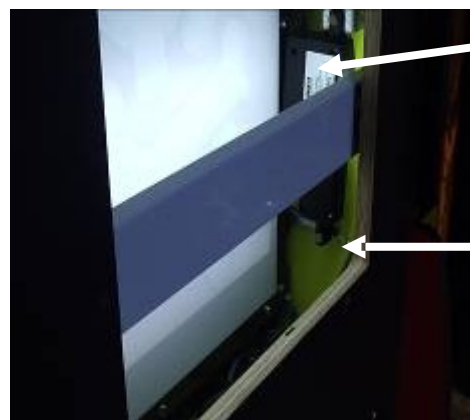
BRAIDED  
GROUND  
WIRES

**DO NOT OVERTIGHTEN THE PIVOT MECH NUTS AND BOLTS. THEY ARE MEANT TO BE LOOSE.**

## ACTUATOR MOTOR REPLACEMENT

1. Turn off AC Power and unplug the game.
2. Open the REAR of the game by removing the retaining screws around the plate.
3. Disconnect the actuator power plug.
4. Remove the 2 clevis pins that hold the actuator in place. Remove the pins.
5. Replace actuator.
6. Re-assemble in reverse order.

**NOTE: BE SURE THE NEW ACTUATOR IS INSTALLED WITH THE SAME ORIENTATION AS THE ORIGINAL.**



ACTUATOR

CLEVIS  
PIN

## 5-2-2. Electronic / Electrical Repair:

### MAIN P.C. BOARD REPLACEMENT

1. MAKE A NOTE OF ANY CUSTOM SETTINGS YOU MAY HAVE IN THE GAME PROGRAMMING.
2. Turn off AC power and unplug the game.

A.C  
POWERMAIN  
BOARD

3. Carefully remove all of the connectors from the Main P.C. Board.

**DO NOT ALLOW THE BOARD TO BEND WHEN REMOVING OR INSTALLING THE CONNECTORS.**

4. Replace board by removing the 4 screws located at each corner.
5. Once the new board is in place re-place the 4 screws into their proper places.
6. Reattach the connectors to the Main P.C. Board.
7. Plug in the game and turn on AC power.
8. Make sure the custom settings are configured the way you originally intended.
9. Play a few games to check for proper operation.

## SCORE SENSOR REPLACEMENT

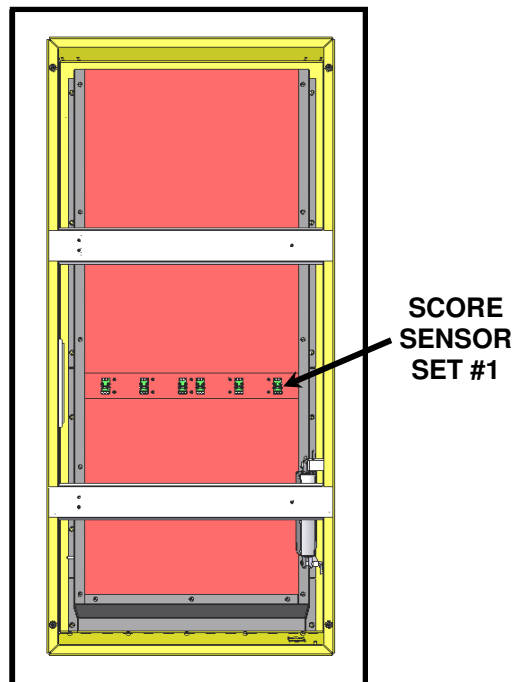
**IMPORTANT: CHECK TO SEE WHAT SENSOR NEEDS TO BE REPLACED BEFORE PROCEEDING. WHEN THE GAME SAYS "GET HELP" PRESS THE PROGRAMMING BUTTON TO SEE WHAT SENSOR IS BAD. THE SENSORS ARE NUMBERED #1-#6, WITH #1 BEING ON THE LEFT HAND SIDE AS VIEWED FROM THE FRONT.**

1. Turn off AC Power and unplug the game
2. Open the back of the game by removing the 8 retaining screws around the edge of the opening.
3. Carefully remove the rear panel and set on floor.
4. Replace the sensor pair by removing the connectors and the retaining fasteners.
5. Be sure the new sensors are installed correctly and fastened securely

**DO NOT USE METAL FASTENERS AS THEY COULD DAMAGE THE SENSOR BOARDS. USE ONLY THE PLASTIC FASTENERS SUPPLIED.**

More of these fasteners can be obtained through our service department.

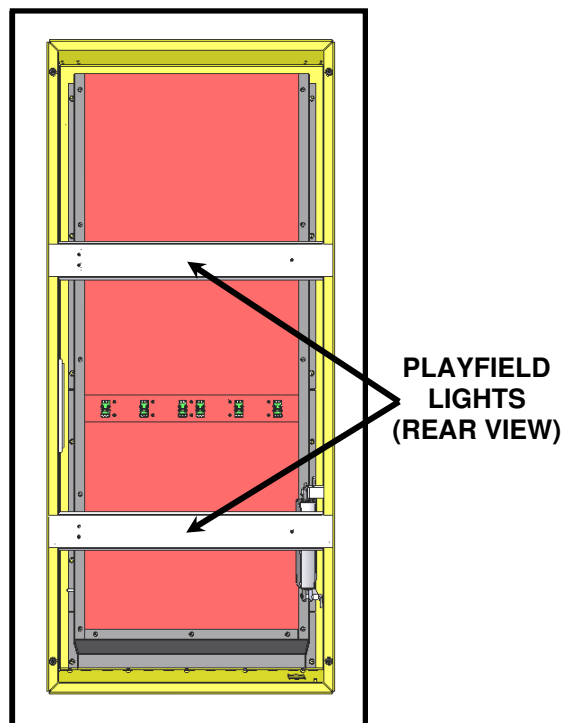
**\*SPECIAL NOTE – SENSORS MAY ONLY BE DIRTY AND MAY NOT BE BAD. TRY CLEANING SENSORS AND REFLECTIVE AREAS TO CORRECT THE PROBLEM BEFORE REPLACING THEM.\***



## PLAYFIELD LIGHT REPLACEMENT

1. Turn off AC Power and unplug the game
2. Open the back of the game by removing the 8 retaining screws around the edge of the opening.
3. Carefully remove the rear panel and set on floor.
4. Remove the bad bulb by unsnapping the retainer clip from the holder and pressing the red lock on the fixture itself.
5. Install the new bulb
6. Assemble in reverse order.

**NOTE: BE SURE BOTH THE RED 'LIGHT RELEASE BUTTONS' AND RETAINER CLIP ARE FULLY ENGAGED TO PREVENT THE BULB FROM FALLING OUT OF THE FIXTURE AND CAUSING DAMAGE.**



## 6. PART LISTINGS

**IMPORTANT: USE ONLY AN "OFFICIAL" DOG POUNDER MALLET WITH YOUR GAME. USE OF ANY OTHER MALLET WILL DECREASE THE PERFORMANCE AND EASE OF OPERATION OF THE GAME AND COULD ACTUALLY CAUSE DAMAGE. USE OF ANY OTHER MALLET COULD VOID YOUR WARRANTY FOR RELATED PART FAILURE.**

### MECHANICAL PARTS

E0800043	Bulb attachment clip
E0800044	Bulb retaining clip
EX800433	Grounded. Jumper braided
M0005012	Clevis pin
M0800036	Cash Box
M0800202	Ticket bin
M0009606	Lock, 103 key 1 1/4" thread
M0009607	Lock, 103 key 3/4" thread w/st cam
MX800407	Ball Stop Curtain Assembly
MX800461	Pivot Mechanism Air Assembly – DP AIR
MX800417	Dog Head Assembly
MX800440	Mallet Holder
PX800478	Cylinder Assembly Pivot Mech, DP AIR
W0800084	Adjustable Foot
W0800408	Front window retaining Bracket
W0800460	Front window, Acrylic 1/4"
W0800461	Window, 1/4" Tempered Glass SIDE
W0800482	Plate, Support PD Bd. DP
WX800481	Button Assembly V2 DP AIR

### ELECTRONIC / ELECTRICAL PARTS

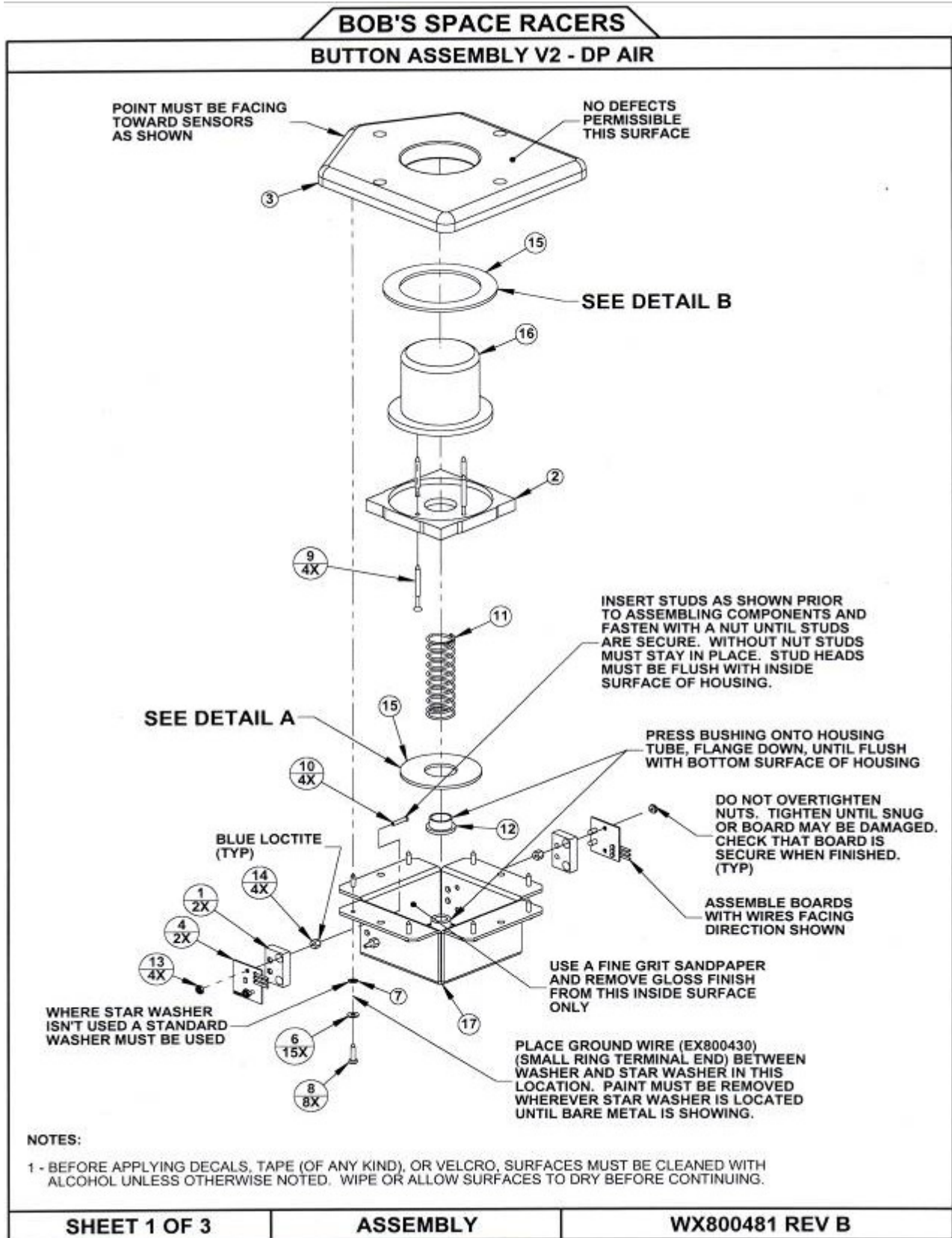
E0025100	12 volt mechanical counter
E0800015	Momentary contact push button
E0800031	40 mm stroke linear actuator motor
E0800040	Workhorse 6 Electronic Ballast
E0800041	PLL Compact Fluorescent Bulb
E0800042	Compact Fluorescent Bulb Socket
E0800070	6" x 9" Speaker
E0800154	Sensor, receiver
E0800165	Sensor, transmitter
E0800224	Mini Shunt connector
E0800402	Main P.C. Board
EX033525	Board Assy. Sensor, DP, PK and TRL
EX800157	Display P.C. Board (LED)
EX800415	Solid State Relay DPAIR
EX800450	Power Supply, 200 Watts, Dual ON/OFF
M0800204	Ticket dispenser (Deltronics 1275)

### CONSUMABLE PARTS

MX800462	Hammock rubber V1-DP
MX800463	Hammock rubber V2-DP
MX800445	Hammer DP ARC AIR
MX800450	Ball Kit, 100 assorted color balls

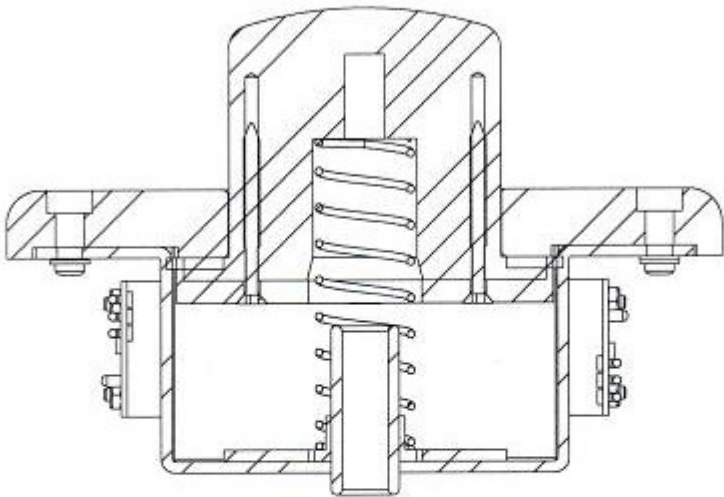
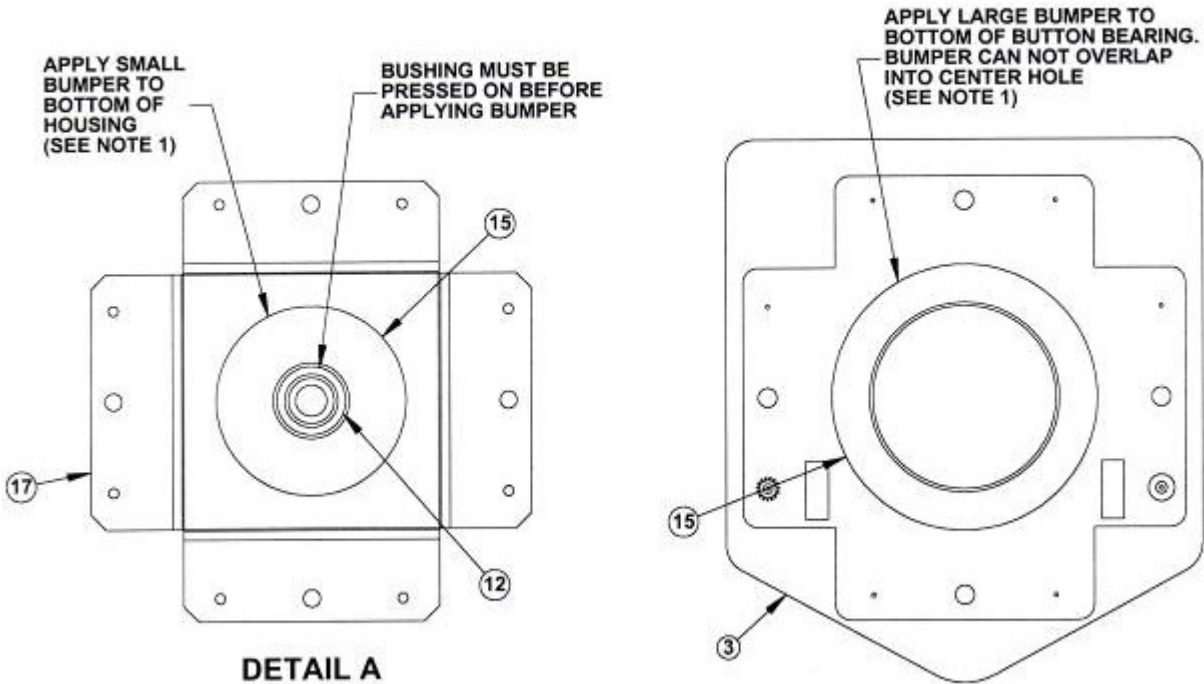
### GRAPHICS / DECALS

A0800410	Belly decal
A0800411	Mouth decal
A0800412	Cabinet paw decal
A0800413	Bonus decal
A0800414	Food bowl decal
A0800415	Bone decal
A0800416	Paw decal
A0800418	Control panel decal
A0800419	Dog body decal
A0800420	Programming decal
A0800421	Marquee decal
A0800422	Time left display panel decal
A0800423	Score display panel decal





**BOB'S SPACE RACERS**  
**BUTTON ASSEMBLY V2 - DP AIR**



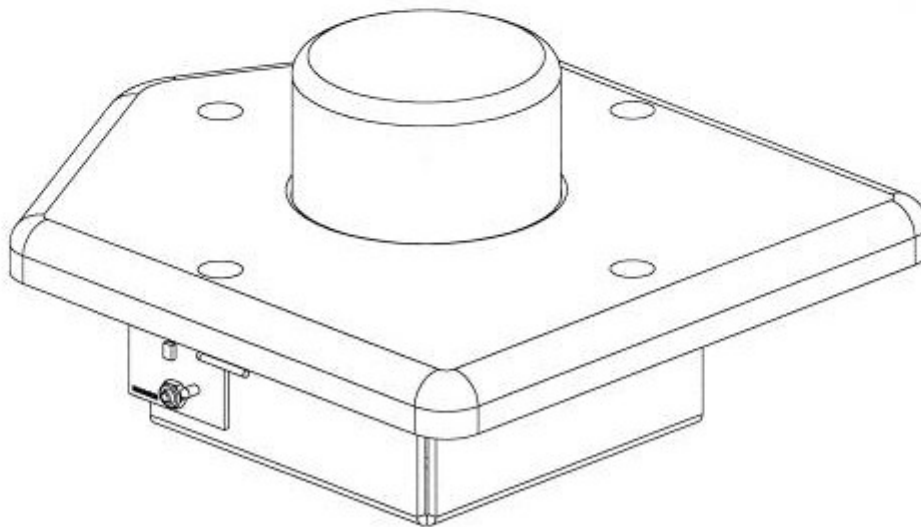
**NOTES:**

1 - BEFORE APPLYING DECALS, TAPE (OF ANY KIND), OR VELCRO, SURFACES MUST BE CLEANED WITH ALCOHOL UNLESS OTHERWISE NOTED. WIPE OR ALLOW SURFACES TO DRY BEFORE CONTINUING.



**BOB'S SPACE RACERS**  
**BUTTON ASSEMBLY V2 - DP AIR**

ITEM	PART #	DESCRIPTION	U/M	QTY
1	CX800419	BUTTON SENSOR SPACER - DP AIR & CEC	EA	2
2	CX800456	BEARING BUTTON GUIDE - DP	EA	1
3	CX800503	BEARING BUTTON HOUSE SHAPE - DP AIR	EA	1
4	EX033525	BOARD ASSY SENSOR DOG POUNDER PK & TRL	EA	2
5	EX800430	GROUND JUMPER BUTTON ASSEMBLY - DP AIR	EA	1
6	H0000200	WASHER FLAT #8 USS ZINC	EA	15
7	H0001623	WASHER EXTERIOR STAR #8	EA	1
8	H0002500	SCREW WOOD SCRLX 8 X 3/4"PH	EA	8
9	H0003310	SCREW WOOD SCRLX 8 X 2"FH BLACK	EA	4
10	H0800032	STUD 6-32 X 3/4" PEM	EA	4
11	H0800066	SPRING COMPRESSION .082/1.125/4.000 MW	EA	1
12	H0800067	BUSHING BRONZE FLANGE 3/4" SHAFT	EA	1
13	H0800122	NUT NYLON LOCK JAM 6-32	EA	4
14	H0800129	STANDOFF HEX 6-32 X 1/4 X 5/16 ALUM	EA	4
15	M0800475	BUMPER RING BUTTON SET ADHESIVE 1S	EA	1
16	W0800450	BUTTON BALL THROW - DP P&T	EA	1
17	W0800454	HOUSING BUTTON WELDMENT - DP P&T	EA	1

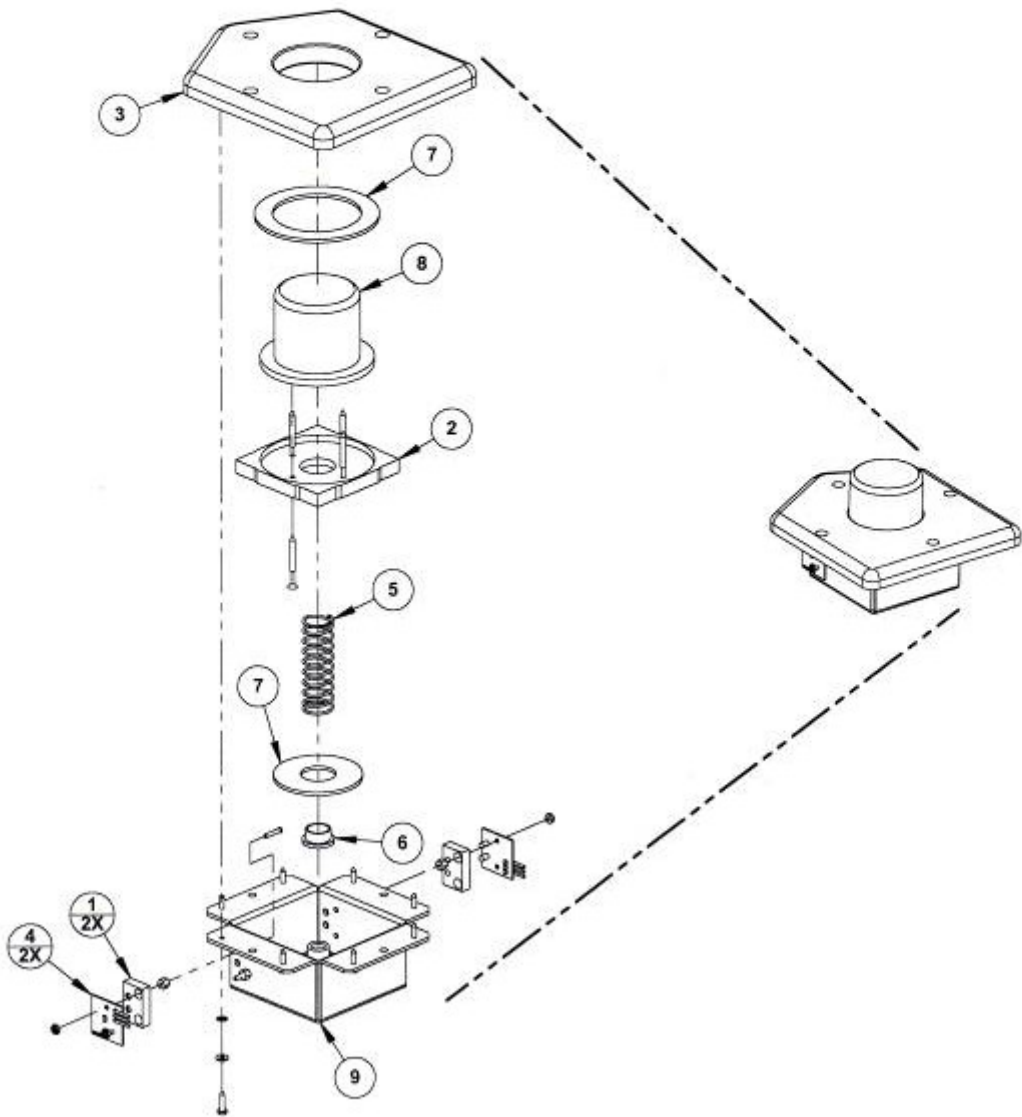


SHEET 3 OF 3

BILL OF MATERIALS

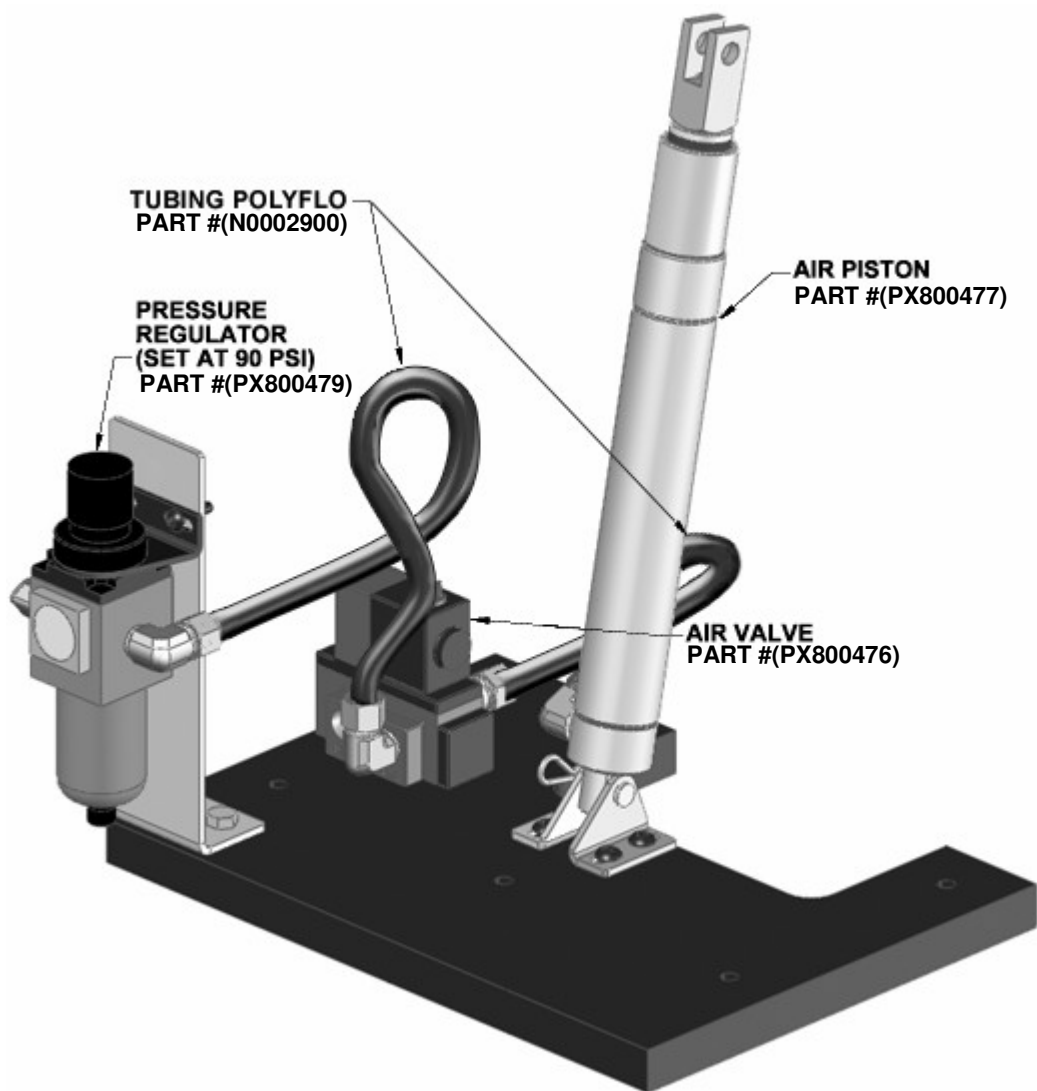
WX800481 REV B

ITEM#	PART#	DESCRIPTION
1	CX800419	BUTTON SENSOR SPACER - DP AIR & CEC
2	CX800456	BEARING BUTTON GUIDE - DP
3	CX800503	BEARING BUTTON HOUSE SHAPE - DP AIR
4	EX033525	BOARD ASSY SENSOR DOG POUNDER PK & TRL
5	H0800066	SPRING COMPRESSION .082/1.125/4.000 MW
6	H0800067	BUSHING BRONZE FLANGE 3/4" SHAFT
7	M0800475	BUMPER RING BUTTON SET ADHESIVE 1S
8	W0800450	BUTTON BALL THROW - DP P&T
9	W0800454	HOUSING BUTTON WELDMENT - DP P&T



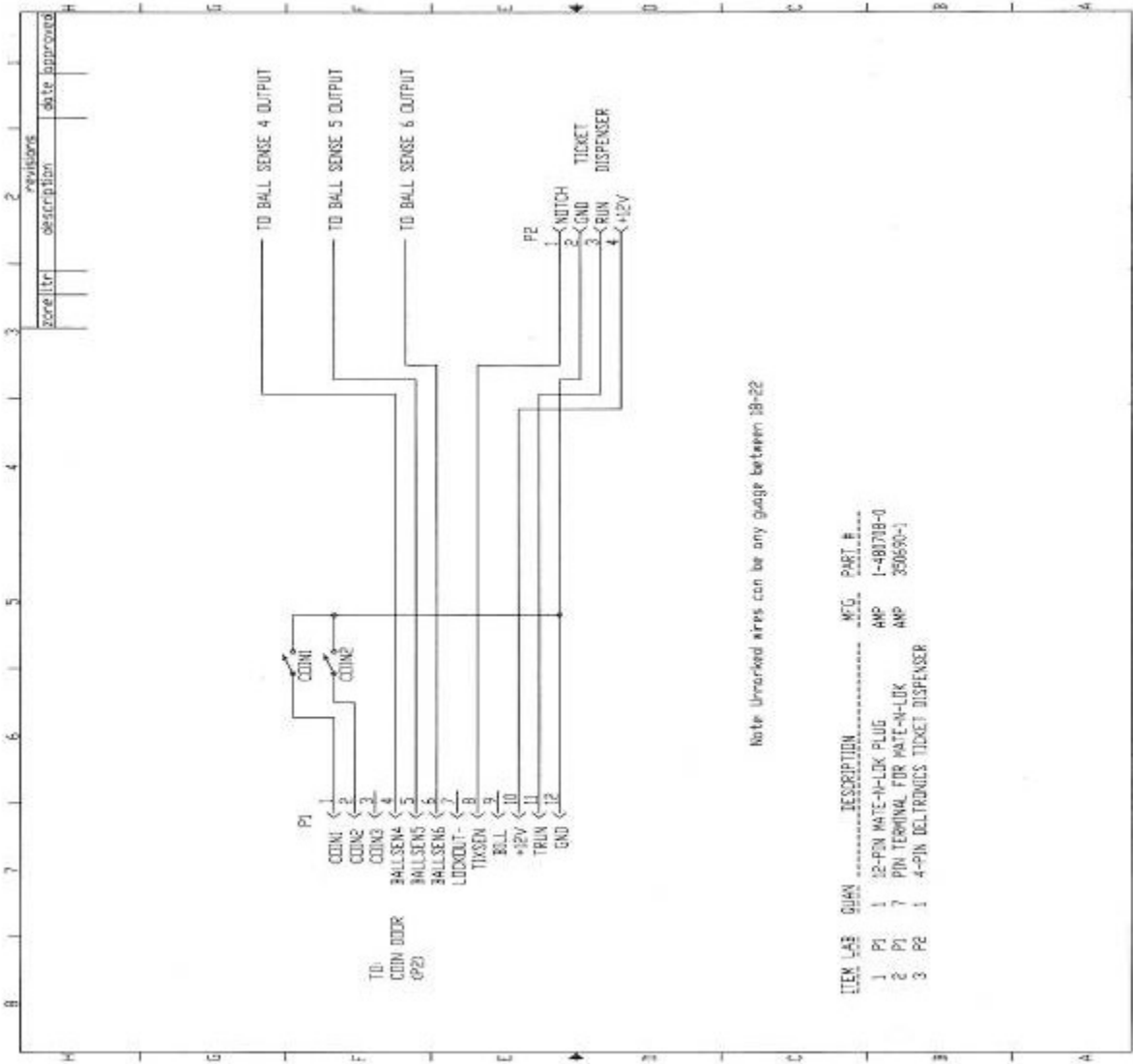
## PIVOT MECHANISM AIR ASSEMBLY – DP AIR

ITEM	PART #	DESCRIPTION	U/M	QTY
1	CX800418	PANEL MOUNTING AIR CYLINDER – DP AIR	EA	1
2	H0003100	SCREW WOOD SCRLX 8 X 1 ½" PH	EA	2
3	H0006600	BOLT HEX ¼" X ¾"	EA	2
4	H0010570	NUT NYLON LOCK 10-32	EA	2
5	H0011996	INSERT WOOD KNOCK-IN ¼-20THREAD	EA	6
6	H0014700	ALLEN BUTTON HEAD 10-32 X ¾	EA	2
7	H0800118	ALLEN BUTTON HEAD ¼-20 X 1" BLACK	EA	4
8	N0001001	ELBOW 90 – 3/8" POLY Z 1/8" MIP BRASS	EA	1
9	N0002900	TUBING POLYFLO 3/8" BLACK	INCH	30
10	PX800476	VALVE ASSEMBLY PIVOT MECH	EA	1
11	PX800477	AIR CYLINDER ASSEMBLY PIVOT MECH	EA	1
12	PX800479	FRL ASSEMBLY – DP AIR	EA	1
13	W0800472	BRKT FRL MOUNTING	EA	1
14	W0800491	AIR CYLINDER N0003400 BRKT MTG PIVOT	EA	1

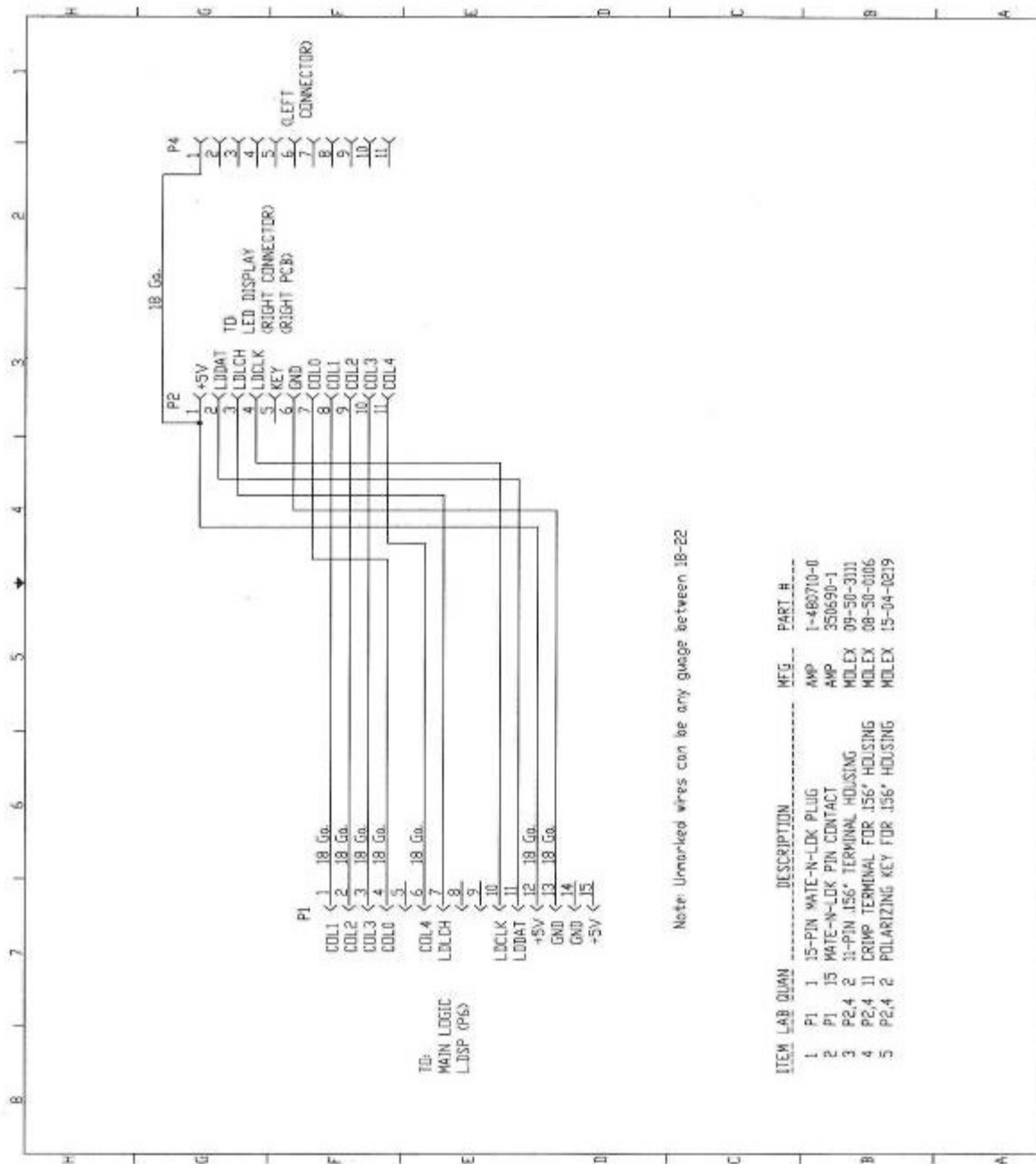


7. SCHEMATICS

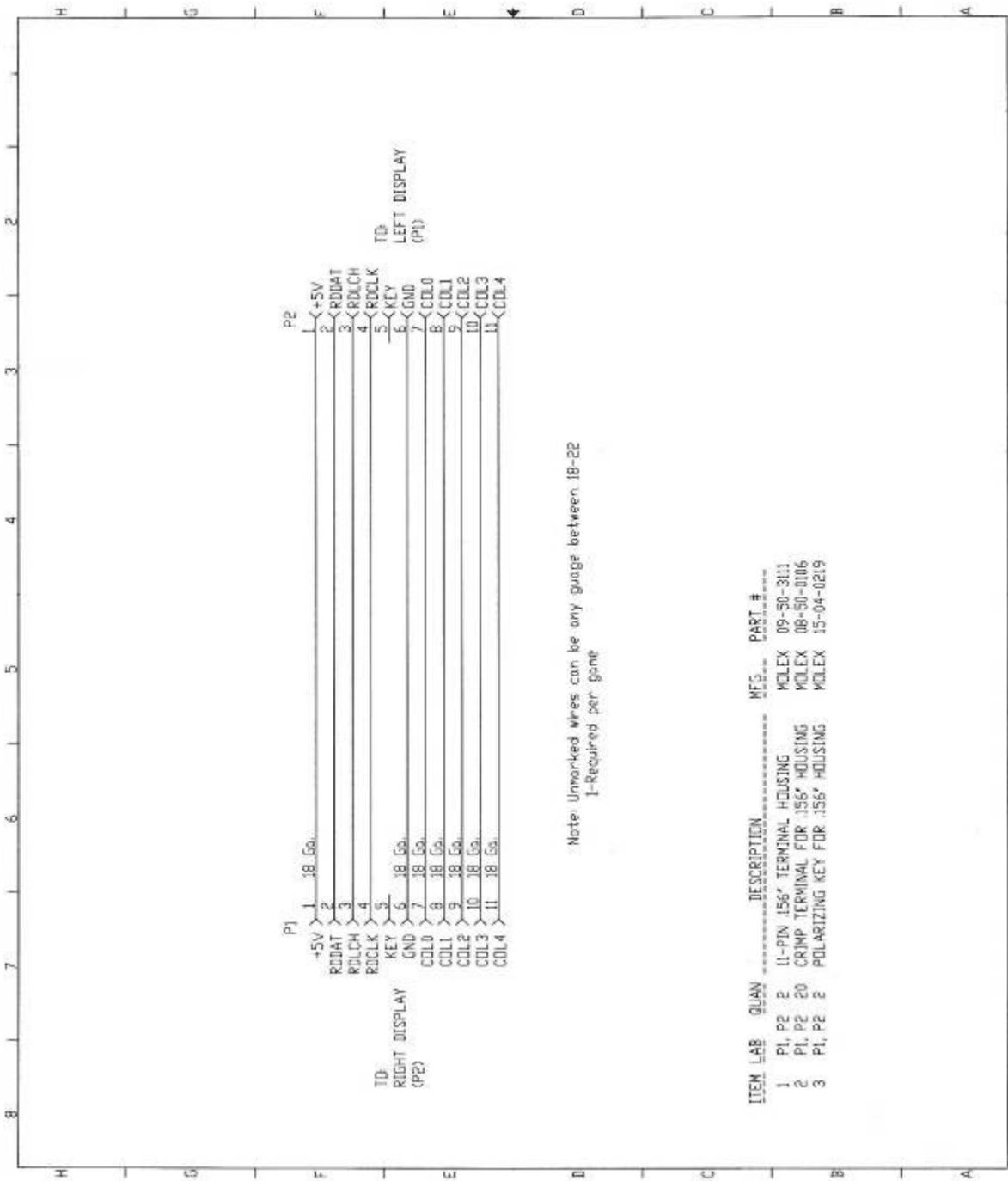
COIN DOOR WIRE HARNESS



## DISPLAY WIRE HARNESS

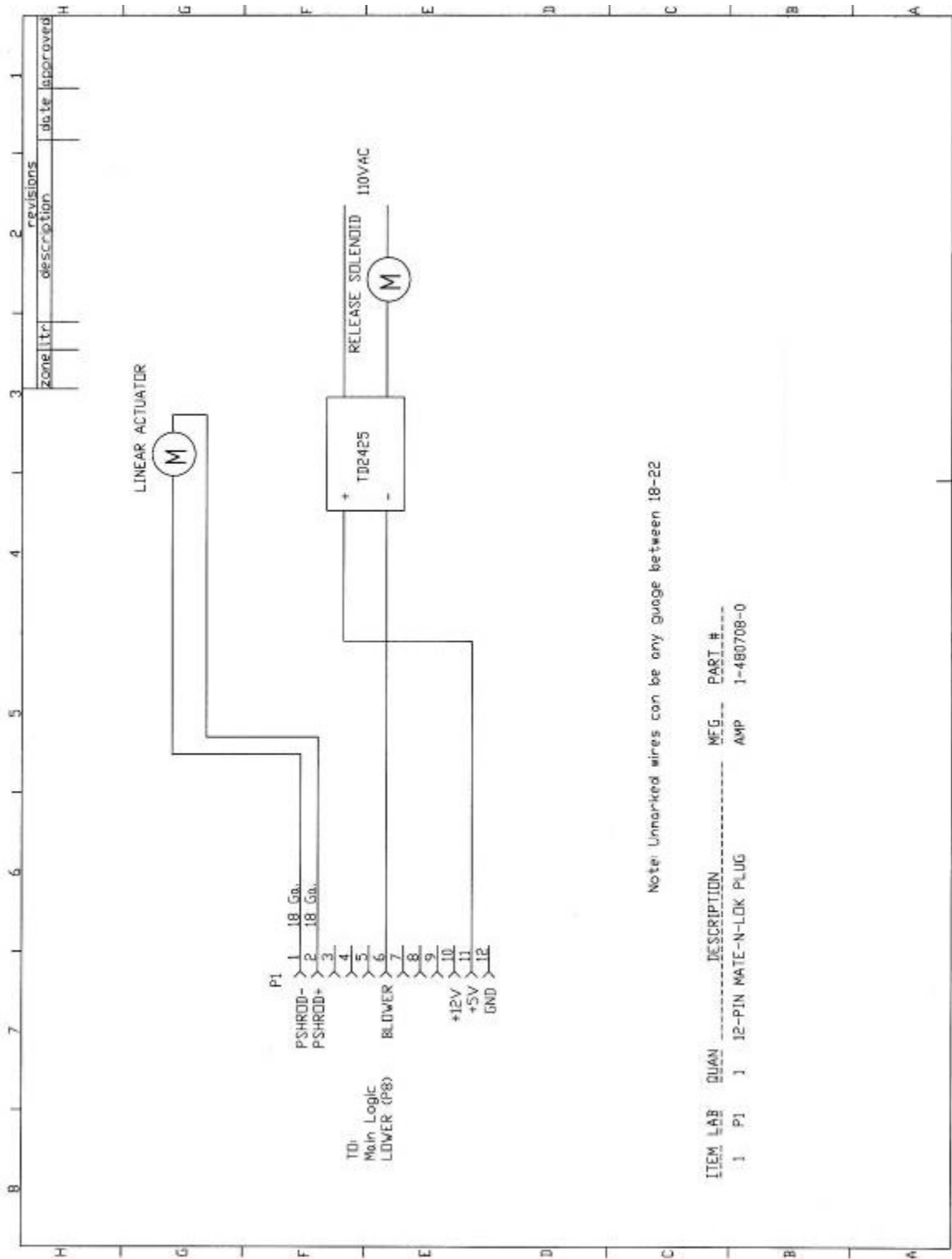


Display to Display Wire Harness

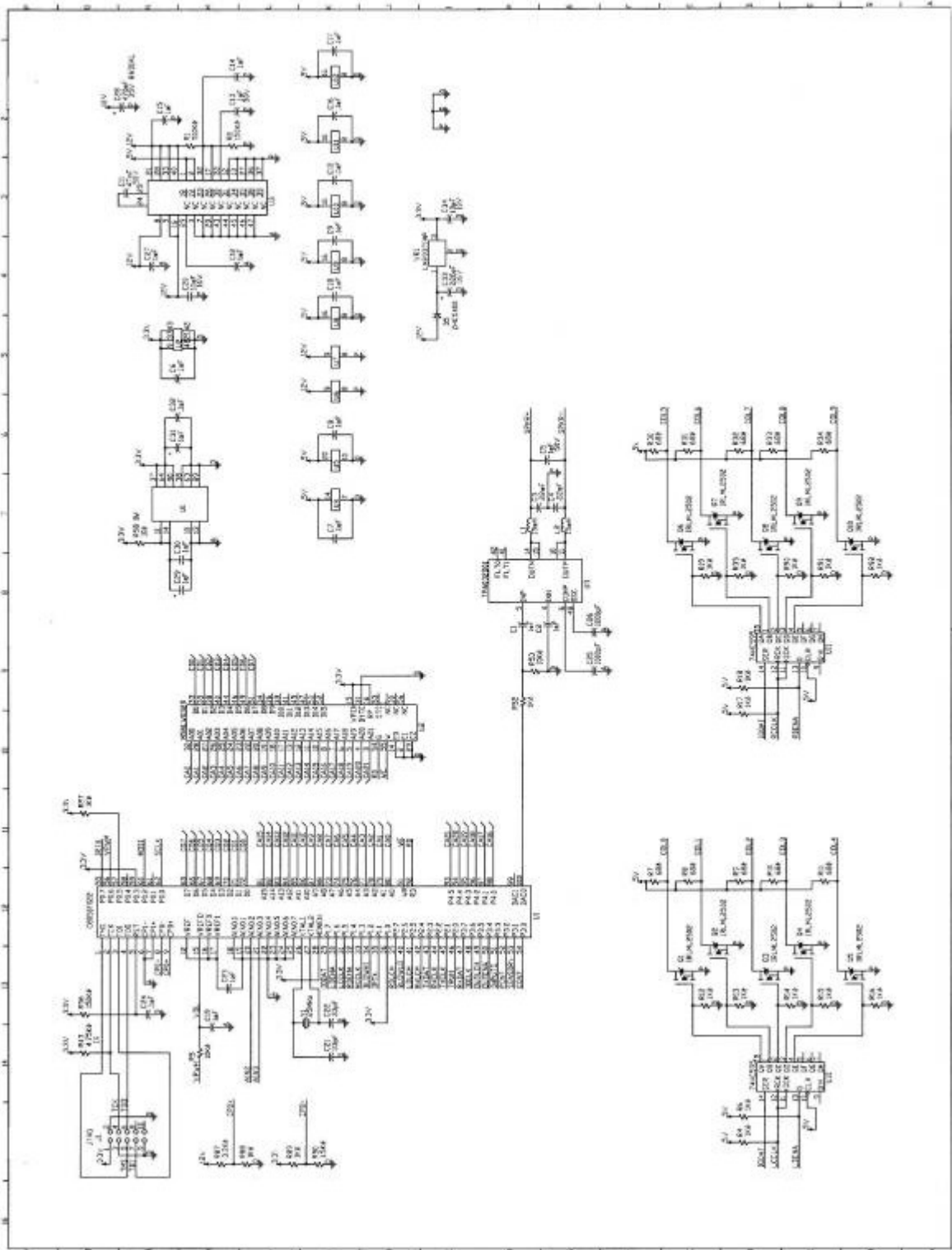




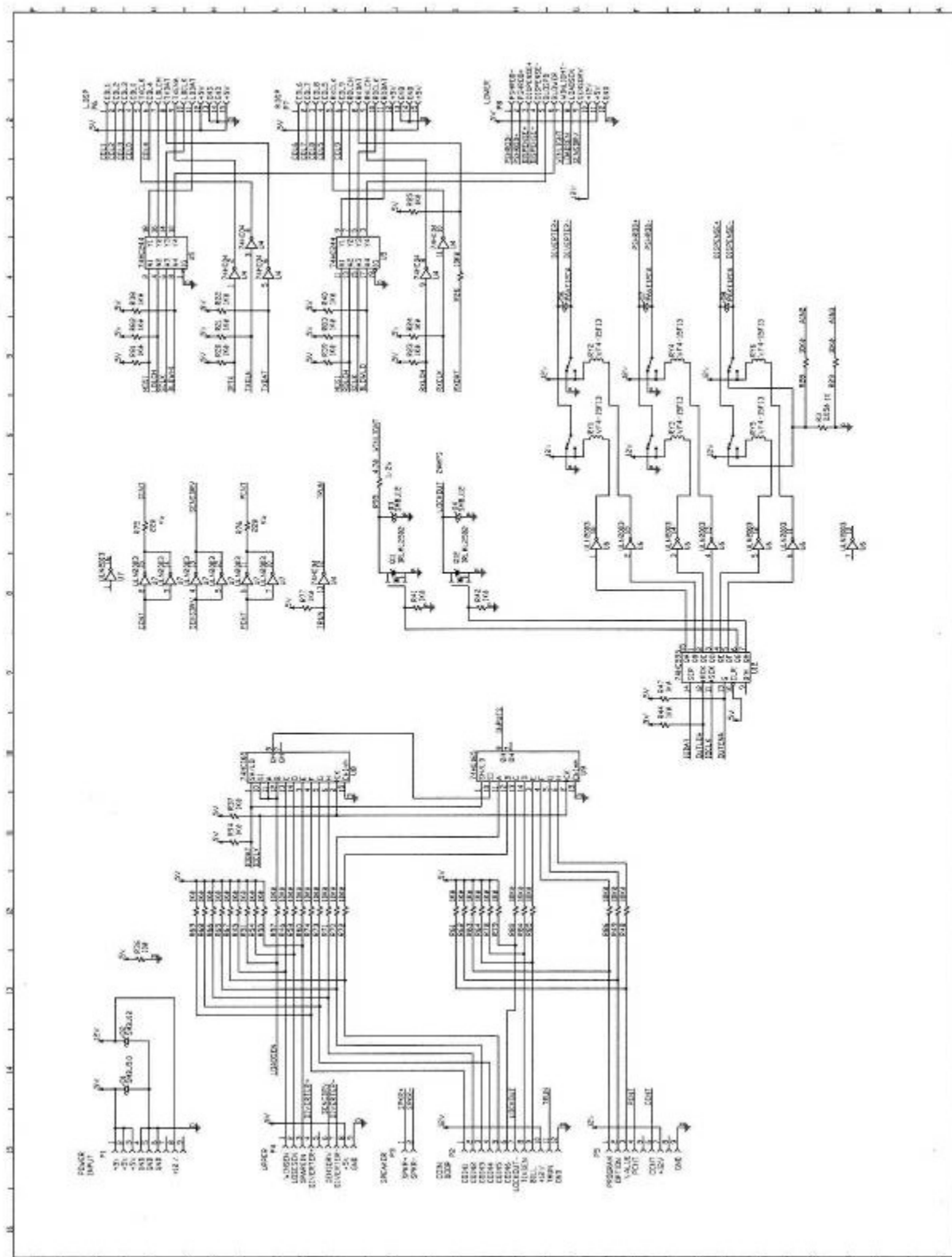
Lower Game Wire Harness



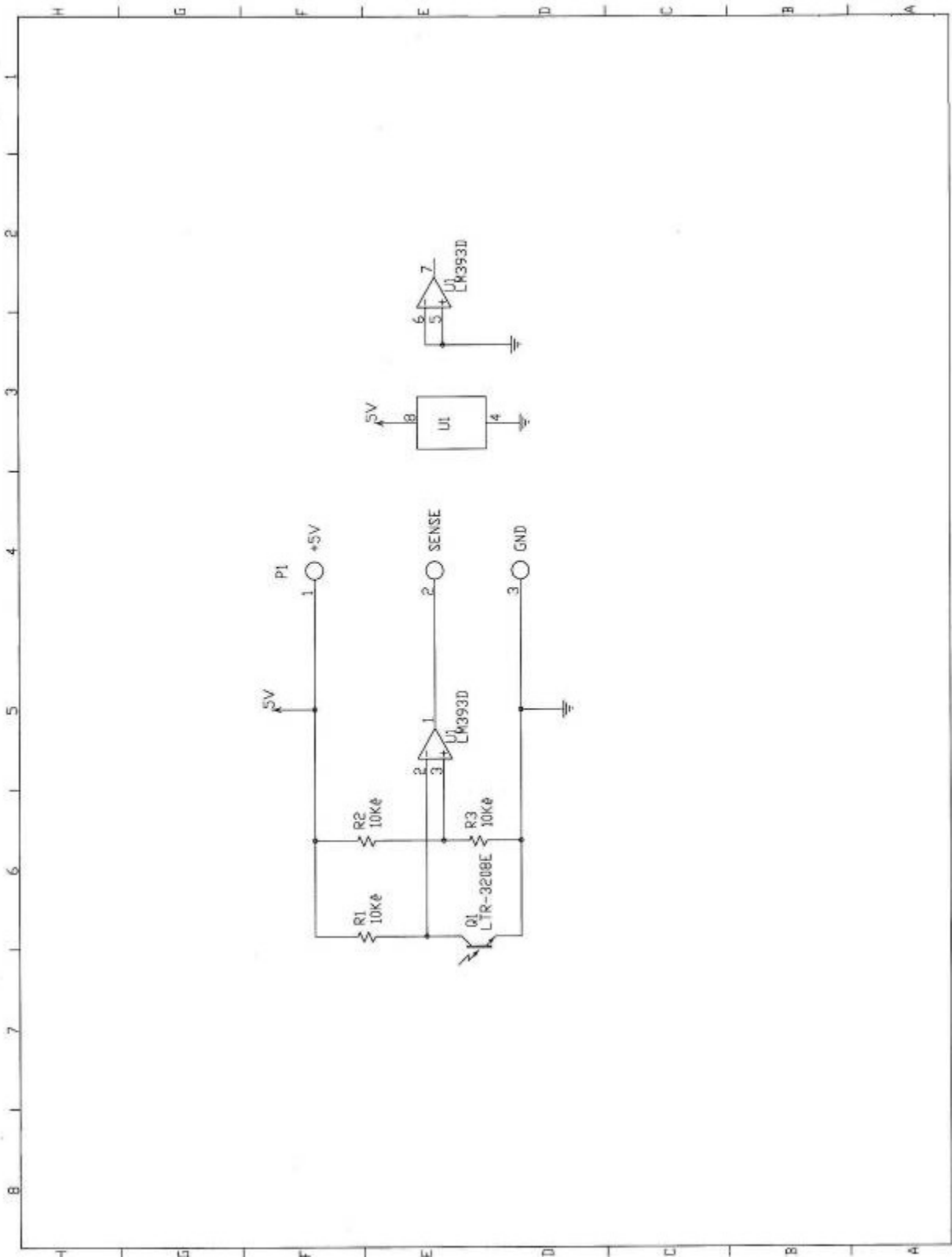
Main Logic Board Schematic



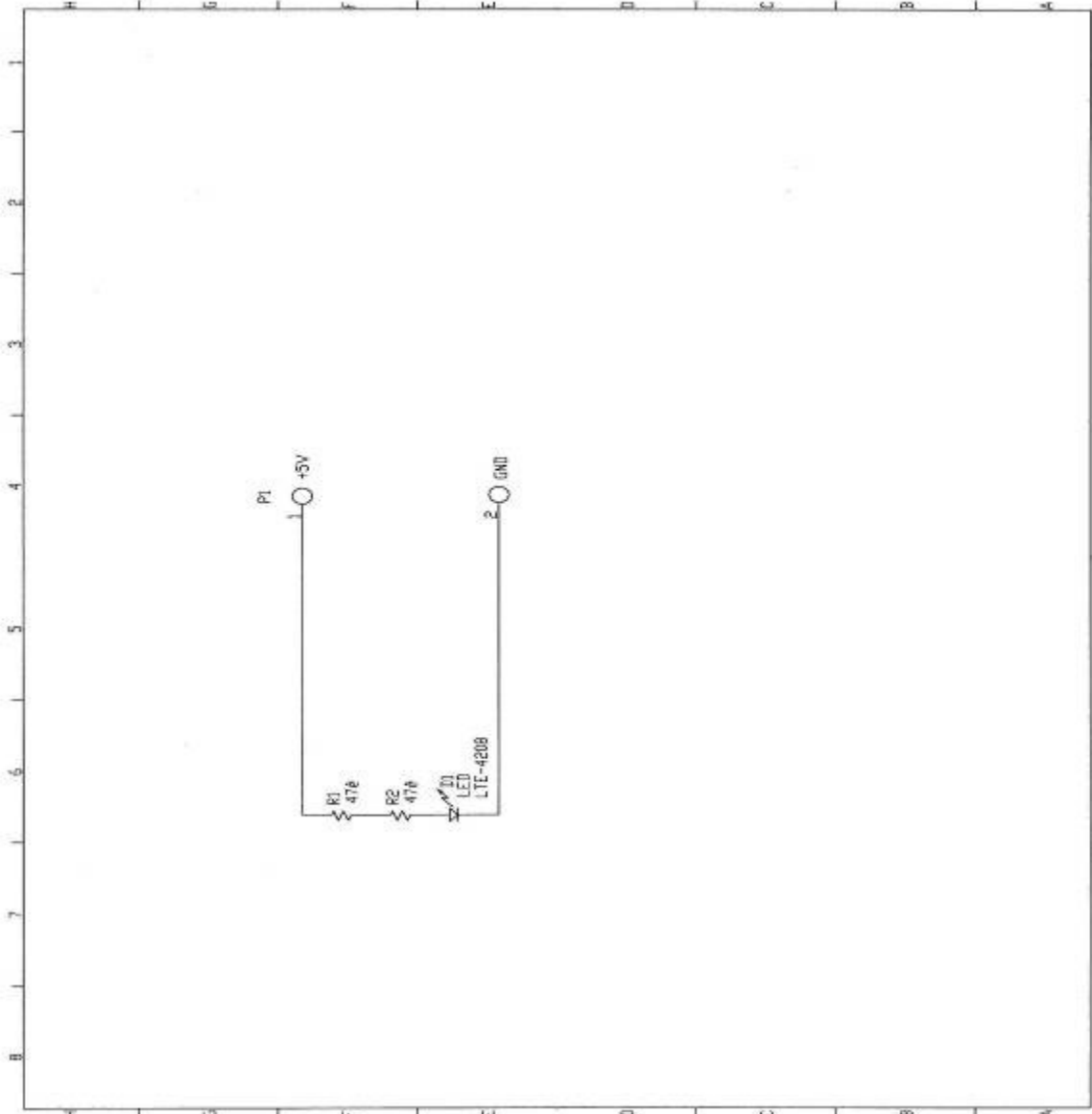
## DP Main Logic Board #2



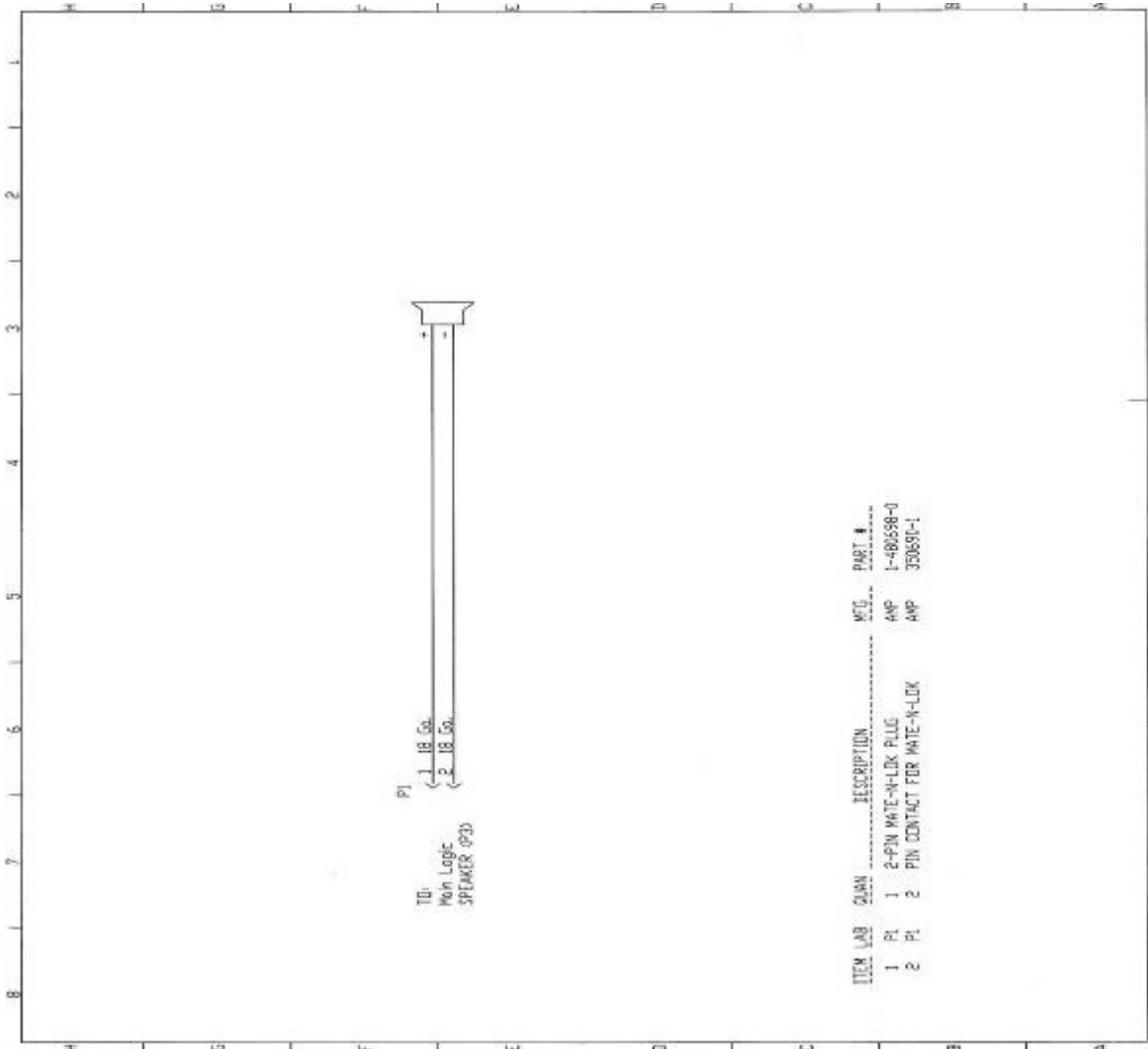
OPTO RECEIVER



OPTO TRANSMITTER TX-1B

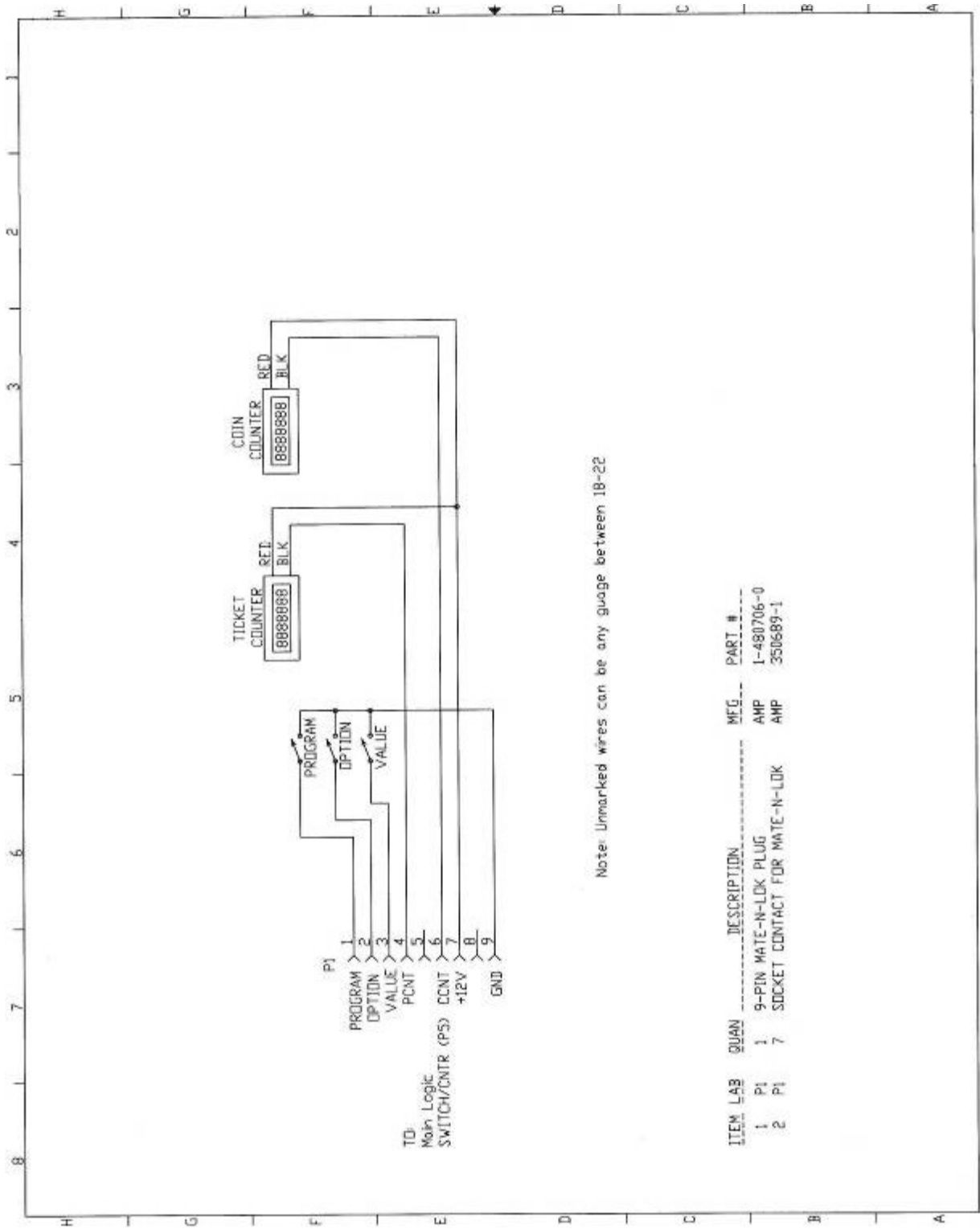


Speaker Wire Harness

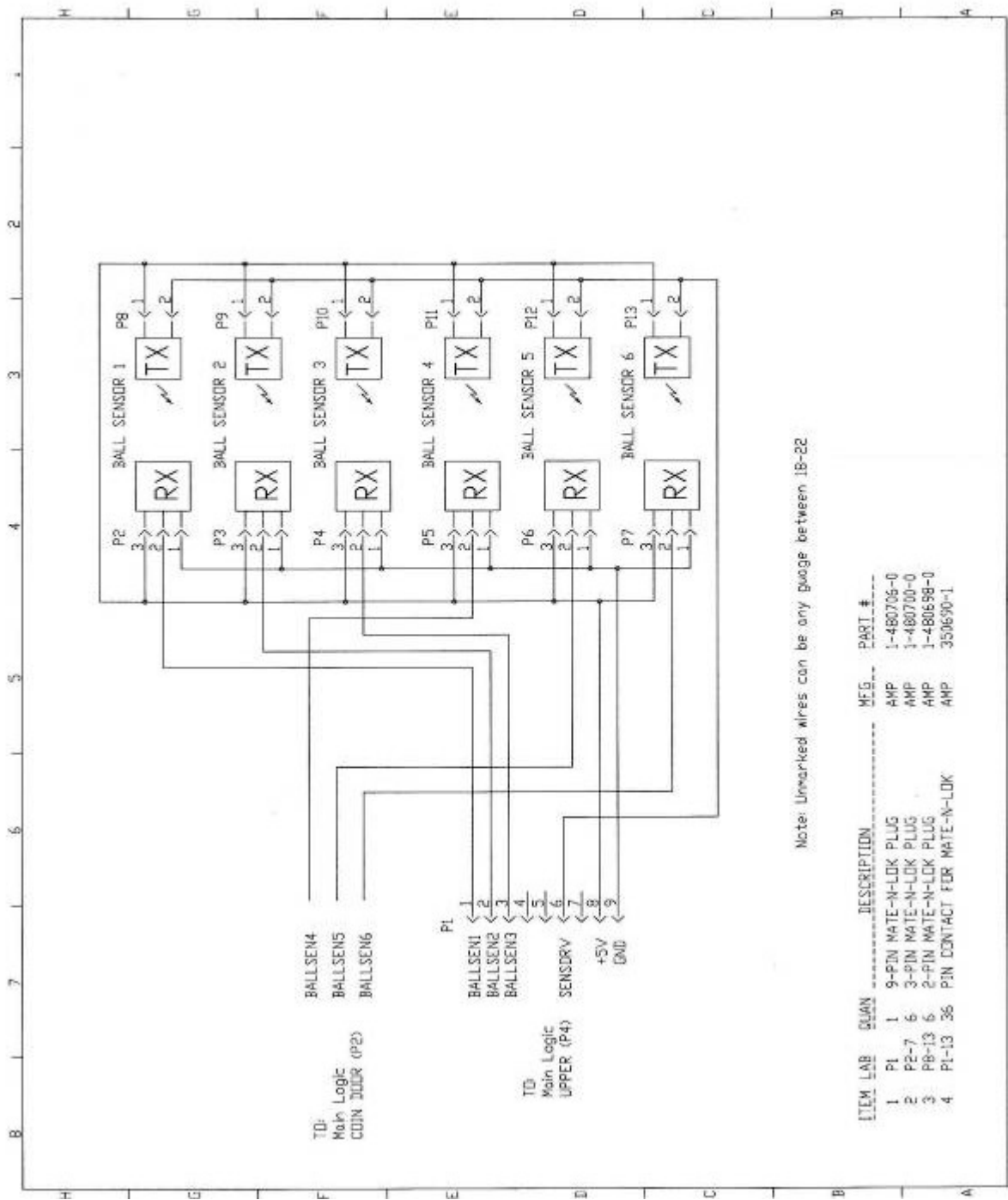




Switch/Counter Wire Harness



Upper Game Wire Harness



## DOG POUNDER AIR VERSION

### *Preventative Maintenance Schedule (6/7/07)*

- Inspect Mallet for excessive wear and replace as needed.(weekly)
- Inspect Game Balls for any breaks or tears and remove damaged balls as necessary. (weekly)
- Remove front glass and clean the Dogs belly checking for debris on sensors and mirror. (weekly)
- Inspect Hammock for any wear and tears that could develop from loose hardware. Check to assure that the bolts & nuts are tight and secure on unit. (monthly) At this time also check that no balls have rolled under the hammock and become trapped there. (As this could potentially cause the hammock to bind and start to tear from game play.)
- Remove and clean Game Balls. (monthly)\*\*\*
- Inspect all grounding wire connections to assure that they are secure and in place.
- Inspect speaker mounting hardware and make sure that the speaker is secure and in place. (monthly)
- Check the power supply and electronic boards to make sure they are secure and in the proper place. (monthly)
- Check to make sure that the coin mechs. And mounting hardware are secure and in place for smooth operation and consistent revenue generation. (weekly/minimum)

\*\*\*This process of preventative maintenance will tremendously cut down on the amount of dust and debris the game dispenses on the sensors and playfield. This will assure consistent operation and better presentation to your players.

*\*\*\*Being proactive and performing these tasks will only benefit the operator during the life of the game.*

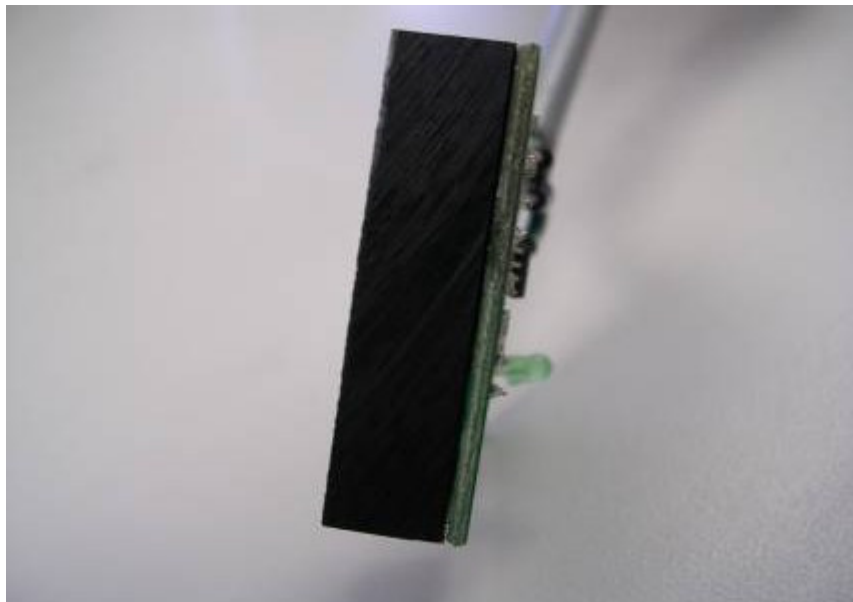
## DOG POUNDER AIR VERSION

### ***Button Sensor Spacer Update (8/28/07)***

1. Unplug button sensors under the counter.
2. Remove the 4 Allen head bolts from the top of the counter.
3. Gently lift the button assembly out of the counter.
4. Remove the ground wire.
5. Remove both button sensors. Inspect for any debris or damage.
6. Apply button sensor spacers to button sensors as shown.

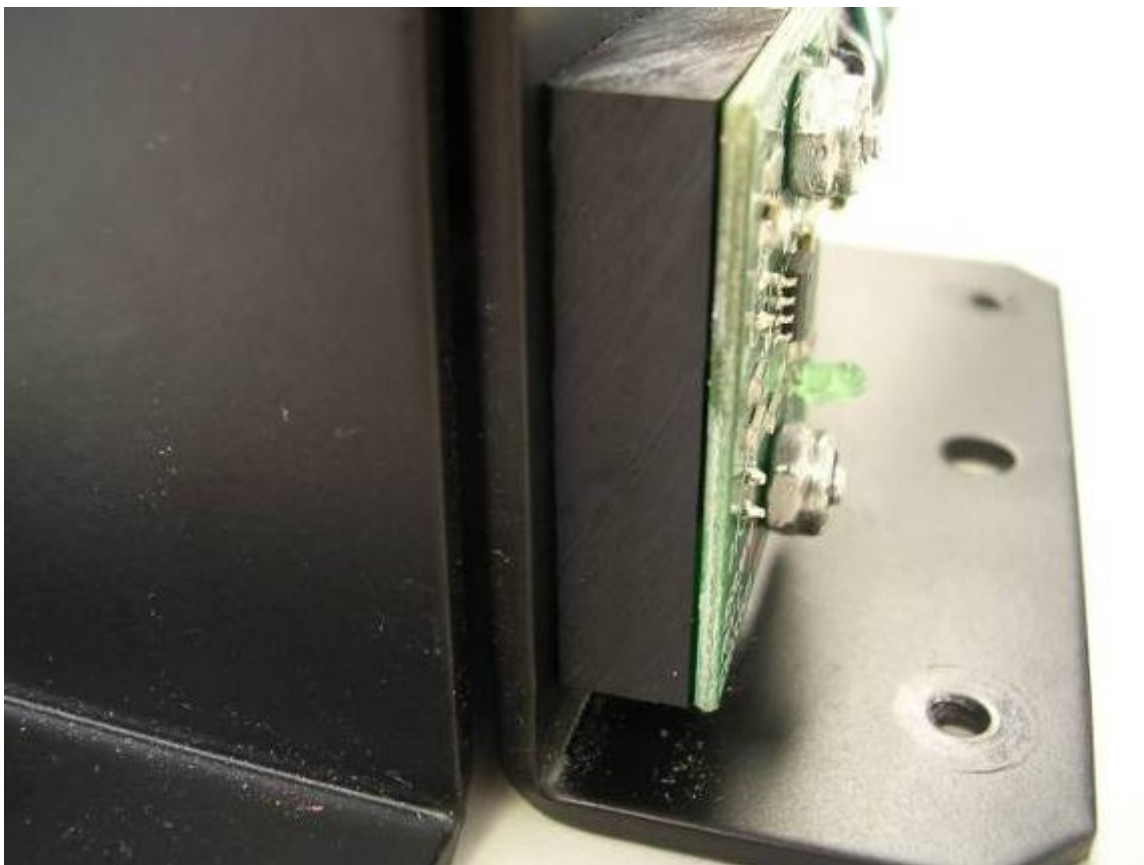


7. Be sure the spacer is flat on the board.



8. Slide the spacer and sensors onto the stud on the button assembly.

9. Tighten the nuts. Inspect the sensors and spacers are flat on the button assembly as shown.



10. Install button assembly back in counter.

## 8. WARRANTY

### BOB'S SPACE RACERS INC. 90 DAY COIN-OPERATED GAME WARRANTY

1. INCLUDED IN THIS WARRANTY Bob's Space Racers®, Inc. warrants to the original purchaser only that the equipment that is the subject of this sale conforms to its specifications, and is free from defects under normal service for a 90 day period from the original date of deliver. This warranty does not include any damages resulting from occurrences listed in paragraph 2 below. This warranty is not transferable under any circumstance. Any claims under this warranty must be received in writing by Bob's Space Racers®, Inc. within 120 days from date of delivery. Within a reasonable time of such written notification Bob's Space Racers®, Inc. will replace or repair any defective component of the equipment or part thereof which fails for reasons other than normal service, use, or wear. Bob's Space Racers®, Inc. reserves the right to request dated proof of purchase by the end user (original purchaser) at any time. Light bulbs are specifically excluded from this warranty and shall be the sole responsibility of the purchaser. Bob's Space Racers®, Inc., within its sole discretion, makes the final determination as to whether to repair or replace any component and whether any such repair or replacement shall be performed where the equipment is located or at its home facility in Volusia County, Florida, or another facility of its sole choice. Any and all freight charges for the purposes of repair or replacement shall be paid by the original purchaser. All defective parts shall be returned to Bob's Space Racers®, Inc. if requested. Bob's Space Racers®, Inc. does not warrant that the equipment will meet any original purchaser's specific requirements or that the operation of the equipment will be uninterrupted. These remedies are the original purchaser's exclusive remedies for breach of warranty.

2. EXCLUDED BY THIS WARRANTY Bob's Space Racers®, Inc. does not warrant (a) any product, components or parts not manufactured by Bob's Space Racers®, Inc.; (b) damages caused by use of the equipment for purposes other than those for which it was designed; (c) defects caused by failure to provide a suitable installation environment for the equipment; (d) damage caused by unauthorized attachments, modification, or service; (e) damage caused by normal wear and tear or improper power supply; (f) damage caused by accident or disaster such as fires, flood, lightning, and wind; or (g) any other abuse or misuse of the equipment.

3. EXCLUSIVE WARRANTY. THE FORGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES OR REMEDIES, WHETHER WRITTEN, ORAL OR IMPLIED. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. ANY AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, COURSE OF DEALING OR USAGE OF TRADE ARE HEREBY EXPRESSLY DISCLAIMED AND EXCLUDED.

4. REMEDIES LIMITED. UNDER NO CIRCUMSTANCES, EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, SHALL BOB'S SPACE RACERS®, INC. BE LIABLE FOR ANY LOSS OR DAMAGE, DIRECT OR INDIRECT, SPECIAL INCIDENTAL OR CONSEQUENTIAL ARISING OUT OF THE USE OR INABILITY TO USE THIS EQUIPMENT INCLUDING BUT NOT LIMITED TO ANY CLAIM FOR LOSS OR PROFITS, LOSS OF SAVINGS OR REVENUE, LOSS OF USE OF THE EQUIPMENT, OR ANY ASSOCIATED EQUIPMENT, FACILITIES OR SERVICE, DOWNTIME, THE CLAIMS OR COSTS OF THIRD PARTIES INCLUDING CUSTOMERS AND INJURY TO PROPERTY. Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

5. NO OTHER WARRANTIES. Unless modified in writing and signed by both parties, this agreement is understood to be the complete and exclusive agreement between the parties, superseding all prior agreements, oral or written, and all other communications between the parties relating to the subject matter of this agreement. No employee or representative of Bob's Space Racers®, Inc. or any other party is authorized to make any other warranty or to assume any other liability in connection with the sale of its equipment.

6. TIME LIMIT FOR CLAIMS. Any claim for breach of warranty or claims under this warranty must be received in writing by Bob's Space Racers®, Inc. within 120 days following delivery of the equipment.

7. FUTURE CHANGES. Bob's Space Racers®, Inc. reserves the right to reserve, change or modify the construction and design of its equipment or any component part or parts thereof without incurring the obligations to make such changes or modifications in present equipment.

8. ALLOCATION OF RISKS. This agreement allocates the risks of equipment failure between Bob's Space Racers®, Inc. and the original purchaser. This allocation is recognized by both parties and is reflected in the price of the goods. THE PURCHASER ACKNOWLEDGES THAT IT HAS READ THIS AGREEMENT, UNDERSTANDS IT, AND IS BOUND BY ITS TERMS.

9. TO OBTAIN WARRANTY SERVICE. The original purchaser must, at his/her own expense, bring or ship the equipment to an authorized location for service. Additionally, the original purchaser must pay all freight, shipping or transportation charges for the return of the equipment from Bob's Space Racers®, Inc. to the original purchaser. Telephone or write:

Bob's Space Racers®, Inc.  
427 15<sup>th</sup> Street  
Daytona Beach, FL 32117  
Telephone number: 386/677-0761  
FAX: 386/677-0794

## WHEN CALLING FOR SERVICE

1. When calling for service, please check the service manual first. Many times the answer to your problem has been addressed in this documentation.
2. Please make sure you have the serial number of the game ready when you call.
3. If this is a repeat call, please tell the service technician that you have made a previous call regarding this problem. This way we will be able to retrieve the history on your game allowing us to serve you better and save you time.
4. Please retain proof of purchase for your product. This might be requested for warranty repairs.
5. Please call from the game if possible since we might need you to check certain things on the game while we are on the telephone with you.

IF YOU HAVE ANY QUESTIONS OR COMMENTS, PLEASE CALL OUR SERVICE  
DEPARTMENT AT

**(386) 677-0761**

**(MONDAY – FRIDAY, 8:30AM – 5:00PM EST, EXCLUDING HOLIDAYS)**

**(or)**

**EMAIL QUESTIONS TO: [Tech@BobsSpaceRacers.com](mailto:Tech@BobsSpaceRacers.com)**

**(or)**

**VISIT THE “CUSTOMER SUPPORT” SECTION ON OUR WEBSITE:  
[WWW.BOBSSPACERACERS.COM](http://WWW.BOBSSPACERACERS.COM)**