90 DAY LIMITED WARRANTY
LAS VEGAS PINBALL GAME

Mattel Electronics, 5150 Hosecrans Avenue, Hawthorne, California 90250, warrants to the original consumer purchaser of its Las Vegas Pinball Game that the product will be free of defects in material or workmanship for 90 days from the date of purchase under normal in-home use when assembled and maintained according to instructions in the Owner’s Manual.

During the warranty period Mattel Electronics will, at its option, repair or replace the game without charge for parts or labor. Mattel Electronics reserves the right to utilize reconditioned parts in servicing the game.

This warranty does not apply if the game has been altered or repaired by anyone other than a Mattel Electronics Authorized Service Dealer or has been subjected to purchaser abuse, accident, negligence, lack of maintenance or damage subsequent to purchase. Please read the Owner’s Manual carefully before starting to assemble.

For service within the warranty period, call Mattel Electronics Repair Center at the following toll-free telephone number: (800) 421-2826, except California. California residents call direct or collect (213) 644-2752. (For faster service, have your Machine’s serial number ready when you call. The serial number is on the back panel of the Playfield Cabinet.) Mattel Electronics Repair Center will then arrange to have an Authorized Service Dealer contact you for an appointment. Please be prepared to present proof of the date of purchase (sales receipt, credit card statement, etc.) to your Authorized Service Dealer when seeking service within the warranty period.

This warranty does not cover bulbs, rubber rings or damage to glass play field cover or score unit cover. Note that the game comes with a supply of replacement bulbs. Damage that occurs in transit can be claimed against the freight carrier or trucking company.

After the warranty period, call the above toll-free telephone number for the location of your nearest Authorized Service Dealer.

This warranty gives you specific legal rights and you may also have other rights that vary from state to state.
INTRODUCTION

Your new Las Vegas Pinball game from Mattel Electronics is a full arcade-size unit, offering you professional quality play, plus a variety of game options to test your strategy and skill.

So that you can gain the maximum enjoyment from your Las Vegas Pinball Machine we have prepared this manual, which contains the following information:

WARRANTY

The terms of your Warranty, including toll-free number to call regarding service questions and our in-home service program.

ASSEMBLY

PAGES 2 through 9
Complete instructions on how to assemble your Las Vegas Pinball Machine.

GAME PLAY

PAGES 10 through 20
Complete instructions on how to play the various game versions and how to read the Score Display. Also, explanations of all components and their functions.

MAINTENANCE AND TROUBLE SHOOTING

PAGES 21 through 30
Instructions for simple home repair and maintenance. In simple easy-to-understand language you will learn how to perform home maintenance, using common household tools. Diagrams and charts are included.

Read this manual carefully. Follow the instructions and you will enjoy countless hours of fun playing Las Vegas Pinball.
ASSEMBLE YOUR LAS VEGAS PINBALL
Easy step-by-step instructions

YOU WILL NEED THESE SIMPLE TOOLS

1 flathead screwdriver
1 Phillips-head screwdriver
1 carpenter’s bubble-type level

INSIDE THE CARTON
YOU WILL FIND THESE PARTS:

1 Score Box Cabinet
4 metal legs
4 leg levelers
1 Playfield Cabinet with glass panel and Pit Boss™ Control Console
Plastic bags containing the following components and spare parts:
   4 bolts to attach Score Box
   1 game ball
   1 switch adjustment tool
   1 Shooter Assembly with 3 screws and backplate
   2 No. 1892 type bulbs (for replacement use only No. 1892 or No. 1813 type bulbs)
   Note: The 8 bolts used to attach the legs to the Playfield Cabinet are not in the plastic bag, but screwed into the Playfield Cabinet.

Remove everything from the carton and check all items against this list to make sure you have all the items for assembly.

NOW, FOLLOWING INSTRUCTIONS, ASSEMBLE THE MACHINE.

CAUTION:
DO NOT PLUG POWER CORD INTO ANY SOCKET UNTIL THE UNIT IS FULLY ASSEMBLED.
1. ATTACH THE LEG LEVELERS

Thread a leg leveler into the base of each leg. Give each leveler three or four complete turns. Adjust all four levelers uniformly.

2. SET PLAYFIELD CABINET ON TWO CHAIRS

NOTE: This is a two-person operation.
Carefully remove the Playfield Cabinet from the carton.
With the help of another person, set the Playfield Cabinet on two sturdy chairs, as shown.
3. ATTACH THE FOUR LEGS

Remove the leg-mounting bolts from the four corners of the Playfield Cabinet. Attach a leg to each corner of the Playfield Cabinet. Replace leg-mounting bolts and secure with a screwdriver.

4. REMOVE THE PIT BOSS CONTROL CONSOLE

Remove the screws from the sides of the Pit Boss Control Console and carefully lower until supported by wiring. Remove the 4 nuts from the sides of the packing blocks. Remove the packing blocks and discard. Then tap out the 4 screws in the Cabinet and discard.

NOTE: Pit Boss Control Console does not disconnect.
5. ADD BALL AND INSTALL SHOOTER ASSEMBLY

Add the ball to the Playfield. Install Shooter Assembly through the front of the Pit Boss Control Console, using the back plate and the screws provided. Do not tighten screws. Attach the Pit Boss Control Console to the Playfield Cabinet. Then make sure the Shooter shaft is lined up with the ball. Tighten the screws.

6. ATTACH SCORE BOX AND SCORE DISPLAY

Remove screws holding the 3 wooden strips in place. Lift top of plastic sheet toward you slightly by pushing from underside. Lift plastic sheet up and slide out to remove it. Set these pieces aside for later assembly.
7. REMOVE BACK STRIP

Carefully set the Score Box on top of the Playfield Cabinet as shown. Remove screws holding back strip. Slide the strip from under the glass and lift out. Do not discard.

8. SCORE DISPLAY BOARD

Remove the plastic bag attached to the inside of the rear of the Playfield Cabinet and remove the packing material and the blue Score Display board. Set the Score Display board into the right-hand, open side of the Score Box, for now. Remove the plastic ties from the power cord. Hang end of power cord outside Cabinet.
9. **PLUG IN THE SCORE BOX**

Hanging from the Score Box is a two prong wire plug. At the bottom of the Playfield Cabinet is a double-wire prong. Carefully plug the wire plug into the double-wire prong at the left of the board as shown.

Now, re-install the back strip before the next step.

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10. **ATTACH SCORE BOX**

Fit power cord into slot on back of Score Box. Attach Score Box to Playfield Cabinet with mounting bolts.

**CAUTION:** Do not let the blue Score Display board fall back into the Playfield Cabinet.
11. ATTACH SCORE DISPLAY BOARD

Attach Score Display board with the two attached nuts as shown. IMPORTANT: Use plastic tie-down at left side of mounting board to hold wire harness in place.

12. SCORE BOX SHEET

Fit plastic Score Box sheet into groove at bottom of frame. Replace the 3 wooden strips and screws you set aside in Step 6.
13. LEVEL THE MACHINE

Set the fully assembled Machine in its playing location. Place a carpenter’s level on bottom edge of Playfield Cabinet’s front end and adjust the levelers at the base of the front legs until the bubble reads level side to side. Turn front leg levelers counterclockwise to raise the Machine and clockwise to lower it.

14. AND AGAIN

Hold the carpenter’s level on the bottom side of the Playfield Cabinet back end and adjust the rear leg levelers until the game is level side to side.

Front to back slope can be adjusted to vary “speed” of game. For balance, however, it is important to have side to side level at front and back ends of Cabinet.

15. PLAY!

Plug the line cord into a 115 volt A.C. outlet. Your Las Vegas Pinball from Mattel Electronics is now ready to play. For many years of enjoyment from your Machine, read the How To Play and Maintenance sections of this manual very carefully.
BECOME FAMILIAR WITH THE GAME

Now that you’ve assembled the Las Vegas Pinball Machine, spend a little time getting to know how it works. Read these directions carefully and follow them step by step. Consult the diagrams that appear in this section for the locations of the numbers in parentheses.

1 First, let’s get the game going.
   You’ve plugged the power cord into an outlet, so switch on the Power Switch located at the back underside of the Playfield Cabinet. (Always turn the power off after you have finished playing.)

THE PLAYFIELD AND SCORE BOX WILL LIGHT UP AND SIX ZEROS WILL APPEAR IN THE SCORE DISPLAY.

2 Try the Flipper Buttons.
   There are two Flipper Buttons, one on each side of the Playfield Cabinet. They control the four flippers on the playfield. Observe where the flippers are on the Playfield and get the feel of the Flipper Buttons.
3 Now let’s examine the control switches and buttons. In front of you, as you stand at the Machine, you will see the Pit Boss Control Console. There are four controls on the Console.

![PIT BOSS Control Console]

**THEY ARE**

a **The Start Player Button**, used to start a new game and to enter 1 to 4 players onto the Score Display.

b **The Ball Handicap Switch**, used by players of equal skill to set game length, i.e. 3, 4 or 5 balls, or to provide for handicapping by allowing players of varying skill levels to select a different number of balls per player.

c **Game Selection Switch**, used to select Games 1, 2 or 3. The games increase in skill level required from 1 to 3. (See Game Versions, pg. 18).

d **Double or Nothing Option Button**, may be used by any or all players on any one ball during a game. (See Double or Nothing, pg. 19).

4 Let’s use these buttons and switches to start a simple practice game.
- Slide the Game Switch to 1.
- Pick the game length you wish to play: if 5 balls, then slide the Ball Handicap Switch to 5.
- Now, press the Start Player Button.

**THE MACHINE WILL PLAY “LET ME ENTERTAIN YOU” AND THE NUMBERS 1-5-0 WILL APPEAR IN THE SCORE DISPLAY.** Wait 5 seconds.

**YOU WILL HEAR THE PLAYER START TONE (A THREE-NOTE SEQUENCE) AND THE NUMBERS 1-5-1 WILL APPEAR IN THE SCORE DISPLAY, ALTERNATING WITH THE SIX ZEROS.**
The numbers 1-5-1 mean that Player 1, with a 5-ball handicap is now about to shoot first ball. SIMULTANEOUSLY THE TARGET LIGHTS (pg. 18 & 19) WILL BEGIN TO SCAN. (This is a characteristic of Game Version 1. See Game Versions, pg. 18).

To shoot your first ball, simply pull back the handle of the Shooter and shoot the ball onto the Playfield. Immediately place a finger over each of the Flipper Buttons and begin play.
- Use the flippers to keep the ball from going out of play.
- You will see that there is a lot of action as the ball is in play. Don’t be confused by the lights and sounds. Merely observe the action of the ball at this time.

AS YOU ACCUMULATE POINTS, THEY REGISTER IN THE SCORE DISPLAY.

- You will observe that it is possible to keep the ball in play for a long time if you are quick to use the flippers. When the ball leaves the Playfield watch the Score Display. Extra points may be added to your score (see Payout Bonuses, pg. 13).
THE SCORE OF THE FIRST BALL WILL APPEAR IN THE SCORE DISPLAY, FOLLOWED BY THE NUMBERS 1-5-2 AND THE THREE-NOTE START TONE. The numbers 1-5-2 mean that Player 1, with a 5-ball game, is about to shoot his second ball.
THESE NUMBERS WILL ALTERNATE WITH THE SCORE OF THE FIRST BALL.

Shoot your second ball. You will notice that this time you may be able to keep the ball on the Playfield longer and score more points. At this time don’t bother too much about what is happening on the Playfield. You may win a Jackpot Extra Ball (See pg. 14). Why these things are happening will be explained later. Right now you’re just watching what happens (See How to Read the Score Display, pg. 15).

When the fifth and final ball leaves the Playfield, the game is over. YOUR FINAL SCORE WILL APPEAR IN THE SCORE DISPLAY AND THE MACHINE WILL PLAY “THANKS FOR THE MEMORIES.” THE FINAL SCORE WILL ALTERNATE WITH THE NUMBERS 1-5-5 (Player 1, 5 balls chosen, 5 balls completed) UNTIL A NEW GAME IS STARTED.
To play a game with more than one player and up to four players, start by selecting the game version — 1, 2 or 3. Then the player who will shoot the most number of balls pushes the Start Button and then slides the Ball Handicap Switch to the number of balls desired. The player who will shoot the next highest number of balls (or the same number) then pushes the Start Button and selects his number of balls with the Ball Handicap Switch. And so on down to the player who will shoot the lowest number of balls.* When the last player has selected the lowest number of balls, there is a delay of a few seconds before the Start Tone signals the start of the game.

Always wait for the Start Tone before you shoot each subsequent ball. If you do shoot before the Tone, just allow the ball to clear the Playfield and shoot again. No score will be made or lost.

* The section on HOW TO READ THE SCORE DISPLAY, pg. 15, will go into what happens in a game with multiple players at greater length.

THE PLAYFIELD

To shoot the best game possible, it is important to know the various parts of the Playfield, their functions, and scoring values. Consult the diagram, pg. 14, for the corresponding numbers in black circles.

THUMPER BUMPERS

There are two Thumper Bumpers 19 and 19 on the Playfield. Each one earns 100 points every time it is hit by the ball.

SLINGSHOTS

There are two Slingshots 18 and 18 on the Playfield. Each one earns 100 points every time it is hit by the ball.

REBOUNDS

There are four Rebounds 20, 20, 20, and 20 on the Playfield. Each earns 100 points when struck by the ball.

TARGETS AND PAYOUT BONUSES

There are four Targets 5, 6, 7, and 8 on the Playfield.  
- Each Target is designated by one of the four suits of cards.
- Each time a Target is struck during the course of a ball, it will earn an immediate 1,000 points.
- The first time a Target is struck during the course of a ball it will also light up. (In Game Version 3 the Targets must be struck in sequential order from left to right to light).
- The flashing Target awards 5,000 points the first time it is struck. (In Game Version 3 no Target flashes).
- For each Target that is lit a 1,000 point Payout Bonus is also awarded when the ball leaves the Playfield.
- Also, the card suit lamp adjacent to the Rollover that is designated by the same suit (see Rollovers below) will light up and increase in value from 1,000 to 3,000 points.
- When all four Targets are lit during the course of a ball, a Triple Payout Bonus of 3,000 points for each Target, or a total of 12,000 Bonus Points, will be awarded when the ball leaves the Playfield.

**ROLLOVERS AND JACKPOT EXTRA BALL**

- There are eight scoring Rollovers on the Playfield.
- Four of the Rollovers 12, 13, 15, and 17 are designated by one of the four suits of cards. Each of these Rollovers is related to the Targets of the corresponding suits mentioned above. The first time one of these Targets is lit during the course of the ball, the card suit lamp of the Rollover of the same suit also lights (except in Game Version 3).
- Each time one of these Rollovers is passed over by a ball before the corresponding Target has been hit and its on-table lamp is unlit, the player will earn 1,000 points.
- Each time one of these Rollovers is passed over by a ball after its card suit lamp has been lit, the player will earn 3,000 points. Three other Rollovers 9, 10, and 11 are designated as Lucky 7's in a slot machine motif.
- The first time each of these Rollovers is passed over during the course of a ball, the adjacent Lucky 7 lamp is lit and 1,000 points are earned. Each subsequent time they are passed over by the ball they earn 1,000 points and the lamp stays on.
- If all three of these Rollovers are passed over during the course of one ball, the Jackpot Extra Ball red light 23 will begin flashing and a Jackpot Extra (free) Ball will be awarded the player at the completion of the current ball in play. The red light will go out as soon as the Extra Ball has been launched onto the Playfield. In a game with more than one player the Extra Ball must be played immediately, before the next player’s turn.
- When a ball goes out of play over Rollover 13, 1,000 points are scored.
HOW TO READ THE SCORE DISPLAY

Game and score information appears in a 6-digit Score Display (pg. 8) on the Score Box. The Score Display gives the score for each player. In addition, reading from left to right, it gives information on the player about to shoot, the number of balls he has chosen to shoot and the ball in play.

Let’s start a hypothetical game for three players. First, the Game Version is selected with the Game Selection Switch. Player No. 1, who is always the player who will shoot the highest number of balls, then presses the Start Player Button. Next he uses the Ball Handicap Switch to pick his game length (the number of balls he will shoot), let’s say 5 balls. The Score Display now reads 1-5-0.

Player No. 2, who is always the player who will shoot the next highest number of balls (or the same number), now has only 5 seconds to push the Start Player Button and use the Ball Handicap Switch to select the number of balls he will shoot, in this case, let’s say 4 balls. If he allows the 5 seconds to elapse, the Start Tone will sound and the players will have to prepare the game again as explained in the above paragraph. After Player No. 2 has selected his game length the Score Display reads 2-4-0.

The last player to feed his information into the Machine is always the player who will shoot the lowest number of balls. Therefore, Player No. 3 now pushes the Start Player Button and then selects, let’s say 3 balls with the Ball Handicap Switch before 5 seconds have elapsed. The Score Display now reads 3-3-0.

Now the 5 seconds are allowed to elapse and the Start Tone sounds, which means the game is ready for play.

The Score Display will now read 1-5-1. This means that Player No. 1, with a 5-ball game length, is about to shoot his first ball. Player No. 1 shoots his first ball and as it enters the Playfield six zeros appear in the Score Display. As soon as the ball starts scoring points, the six zeros disappear and the points earned are recorded in the Score Display with appropriate sound effects. (See Music and Sound Effects, pg. 20).

After the ball leaves the Playfield, any Payout Bonus points earned are added to the score.
Following this, the Score Display gives the player a score review by player number, but always in a sequence that will end with the next player to shoot. Let's make this clear.

For instance, let's say that Player No. 1 has just earned 6,000 points on his first ball. The Score Display will then give the following information:

- **2-4-0**: Player No. 2, with a 4-ball game length, has not shot yet.
- **000000**: No score yet.
- **3-3-0**: Player No. 3, with a 3-ball game length, has not shot yet.
- **000000**: No score yet.
- **1-5-2**: Player No. 1, with a 5-ball game length, is about to shoot his second ball.
- **6000**: His score so far.

The Start Tone will sound and the Score Display will flash until Player No. 1 shoots his second ball.

The reason that Player No. 1 shoots again is because: The players with the longest game lengths must continue to shoot until all players have the same number of balls left to shoot, so that all players will finish within the same round of play. (If all players were playing the same number of balls, the shooting order would be in strict numerical order, starting with Player No. 1 and ending with Player No. 3).

Player No. 1 shoots again. Let's say that this time he makes another 6,000 points.

The Score Display will now show the following score review:

- **3-3-0**: Player No. 3, with a 3-ball game length has not shot yet.
- **000000**: No score yet.
Player No. 1, with a 5-ball game length, has shot 2 balls. (These numbers are the same as when Player No. 1 was about to shoot his second ball and will change only when Player No. 1 is about to shoot his third ball).

His score so far.

Player No. 2, with a 4-ball game length, will shoot his first ball.

His score will be added to the six zeros.

Start Tone will sound and the Score Display will flash until Player No. 2 shoots his second ball.

After Player No. 2, with a 4-ball game length, shoots his first ball, all players will have the same number of balls left to shoot. From then on all players will shoot in numerical order, Player No. 1 before Player No. 2, and so on.

Therefore Player No. 1, with a 5-ball game length, will then shoot again. This way all players will shoot their last ball in sequence and no player will have excess balls to shoot after the other players have finished.

When all of the players have shot all of their balls, the Las Vegas Pinball Machine will play “Thanks for the Memories” and the Score Display will repeat the scores of the players by player number, handicap and balls shot until a new game is started or the power is turned off. The final score information would look something like this:

The winner is Player No. 3!
THE THREE GAME VERSIONS

GAME VERSION 1  BEGINNER’S LUCK

Game Version 1 is a good game to start with and includes an element of chance for added excitement.
• The lights behind Targets 5, 6, 7 and 8 scan (momentarily light up) throughout the course of the ball until the Bonus Target is hit; i.e. until the ball hits any Target while it is lit.
• The element of chance occurs because any Target while it is lit by scanning becomes a Bonus Target. In other words, the Bonus Target changes from second to second.
• If a Target is hit while it is lit by scanning, the player scores 5,000 immediate points and scan stops.
• A hit on a Target when it is not lit by scanning scores 1,000 immediate points.
• Once a Target is hit, whether it was lit by scanning or not, it lights up and stays lit, scoring 1,000 points each subsequent time it is hit.
• Whenever a Target is hit, it lights up its corresponding Rollover, making the Rollover worth 3,000 instead of 1,000 points.
• For each Target hit during the course of the ball, a Payout Bonus of 1,000 points is earned when the ball leaves the Playfield.
• When all four Targets are hit during the course of a ball, a Triple Payout Bonus of 3,000 points for each Target, or a total of 12,000 points is earned when the ball leaves the Playfield.

GAME VERSION 2  COOL HAND

Game Version 2 requires more skill to score points.
• The Target Lights 6, 7, 8 and 8 will scan for several seconds and then scanning will stop.
• When the scanning stops, one Target, chosen at random by the Machine, will remain blinking.
• This Target becomes the Bonus Target, with a value of 5,000 immediate points when hit the first time. When it is hit, the blinking stops.
• After that, it and all other Targets earn 1,000 immediate points.
• For each Target lit during the course of the ball, a Payout Bonus of 1,000 points is earned when the ball leaves the Playfield.
• Once a Target is lit during the course of the ball, the corresponding Rollover lights up, making the Rollover worth 3,000 rather than 1,000 points.
• When all four Targets are hit during the course of a ball, a Triple Payout Bonus of 3,000 points for each Target, or a total of 12,000 points, is earned when the ball leaves the Playfield.
GAME VERSION 3 HIGH ROLLER

Game Version 3 requires a high degree of skill.
- All of the Target Lights are off at the start of each turn at play and there is no scanning.
- Each of the four Targets 5, 6, 7, and 8 must be hit in sequence from left to right to light each Target Light.
- When each Target is lit, 1,000 immediate points, plus a Payout Bonus of 1,000 points at the end of the course of the ball, are earned. In addition, the corresponding Rollover lights up, making it worth 3,000 rather than 1,000 points.
- When the fourth Target 8 is hit in sequence 10,000 immediate points are earned instead of the 1,000 points per Target. In addition, a Triple Payout Bonus of 3,000 points for each Target or a total of 12,000 points is awarded when the ball leaves the Playfield.
- Targets hit out of sequence do not light up. They score 1,000 immediate points, but earn no Payout Bonus and do not light up their corresponding Rollovers.

In other words, no Target Lights will be lit until you hit Target 5. After that, no matter how many Targets you hit, no additional Target Light will be lit until you hit Target 6 and then 7 and finally 8.

WHEN TO TRY FOR DOUBLE OR NOTHING

The Double or Nothing option can only be used once per player during a game and should only be attempted late in the game by a player who is behind and wishes to pick up points. Otherwise, it is very risky. To succeed in doubling your score on the ball, you must light all four Targets. If you are successful, you will see your score in the Score Display double itself. If you fail to light all four Targets, all score earned on the Double or Nothing ball will be subtracted and your score will revert back to that accumulated on the previous ball. To go for Double or Nothing, simply press the Double or Nothing Switch 3 (diagram, pg. 14) on the Pit Boss Control Console after you hear the Start Tone but before you play your ball.

THE BALL HANDICAP SWITCH

The Ball Handicap Switch has two uses:

1. To determine how long the game shall be. If the players wish to play a long game, they will choose a greater number of balls. For a shorter game, they would naturally choose a smaller number of balls. When all players are to play the same number of balls, the first player, only, uses the Ball Handicap Switch. The other players simply press the Start Button.

2. To make a game between players of unequal skill more even. An inexperienced player with a 5-ball game has a better chance against an experienced player with a 3-ball game. If both players had the same game length, it would not be a fair contest. Consult instructions, pg. 15, on how players may select unequal game lengths.
MUSIC AND SOUND EFFECTS

Your Las Vegas Pinball Machine plays different tunes and sound effects at certain stages of your game:

Start of game. ........................................... Let Me Entertain You
End of game .............................................. Thanks For The Memories
Double or Nothing attempt. ......................... All Or Nothing At All
Double or Nothing success ......................... We’re In The Money
Double or Nothing failure ......................... Raindrops Keep Falling On My Head

In addition you will hear the following sound effects:

Tilt ......................................................... a musical octave run
Player start ............................................. a three-tone sequence
5,000 and 3,000 Bonus points .... a double-tone sequence, both different
100 and 1,000 points ........................ single-tone sequences, both different
10,000 Bonus points ................................. three-tone sequence
Payout Bonus ................................. single-tone for each 1,000
(Points are added when ball leaves Playfield)

VOLUME CONTROL

A Volume Control Slide Switch is located on the bottom of the Playfield Cabinet next to the power switch. It adjusts to Low, Medium and High. (See Page 10)

TILT

When the Las Vegas Pinball Machine is tilted, a musical octave run is heard. Playfield lamps go off, score blinks, and all scoring stops until the ball leaves the Playfield. The flippers are able to operate, but the Playfield is “dead” and no more points can be made until the next ball is played. Additionally, any Payout Bonus normally earned during that ball is lost.
MAINTENANCE SECTION

CAUTION: BEFORE YOU BEGIN, turn off the power and UNPLUG THE MACHINE before you do any cleaning or maintenance of any kind.

TO CLEAN THE PLAYFIELD

FIRST, REMOVE THE PIT BOSS CONTROL CONSOLE. To clean or service the Playfield, you must first remove the Pit Boss Control Console. Remove the screws from the sides of the Pit Boss Control Console and carefully lower until supported by wiring.
Note: Pit Boss Control Console does not disconnect.
THEN THE GLASS PANEL . . . VERY CAREFULLY. Grasp the glass panel by the front and VERY CAREFULLY slide it out of the Playfield Cabinet. Place it aside in a SAFE PLACE.

CLEANING THE PLAYFIELD IS SIMPLE. To wipe the Playfield use a lint-free towel or cloth, dampened with any mild detergent.

LIFT THE PLAYFIELD.
(To service bulbs, switches, etc.)

After the Pit Boss Control Console and the glass panel are both clear of the Cabinet, remove the 4 screws and washers at A, B, C and D. Now, lift the Playfield by first sliding it away from yourself a few inches and then lifting it up about 6 inches until the underside of the Playfield clears the Cabinet. Then, slide the Playfield toward you, making sure the underside clears the front edge of the Cabinet. Finally, tip the Playfield up and rest it gently against the Score Box.
ADJUST THE TILT.

For a more sensitive tilt setting, you must first remove the Pit Boss Control Console. (See pg. 21). Under the Playfield, on the left hand side of the front of the cabinet, you will find the Tilt Chain Bracket. Raise the Tilt Bead Chain in the hanging basket for a more sensitive tilt setting or lower it for a less sensitive tilt setting.

THE RUBBER RINGS

Rubber rings rarely need to be replaced, probably no more than once a year. Regular cleaning with a soft, lint-free cloth, lightly moistened with a mild, non-abrasive detergent will keep the rings in good condition. To replace the rubber rings, simply pull off the cap tips that hold the plastic covers in place. If necessary, lift off the cover. Remove the old rubber ring and place the new rubber ring on the support posts, making sure the new ring is firmly positioned in the holding grooves. Replace cover and push on cap tips.

THE SHOOTER TIPS

The rubber Shooter Tip is located at the end of the Shooter Rod. To replace the Shooter Tip when the glass panel is in place on the Playfield Cabinet, remove the Pit Boss Control Console (see pg. 21) and pull the old Tip off the Shooter Rod. Do not remove any washers or springs. Push on new tip and replace the Pit Boss Control Console. Save the old Shooter Tip as a light bulb extractor.
THE FLIPPER RUBBER RINGS

There are 4 flipper bats (or flippers) on the Playfield. Each is encircled by a rubber ring. The Flipper Rings should last a long time with normal use. Since only one side of the flipper bat hits the ball, merely rotate the rubber ring when it shows wear on one side. When the entire ring is worn, pull the rubber ring off the flipper bat and replace it.

ADJUST THE ROLLOVER SWITCHES

To get to the Rollover Switches, you must first remove the Pit Boss Control Console and the glass (see pgs. 21 & 22). Lift up the Playfield and the switches will be on the underneath side. The Rollover Switches control the scoring and action of the Las Vegas Pinball Machine. Through continued use the spacing between the contact points of the switches will sometimes change, causing erratic or no switch closures. Varying the spaces between the contact points is the purpose of switch adjusting. For this purpose you have been provided with a Switch Adjuster. In making the adjustment either end of the tool may be used, depending on the location of the switch you wish to work on.

Simply place the fork of the Switch Adjuster on the contact blade, slide toward the base, then turn gently until the contact points are separated by the thickness of a dime.
CONTACT POINTS CAN GET DIRTY

Over any extended period of time the contact points may get dirty or oxidize. To clean them, place a narrow strip of writing paper, a business card or an index card between the contact points and press them together. Then, pull the paper or card through.

TARGET SWITCHES

The four Target Switches 5, 6, 7 and 8 are adjusted on the underside of the Playfield. Follow the same procedures as for the Rollover Switches (pg. 24).

BALL RETURN SWITCH

The Ball Return Switch 22 is adjusted on the underside of the Playfield. Follow the same procedure used in adjusting the Rollover Switches (pg. 24).
FLIPPER SWITCH ADJUSTMENT

Two Flipper switches are located near the top and middle of the Playfield on the underside. They are adjusted as follows:

1. The contact points should be touching in the rest position.
2. If the contact points are not touching, bend either of the two blades with the Switch Adjuster until they do touch.
3. Test the contact points to see that they open properly by pulling down on the Flipper Rod. Near the end of the stroke the contact points should separate.

CIRCUIT BREAKERS

Circuit breakers, instead of fuses, are used in the Las Vegas Pinball Machine. If a short or malfunction occurs, the circuit breakers stop power from flowing to certain parts of the Machine. There are two circuit breakers at the rear underside of the Playfield Cabinet.

- No. 1 controls lights, circuit board and sound.
- No. 2 controls Score Display, flippers, thumper bumpers and sling shots.

Reset all circuit breakers by pressing them in.
REPLACE THE LIGHT BULBS...

As you can see on the diagram there are 16 light bulbs on the Playfield. All are No. 1892 size miniature bulbs. For replacement No. 1813 may also be used.

The Pit Boss Control Console and the Playfield glass panel must be removed to replace any light bulb above or under the Playfield (see pgs. 21 & 22).

...ON TOP OF PLAYFIELD

Eight of the light bulbs can be replaced from the top side of the Playfield.

To replace the 4 light bulbs behind the Targets 1, 2, 3 and 4 from the top side of the Playfield, slide the Target window (see diagram, this page) up and out of engagement. Reach in with thumb and forefinger, press down on bulb, turn and lift out.

To replace the 4 light bulbs under the plastic covers 5 6 7 8 on the Playfield topside, remove the cap nuts that hold the plastic covers in place. Gently lift off the plastic covers. Press down on the bulb, turn and lift out.

......UNDER THE PLAYFIELD

The remaining eight light bulbs 9 10 11 12 13 14 15 16 are under the Playfield. To change these bulbs, gently press in on the bulbs, turn and lift out.
SCORE BOX LIGHT BULBS

There are also 4 light bulbs in the Score Box. All are No. 1892 size miniature bulbs. They may be replaced with No. 1813 light bulbs. To replace Score Box light bulbs, remove front plastic sheet (see pg. 5) to gain access to the light bulbs. Gently press down on bulbs, turn and lift out.

HARNESS CONNECTORS

The harness connectors, located under the Playfield near the top of the Cabinet, control several functions of the Las Vegas Pinball Machine. If the connectors are not firmly in place, they will affect the performance of the Machine. Check to be sure that they are firmly connected.

IF YOU CAN’T FIX IT

Your Las Vegas Pinball Machine was designed for years of hard use with only the most simple home adjustment and maintenance. However, if a problem should come up that you are unable to handle by yourself, simply call the toll-free telephone number given in the Warranty Statement of this manual. You are protected by a nation-wide network of service centers ready to serve you.
TROUBLE SHOOTING GUIDE

IMPORTANT: Always remember to turn off the power and unplug the Machine before you do any cleaning or maintenance of any kind.

ALL LIGHTS OFF. MACHINE DOES NOT OPERATE.
1. Plug power cord securely into wall outlet. See Page 9, “Play.”
3. Check wall outlet for power supply.
4. Turn power switch to ON. See Page 10.

PLAYFIELD LIGHTS OFF.
2. Check harness connectors under Playfield for incomplete connection. See Page 28.

SCORE BOX LIGHTS OFF.
2. Check harness connector for incomplete connection. See Page 7.

NO RESPONSE TO START SWITCH.
2. Check Tilt Bead Chain for short circuit, which will occur if Tilt Bead Chain touches the sides of the lower bracket. See Page 23.
3. Check Rollover switches to see if any have contacts closed continuously. Adjust gap. See Page 24.

SOUND EFFECTS AND SCORING STOP WHILE BALL IS IN PLAY.
1. If Tilt indication sound effects go on, let ball roll to bottom of Playfield. Tilt indication should stop with sound effects and scoring should resume on the next ball in play.
2. Check that Tilt Bead Chain is not stuck. See Page 23.
3. Check all switches to see if any contacts are closed. Check each contact for proper gap. See Page 24.

GAME STARTS NORMALLY, BUT WILL NOT SCORE.
   Use standard Rollover switch adjustment. See Page 24.
BALL IN PLAY, NUMBER DOES NOT ADVANCE IN SCORE DISPLAY.
1. Adjust Ball Return Switch. See Page 25.

ONE FLIPPER DOES NOT OPERATE WHILE OTHER FLIPPER IS NORMAL.
1. Make sure harness connectors under Playfield are securely connected. See Page 28.

CIRCUIT BREAKER NO. 1 OPENS (See Page 26).
AFTER USE OF FLIPPERS.
1. Check adjustment of switches. (See Page 24).

If you have followed all of the trouble shooting and maintenance steps in this manual and your Las Vegas Pinball Machine continues to malfunction, call this number for in-home service: (800) 421-2826, except California. California residents call direct or collect (213) 644-2752. (For faster service, have your Machine’s serial number ready when you call. The serial number is on the back panel of the Playfield Cabinet.)