

# **ARCADE GAME**



# **OWNER'S MANUAL**



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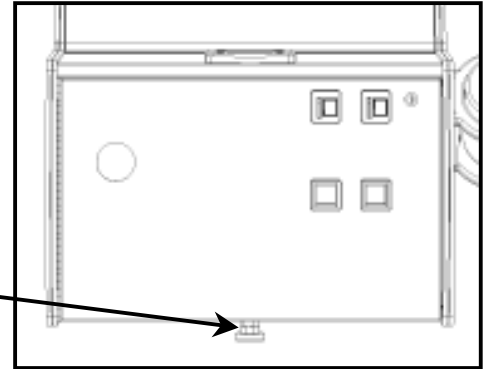
## WARRANTY

# DOG POUNDER

## IMPORTANT SETUP INFORMATION

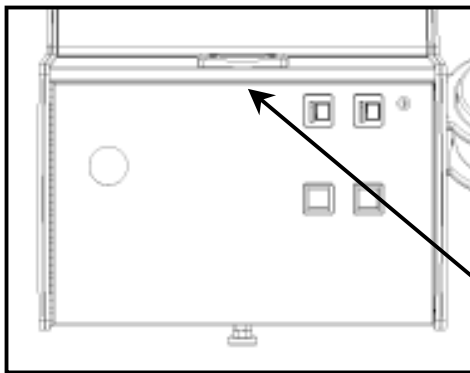
**CENTER LEVELER ADJUSTMENT** - The center foot leveler adjustment is critical to the proper operation of the game. The purpose of this adjuster is to control cabinet vibration to prevent damage to electronic and other components in the game. When the adjuster is properly contacting the floor, any force from the mallet that is transmitted through the pivot locking mechanism will be transmitted directly to the floor and NOT the bottom of the cabinet.

CENTER  
LEVELER

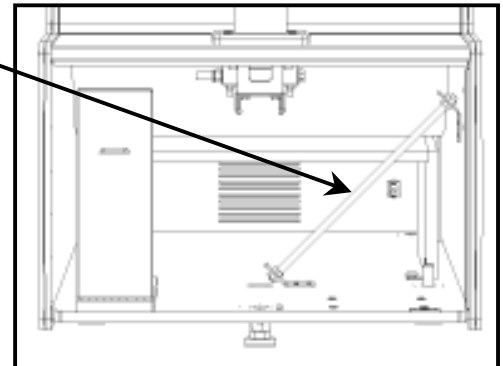


To ensure the proper operation and longevity of your game, make sure that the center leveler located directly under the pivot locking mechanism is FULLY extended to the floor. If not, turn the adjusting nut until the leveler is FULLY making contact as shown in the illustration.

**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.



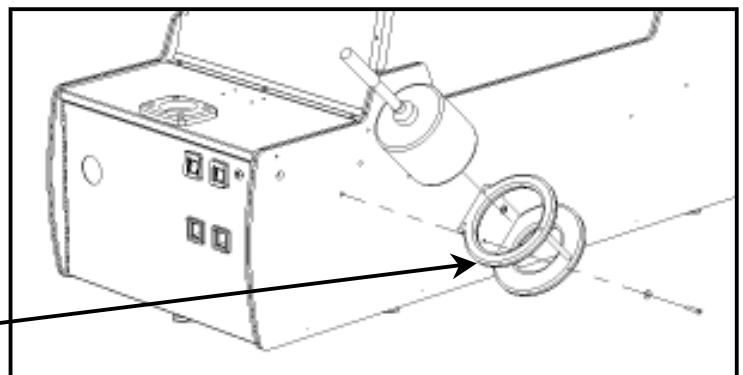
ADJUSTMENT  
ROD



FRONT DOOR  
(TOP EDGE)

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

MALLET  
HOLDER



# GAME OVERVIEW AND TECHNICAL FEATURES

## INTRODUCTION

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.

## 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 "Paw" 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.

## 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 inherent talent. This helps to make the game 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.

# PROGRAMMING OPTIONS

## ERROR MESSAGES

### ENTERING PROGRAMMING MODE

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

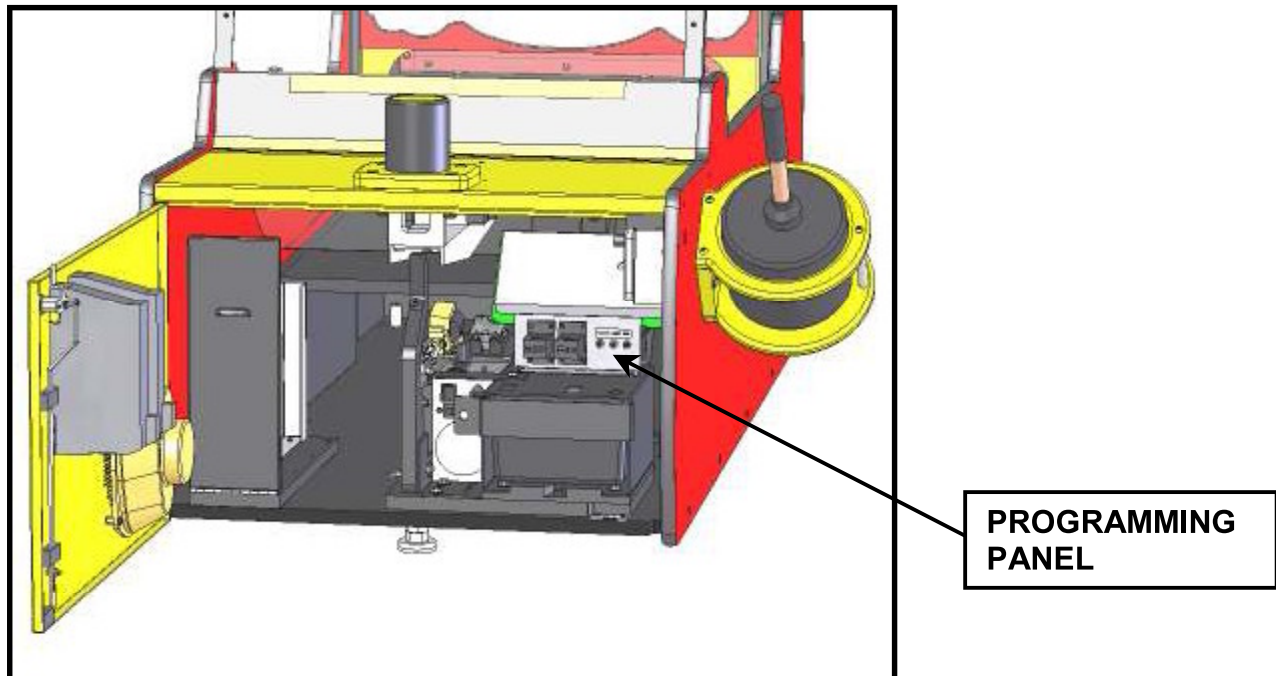
The operator will press the "PROGRAMMING" button once to enter the programming mode.

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.



### VOLUME (Game 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**.

# PROGRAMMING OPTIONS

## ERROR MESSAGES

### COIN/CR (Coins per credit)

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 **1**.

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.

### ATTRACT (Attract mode)

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**.

### GAME (Game Type)

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).

### DIFF (Game Difficulty)

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

# PROGRAMMING OPTIONS

## ERROR MESSAGES

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.

### MINTX (Minimum Tickets)

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**.

### BPT (Balls per Ticket)

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 **6**. (1 ticket for every 6 balls scored).

### JVAL (Bonus ticket value)

This option determines the amount of bonus tickets paid out if the player wins the game. The range for this option is **10-500**. The default value for this option is **250**.

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

### 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.

# PROGRAMMING OPTIONS

## ERROR MESSAGES

### SET-UP FOR KIDDIE ARCADES

For kiddie arcades we recommend the following set-up:

VOLUME	- 5
COIN/CR	- 1
ATTRACT	- 5
GAME	- BELY
DIFF	- NORM
MINTX	- 2
BPT	- 9
JVAL	- 10
RESET	- 0

### BALL STOP CURTAIN

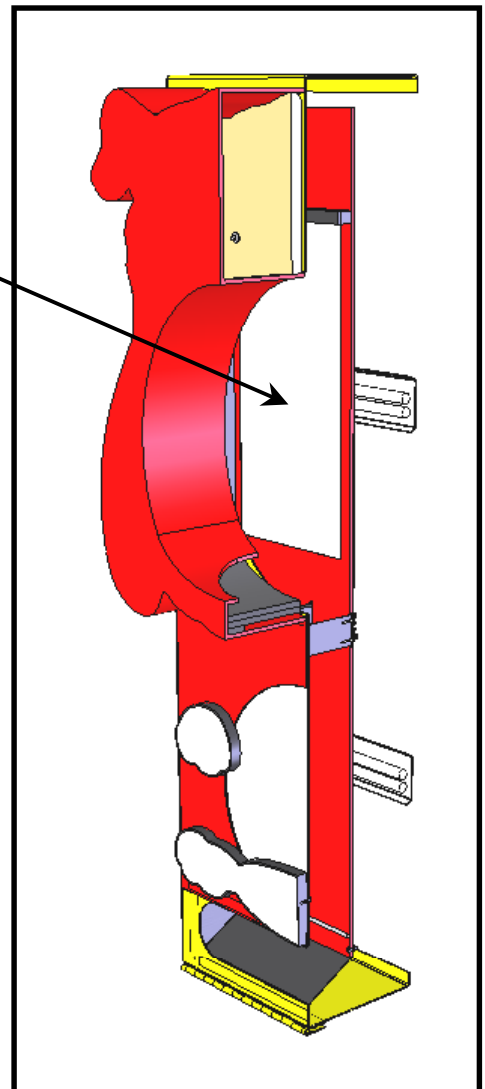
The ball stop curtain should be used to make scoring easier if your customers are VERY YOUNG. This should not be used with older customers or the scoring will be way too easy.

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.

BALL STOP CURTAIN



# PROGRAMMING OPTIONS

## ERROR MESSAGES

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

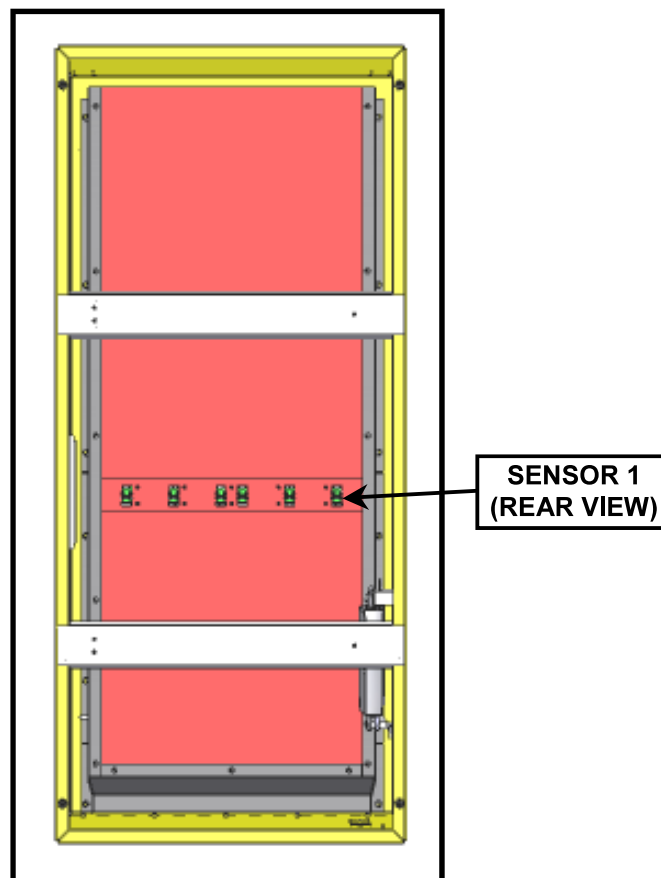
8. Un-tape the clear plastic curtain from the top rear of the playfield backing panel and push it over to the front side of the backing panel so the balls will hit it when entering the Dog's mouth.

## 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.



# QUICK TROUBLESHOOTING

If the game displays a "GET HELP" message on the display, press the PROGRAMMING button to check for error messages. (See 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
No or low game sound	Check programming for volume level Bad speaker harnessing Bad speaker Main P.C. Board Bad	Adjust as necessary Check and repair harnessing Replace speaker Repair or replace Main P.C. Board
Game does not take or add money correctly	Coin switch out of adjustment Coin switch bad Coin Mech dirty or improperly adjusted Coin switch harness or connector bad Main P.C. Board Bad Improperly programmed Electronic mech Game improperly programmed	Re-bend coin switch wire Check or replace switch Clean and adjust mech as necessary Check and repair harnessing Repair or replace Main P.C. Board Reprogram or replace Electronic mech Check programming options and adjust
Game will not start	Main fuse blown Game power off Sensor harnessing bad Main P.C. Board Bad Bad Score sensor	Check and replace fuse if necessary Check on/off switch and power cord Check and repair harnessing Repair or replace Main P.C. Board Repair or replace sensor
Ticket dispenser not working properly	Ticket dispenser sensor blocked with debris Tickets jammed in dispenser Ticket dispenser bad Ticket dispenser harnessing bad Game improperly programmed	Clean off sensor Clear ticket jam Replace dispenser Check and repair harnessing Check ticket programming option
Players not winning game enough	In manual mode, game set too difficult	Re-program to easier setting Set game to auto-difficulty mode
Players winning game too much	In manual mode, game set too easy	Re-program to harder setting Set game to auto-difficulty mode
Balls will not launch into the air	Ball hammock broken Pivot arm broken Pivot arm release solenoid bad Release solenoid Solid state relay bad Bad Main P.C. Board	Replace ball hammock Replace pivot arm Replace solenoid Replace solid state relay Replace P.C. Board
Instruction message never plays or can not be bypassed	Slam switch Broken	Replace slam switch

# DETAILED TROUBLESHOOTING AND REPAIR

## 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.

## 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 and cause injury.

This product is heavy as 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.

## 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 are damaged. Using a handheld multimeter, 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.

# DETAILED TROUBLESHOOTING AND REPAIR

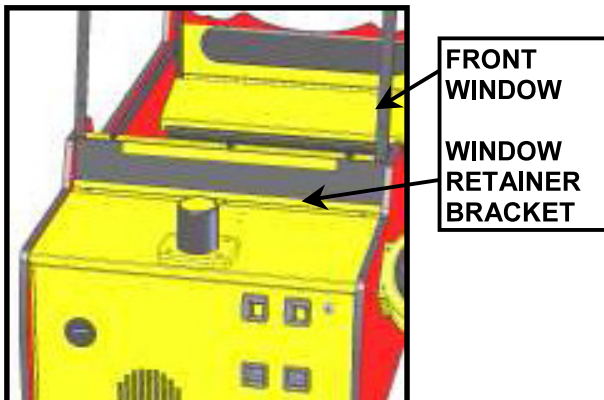
## MECHANICAL / MOTOR REPAIR

### HAMMOCK REPLACEMENT

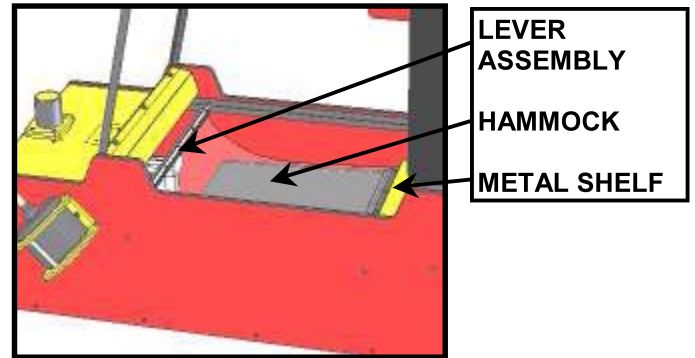
The most common service on this game will be occasional replacement of the ball hammock.

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 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 bolts that hold the front of the hammock to the lever assembly.



4. Remove the 5 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. The proper assembly is as follows:

- A) Hammock placed against lever assembly.
  - B) Wide stiffener strip of clear reinforcement plastic.
  - C) Narrower stiffener strip of reinforcement plastic.
  - D) Aluminum angle bracket with rubber facing the plastic strips.
7. Tighten the bolts securely, but not so much as to excessively distort the reinforcement strip.

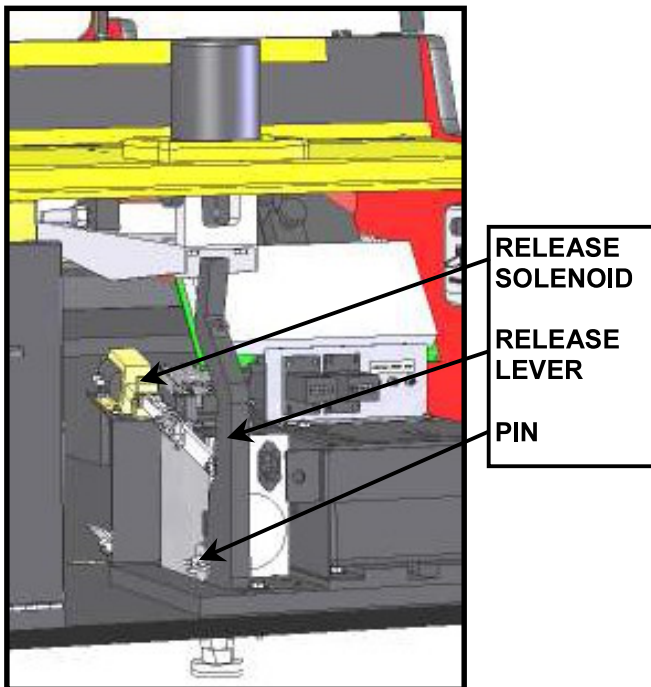
NOTE: IT IS CRITICAL TO THE OPERATION OF THE GAME THAT THIS INSTALLATION IS FOLLOWED CORRECTLY. IF YOU HAVE ANY CONCERNS, PLEASE CALL OUR SERVICE DEPARTMENT BEFORE PROCEEDING.

NOTE: IT IS IMPORTANT TO REPLACE THE STIFFENER STRIPS WITH THE NEW ONES SUPPLIED WHEN REPLACING THE HAMMOCK.

# DETAILED TROUBLESHOOTING AND REPAIR

## PIVOT MECHANISM REPLACEMENT

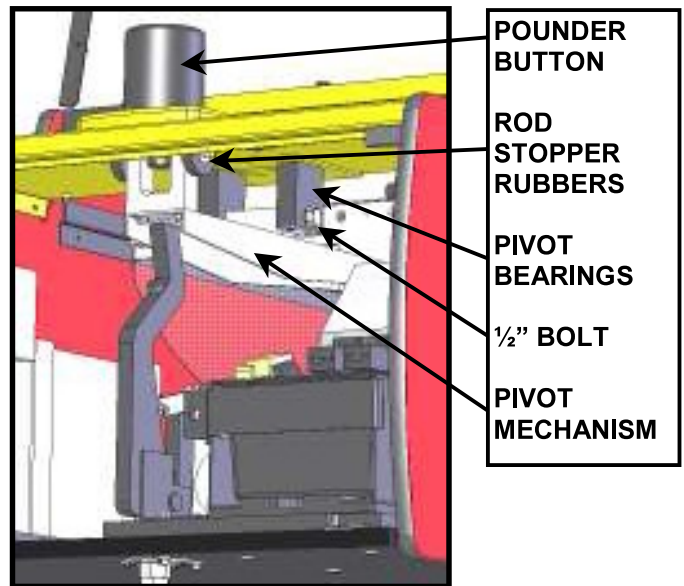
1. Remove A.C. power to the game.
2. Remove the front glass and unbolt the front of the hammock as directed in the Hammock replacement instructions.
3. Remove the pin that holds the release lever to the mounting bracket. Remove the lever.



4. Remove the pivot mechanism grounding wire where it is attached to the release solenoid.
5. Remove the long 1/2" bolt that holds the pivot mechanism to the pivot bearings.
6. Transfer the pounder button along with the rod stopper rubbers and hardware from the old pivot to the new pivot.
7. Re-assemble in reverse order.

NOTE: REFER TO THE HAMMOCK REPLACEMENT SECTION FOR PROPER INFORMATION ON CONNECTING THE HAMMOCK.

BE SURE THE GROUND WIRE IS PROPERLY FASTENED.



DO NOT OVERTIGHTEN THE PIVOT BOLT. IT IS MEANT TO BE LOOSE.

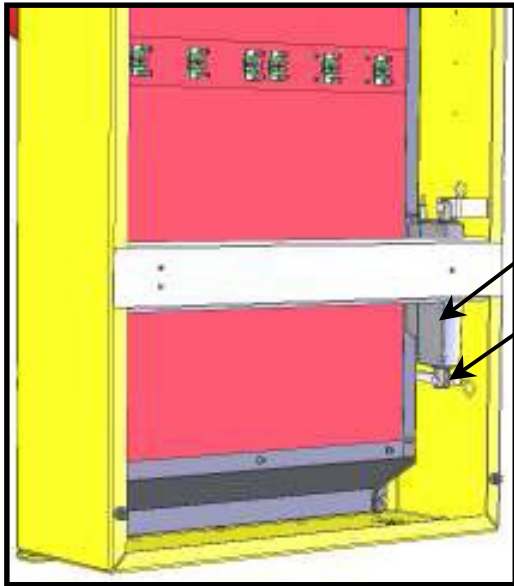
8. Test the unit for proper operation including the proper operation of the release lever.

## ACTUATOR MOTOR REPLACEMENT

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 actuator. 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.

# DETAILED TROUBLESHOOTING AND REPAIR

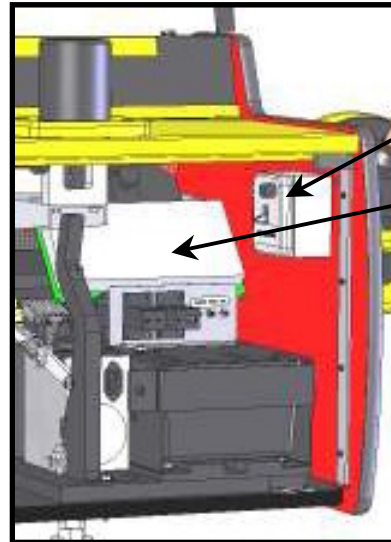


ACTUATOR  
CLEVIS  
PIN

6. Remove the 2 clevis pins that hold the actuator in place. Remove the pins.
7. Unplug the actuator and replace the unit.
8. Assemble in reverse order

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

4. Replace board by loosening retainer clamp and sliding board out of holder.



AC POWER  
MAIN  
P.C. BOARD

5. When replacing the board, be sure that the new board is properly installed into the board retaining slot at the bottom, and that the top clamp is firmly tightened.

BE SURE THAT THE TOP CLAMP IS NOT TOUCHING ANY ELECTRONIC COMPONENTS ON THE BOARD.

6. Turn the game on and re-program your new board to match the settings on your old board.
7. Play a few games to check for proper operation.

## 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.
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.

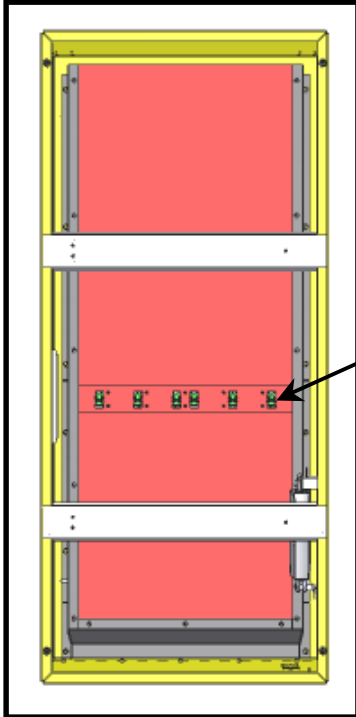
### SCORE SENSOR REPLACEMENT

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 front of the game by removing the front glass retaining bracket and bolts.

# DETAILED TROUBLESHOOTING AND REPAIR

3. Remove the front window assembly by lifting straight up on it and then tilting it out from the bottom.



SCORE  
SENSOR  
SET #1

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.**

6. Replace the sensor pair by removing the connectors and the retaining fasteners.

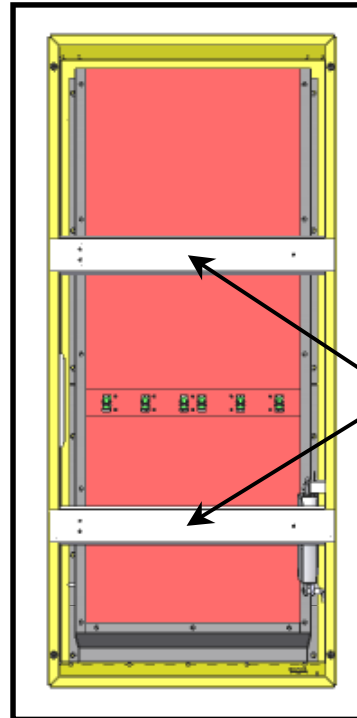
7. Be sure the new sensors are installed correctly and fastened securely. **DO NOT USE METAL FASTENERS AS THEY COULD DAMAGE THE SENSOR BOARDS. USE ONLY THE PLASTIC FASTENERS SUPPLIED.** More of these fasteners can be obtained through our service department.

## PLAYFIELD LIGHT REPLACEMENT

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.



PLAYFIELD  
LIGHTS  
(REAR VIEW)

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.**

# DETAILED TROUBLESHOOTING AND REPAIR

6. Remove the bad bulb by unsnapping the retainer clip from the holder and pressing the red lock button on the fixture itself.

7. Assemble in reverse order.

NOTE: BE SURE BOTH THE RED LOCK BUTTON AND RETAINER CLIPS ARE FULLY ENGAGED TO PREVENT THE BULB FROM FALLING OUT OF THE FIXTURE AND CAUSING DAMAGE.

IF YOU HAVE ANY FURTHER QUESTIONS OR COMMENTS REGARDING THE GAME, PLEASE CALL OUR SERVICE DEPARTMENT AT

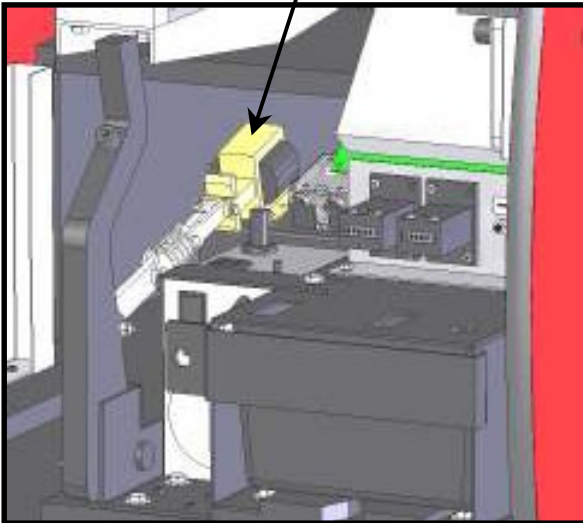
**1-386-677-0761**

ASK FOR DOG POUNDER SERVICE

## SOLENOID MAINTENANCE

Occasionally LIGHTLY lubricate the solenoid plunger with anti-seize compound. This is the same material commonly used in the automotive industry for bolts, brake pads, etc.

SOLENOID



NOTE: USING TOO MUCH COMPOUND WILL MAKE THE SOLENOID PLUNGER STICK AND THE PIVOT LEVER STOP INOPERABLE. ONLY USE A TINY AMOUNT ON THE SOLENOID PLUNGER. WIPE ANY DIRT OR PREVIOUSLY APPLIED LUBRICANT FROM THE PLUNGER BEFORE APPLYING.

# DOG POUNDER

## AIR POWERED VERSION SERVICE

### INTRODUCTION AND SAFETY PRECAUTIONS

When servicing or repairing the AIR POWERED Dog Pounder game, refer to the safety information found elsewhere in the manual.

The air powered version of the Dog Pounder game functions identically to the manually operated version except that an air cylinder and electronics replace the mechanical arm and lockout coil found in the manually operated version.

This version of the game has been developed for easier operation by young children.

### SETTING THE PROGRAMMING OPTIONS

All of the programming options that are used on the manual version of the game are used on the air powered version.

The only exception to this is the **HAND** option. This option does not function for the manual version.

The **HAND** option is set in one of two ways.

If **HAND** = 0, the game will function dynamically meaning that a soft hit on button with the mallet will result in very little movement of the balls on the ball hammock. Then, the harder the button is hit, the higher the balls will fly up through the air. This mode is meant to mimic the actions and playability of the mechanical version of the game. This is the default value for the game and the way it is shipped from the factory.

If **HAND** = 1, the game will function the same regardless of how hard the button is hit. This option enables the operator to have very young children play the game successfully, with or without the mallet being used.

Hint: Putting the game into this mode can be very handy if you have a damaged or missing mallet and can be used while waiting for a replacement to avoid putting the game out of service. When you get your new mallet return the setting to **HAND** = 0.

### TROUBLESHOOTING

The only difference between the air powered version of Dog Pounder and the mechanical version is the Rubber Ball Hammock, Push button assembly, pivot arm and air piston assembly.

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

1. Check to be sure that you are supplying at least 90 PSI clean compressed air to the game.

2. Check to be sure that the air line is connected to the pressure regulator inside the game.

3. Be sure that the pressure regulator is set for 90 PSI (pounds per square inch).

4. 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 sensor LED's do not flash when the button is moved slowly, the board is bad and must be replaced. Both sensors must be working for the game to function properly.

5. 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. \*

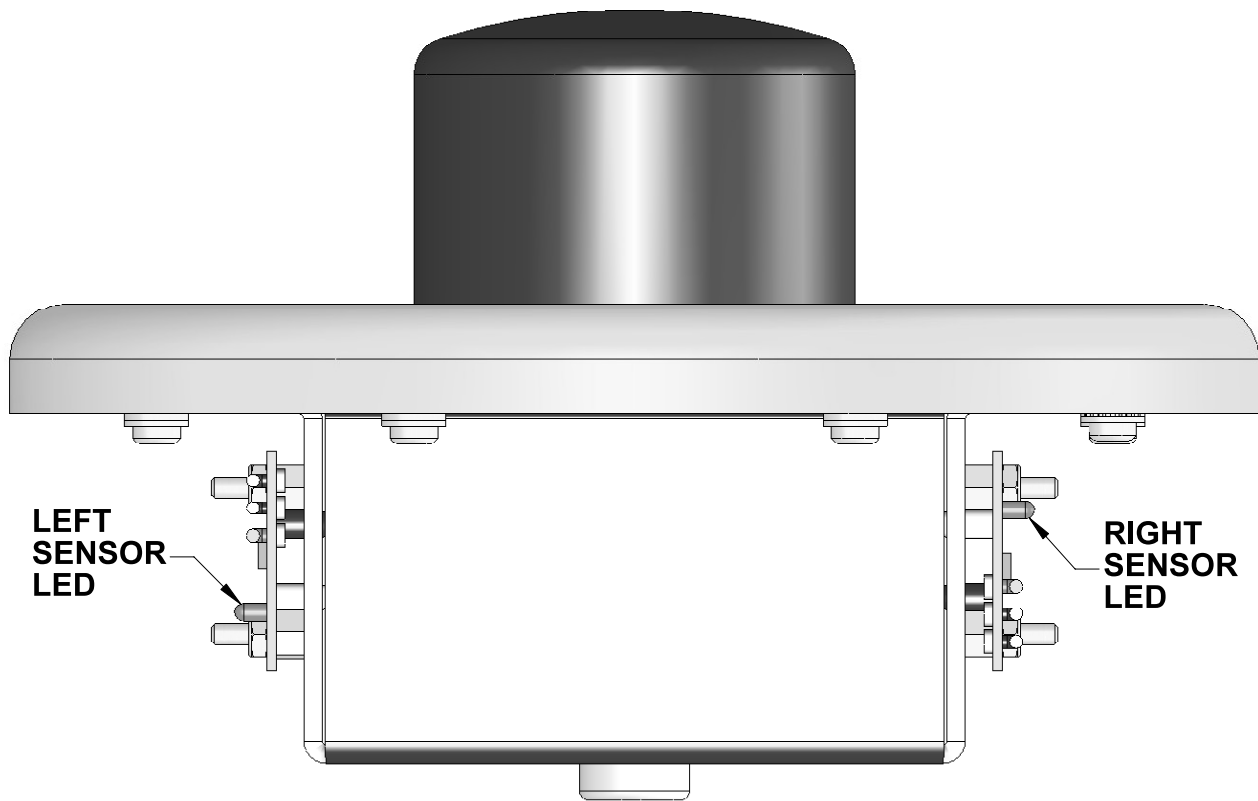
6. If the diode checks O.K., apply 12 volt DC to the 2 pin connector of the air valve. This should fire the air valve. If it does not, the air valve is bad. If it does fire, then there is a problem with the Main P.C. board and it should be replaced.

\*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.

THE AIR VALVE AND AIR PISTON ARE NOT SERVICED SEPARATELY. THEY MUST BE PURCHASED AS AN ASSEMBLY.

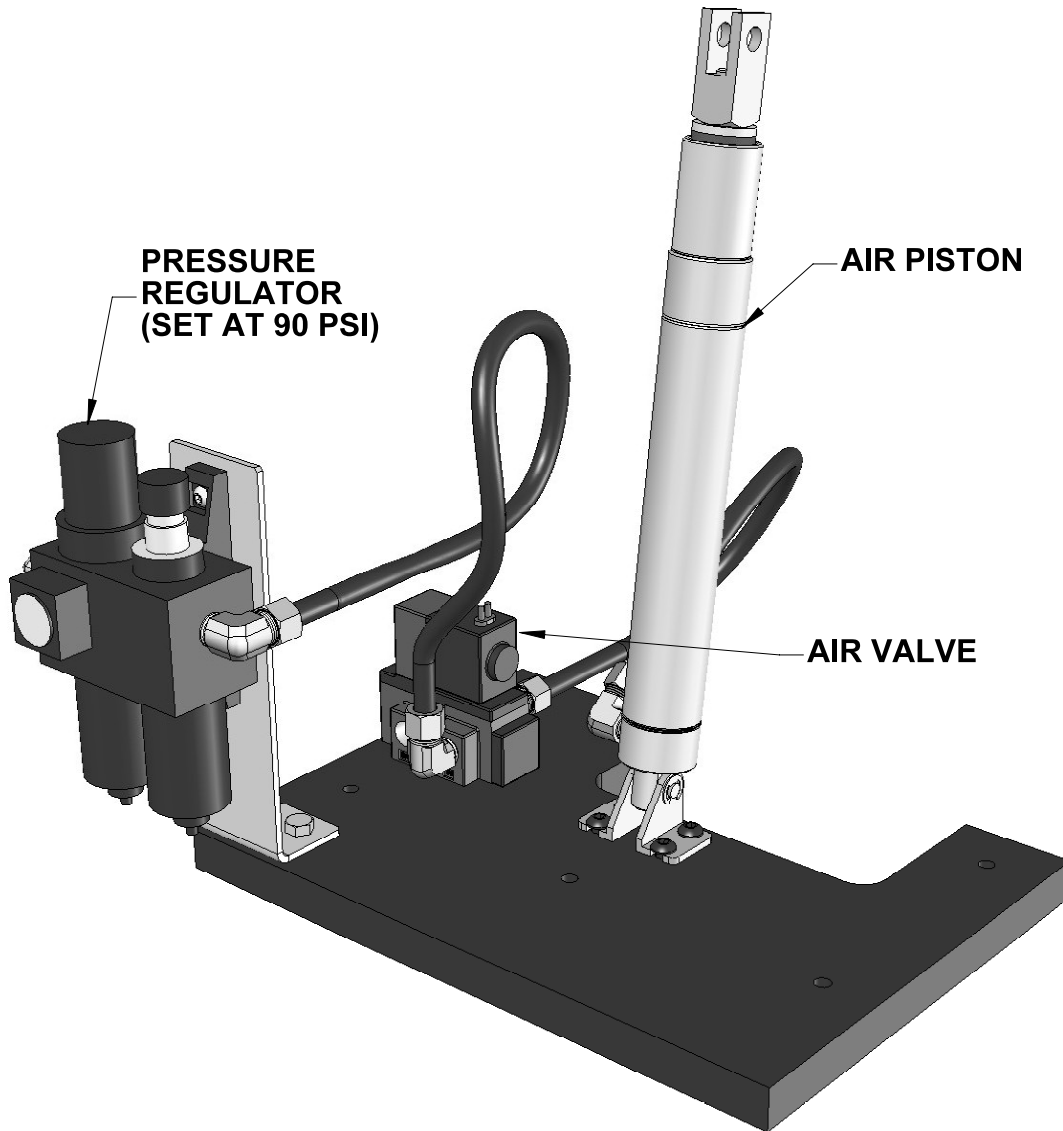
# BUTTON ASSEMBLY

ITEM	PART #	DESCRIPTION	U/M	QTY
1	CX800450	BEARING BUTTON BALL THROW	EA	1
2	E0000500	TERMINAL UNINS RING #8 16-14	EA	1
3	E0011600-GNYE	WIRE #16MTW GREEN W/YEL STRIPE-GRND WIRE	INCH	20
4	EX033525	BOARD ASSY SENSOR DOG POUNDER PK & TRL	EA	2
5	H0000200	WASHER FLAT #8 USS ZINC	EA	15
6	H0001623	WASHER EXTERIOR STAR #8	EA	1
7	H0002500	SCREW WOOD SCRLX 8 X 3/4"PH	EA	8
8	H0800018	STANDOFF HEX 6-32 X 3/16 X 5/16 ALUM	EA	4
9	H0800032	STUD 6-32 X 3/4" PEM	EA	4
10	H0800066	SPRING COMPRESSION .082/1.125/4.000 MW	EA	1
11	H0800067	BUSHING BRONZE FLANGE 3/4" SHAFT	EA	1
12	H0800122	NUT NYLON LOCK JAM 6-32	EA	4
13	M0800475	BUMPER RING BUTTON SET ADHESIVE 1S	EA	1
14	W0800450	BUTTON BALL THROW TRAILER	EA	1
15	W0800452	SHAFT BUTTON GUIDE	EA	1
16	W0800454	HOUSING BUTTON WELDMENT - DP P&T	EA	1



## PIVOT MECH AIR ASSEMBLY

ITEM	PART #	DESCRIPTION	U/M	QTY
1	CX800418	PANEL MOUNTING AIR CYLINDER - DP AIR	EA	1
2	H0003100	SCREW WOOD SCRLX 8 X 1 1/2"PH	EA	2
3	H0006600	BOLT HEX 1/4" X 3/4"	EA	2
4	H0010570	NUT NYLON LOCK 10-32	EA	2
5	H0011996	INSERT WOOD KNOCK-IN 1/4-20 THREAD	EA	6
6	H0014700	ALLEN BUTTON HEAD 10-32 X 3/4	EA	2
7	H0800118	ALLEN BUTTON HEAD 1/4-20 X 1" BLACK	EA	4
8	N0001001	ELBOW 90 - 3/8" POLY X 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	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



# PARTS 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
EX800150	P.C. Board holder
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
<b>MX800404</b>	<b>Ball throw hammock assembly</b>
MX800407	Ball stop curtain assembly
MX800409	Hammock clamp assembly
MX800415	Pivot Mechanism
MX800417	Dog Head Assembly
MX800440	Mallet Holder
<b>MX800444</b>	<b>Mallet, Dog Pounder</b>
MX800450	Ball kit (100 assorted color balls)
W0800084	Adjustable Foot
W0800408	Front window retaining Bracket
W0800460	Front window, Acrylic 1/4"
W0800461	Window, 1/4" Tempered Glass SIDE

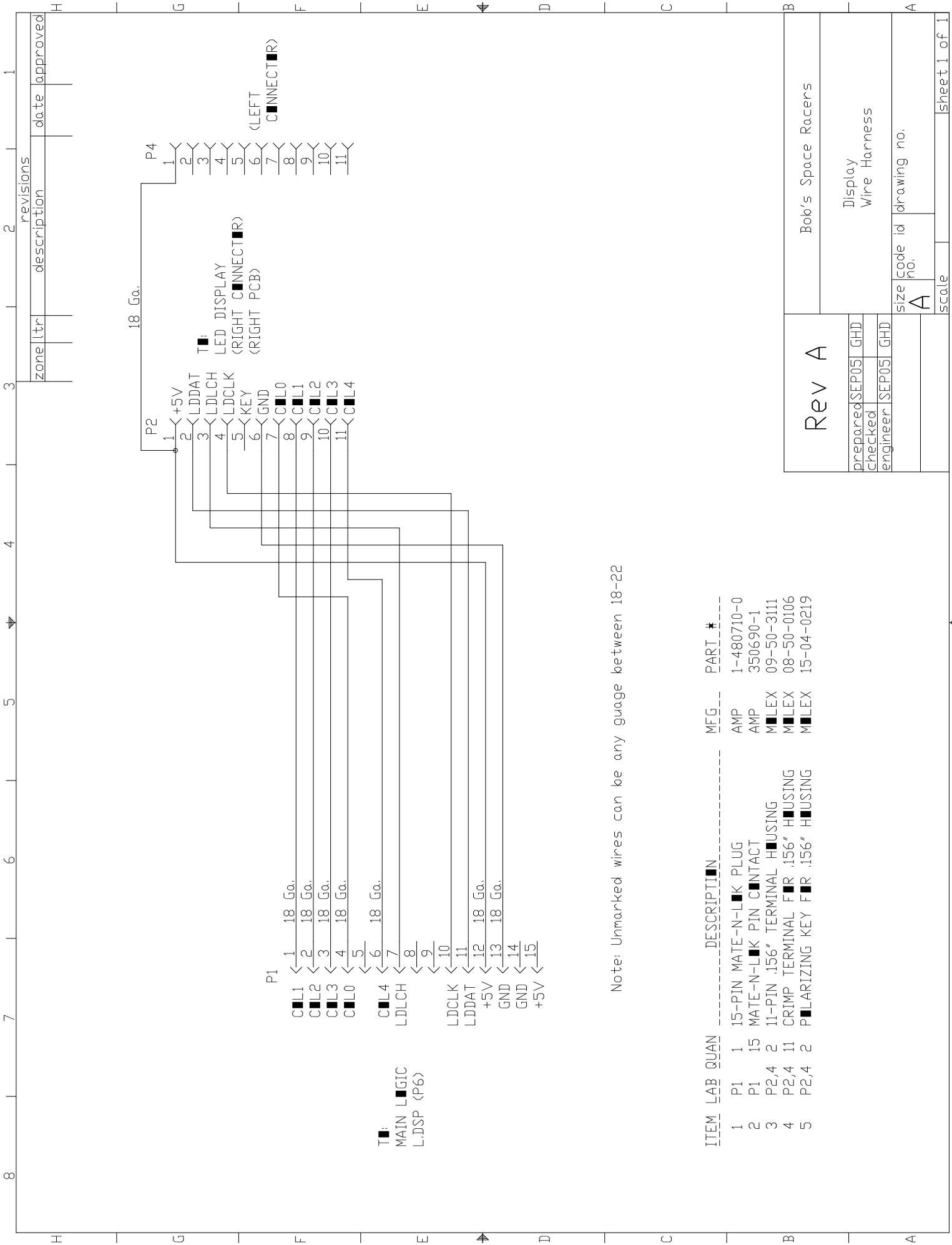
## GRAPHICS / DECALS

A0800410	Belly decal
A0800411	Mouth decal
A0800412	Cabinet paw decal
A0800413	Bonus decal
A0800414	Food bowl decal
A0800415	Bone decal
A0800416	Paw decal
A0800417	Button decal, paw
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

## ELECTRONIC / ELECTRICAL PARTS

E0020750	Solenoid Dormeyer 4X421 modified
E0025100	12 volt mechanical counter
E0004310	Relay Cover (for E0800310)
E0800015	Momentary contact push button
E0800031	40mm 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
E0800157	Display P.C. Board
E0800201	Dual switching power supply
E0800224	Mini Shunt connector
E0800310	Solid State Relay
E0800402	Main P.C. Board
M0800204	Ticket dispenser (Deltronics 1275)





Note: Unmarked wires can be any gauge between 18-22

ITEM	LAB	QUAN	DESCRIPTION	MFG	PART #
1	P1	1	15-PIN MATE-N-LK PLUG	AMP	1-480710-0
2	P1	15	MATE-N-LK PIN CONTACT	AMP	350690-1
3	P2,4	2	11-PIN .156" TERMINAL HOUSING	MLEX	09-50-3111
4	P2,4	11	CRIMP TERMINAL FOR .156" HOUSING	MLEX	08-50-0106
5	P2,4	2	POLARIZING KEY FOR .156" HOUSING	MLEX	15-04-0219

Rev A

Bob's Space Racers

Display Wire Harness

prepared	SEP05	GHD
checked		
engineer	SEP05	GHD

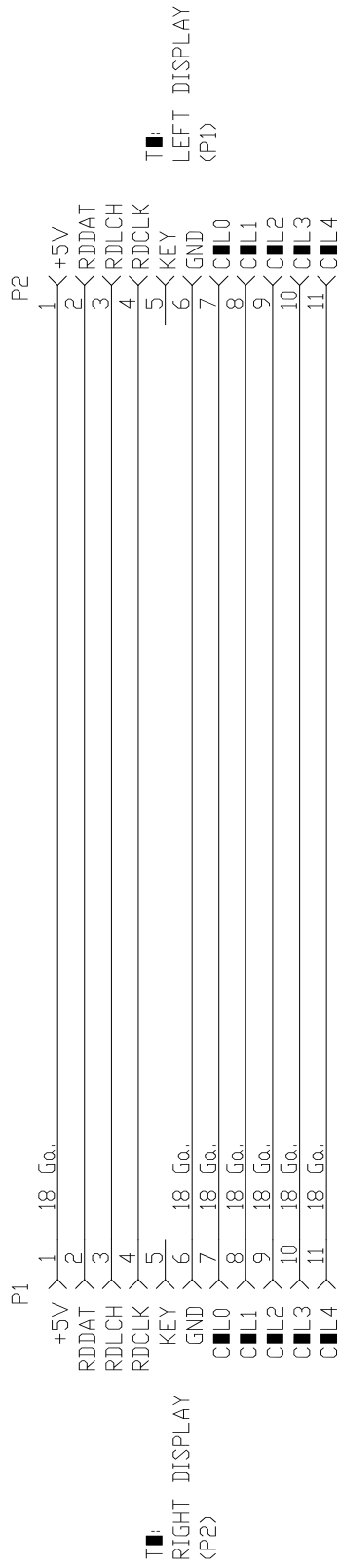
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A

scale

Sheet 1 of 1

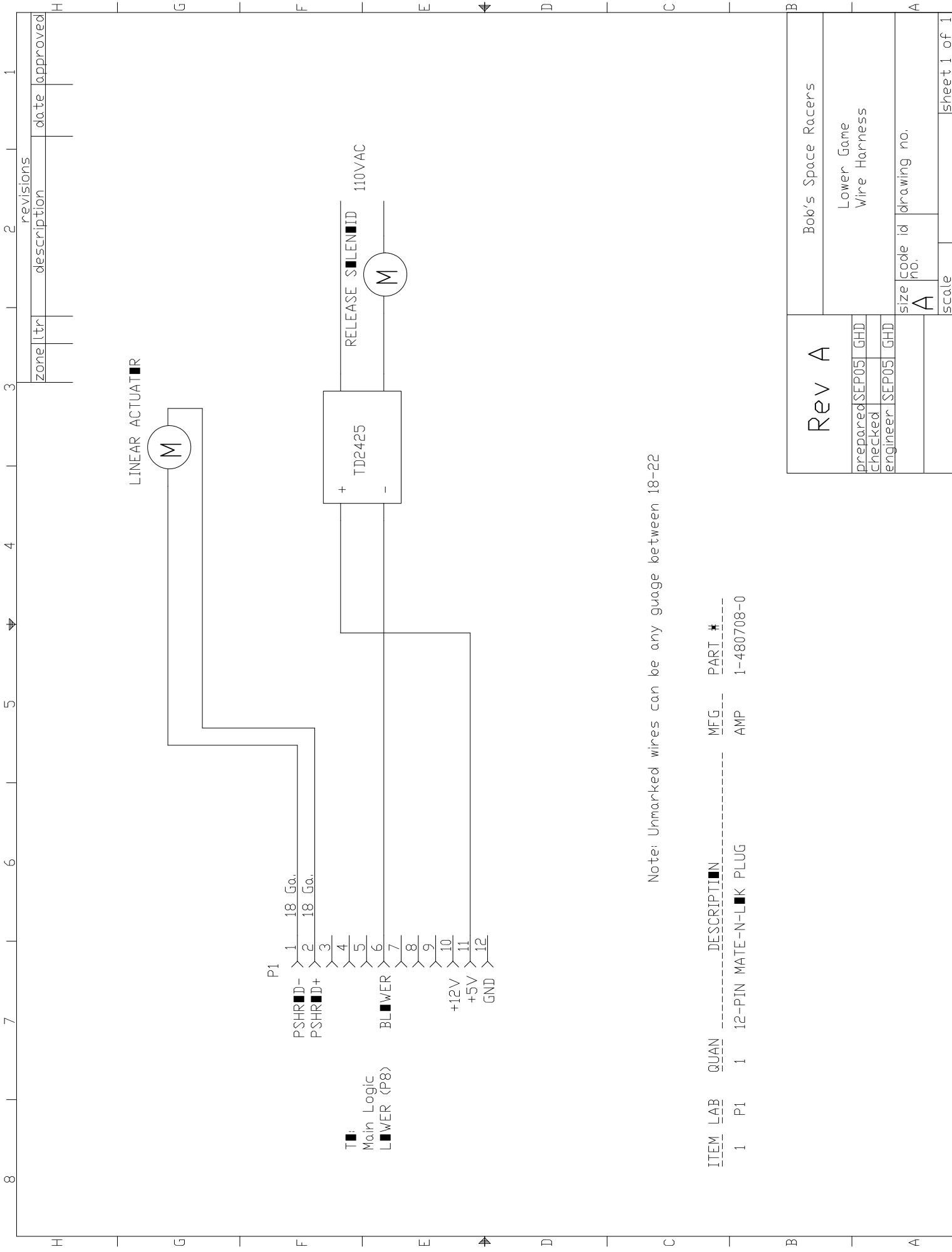
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Note: Unmarked wires can be any gauge between 18-22  
 1-Required per game

ITEM	LAB	QUAN	DESCRIPTION	MFG	PART #
1	P1, P2	2	11-PIN .156" TERMINAL HOUSING	M LEX	09-50-3111
2	P1, P2	20	CRIMP TERMINAL F R .156" HOUSING	M LEX	08-50-0106
3	P1, P2	2	P LARIZING KEY F R .156" HOUSING	M LEX	15-04-0219

Rev A		Bob's Space Racers	
prepared	SEP05	GHD	Display to Display Wire Harness
checked			
engineer	SEP05	GHD	
		size	code id
		A	drawing no.
		scale	sheet 1 of 1



Note: Unmarked wires can be any gauge between 18-22

ITEM LAB	QUAN	DESCRIPTION	MFG	PART #
1 P1	1	12-PIN MATE-N-LK PLUG	AMP	1-480708-0

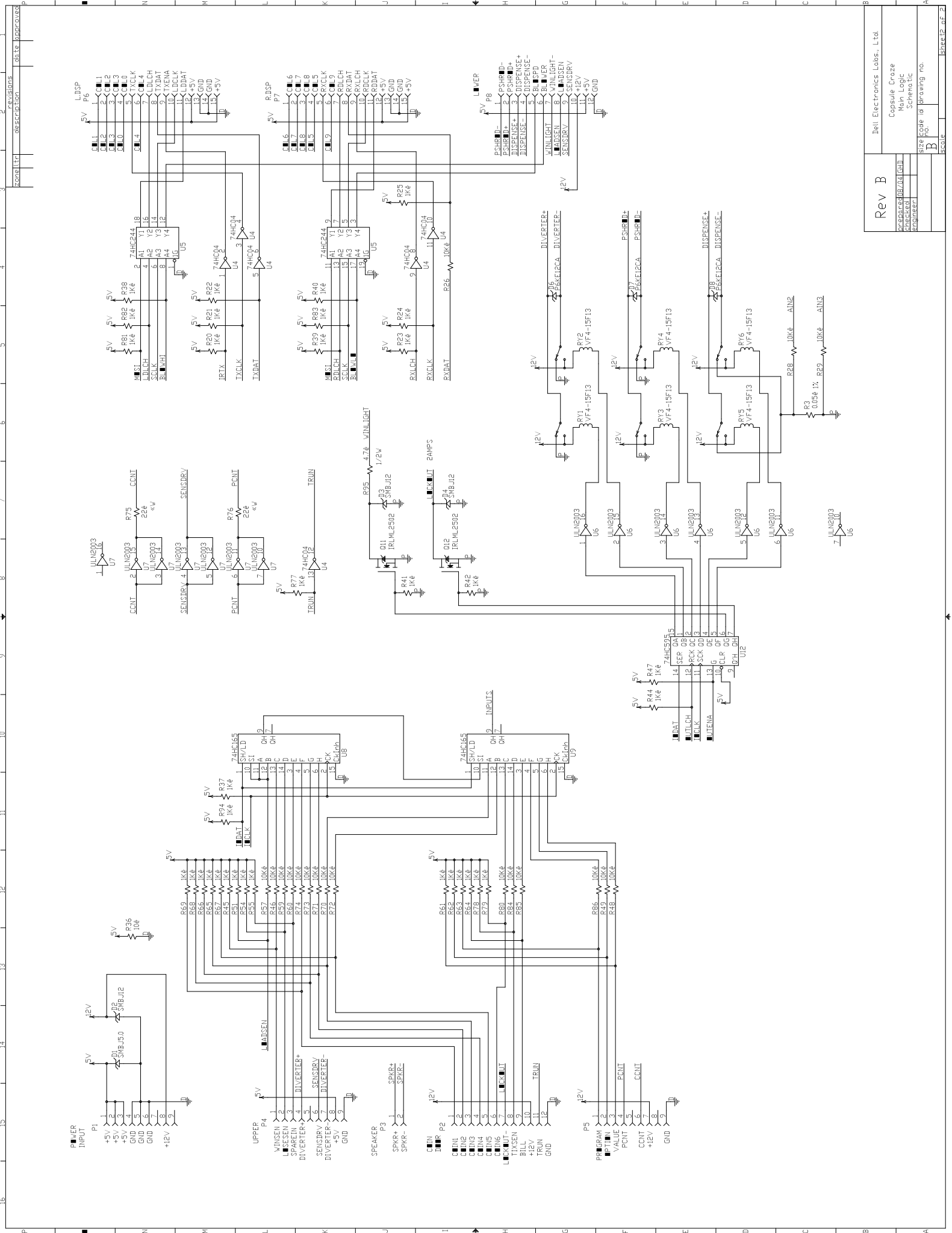
Rev A		prepared	SEP05	GHD
		checked		
Bob's Space Racers		engineer	SEP05	GHD
		Lower Game Wire Harness		
size	code id	drawing no.		
A				
scale	sheet 1 of 1			

zone | tr | revisions | date | approved

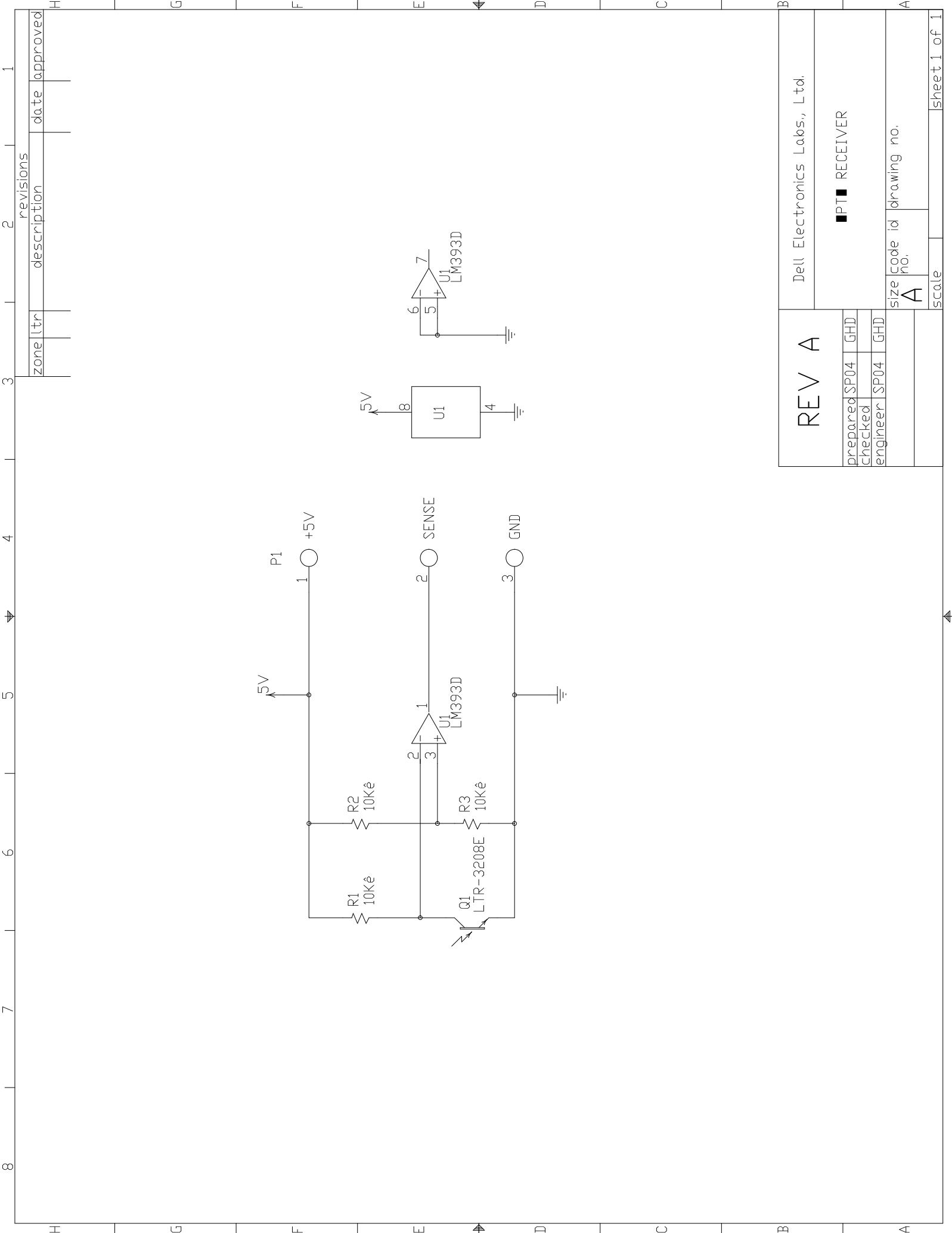
1 2 3 4 5 6 7 8

H G F E D C B A





Rev B	
Bell Electronics Labs., Ltd.	
Capsule Craze	
Main Logic	
Schematic	
Scale: B	Size: 100mm x 100mm
Code: 10000000	Sheet 12 of 20



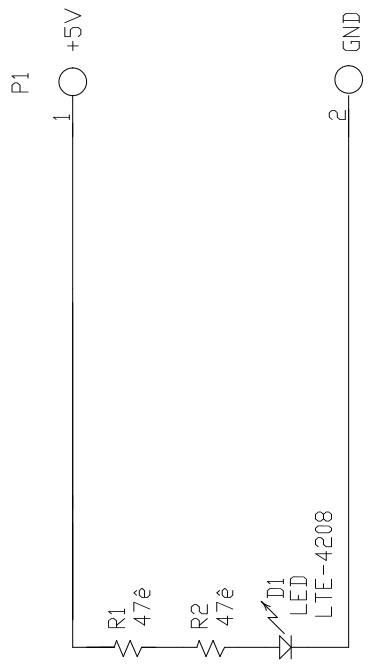
zone	ltr	revisions	date	approved

prepared	SP04	GHD
checked		
engineer	SP04	GHD
size code id drawing no.		
A		
scale		sheet 1 of 1

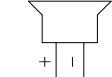
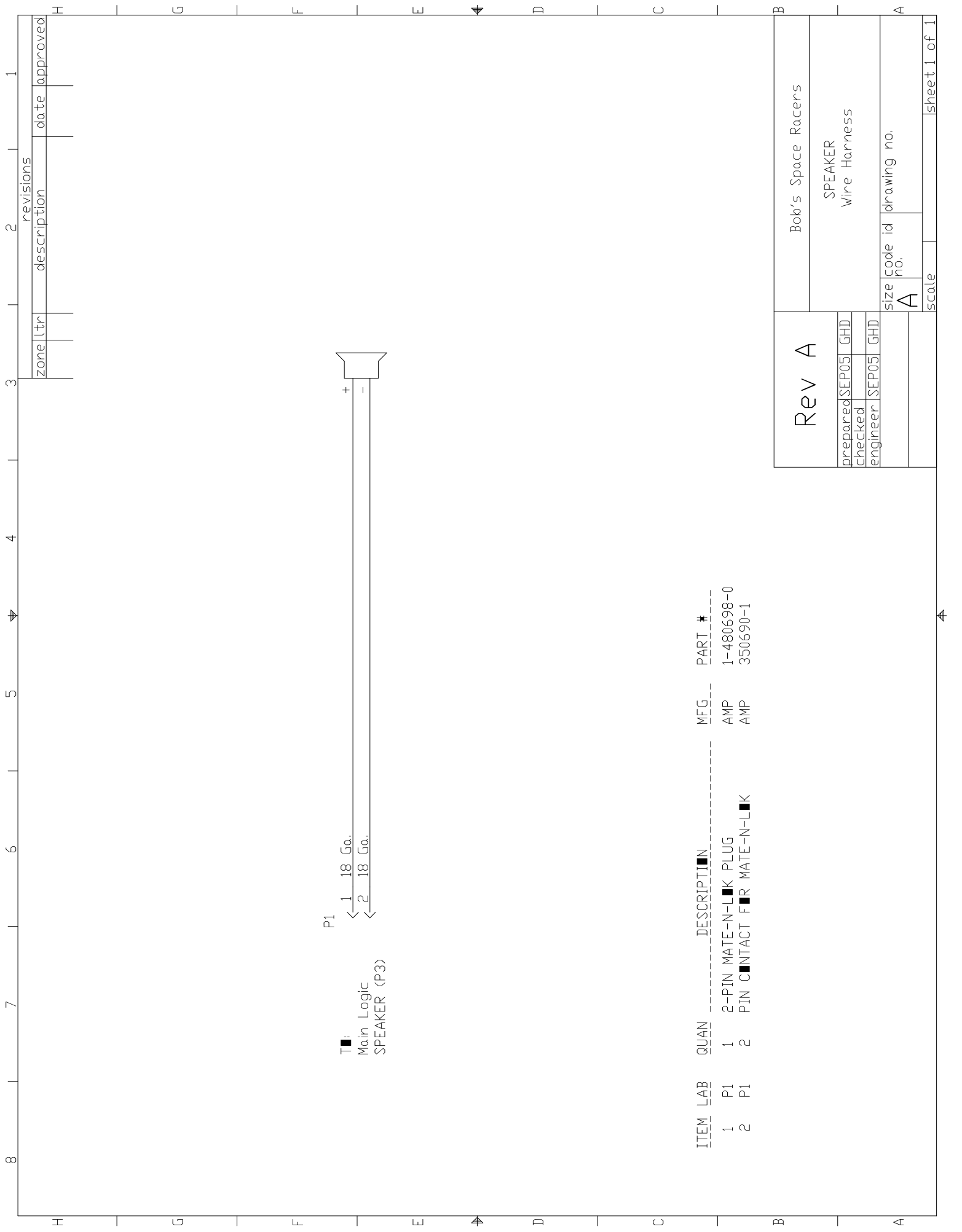
REV A

Dell Electronics Labs., Ltd.  
 ■ IPT ■ RECEIVER

revisions		date approved	
zone	tr	description	



Dell Electronics Labs., Ltd.	
■PT ■ TRANSMITTER TX-1B	
prepared DE05 PAV	checked
engineer DE05 GHD	
size A	code id drawing no.
scale	sheet 1 of 1



P1  
 1 18 Ga.  
 2 18 Ga.

T1  
 Main Logic  
 SPEAKER (P3)

ITEM	LAB	QUAN	DESCRIPTION	MFG	PART #
1	P1	1	2-PIN MATE-N-LK PLUG	AMP	1-480698-0
2	P1	2	PIN CONTACT FOR MATE-N-LK	AMP	350690-1

Rev A

Bob's Space Racers

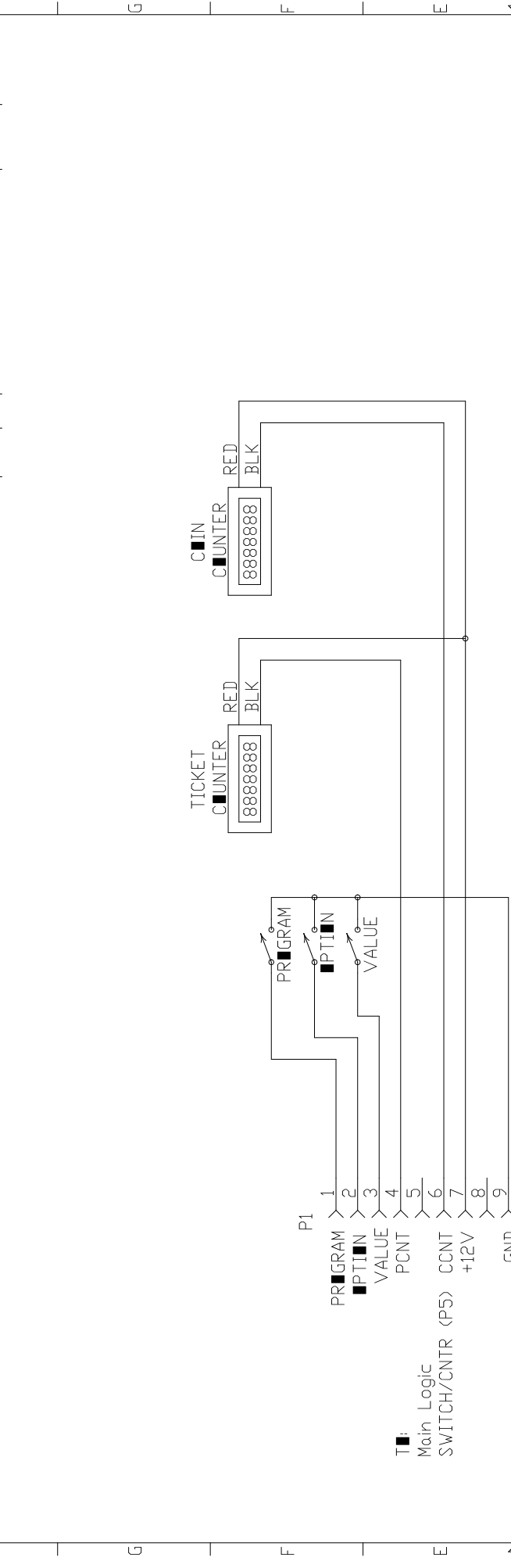
SPEAKER  
 Wire Harness

prepared	SEP05	GHD
checked		
engineer	SEP05	GHD

size code id drawing no.  
 A

scale

sheet 1 of 1



Note: Unmarked wires can be any gauge between 18-22

ITEM	LAB	QUAN	DESCRIPTION	MFG	PART #
1	P1	1	9-PIN MATE-N-LK PLUG	AMP	1-480706-0
2	P1	7	SOCKET CONTACT FOR MATE-N-LK	AMP	350689-1

## Rev A

prepared SEP05 GHD  
checked  
engineer SEP05 GHD

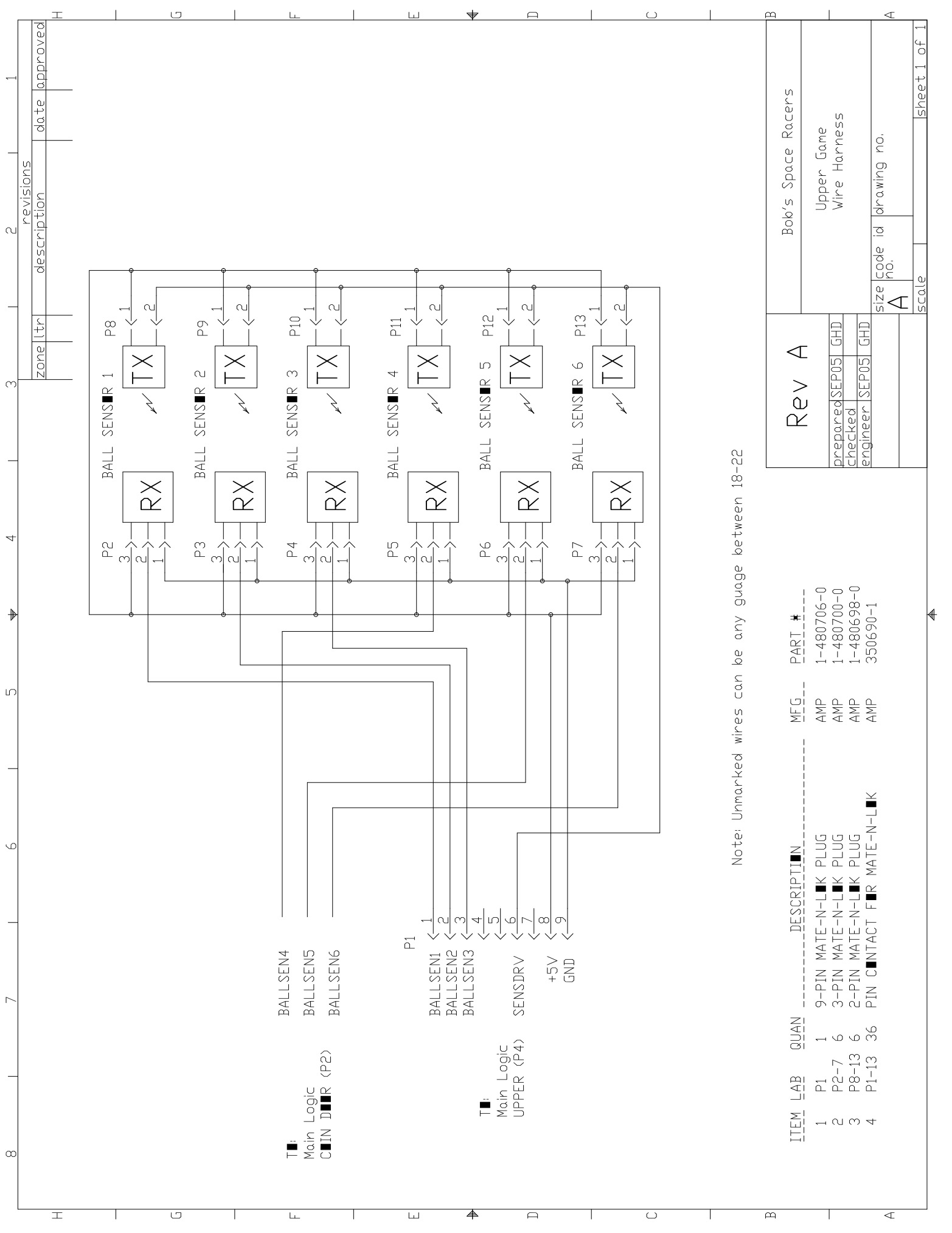
Bob's Space Racers

SWITCH/COUNTER  
Wire Harness

size code id drawing no.  
A

scale

sheet 1 of 1



zone	ltr	description	revisions	date	approved
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Note: Unmarked wires can be any gauge between 18-22

ITEM	LAB	QUAN	DESCRIPTION	MEG	PART #
1	P1	1	9-PIN MATE-N-LK PLUG	AMP	1-480706-0
2	P2-7	6	3-PIN MATE-N-LK PLUG	AMP	1-480700-0
3	P8-13	6	2-PIN MATE-N-LK PLUG	AMP	1-480698-0
4	P1-13	36	PIN CONTACT FOR MATE-N-LK	AMP	350690-1

<b>Rev A</b> prepared SEP05 GHD checked engineer SEP05 GHD	Bob's Space Racers	
	Upper Game Wire Harness	
	size	code id
A		drawing no.
scale		sheet 1 of 1

# 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 delivery. 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 tires flood, lightning and wind; or (g) any other abuse or misuse of the equipment.

3. EXCLUSIVE WARRANTY. THE FOREGOING 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 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 15th Street  
Daytona Beach, Florida 32117  
Telephone number 386/677-0761  
FAX 386/677-0794