



TABLE RULES

OPERATOR MANUAL....

TECHNICAL APPENDIX

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#### 2- BIG RACE USA

CONTROL BUTTONS OR CONTROL KEYS FOR YOUR SYSTEM,
AND INSTRUCTIONS ON HOW TO INSTALL THE SIMULATION ON YOUR SYSTEM,
ARE IN THE TECHNICAL APPENDIX.



# TABLE RULES

INCLUDES

INTROPUCTION
KEY TO PLAYFIELD
HOW TO PLAY BIG RACE USA
TABLE RULES
HEAD-TO-HEAD TABLE RULES

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# INTRODUCTION

Welcome to *Big Race USA*, the third in the *PRO PINBALL* series of pinball machine simulation programs. As pinball machine owners ourselves, the aim of everyone on the *PRO PINBALL* team is to bring you the closest experience possible to actually owning and playing an arcade pinball machine, without the distractions of scrolling or split screens. This manual is an important part of that experience.

Because the *Big Race USA* simulation program contains operator features identical to those on real machines, this manual is written in the same style as operator manuals for arcade pinball machines. So if, like us, you own one or more real arcade pinball machines, we're sure you'll find the *Big Race USA* simulation program (and this manual) genuinely faithful to the real thing.

Though the default *Big Race USA* machine settings have been carefully chosen to give balanced gameplay, you can fine tune the machine to suit your preferences and playing style. You can even examine the machine's audit information and adjust the difficulty of individual features exactly as you would on a real machine. And for the first time in a *PRO PINBALL* simulation, you can adjust the table slope and condition!

Also for the first time, you can play live Head-To-Head games against an opponent anywhere in the world! Apart from the *Big Race USA* CD-ROM, all you both need is an Internet, LAN, or modem connection. With an Internet connection, you can log your high scores in our official worldwide table, or join the official *Big Race USA* Head-To-Head Ladder and test your pinball skills against some of the world's top pinball players!

We sincerely believe that you'll find the playfield design, mechanics, music, features, sound effects, depth of rules, animations, operator menu, and gameplay in *Big Race USA* are truly the equal of a typical modern pinball machine. The major differences are that you don't have to find house room for the machine, there is zero maintenance, and it only costs one per cent of the price of the real thing to own! Plus, you have the bonus of the new Head-To-Head features and worldwide high scores and Ladder.

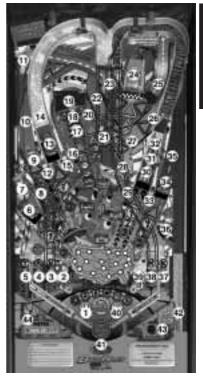
Those of you who already own our earlier simulations—*The Web* and *Timeshock!*—can rest assured that *Big Race USA* is even better than its predecessors. You will discover many new playfield mechanics and features to enjoy, even better graphics and physics realism, real airballs, and much more.

We hope you enjoy playing Big Race USA and welcome your feedback. If you have an Internet connection, you can visit the PRO PINBALL website at http://www.propinball.com. If you prefer to use e-mail, please send this to us at the address brusa@propinball.com.

# KEY TO PLAYFIELD

- 1. Left Flipper
- Left Slingshot
- 3. Left Inlane (Inner)
- Left Inlane (Outer)
   Left Outlane
- 6 Hot Rod
- 7 Saucer
- 8. Upper Left Flipper
- 9. Spinner
- 10. Left Orbit
- 11. Jay's Secret Stash
- 12. West Standup Target
- 13. Sports Car
- 14. Left Ramp
- 15. North Standup Target
- 16. MagnoLock<sup>TM</sup>
- 17. Pop Up Mini-Ramp
- 18. Police Car Scoop
- 19. Police Car Scoop
- 20. U-Turn
- 21. Compass Standup
- 22. Mini Loop

- 23. Top Left Ramp
- 24 The Taxi
- 25. Top Right Ramp
- 26. Big Loop
- 27. Top Right Mini Flipper
- 28. Mystery Target
- 29. South Standup Target
  - 30. Monster Truck
  - 31. Right Ramp
- 32. MagnoCharger<sup>TM</sup>
  33. East Standup Target
- 34. Mini Beetle
- 35. Right Orbit
- 36. Right Scoop
- 37. Right Outlane
- 38. Right Inlane
- 39. Right Slingshot
- 40. Right Flipper
- 41. Air Bag
- 42. Plunger Lane
- 43. Nitro Boost
- 44. Meter



# HOW TO PLAY BIG RACE USA

Travel West from New York to San Francisco, then compete in The Big Race from West to East!

# GENERAL

#### BONUS X

Shoot Left or Right Ramp to light U-Turn for Advance Bonus X. Shoot lit U-Turn to Advance Bonus X

#### OPEN THE TRUNK

Complete T-R-U-N-K to light Saucer for Open The Trunk. Shoot lit Saucer to choose Cash or random Award.

#### MAGNOCHARGER<sup>TM</sup>

Shoot top ramps to light outer left inlane for MagnoCharger<sup>TM</sup>. Shoot lit outer left inlane to light Right Ramp for Advance MagnoCharger<sup>TM</sup> Level. Shoot lit Right Ramp repeatedly to Advance MagnoCharger<sup>TM</sup> Level, inflate Air Bag, and collectAwards.

#### NITRO BOOST

Shoot consecutive U-Turns to light Launch Button for Nitro Boost. When lit during feature or mode play, press Launch Button to activate Nitro Boost and automatically complete ALL flashing arrow shots.

# IN THE CITY

#### CITY MODES

Shoot Police Car Scoop to start a City Mode Feature or Quickshot Award. Shoot lit WHITE shots to complete City Mode, then shoot Police Car Scoop again to 'Hit the Road.'

#### SPEEDWAY CHALLENGES

Complete 3-2-1 on Saucer, Left Ramp, Right Ramp, or Right Orbit to start Speedway Challenge. Shoot lit RED, YELLOW, and GREEN shots to complete Speedway Challenge and light Left Orbit for Speedway Frenzy.

#### SPEEDWAY FRENZY

Shoot lit Left Orbit to start Speedway Frenzy, then shoot lit RED shots to score Jackpots and light top ramps for Super Jackpots.

#### SPEEDWAY MANIA

Complete all four Speedway Frenzies to light Left Orbit for Speedway Mania. Shoot lit Left Orbit to start Speedway Mania, then make all shots for an Extra Ball.

#### PASSENGER FRENZY

Shoot Taxi to light Taxi for Passenger Locks. Lock 2-4 balls in Taxi to start Passenger Frenzy, then shoot RED shots to collect Jackpots, deliver Passengers, and earn Cash.

#### JAY'S SECRET STASH

Shoot Loops consecutively to light Left Orbit for Jay's Secret Stash. Shoot lit Left Orbit to visit Jay's and buy items.

# ON THE ROAD

#### TRAVELLING

Shoot Spinner or Taxi to increase speed. Make any shot to reduce distance to next city. When distance is zero, shoot Left Orbit to 'Enter City.'

#### POLICE CHASE FRENZY

If not lit, increase speed to 56 mph to light U-Turn for Speed Trap. Shoot lit U-Turn to light U-Turn for lock, then rapidly shoot U-Turn again to lock ball and start Police Chase Frenzy. Shoot Taxi to light U-Turn for Jackpots, then shoot lit U-Turn to score Jackpots.

#### DUELS

Complete lit YELLOW shots to light Police Car Scoop for Start Duel. Shoot lit GREEN shots to catch opponent, then shoot cycling shot to overtake opponent, then shoot Taxi Scoop to win Duel and improve grid position for The Big Race.

#### VIDEO MODE

Advance MagnoCharger™ Level to light Taxi Scoop for Video Mode. During Video Mode, ram other cars off the road to score points.

# RACES

#### THE BIG RACE

Travel to San Francisco on the West Coast to start The Big Race. Shoot Car Scoops to move up places. When back at New York and in First Place, shoot Finishing Line to win.

#### THE REALLY BIG RACE

Complete Speedway Challenges, complete Duels, deliver all Passengers, smash Roadblocks, win The Big Race, and earn \$100,000 to start The Really Big Race.

# HEAD-TO-HEAD GAME RULES

#### ROUND ONE: CITY CHALLENGE

Make shots to turn lit YELLOW shots GREEN and travel faster; opponent's shot will turn RED and opponent will travel slower. When distance reaches zero, shoot Finishing Line to win round.

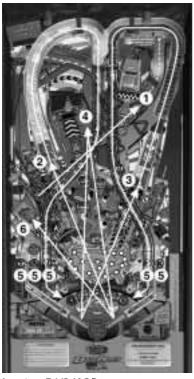
#### **ROUND TWO: TAXI DUEL**

When leading, make the same shots as in Round One. When behind, make any shot twice in sequence to overtake opponent. Shoot Finishing Line to win round.

### **ROUND THREE: THE BIG RACE**

Lock balls to move up places and drop opponent down places. Shoot flashing Finishing Line to win The Big Race and the round.

During any round, complete T-R-U-N-K to inflate Air Bag and deflate opponent's Air Bag.



# TABLE RULES

SKILL SHOT, BONUS X, OPEN THE TRUNK

# SKILL SHOT

Shoot Top Right Ramp (1) from ball launch for big points and big Cash Award.

# BONUS X

Shoot Left Ramp (2) or Right Ramp (3) to light U-Turn (4) for Advance Bonus X.

# OPEN THE TRUNK

Complete T–R–U–N–K (5) to light Saucer (6) for Open The Trunk.

Shoot lit Saucer to choose Cash Award or random Award



# MAGNOCHARGER™, JAY'S SECRET STASH, NITRO BOOST

# MAGNOCHARGER TM

Shoot top Ramps (1 or 2) to light Outer Left Inlane (3) for MagnoCharger<sup>TM</sup>.

Make lit Inlane to light Right Ramp (4) for Advance MagnoCharger<sup>TM</sup> Level.

Shoot lit Right Ramp repeatedly to Advance MagnoCharger Level<sup>TM</sup>, inflate Air Bag (5), and collect Awards

# JAY'S SECRET STASH

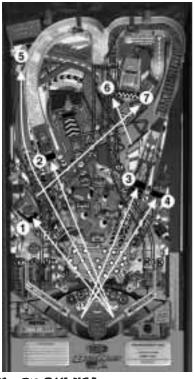
Shoot consecutive Loops (6 or 7) to light Left Orbit (8) for Jay's Secret Stash.

Shoot lit Left Orbit to visit Jay's and buy items.

# NITRO BOOST

Shoot consecutive U-Turns (9) to light Launch Button for Nitro Boost (10).

During feature play, press Nitro Boost to automatically complete ALL flashing arrow shots.



# SPEEDWAY CHALLENGES, SPEEDWAY FRENZIES, SPEEDWAY MANIA

# SPEEDWAY CHALLENGES

Complete 3–2–1 on Saucer (1), Left Ramp (2), Right Ramp (3), or Right Orbit (4) to open Car Scoops for Speedway Challenges.

Shoot open Car Scoop to start Speedway Challenge. Shoot lit RED, YELLOW, and GREEN shots to complete Speedway Challenge and light Left Orbit for Speedway Frenzy.

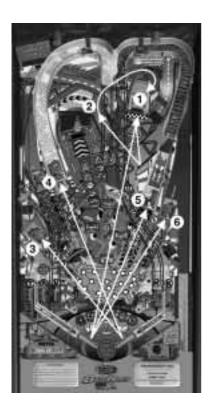
# SPEEDWAY FRENZIES

Shoot lit Left Orbit (5) to start Speedway Frenzy. Shoot lit RED shots (1 to 4) to score Jackpots and light top Ramps (6 and 7) for Super Jackpots.

# SPEEDWAY MANIA

Complete all four Speedway Frenzies to light Left Orbit (5) for Speedway Mania.

Shoot lit Left Orbit to start Speedway Mania. Complete all lit shots (1 to 4) for Extra Ball.



# PASSENGER FRENZY

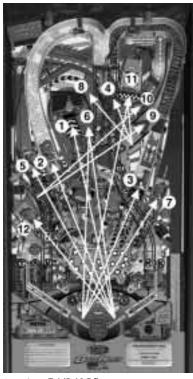
Shoot Taxi (1) to collect Passenger Hails and light Taxi for Passenger Locks.

Lock 2 to 4 balls in Taxi (2) to start Passenger Frenzy.

Shoot RED shots (3 to 6) to score Jackpots, deliver Passengers, and collect Cash Awards.

When all passengers are delivered, shoot Taxi to collect more passengers.

Deliver four different passengers to light Taxi for Super Jackpot.



# CITY MODE FEATURES

While 'In The City,' shoot Police Car Scoop (1) to start random City Mode Feature or light Taxi for random City Mode Quickshot Award. When Feature is started, shoot lit WHITE shots to complete Feature, then shoot Police Car Scoop again to 'Hit the Road.'

# ALIEN INVASION

Shoot lit moving shot (5, 2, 6, 3, or 7) to destroy invading flying saucers.

# ATTACK OF THE REALLY BIG CREATURE

Shoot Spinner (5) repeatedly to escape from the creature.

# CAR PARK CALAMITY

Shoot lit Loops (8 or 9) to search for parking space. Shoot top Ramps (4 or 10) to move up floors.

When parking space is found, shoot lit Taxi (11) to park.

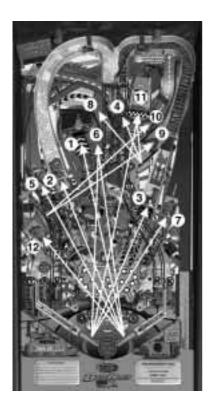
# CAR WASH CHAOS

Shoot Left Ramp (2) repeatedly to clean car.

# GRID LOCK LUNACY

Shoot Police Car Scoop (1), avoiding raised Pop Up Mini-Ramp (1), to escape from Grid Lock.

... CONTINUED



# CITY MODE FEATURES CONTINUED...

# MALL MAYHEM

Shoot Saucer (12), Police Car Scoop (1), Left Orbit (5), and Taxi (11) to light U-Turn (6).

Shoot lit U-Turn (6) to escape from Mall.

# SPEED HUMP HILARITY

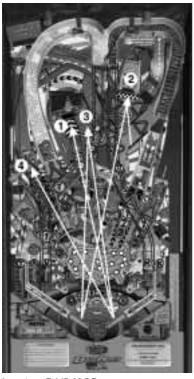
Shoot any switches to travel over speed humps.

When raised and lit, shoot Pop Up Mini-Ramp (1) to go airborne.

# TAXI RANK RAMPAGE

Shoot lit Left Ramp (2), Right Ramp (3), or Top Right Ramp (4) to light Taxi.

Shoot lit Taxi to throw dynamite and destroy opposition.



# CITY MODE GUICKSHOT AWARDS

While 'In The City,' shoot Police Car Scoop (1) to start random City Mode Feature or light Taxi for random City Mode Quickshot Award. When Quickshot is started, shoot lit Taxi (2) to collect Award.

# BIG RACE BOOSTER

Awards one Big Race Booster (see The Big Race on page 19).

# BONUS BONANZA

Lights U-Turn (3) for big Bonus X Advances.

# EXTRA BALL

Lights Police Car Scoop (1) for Extra Ball.

# HOLD MULTIPLIERS

Holds Bonus X value over to next ball.

# JAY'S GIVEAWAY

Awards random item from Jay's Secret Stash.

# MONEY SPINNER

Lights Spinner (4) for Cash Awards.

# NITRO BOOST

Lights Launch Button for Nitro Boost.

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# TRAVELLING, POLICE CHASE FRENZY

# TRAVELLING

Chase Frenzy.

While 'On The Road,' shoot Spinner (1) or Taxi (2) to increase speed.

Make any shot to reduce distance to next city. When distance is zero, shoot Left Orbit (1) to 'Enter City.'

# POLICE CHASE FRENZY

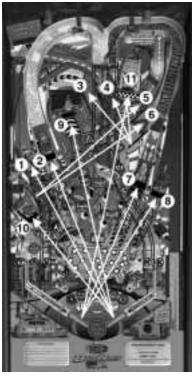
If not lit, increase speed to 56 mph to light U-Turn (3) for Speed Trap.

Shoot lit U-Turn to light U-Turn for Quickshot Lock. Shoot lit U-Turn again to lock ball and start Police

Shoot Taxi (2) to light U-Turn for Jackpots, then shoot lit U-Turn to score Jackpots.

Score multiple Jackpots then shoot Taxi to raise and light Pop Up Mini-Ramp (4) for 'Chicken.'

Shoot raised Pop Up Mini-Ramp to win 'Chicken' and collect Super Jackpot.



# COMBOS, DUELS, VIDEO MODE

# COMBOS

Shoot any Combo shot (1 to 8) to light other Combo shots YELLOW for Combo.

Shoot lit Combo shots for big points.

# **DUELS**

Complete Combo shots to light Police Car Scoop (9) for Start Duel.

Shoot lit GREEN shots to catch opponent.

When caught, shoot moving lit shot (10, 2, 7, or 8) to overtake opponent and light Taxi (11).

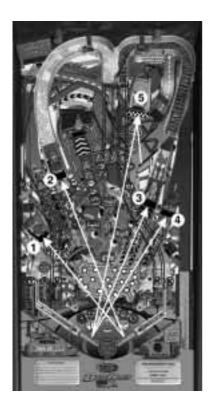
Shoot lit Taxi to win Duel and improve grid position in The Big Race.

# VIDEO MODE

Advance MagnoCharger<sup>TM</sup> Level (**7**) to light Taxi Scoop (**11**) for Video Mode.

During Video Mode, use Flipper Buttons to steer, or both Flipper Buttons to brake. Ram or avoid other cars to score points.

Travel 1,000 miles within the time allowed without crashing to complete Video Mode.



# THE BIG RACE, THE REALLY BIG RACE

### THE BIG RACE

Collect Big Race Boosters to boost scores during The Big Race.

Travel West to San Francisco to start The Big Race.

Shoot Car Scoops (1 to 4) to lock balls, travel East, and move up places.

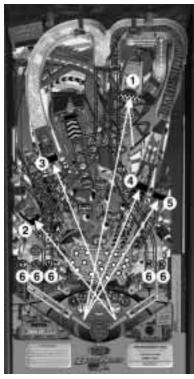
Collected Big Race Boosters boost scores during The Big Race.

When in First Place and back at New York, shoot the Finishing Line (5) to win The Big Race.

# THE REALLY BIG RACE

Complete Speedways, Duels, Passengers, Police Chases, Big Races, and \$100,000 Cash to open and light Jay's Secret Stash.

Shoot Jay's Secret Stash to start The Really Big Race.



# HEAD-TO-HEAD TABLE RULES

# ROUND ONE CITY CHALLENGE

Shoot lit YELLOW shots to light shots GREEN and travel faster: opponent's corresponding shot turns RED and opponent travels slower.

When distance reaches zero, shoot flashing Finishing Line (1) to win the round.

# ROUND TWO: TAXI DUEL

When leading, shoot for the same shots as in Round One.

When behind, make any shot (2 to 5) twice consecutively to overtake opponent.

When leading and distance reaches zero, shoot flashing Finishing Line (1) to win the round.

# ROUND THREE THE BIG RACE

Lock balls in open Car Scoops (2 to 5) to move up places and drop opponent down places.

Shoot flashing Finishing Line (1) to win The Big Race and the round.

# AIR BAG

During any round, complete T–R–U–N–K **(6)** to inflate Air Bag and deflate opponent's Air Bag.



# INCLUDES

GAME GONTROL LOCATIONS
GAME OPERATION
TOURNAMENT AND CHALLENGE MODES
MENU SYSTEM OPERATION

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# THANK YOU FOR BUYING ANOTHER FINE PRO PINBALL GAME! BIG RACE USA IS A 10 (TEN) BALL GAME.

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# GAME CONTROL LOCATIONS

**NOTE:** Switch locations may differ between production runs. The separate *Technical Appendix* supplied with your game shows the exact locations of the switches on your machine.

# CABINET SWITCHES

Start Button. Press the Start Button to begin a game, or to add players to a game in progress.

When a game ends, press the Start Button to purchase a Buy-in Extra Ball\* to continue a game in exchange for one credit. During High Score-Initials Entry, press the Start Button to advance to the next initial or complete High-Score Initials Entry.

<u>Launch Button</u>. Press the Launch Button to launch a ball in the plunger lane into play.

<u>Flipper Buttons</u>. Press a Flipper Button to fire the flippers on that side of the playfield, or to perform other functions as directed on the display. During High-Score Initials Entry, press a Flipper Button to change the current character

# COIN DOOR SWITCHES

The operator makes game adjustments, reads book-keeping information, and runs diagnostic tests using only four push button switches (refer to the MENU SYSTEM OPERATION section of this manual on page 26 for more details).

The <u>Up Button</u> quits to the next higher level of the Menu System, or returns to Attract Mode.

The <u>Next Button</u> cycles forward through lists of menu items or adjustment choices.

The <u>Previous Button</u> cycles backward through lists of menu items or adjustment choices.

The <u>Enter Button</u> enters the next lower level of the Menu System, selects a menu item, or confirms an adjustment choice.

# GAME OPERATION

# POWERING UP

When the machine is powered on, the display shows BRUSA RULES VERSION followed by the version number of the game ROMs and TESTING... while the machine performs Start Up Tests. If no problems are encountered, the display shows the last game score(s), then enters Attract Mode

From Attract Mode, enter the Menu System (refer to the MENU SYSTEM OPERATION section of this manual on page 26 for more details) by pressing the buttons detailed in the separate *Technical Appendix* supplied with your game.

# ATTRACT MODE

During Attract Mode, the display shows a series of messages, including recent and all time highest scores\*, and the score required to obtain a replay award.

To quickly enter the Menu System, depress the Launch Button and Start Button together.

To display the statistics (including high-score code) for the game just completed, depress both Flipper Buttons together for two seconds.

# STARTING A GAME

From Attract Mode, press the Start Button once to start a game. A start up sound plays, the credit amount shown in the display decreases by one, the machine resets all playfield switches and mechanics, and a ball is ejected into the plunger lane. The display shows **BALL 1** and

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PLAYER 1, and flashes 00 until the first playfield switch is actuated. Press the Launch Button to begin play. Additional players (up to four in total) may enter the game by pressing the Start Button once for each additional player; this must be done before the end of play on the first ball.

To quickly abandon a game and return to Attract Mode, depress the Launch Button and Start Button together for two seconds.

NOTE: BIG RACE USA IS A 10 (TEN) BALL GAME. The machine will not start a game unless the full complement of 10 (TEN) balls is present in the ball trough.

### TILTS

Actuating the Slam Tilt Switch inside the coin door ends the current game for that player; other players continue normally. With the third\* closure of the Plumb Bob Tilt Switch, the player loses remaining play of that ball, but may complete the game.

#### END OF GAME

When play of the final ball ends, all the player's earned scores and bonuses are totalled up. While credits remain, the player is offered\* successive Buy-In Balls. When all players' games are complete, all scores are checked and, for each best performance or final score which exceeds the specified value, the player receives one or more\* replay awards and is invited to enter his or her initials on the appropriate table. The display then shows a random set of two digits\*. For each player score where the last two digits match the displayed random value, one credit\* is awarded. Buy-In, Game Over, High-Score, and Match sounds and displays are made as appropriate.

# EXTRA BALL BUY-IN\*

At the end of the game, *Big Race USA* allows each player to continue the game by 'buying in' an extra ball in exchange for one credit. The display shows instructions and a **countdown** starting from 9. Press the Start Button to purchase an extra ball, or press any other button to quit the countdown and continue to the Game Over sequence.

# HIGH-SCORE INITIALS ENTRY

Big Race USA maintains tables of High-Scores and Champion scores. When a player qualifies for a High-Score or Champion score, the display shows the player number and the score description. Press the Enter Button; the display shows ENTER INITIALS, and three initials, the first of which flashes. When the machine is powered on, the initials are \_\_\_, but the machine will remember initials\* as high-scores are entered.

Press the Flipper Buttons to cycle the through the available letters and punctuation characters; hold a Flipper Button down to cycle more rapidly. Press the Start Button to advance to the next initial, or select the  $\leftarrow$  character to back up one initial.

When all three initials have been entered, the display shows →. Press the Start Button to return to Attract Mode. To view the statistics (including high-score code) for the game just completed, depress both Flipper Buttons together for two seconds.

# GAME OVER MODE

The display shows **GAME OVER**. Thereafter, the display shows the current high-scores, then the game returns to Attract Mode

# TOURNAMENT AND CHALLENGE MODES\*

In addition to normal play, *Big Race USA* allows two special modes of play. **Tournament Mode\***, set using Standard Adjustment Menu item 2.1.13, disables random and 'bonus' game adjustments, allowing scores obtained on different machines to be compared more equally. **Challenge Mode** shares all game features and memories

among all players in a multi-player game.

To enable Challenge Mode, hold down the Left Flipper

Button for two seconds before starting a game.

Tournament Mode can be enabled by holding down the

Tournament Mode can be enabled by holding down the Right Flipper Button for two seconds before starting a game.

NOTE: All high-scores submitted to our World Wide High Scores Table MUST be from games played using one of the Preset Difficulty settings: Extra Easy, Easy, Normal, Hard, or Extra Hard (refer to page 40). High-scores obtained during games played using Custom Settings, Tournament Mode, or Challenge Mode will NOT be accepted.

# MENU SYSTEM OPERATION

# MENU SYSTEM

Big Race USA uses a Menu System to control all operator features. The Main Menu contains five main categories, which lead to further lists of options. All categories and options use military numbering.

To enter the Menu System, open the coin door and press the keys detailed in the separate *Technical Appendix* supplied with your game. The display shows the first Main Menu category, **1. Book Keeping**. The number and name of each successive 'lower level' category and option shows on the display as it is selected.

To **cycle** through the Main Menu categories, press the **Next** and **Previous** Buttons.

To **select** a category and proceed to the next lower list of categories or options, press the **Enter** Button.

To  ${\bf return}$  to the next higher menu level, press the  ${\bf Up}$  Button.

To  $\boldsymbol{select}$  or activate any option or test, press the  $\boldsymbol{Enter}$  Button.

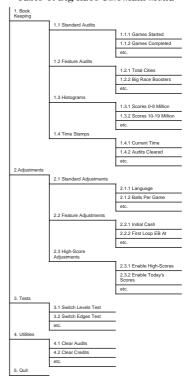
To **cycle** through the current option adjustment values or test types, press the **Next** and **Previous** Buttons.

To return to Attract Mode, navigate to the Main Menu categories, then press the **Up** Button.

The Big Race USA menu structure is shown in diagram form alongside. Familiarity with this diagram, and with the menu option numbering system, will help you to quickly navigate to the desired item.

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#### Table 1. Big Race USA Main Menu



The following pages describe the audit items, feature adjustments, tests, and utilities in detail.

# MAIN MENU

The Main Menu categories are:

- Book Keeping 1.
- 2. Adjustments
- 3. Tests
- 4. Utilities
- 5. Onit

# BOOK KEEPING

From the Main Menu, cycle to category 1 then press the Enter Button to display the Book Keeping Menu. The Book Keeping Menu categories are:

- Standard Audits 1.1
- 1.2 Feature Audits
- 1.3 Histograms

The Standard, Feature, and Histograms audit items list the number of times each feature has occurred. Many audit items also show a percentage; this is usually the percentage of total games or balls played, depending on the item

#### 1.4 Time Stamps

The Time Stamps audit items list the times and dates when events last occurred.

Audit items can be cleared (zeroed out) by using Utility item 4.1

Use the Up. Next. Previous, and Enter Buttons to view the desired Book Keeping audit items. The available audit items are listed in Tables 2 to 5 following.

#### Table 2. Standard Audits

- Games Started 1.1.1 1.1.2 Games Completed
- 1.1.3 Replay Awards 1.1.4 Match Awards
- 1.1.5 Left Drains
- 1.1.6 Right Drains
- 1.1.7 Center Drains 1.1.8 Balls Played
- 1.1.9 Extra Balls
- 1.1.10 Ball Saves 1.1.11 Time On
- 1.1.12 Total Play Time
- 1.1.13 Average Ball Time 1.1.14 Average Game Time

- 1.1.15 Tilts
  - 1.1.16 One Player Games
  - 1.1.17 Two Player Games 1.1.18 Three Player Games
  - 1.1.19 Four Player Games
  - 1.1.20 Replay Level 1.1.21 Left Flipper
  - 1.1.22 Right Flipper 1.1.23 Regular Plays
  - 1.1.24 Tournament Plays
  - 1.1.25 Challenge Plays
  - 1.1.26 Head-To-Head Plays 1.1.27 High-Score Reset

Table 4. Time Stamps

Current Time

1.4.2 Audits Cleared

1.4.3 Credits Cleared

1.4.4 Factory Adjust

1.4.5 Factory Reset

1.4.7 Last Replay

1.4.6 Last Game Start

Last Grand Champ

Last High Score

- Table 3. Histograms
- 131 Scores 0-9 Million 1.3.2 Scores 10-19 Million
- 133 Scores 20-49 Million
- 1.3.4 Scores 50-99 Million
- 1.3.5 Scores 100-199 Mil. 1.3.6 Scores 200-499 Mil.
- Scores 500-999 Mil. 1.3.7 138 Scores 1-2 Billion
- 139 Scores 2-5 Billion
- 1.3.10 Scores 5-10 Billion 1.3.11 Scores 10+ Billion
- 1.3.12 Game Time 0-1 Mins
- 1.3.13 Game Time 1-2 Mins
- 1.3.14 Game Time 2-3 Mins 1.3.15 Game Time 3-4 Mins.
- 1.3.16 Game Time 4-5 Mins
- 1.3.17 Game Time 5-10 Mins
- 1.3.18 Game Time 10-15 Mins
- 1.3.19 Game Time 15-20 Mins.
- 1.3.20 Game Time 20-30 Mins. 1.3.21 Game Time 30+ Mins

# 1.4.8 149

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#### Table 5. Feature Audits

Table 5. Feature Audits						
1.2.1	Total Cities	1.2.35	4 Passenger Frenzies	1.2.68	Big Air Bags	
1.2.2	Big Race Boosters	1.2.36	Passenger Jackpots	1.2.69	Jay's Extra Balls	
1.2.3	Total Mini Loops	1.2.37	Passenger Super Jpts	1.2.70	Hot Rod Duels	
1.2.4	Total Big Loops	1.2.38	Police Quickshots	1.2.71	Hot Rod Duel Wins	
1.2.5	Total Combos	1.2.39	Police Frenzies	1.2.72	Sports Car Duels	
1.2.6	Total U-Turns	1.2.40	Police Jackpots	1.2.73	Sports Car Wins	
1.2.7	Quickshot Modes	1.2.41	Police Super Jpts	1.2.74	Monster Truck Duels	
1.2.8	Quickshots Won	1.2.42	Drag Challenges	1.2.75	Monster Truck Wins	
1.2.9	Monster Attack Modes	1.2.43	Drags Completed	1.2.76	Mini Bug Duels	
1.2.10	Monster Attacks Won	1.2.44	Oval Challenges	1.2.77	Mini Bug Duel Wins	
1.2.11	Alien Attack Modes	1.2.45	Ovals Completed	1.2.78	Police Car Duels	
1.2.12	Alien Attacks Won	1.2.46	Stunt Challenges	1.2.79	Police Car Wins	
1.2.13	Rank Rampage Modes	1.2.47	Stunts Completed	1.2.80	Video Modes	
1.2.14	Rank Rampages Won	1.2.48	Street Challenges	1.2.81	Videos Completed	
1.2.15	Mall Mayhem Modes	1.2.49	Streets Completed	1.2.82	Video Mode EBs	
1.2.16	Mall Mayhems Won	1.2.50	Open The Trunks	1.2.83	Speedway Frenzies	
1.2.17	Car Park Modes	1.2.51	Small Cash Taken	1.2.84	3-Ball S'way Frenzies	
1.2.18	Car Parks Won	1.2.52	Big Cash Taken	1.2.85	4-Ball S'way Frenzies	
1.2.19	Car Wash Modes	1.2.53	Trunks Opened		5-Ball S'way Frenzies	
1.2.20	Car Washes Won	1.2.54	Super Trunks	1.2.87	S'way Super Jackpots	
1.2.21	Grid Lock Modes	1.2.55	Visits To Jay's	1.2.88	S'way Double Spr Jpts	
1.2.22	Grid Locks Won	1.2.56	Lottery Tickets	1.2.89	S'way Triple Spr Jpts	
1.2.23	Nitro Boosts	1.2.57	Fortune Cookies		S'way Ultra Jackpots	
1.2.24	Nitro Boosts Used	1.2.58	Route Planners	1.2.91	Speedway Manias	
1.2.25	Cash Earned	1.2.59	Cruise Controls	1.2.92	Speedway Mania Wins	
1.2.26	Super City Bonuses	1.2.60	Ferry Tickets	1.2.93	Big Races	
1.2.27			Spoilers	1.2.94	Big Race Wins	
1.2.28	Variable Plungers	1.2.62	Tires	1.2.95	Really Big Races	
1.2.29	Skill Shots	1.2.63	Engines	1.2.96	Really Big Wins	
1.2.30	Super Skill Shots	1.2.64	Brakes	1.2.97	Big Mysteries	
			City Guides		Big Mystery Wins	
			Air Bags		MagnoChargers™	
1.2.33	2 Passenger Frenzies	1.2.67	Compasses	1.2.100	MagnoCharger™ EBs	

1.2.34 3 Passenger Frenzies

# **A**DJUSTMENTS

- 2.1 Standard Adjustments
- 2.2 Feature Adjustments
- 2.3 High-Score Adjustments

Use the Up, Next, Previous, and Enter Buttons to view and adjust the desired items. The available adjustment items are listed in Tables 6 to 8 following, and are described in more detail below.

# STANDARD ADJUSTMENTS

### 2.1.1 Language

Self-explanatory.

#### 2.1.2 Balls Per Game

Self-explanatory.

#### 2.1.3 Maximum Extra Balls

The maximum number of extra balls (excluding Buy-In extra balls) allowed in a single game.

#### 2.1.4 Ball Saver Time

The time the Ball Saver remains active before switching off.

#### 2.1.5 Max Saves Per Ball

The maximum number of saves (by the Ball Saver) allowed per player in one ball.

#### 2.1.6 Maximum Credits

The maximum number of credits the machine will store. Credits beyond this number are lost.

#### 2.1.7 Allow Buy-Ins

Self-explanatory.

#### 2.1.8 Maximum Buy-Ins

Maximum number of Buy-In Extra Balls allowed per player in one game. Because each Buy-In Extra Ball costs one credit, the actual number of Buy-In Extra Balls available to the player may be less than this number, or zero

#### 2.1.9 Replay Percent

The desired percentage of games which award a High-Score Replay. The machine continuously adjusts the High-Score Replay Award score to maintain this percentage.

# 2.1.10 Replay Base

The initial value of the High-Score Replay Award score.

#### 2.1.11 Match Feature

The desired percentage of games which award a Match Feature Replay at the end of the game, or **OFF** to disable the Match Feature.

#### 2.1.12 Show Date and Time

When selected, includes a display of the current date and time of day during Attract Mode.

#### 2.1.13 Tournament Mode

When selected, alters game adjustments so that Ball Saver, Extra Balls, Buy-In Extra Balls, and all random features are disabled. The machine remains in Tournament Mode until it is switched off again using this menu item

#### 2.1.14 Tilt Warnings

The number of Plumb Bob Tilt Switch closures allowed before the player forfeits play of the current ball, or NONE to give no warnings, or DISABLED to ignore Plumb Bob Tilt Switch closures

#### 2.1.15 European Score Format

When selected, displays scores in **999.999.999.999** format

#### 2.1.16 Bonus Flips

When selected, supplies power to the flippers during bonus counts.

#### 2.1.17 Game Restart

Adjusts the way the game restarts when the Start Button is pressed during the second or later ball of a game in progress.

NEVER	 Disables the Start Button after play of
ı	ball one is completed (until Game Over)
SLOW	 Start Button must be depressed for two
	seconds to restart

**INSTANT** ....... Restarts the game immediately the Start Button is pressed.

### 2.1.18 Flipper Plunger

When selected, the Right Flipper Button can be used to launch a ball.

#### 2.1.19 Plunger Timer

The time the machine waits before launching a ball in the plunger lane automatically, or **DISABLE** to allow unlimited waiting time.

# 2.1.20 Free Play

Adjusts the operation of the free play feature.

**START ONLY ...** The first game is free. Further games cost one stored credit per player.

NO ...... All games cost one stored credit per player.

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#### 2.1.21 Hide Free Play

When selected, prevents the display of **FREE PLAY** during Attract Mode.

#### 2.1.22 Attract Mode Audio

When selected, plays audio during Attract Mode.

#### 2.1.23 Auto Head-To-Head

When selected on linked machines, bypasses the Single Player/Head-To-Head menu normally displayed when a Head-To-Head game is started.

#### 2.1.24 Difficulty Override

Allows preset difficulty settings to be selected without overwriting the current Custom difficulty settings (Standard and Feature Adjustments).

Table 6. Standard Adjustments

Menu	Item	Factory	Adjustment Range
2.1.1	Language	ENGLISH	ENGLISH, GERMAN, FRENCH, SPANISH
2.1.2	Balls Per Game	3	1 to 10
2.1.3	Maximum Extra Balls	10	NONE, 1 to 10, UNLIMITED
2.1.4	Ball Saver Time	20 sec.	NO, 5 sec. to 30 sec. (5 sec. steps
2.1.5	Max Saves Per Ball	1	1 to 5
2.1.6	Maximum Credits	30	NONE, 1 to 100, UNLIMITED
2.1.7	Allow Buy-Ins	YES	YES, NO
2.1.8	Maximum Buy-Ins	10	1 to 10
2.1.9	Replay Percent	10%	5% to 25% (1% steps)
2.1.10	Replay Base	100 Million	25 Million to 500 Million (25M steps
2.1.11	Match Feature	10%	OFF, 1% to 25% (1% steps)
2.1.12	Show Date And Time	NO	NO, YES
2.1.13	Tournament Mode	NO	NO, YES
2.1.14	Tilt Warnings	3	NONE, 1 to 10, DISABLED
2.1.15	Euro Score Format	NO	NO, YES
2.1.16	Bonus Flips	YES	YES, NO
2.1.17	Game Restart	SLOW	NEVER, SLOW, INSTANT
2.1.18	Flipper Plunger	NO	NO, YES
2.1.19	Plunger Timer	DISABLED	DISABLED, 10 to 30 sec. (10 sec. steps)
2.1.20	Free Play	START ONLY	NO, START ONLY, YES
2.1.21	Hide Free Play	NO	NO, YES
2.1.22	Attract Mode Audio	YES	YES, NO
2.1.23	Auto Head-To-Head	YES	YES, NO
2.1.24	Difficulty Override	NORMAL	EXTRA EASY, EASY, NORMAL, HARD, EXTRA HARD, NONE (CUSTOM)

### FEATURE ADJUSTMENTS

#### 2.2.1 Initial Cash

Self-explanatory.

#### 2.2.2 First Loop EB At

The number of consecutive Big Loops or consecutive Mini Loops required to award an Extra Ball.

# 2.2.3 City Assignment

Adjusts the method used to assign the next City to be visited

FIXED ...... Cities are assigned in the same preset sequence.

WEIGHTED ..... Cities are assigned semi-randomly, but weighted towards the Fixed sequence. RANDOM ...... Cities are assigned randomly.

### 2.2.4 Distance To Cities

Adjusts the distances between Cities. Distances in the game are relative to the distance selected for this setting.

#### 2.2.5 Allow Road Play

Self-explanatory.

#### 2.2.6 Allow Duels

Self-explanatory.

#### 2.2.7 Start Ball At City

Adjusts the game mode after a ball drains while On The Road.

NO ...... The game mode is unchanged. IF DISTANCE O Provided the distance to the next City is zero, launching next ball will Enter City. ALWAYS ...... Launching next ball will Enter City regardless of distance remaining.

#### 2.2.8 Trunk Lit

Adjusts the difficulty of Open The Trunk feature.

NEVER ..... Open The Trunk must be lit by the player. START OF GAME ...... Open The Trunk is lit at the

start of the game.

START OF BALL ...... Open The Trunk is lit at each hall launch

### 2.2.9 Trunk Memory

Adjusts whether lit T-R-U-N-K lane and Open The Trunk lamps are held over to the next ball.

NO ...... T-R-U-N-K and Open The Trunk lamps are not held over.

PARTIAL ...... Open The Trunk lamp is held over; T-R-U-N-K lamps are not. YES ...... T-R-U-N-K and Open The Trunk lamps are both held over

#### 2.2.10 Jav's Lit

Adjusts the difficulty of the Jay's Secret Stash feature.

NEVER ...... Jav's Secret Stash must be lit by the player.

START OF GAME ...... Jay's Secret Stash is lit at the start of the game. START OF BALL ...... Jay's Secret Stash is lit at each

hall launch

### 2.2.11 Jay's Memory

Adjusts whether lit Jay's Secret Stash is held over to the next ball.

NO ...... Jay's Secret Stash is not held over. YES ...... Jay's Secret Stash is held over.

#### 2.2.12 Light P. Lock Style

Adjusts the shot required to collect Passenger Locks.

NORMAL ...... Passenger Locks are collected only by shooting the Taxi.

INLANE Passenger Locks are collected only by making Inlanes then shooting the Taxi.

BOTH Passenger Locks are collected by either method

### 2.2.13 Passenger Difficulty

Adjusts the difficulty of the Passenger Locks feature.

EASY ...... The first Passenger Lock requires one hit; each subsequent Passenger Lock requires one more hit.

MEDIUM ...... The first Passenger Frenzy is Easy; subsequent Passenger Frenzies are Hard.

HARD ...... The first Passenger Lock requires two hits; each subsequent Passenger Lock requires one more hit.

# 2.2.14 Police Difficulty

Adjusts the difficulty of the Speed Trap feature for Police Chase Frenzy.

**EASY** ...... Speed Trap is always lit when On The Road mode starts.

MEDIUM ....... Speed Trap is lit the first time On The Road mode starts; thereafter it must be lit by the player.

HARD ...... Speed Trap must be lit by the player.

#### 2.2.15 Lane Changer Style

Adjusts cycling of lit T–R–U–N–K lane lamps when Flipper Buttons are pressed. **BI-DIRECTIONAL** cycles in the direction of the Flipper Button pressed;

UNI-DIRECTIONAL always cycles from left to right; SPLIT splits lane cycling so that the Left Flipper cycles T-R-U lamps and the Right Flipper cycles N-K lamps.

#### 2.2.16 Air Bag Time

The time the Air Bag remains raised. This adjustment applies **only** to Air Bags collected from the MagnoCharger $^{TM}$ .

### 2.2.17 Multiplier Time

The time Bonus X remains lit, or **DISABLED** to allow unlimited time.

#### 2.2.18 Speedway Memory

Adjusts whether lit Speedway Challenges and lit 3–2–1 lamps are held over to the next ball.

NO ..... Lit Challenges and incomplete lit 3–2–1 lamps are not held over.

**PARTIAL** ...... Lit Challenges are held over; incomplete lit 3–2–1 lamps are not.

YES ..... Lit Challenges and incomplete lit 3–2–1 lamps are both held over.

#### 2.2.19 Nitro at Game Start

When selected, Nitro Boost is lit when a game starts.

### 2.2.20 Nitro Difficulty

Adjusts the difficulty of the Nitro Boost feature.

EASY ...... Two consecutive U-Turns are required for the first Nitro Boost, three for the second, and so on.

MEDIUM ...... Three consecutive U-Turns are required for the first Nitro Boost, four for the second, and so on.

HARD ...... Four consecutive U-Turns are required for the first Nitro Boost, five for the

second, and so on.

#### 2.2.21 Easy SWF Enable

When selected, starting a Speedway Challenge also lights the Left Orbit for Speedway Frenzy.

#### 2.2.22 Loop EB Quickshots

Adjusts the difficulty of the Extra Ball Police Car Scoop shot lit by shooting consecutive Big Loops or consecutive Mini Loops.

YES ...... The EB Police Car Scoop shot does not time out.

NO ...... The EB Police Car Scoop shot times out.

Table 7. Feature Adjustments

Menu	Item	Factory	Adjustment Range
2.2.1	Initial Cash	\$1,000	\$0, \$1 to \$100,000 (010 steps)
2.2.2	First Loop EB At	3	2 to 5
2.2.3	City Assignment	WEIGHTED	FIXED, WEIGHTED, RANDOM
2.2.4	Distance To Cities	250	50 to 500 (50 steps)
2.2.5	Allow Road Play	YES	YES, NO
2.2.6	Allow Duels	YES	YES, NO
2.2.7	Start Ball At City	ALWAYS	NO, IF DISTANCE 0, ALWAYS
2.2.8	Trunk Lit	START OF GAME	NEVER, START OF GAME, START OF BALL
2.2.9	Trunk Memory	PARTIAL	NO, PARTIAL, YES
2.2.10	Jay's Lit	START OF BALL	NEVER, START OF GAME, START OF BALL
2.2.11	Jay's Memory	YES	YES, NO
2.2.12	Light P. Lock Style	NORMAL	NORMAL, INLANE, BOTH
2.2.13	Passenger Difficulty	MEDIUM	EASY. MEDIUM, HARD
2.2.14	Police Difficulty	MEDIUM	EASY. MEDIUM, HARD
2.2.15	Lane Changer Style	BI- DIRECTIONAL	BI-DIRECTIONAL, UNI-DIRECTIONAL SPLIT
2.2.16	Air Bag TIme	20 sec.	10 sec. to 30 sec. (5 sec. steps)
2.2.17	Multiplier Time	DISABLED	DISABLED, 1 sec. to 10 sec. (1 sec. steps)
2.2.18	Speedway Memory	YES	NO, PARTIAL, YES
2.2.19	Nitro At Game Start	YES	YES, NO
2.2.20	Nitro Difficulty	MEDIUM	EASY. MEDIUM, HARD
2.2.21	Easy SWF Enable	YES	YES, NO
2 2 22	Loop ER Ouiskehote	NO	VEC NO

# HIGH-SCORE ADJUSTMENTS

High-Score Adjustments are self-explanatory with the exception of item 2.3.3 which is described below.

Backup Adjustments adjust the values to be stored in the system's memory when a High-Score Reset is performed, including all automatic High-Score Resets performed as a result of adjusting item 2.3.18, and manual Resets (Items 4.3–4.6).

#### 2.3.3 Remember Initials

Adjusts whether the game remembers and pre-enters player initials entered previously when a high-score or other award is achieved. **NEVER** always starts high-score initials as \_\_\_\_ (spaces): **ONE PLAYER ONLY** remembers and pre-enters initials for one-player games; **ALWAYS** remembers and pre-enters initials of all four players.

Table 8. High-Score Adjustments

Menu	Item	Factory	Adjustment Range
2.3.1	Enable High-Scores	YES	YES, NO
2.3.2	Enable Today's Scores	NO	NO, YES
2.3.3	Remember Initials	ONE PLAYER ONLY	NEVER, ONE PLAYER ONLY, ALWAYS
2.3.4	Grand Champ Credits	3	0 to 5
2.3.5	High-Score 1 Credits	2	0 to 3
2.3.6	High-Score 2 Credits	1	0 to 3
2.3.7	High-Score 3 Credits	1	0 to 3
2.3.8	High-Score 4 Credits	1	0 to 3
2.3.9	Backup Grand Champion	100 Million	10 to 500 Million (10 Million steps)
2.3.10	Backup High-Score 1	50 Million	10 to 500 Million (10 Million steps)
2.3.11	Backup High-Score 2	40 Million	10 to 500 Million (10 Million steps)
2.3.12	Backup High-Score 3	30 Million	10 to 500 Million (10 Million steps)
2.3.13	Backup High-Score 4	20 Million	10 to 500 Million (10 Million steps)
2.3.14	Big Race Credits	2	0 to 3
2.3.15	Speedway Credits	1	0 to 3
2.3.16	Combo Champ Credits	1	0 to 3
2.3.17	Loop Champ Credits	1	0 to 3
2.3.18	Video Master Credits	1	0 to 3
2.3.19	Backup Big Race King	100 Million	10 to 200 Million (10 Million steps)
2.3.20	Backup S'way King	50 Million	10 to 100 Million (10 Million steps)
2.3.21	Backup Combo Champ	2	2 to 5
2.3.22	Backup Loop Champ	2	2 to 5
2.3.23	Backup Video Master	10	10 to 20
2.3.24	High-Score Reset	DISABLED	DISABLED, 100 to 5,000 games (100 steps)

#### TESTS

From the Main Menu, cycle to category 3 then press the Enter Button to display the Tests Menu. The Tests Menu categories are:

- 3.1 Switch Levels Test
- 3.2 Switch Edges Test
- 3.3 Solenoid Test
- 3.4 Flasher Test
- 3.5 Single Lamp Test
- 3.6 All Lamps Test
- 3.7 All Lamps and Flashers Test
- 3.8 Music Test
- 3.9 Sound and Music Test
- 3.10 Display Test
- 3.11 Flipper Test 3.12 Meter Test
- 3.13 Car Test

Use the Up, Next, Previous, and Enter Buttons to select and run tests. The tests are described in detail below.

#### 3.1 Switch Levels Test

This test displays all switches which the system detects as currently closed. Use the Next, Previous, and Enter Buttons to select switches (refer to Table 9 opposite). All detected closed switches display an [X]. Use this test to establish whether any switches are stuck closed. Working switches may be detected as closed if there is a short elsewhere in their circuits.

#### 3.2 Switch Edges Test

This test displays the **last** switch closed. Use the Next, Previous, and Enter Buttons to select switches (refer to Table 9 opposite). The last detected closed switch displays an **[X]**. Use this test to check individual switches for proper operation and detection by the system.

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CAUTION: For best test results, operate only one switch at a time: if more than one switch is actuated, only the last closed switch name and number is displayed. If other switches remain closed when the switch is cleared, the name and number of the last switch closed is displayed until cleared, and so on until no switches remain closed.

#### 3.3 Solenoid Test

This test fires the game solenoids in number sequence (refer to Table 10 opposite). The Solenoid Test has three modes: **Repeat**, **Stopped**, and **Running**. These modes are explained in detail below. Use the Next, Previous, and Enter Buttons to select modes.

Only **one** solenoid should fire at a time, regardless of the Solenoid Test mode. If no solenoids fire during the Repeat or Running modes, or if a solenoid fires and stays on, or if more than one solenoid fires, the system has detected a problem.

Repeat ....... Pulses a single solenoid. The same solenoid pulses until another is selected. Only the solenoid whose name and number is shown in the display should pulse during this mode.

**Stopped** ....... Stops the Test. No solenoids should pulse during this mode.

Running ...... Pulses all solenoids in number sequence (refer to Table 10 opposite). Only the solenoid whose name and number is shown in the display should pulse during this mode.

### Table 9. Switches

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Compass

Mystery

# Table 10. Solenoids

	Tavi	e o. omici	1168		Table 10. Soleliold
1	Plunger Lane	39	Taxi Front	1	Plunger
2	Trough 1	40	Taxi Scoop	2	Trough Eject
3	Trough 2	41	Taxi Lock	3	Knocker
4	Trough 3	42	Top Right Ramp Entry	4	Left Slingshot
5	Trough 4	43	Top Right Ramp Left	5	Right Slingshot
6	Trough 5	44	Top Right Ramp Right	6	Top Left Diverter
7	Trough 6	45	Mini Loop Low	7	Left Ramp Diverter
8	Trough 7	46	Mini Loop High	8	Side Ramps Diverter
9	Trough 8	47	Big Loop Low	9	Taxi Diverter
10	Trough 9	48	Big Loop High	10	Right Ramp Diverter
11	Trough 10	49	Right Ramp Base	11	Mini Ramp Raise
12	Left Slingshot	50	Right Ramp Entry	12	Dead End Saucer Eject
13	Right Slingshot	51	Right Ramp Exit	13	Jay's Saucer Eject
14	Left Outlane	52	South Target	14	Police Scoop Eject
15	Left Inlane (Outer)	53	East Target	15	Police Scoop Release
16	Left Inlane (Inner)	54	Right Orbit Low	16	Police Car Rotate
17	Right Inlane	55	Right Scoop	17	Taxi Lower
18	Right Outlane	56	Right Scoop Reserve	18	Taxi Raise
19	Dead End Saucer	57	Hot Rod	19	Right Scoop Eject
20	Left Orbit Low	58	Hot Rod Reserve	20	Hot Rod Raise
21	Left Orbit High	59	Sports Car	21	Hot Rod Eject
22	Spinner	60	Sports Car Reserve	22	Hot Rod Release
23	Jay's Saucer	61	Monster Truck	23	Sports Car Raise
24	Left Ramp Entry	62	Monster Truck Res.	24	Sports Car Eject
25	Left Ramp Exit	63	Mini Bug	25	Sports Car Release
26	West Target	64	Mini Bug Reserve	26	Monster Truck Raise
27	North Target	65	Magnet	27	Monster Truck Eject
28	U-Turn Left	66	Ramp Magnet	28	Monster Truck Rel.
29	U-Turn Middle	67	Plumb Bob	29	Mini Bug Raise
30	U-Turn Right	68	Slam Tilt	30	Mini Bug Eject
31	Police Car Scoop	69	Start	31	Mini Bug Release
32	Police Car Reserve	70	Launch	32	MagnoLock <sup>TM</sup>
33	Police Car	71	Left Flipper	33	MagnoCharger <sup>TM</sup>
34	Top Left Ramp Entry	72	Right Flipper	34	Air Bag
35	Top Left Ramp High	73	LL Flipper EOS	35	Jay's Door
36	Top Left Ramp Low	74	LR Flipper EOS		

UL Flipper EOS

UR Flipper EOS

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#### 3.4 Flasher Test

This test pulses the game flashlamps in number sequence (refer to Table 11 below). The Flashlamp Test has three modes: **Repeat**, **Stopped**, and **Running**. These modes are explained in detail below. Use the Next, Previous, and Enter Buttons to select modes.

Only **one** flashlamp should pulse at a time, regardless of the Flasher Test mode. If no flashlamps pulse during the Repeat or Running modes, or if a flashlamp pulses and stays on, or if more than one flashlamp pulses, the system has detected a problem.

Repeat ....... Pulses a single flashlamp. The same flashlamp pulses until another is

selected. Only the flashlamp whose name and number is shown in the display should pulse during this mode.

**Stopped** ...... Stops the Test. No flashlamps should pulse during this mode.

Running ....... Pulses all flashlamps in number sequence (refer to Table 11 below).
Only the flashlamp whose name and number is shown in the display should pulse during this mode.

### Table 11. Flashlamps

Tuote 11.11doniumpo					
Right Inlane	7	Police Car Headlights			
Left Inlane	8	Taxi Headlights			
Dead End	9	Top Right Area			
Hot Rod Headlights	10	Monster Truck Lights			
Top Left Area	11	Mini Bug Headlights			
Sports Car Headlights	12	Right Scoop			
	Right Inlane Left Inlane Dead End Hot Rod Headlights Top Left Area	Right Inlane 7 Left Inlane 8 Dead End 9 Hot Rod Headlights 10 Top Left Area 11			

#### 3.5 Single Lamp Test

This test pulses the controlled game lamps in number sequence (refer to Table 12 opposite). The Single Lamp Test has three modes: **Repeat**, **Stopped**, and **Running**. These modes are explained in detail below. Use the Next, Previous and Enter Buttons to select modes

Only **one** lamp should pulse at a time, regardless of the Single Lamp Test mode. If no lamps pulse during the Repeat or Running modes, or if a lamp pulses and stays on, or if more than one lamp pulses, the system has detected a problem.

Repeat ....... Pulses a single lamp. The same lamp pulses until another is selected. Only the lamp whose name and number is shown in the display should pulse during this mode.

**Stopped .......** Stops the Test. No lamps should pulse during this mode.

Running ...... Pulses all lamps in number sequence (refer to Table 12 opposite). Only the lamp whose name and number is shown in the display should pulse during this mode.

#### 3.6 All Lamps Test

This test simultaneously pulses all controlled game lamps. If any controlled lamp does not pulse, or any other result is obtained, the system has detected a problem.

#### 3.7 All Lamps and Flashers Test

This test pulses all controlled game lamps and flashlamps simultaneously. If any controlled lamp or flashlamp does not pulse, or if any other result is obtained, the system has detected a problem.

## Table 12. Controlled Lamps

		ravie 12. Controlled Lamps			
1	New York	39	Open The Trunk	77	Mini Loop Lock 3
2	Boston	40	Left Orbit Red	78	Top Left Ramp Red
3	Washington	41	Left Orbit Green	79	Top Left Ramp Green
4	Detroit	42	Left Orbit Blue	80	Top Left Ramp Blue
5	Memphis	43	Drag Frenzy	81	Video Mode
6	Atlanta	44	Oval Frenzy	82	Finishing Line
7	Chicago	45	Stunt Frenzy	83	Taxi Red
8	Denver	46	Street Frenzy	84	Taxi Green
9	Dallas	47	Enter City	85	Taxi Blue
10	New Orleans	48	Sports Car Red	86	Taxi Lock
11	Salt Lake City	49	Sports Car Green	87	Taxi Light Lock
12	Las Vegas	50	Sports Car Blue	88	Top Right Ramp Red
13	Phoenix	51	Sports Car 1	89	Top Right Ramp Green
14	Seattle	52	Sports Car 2	90	Top Right Ramp Blue
15	Los Angeles	53	Sports Car 3	91	Big Loop Red
16	San Francisco	54	North	92	Big Loop Green
17	On The Road	55	South	93	Big Loop Blue
18	At A City	56	East	94	Mystery
19	Speedways	57	West	95	Ramp Magnet
20	Duels	58	Compass	96	Monster Truck Red
21	Passengers	59	Police Scoop Red	97	Monster Truck Green
22	Police	60	Police Scoop Green	98	Monster Truck Blue
23	Big Race	61	Police Scoop Blue	99	Monster Truck 1
24	Cash	62	Start Duel	100	Monster Truck 2
25	Shoot Again	63	Start City	101	Monster Truck 3
26	Air Bag	64	Extra Ball	102	Mini Bug Red
27	Trunk	65	Hit The Road	103	Mini Bug Green
28	T'r'unk	66	U-Turn Red	104	Mini Bug Blue
29	Tr'u'nk	67	U-Turn Green	105	Mini Bug 1
30	Truʻn'k	68	U-Turn Blue	106	Mini Bug 2
31	Trun'k'	69	U-Turn Lock	107	Mini Bug 3
32	MagnoCharger™	70	U-Turn Light Lock	108	Hot Rod Duel
33	Hot Rod Red	71	U-Turn Bonus X	109	Sports Car Duel
34	Hot Rod Green	72	Mini Loop Red	110	Monster Truck Duel
35	Hot Rod Blue	73	Mini Loop Green	111	Mini Bug Duel
36	Hot Rod 1	74	Mini Loop Blue	112	Nitro Boost
0.7	TT + D 10		3.00 cm - T - 3.4		

Mini Loop Lock 1

Mini Loop Lock 2

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Hot Rod 2

Hot Rod 3

#### 3.8 Music Test

This test plays selected music tracks (refer to Table 13 below). If the selected music track is not heard, or if any other result is obtained, the system has detected a problem.

**NOTE:** In case of problems, first check the game's volume control settings.

#### 3.9 Sound and Music Test

This test exercises the sound and music systems. If music or speech is not heard, or if any other result is obtained, the system has detected a problem.

**NOTE:** In case of problems, first check the game's volume control settings.

#### Table 13 Music Tracks

l	Table 15. N	iusic	ITACKS
1	Options	20	Video Mode
2	Theme	21	Open the Trunk
3	At a City	22	Jay's Secret Stash
4	Quickshot	23	The Big Race
5	Car Wash Calamity	24	Really Big Race
6	Car Park Chaos	25	Mystery
7	Creature Attack	26	Victory
8	Alien Invasion	27	Bonus Count
9	Speed Hump Hilarity	28	Game Over
10	Taxi Rank Rampage	29	Waiting
11	Grid Lock Lunacy	30	H-To-H Challenge
12	Mall Mayhem	31	H-To-H Duel
13	Passenger Frenzy	32	H-To-H Big Race
14	Speedway Challenge	33	Taxi
15	Speedway Frenzy	34	Hot Rod
16	Speedway Mania	35	Sports Car
17	On the Road	36	Monster Truck
18	Police Chase Frenzy	37	Mini Bug
19	Duel	38	Police Car

#### 3.10 Display Test

This test exercises every dot in the Dot Matrix Display by simultaneously cycling the brightness of all dots from off to maximum and back. Any other result indicates that the system has detected a problem.

#### 3.11 Flipper Test

This test fires the game flipper coils in number sequence (refer to Table 14 below). The Flipper Test has three modes: **Repeat**, **Stopped**, and **Running**. These modes are explained in detail below. Use the Next, Previous, and Enter Buttons to select modes.

Only **one** coil should fire at a time, regardless of the Flipper Test mode. If no coils fire during the Repeat or Running modes, or if a coil fires and stays on, or if more than one coil fires, the system has detected a problem.

Repeat	Pulses a single coil. The same coil
	pulses until another is selected. Only
	the coil whose name and number is
	shown in the display should pulse
	during this mode.

Stopped	Stops the Test. No coils should pulse
	during this mode

Running ....... Pulses all coils in number sequence (refer to Table 14 below). Only the coil whose name and number is shown in the display should pulse during this mode

#### Table 14. Flipper Coils

		PP-	00110
1	Lower Left Power	5	Top Right Power
2	Lower Left Holding	6	Top Right Holding
3	Lower Right Power	7	Top Left Power
4	Lower Right Holding	8	Top Left Holding

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#### 3.12 Meter Test

This test exercises the Taxi Meter reels. During this test, all Taxi Meter reels should rotate repeatedly, first forwards and then backwards. Any other result indicates that the system has detected a problem.

#### 3.13 Car Test

This test exercises all Car playfield mechanics. During this test, the Police Car should rotate repeatedly between its end positions, and the Hot Rod, Sports Car, Taxi, Monster Truck, and Mini Bug should repeatedly raise and lower. Any other result indicates that the system has detected a problem.

## UTILITIES

From the Main Menu, cycle to category 4 then press the Enter Button to display the Utilities Menu. The Utilities Menu categories are:

- 4.1 Clear Audits
- 4.2 Clear Credits
- 4.3 Reset High-Scores
- 4.4 Reset Grand Champion
- 4.5 Factory Adjust
- 4.6 Factory Reset
- 4.7 Burn In

Use the Next, Previous, and Enter Buttons to perform the selected Utility function. The available functions are described in more detail below

#### 4.1 Clear Audits

Resets all audit items in all Book Keeping Menus to zero.

#### 4.2 Clear Credits

Resets the game credits to zero.

#### 4.3 Reset High-Scores

Resets all high-score table and Champion scores to the values of their corresponding Backup score items in the High-Score Adjustments Menu.

#### 4.4 Reset Grand Champion

Resets the Grand Champion Score to the value of its corresponding Backup score item in the High-Score Adjustments Menu (item 2.3.9).

#### 4.5 Factory Adjust

Resets all game adjustment items to their factory default settings.

#### 4.6 Factory Reset

Resets the game to its ex-factory state by performing the Clear Audits, Clear Credits, Reset High-Scores, and Factory Adjust Utility functions in sequence.

#### 4.7 Presets

Installs factory preset difficulty settings (refer to Table 15 below). The difficulty settings available are:

- 4.7.1 Install Extra Easy
- 4.7.2 Install Easy
- 4.7.3 Install Medium
- 4.7.4 Install Hard
- 4.7.5 Install Extra Hard

CAUTION: Installing any of the presets will **overwrite** the current game adjustment settings for the items shown. To retain the current Custom adjustment settings while installing preset difficulty settings, use item 2.1.24 (Difficulty Override) instead of this item.

#### 4.8 Burn In

Endlessly exercises all game mechanics, lamps, and flashlamps. Burn In is useful when diagnosing intermittent problems.

## QUIT

From the Main Menu, cycle to category 5 then press the Enter Button to quit the entire operator Menu System.

Table 15. Preset Difficulty Settings

Menu	Item	Extra Easy	Easy	Normal	Hard	Extra Hard
2.1.4	Ball Saver Time	30 sec.	30 sec.	20 sec.	10 sec.	NO
2.1.5	Max Saves Per Ball	3	2	1	1	0
2.2.2	First Loop EB At	2	2	3	4	5
2.2.4	Distance To Cities	200	200	250	300	400
2.2.5	Allow Road Play	NO	YES	YES	YES	YES
2.2.6	Allow Duels	NO	NO	YES	YES	YES
2.2.7	Start Ball At City	ALWAYS	ALWAYS	ALWAYS	IF DISTANCE 0	NO
2.2.8	Trunk Lit	START OF BALL	START OF GAME	START OF GAME	START OF GAME	NEVER
2.2.9	Trunk Memory	YES	YES	PARTIAL	NO	NO
2.2.10	Jay's Lit	START OF BALL	START OF BALL	START OF BALL	START OF GAME	NEVER
2.2.11	Jay's Memory	YES	YES	YES	YES	NO
2.2.13	Passenger Difficulty	EASY	EASY	MEDIUM	MEDIUM	HARD
2.2.14	Police Difficulty	EASY	EASY	MEDIUM	MEDIUM	HARD
2.2.16	Air Bag TIme	30 sec.	25 sec.	20 sec.	15 sec.	10 sec.
2.2.17	Multiplier Time	DISABLED	DISABLED	DISABLED	10 sec.	5 sec.
2.2.18	Speedway Memory	YES	YES	YES	PARTIAL	NO
2.2.19	Nitro At Game Start	YES	YES	YES	YES	NO
2.2.20	Nitro Difficulty	EASY	EASY	MEDIUM	MEDIUM	HARD



# TECHNICAL APPENDIX

(PC CD-ROM VERSION)
INCLUDES

WELCOME / SYSTEM REQUIREMENTS / INSTALLATION
START UP / DEFAULT CONTROL KEYS / OPTIONS AND SET UP
PAUSE MENU (IN-GAME OPTIONS)
CONNECTING HEAP-TO-HEAP / WORLD WIPE HIGH SCORES
INTERNET UPPATES / FEEDBACK
GREDITS / TECHNICAL SUPPORT

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## welcome / system requirements

### WELCOME!

This Technical Appendix will help you to install and set up *Pro Pinball: Big Race USA* so that you experience the simulation with the best possible audio and graphics performance your computer is capable of, without adversely affecting gameplay.

Also included are setup instructions for Head-To-Head, which lets you play Head-To-Head rules games with another player on a remote computer anywhere in the world in real time!

## SYSTEM REQUIREMENTS

The **minimum** system specification you need to run *Big Race USA* is:

- Pentium 90MHz processor
- 16 MB system RAM
- 1 MB Graphics card (must be VESA 2.0 compliant for DOS version)
- · 10 MB of free hard disk space
- · CD-ROM drive

The **recommended** system specification is:

- Pentium II 266MHz processor
- · 64 MB system RAM
- 8 MB PCI Graphics card
  - 400 MB of free hard disk space
- CD-ROM drive
- 16-bit sound card

To play Head-To-Head Ladder matches (see page 53), you also need:

- A connection to the Internet which allows connection to World Wide Web pages
- A registered User ID, obtainable free of charge from the Pro Pinball registration page at: http://www.empire-interactive.com/ propinball/brusa

At its maximum video and audio quality, *Big Race USA* makes very heavy demands on a computer system. This is why the *Big Race USA* detail settings immediately after installation are average settings, which should work reasonably well on most computers.

If you own a near-recommended specification computer, you should be able to increase the detail and quality of several settings without affecting gameplay.

Alternatively, if you own a near-minimum specification computer, you will probably have to reduce the detail and quality of several settings to prevent slowdowns or stutters during gameplay, especially during Frenzies.

## INSTALLATION

Two versions of *Pro Pinball: Big Race USA* are included on your PC CD-ROM:

- A Windows 95/98/NT4.0 version which uses Microsoft DirectX.
- · A DOS version.
- Windows 95/98 Users Please Note!
   Big Race USA needs Microsoft DirectX 5.0 or
   higher pre-installed.

If you don't already have this, you can choose to install it when asked during *Big Race USA* installation.

• Windows NT4.0 Users Please Note! Big Race USA needs NT V4.0 Service Pack 3 pre-installed.

For Head-To-Head play, Microsoft DirectPlay 5.0 support is also needed: you can install it by running the file **dplay50a.exe**, supplied on the *Big Race USA* CD-ROM.

The DOS version does not support Head-To-Head play, but both versions are otherwise identical in style and gameplay, with little difference in comparative performance.

Each version must be installed separately, and each version has its own specific installation program, described below.

# INSTALLATION: WINDOWS 95/98/NT4.0 VERSION

Load the Pro Pinball: *Big Race USA* CD-ROM into your CD-ROM drive. If Autorun is enabled on your computer, the installation program will run automatically: if not, click on My Computer, then click on your CD-ROM drive. Select Setup to run the installation program, then follow the on-screen instructions

You can choose one of two installation options:

Automatic: Automatically chooses which

components to install.

Custom: You manually choose which

components to install.

The installation program creates a Program menu shortcut. Once installation is completed, leave the CD-ROM in the drive, then click on the shortcut to load the simulation and begin play.

# INSTALLATION: DOS VERSION

Load the *Pro Pinball: Big Race USA* CD-ROM into your CD-ROM drive. Change to the CD-ROM drive (by typing, for example, **D:**) and type **install** at the DOS prompt, then follow the on-screen instructions.

You can choose one of four installation options:

Small: Installs program and

configuration files only.

Medium: Small installation plus sound

effects, dot matrix, and Short

music tracks.

Large: Medium installation plus Normal

music tracks.

Very Large: Installs the entire contents of the

CD-ROM.

The amount of free hard disk space needed for each option is displayed on screen during installation. The larger the installation you choose, the shorter the loading time at start-up will be.

We suggest you choose **Medium**. Choose **Large** *only* if you have 32 MB of system RAM *and* enough disk space for the Normal length music tracks. Choose **Small** to use the minimum disk space.

Once installation is completed, leave the CD-ROM in the drive, then type **bigrace** at the DOS prompt to load the simulation and begin play.

**Big Race USA** cannot be played under **Windows 3.x.** even in a DOS window.

Exit Windows and run the simulation from a **native** DOS prompt only.

## START UP / DEFAULT CONTROL KEYS

## START UP

To load and run *Big Race USA*, first check that the *Big Race USA* CD-ROM is in your CD-ROM drive. Then run the simulation as follows:

Windows 95/98/NT4.0 Version
 Use the Windows shortcut. If Autorun is enabled, the game should run when the CD-ROM is inserted.

#### DOS Version

At the DOS prompt, change to the directory in which you installed the simulation (by typing, for example, **cd\propin\bigrace**), then type **bigrace** and press the Enter key.

When the simulation has loaded, some logo screens are displayed, followed by the *Big Race USA* table backbox. At the table backbox, press the Right Flipper Button (see below) to load the table and play games, or the Left Flipper Button to use the Options menu. Alternatively, you can use the standard menu screen keys (see below) to make your selection.

#### Tip

You can use the Flipper Buttons to load the table or Options Menu immediately from the first Empire Interactive logo screen.

## START UP OPTIONS

If you want to run the simulation without audio, add the  ${\bf s}$  (silent) start up option. This can improve performance on computers with less than the recommended amount of system RAM.

If you want the simulation to skip the logo screens after loading, add the  ${\bf q}$  (quick) start up option.

You add start up options as follows:

#### Windows 95/98/NT4.0 Version

Right-click on the *Big Race USA* shortcut, select Properties from the pop-up menu, then click the Shortcut tab. The Target text box is highlighted. At the end of the Target line, type a space, then the option letter. Click the OK button to confirm the change.

#### · DOS Version

Type the option letter(s) after the normal command, separated by a space. For example, to skip the logo screens and run without audio, run the simulation by typing **bigrace s q**.

## DEFAULT CONTROL KEYS

Immediately after installation, the keys used to control *Big Race USA* are as listed below, but you can change these to keys you prefer (see page 47). You cannot change the keys for items marked \*.

- Start Button (start new game; or add extra player, up to four players)
   S key or F1 key.
- Launch Button (launch ball into play, or activate Nitro Boost when available)
   Enter key.
- Left and Right Flipper Buttons
   Left Shift and Right Shift keys
   or Left Ctrl and Right Ctrl keys.
- Nudging the Table

**Space** to nudge the table upwards (forwards):

*Left Alt* key to nudge the left of the table; *Right Alt* key to nudge the right of the table.

- Pause Game \* Esc key.
- High-Score Initials Entry \*

Flipper Buttons to select a letter or character, then Launch Button to enter the selected letter or character.

To back up one character, select and enter the ← character. You can enter up to three characters; select the final → character to enter the initials into the High-Score Table.

 Navigation and Selection in Menu Screens \*

**Arrow (cursor)** keys to move the highlight. **Enter** key to confirm a selection.

## OPTIONS AND SET UP

At the backbox, press the Left Flipper Button to use the simulation's Options Menu. All Option settings are saved automatically and will be used as the starting Options when you next run *Big Race USA*.

During a game, Sound Volume options are also available on the Pause Menu: see page 51.

The Options menu items are described below.

## TABLE VIEW

Use this Option to select your preferred viewing angle of the table from the four *Big Race USA* table views available, shown in the small graphics at the bottom of the screen. The main graphic shows a larger version of the selected view. Gameplay is identical regardless of the view.

#### **C**ONTROLS

Use this Option to change the keys which control *Big Race USA*.

At the Change Controls menu, press the Enter key to start changing key assignments or the Esc key to abort.

While each control action is highlighted, press the key you want to assign (use) to perform that action. Press the Esc key during selection to keep or reassign the previous key(s) assigned to that action.

You can assign a second key to the same action by holding down the first key whilst pressing the second key. Be careful not to accidentally assign the same key to two different actions.

### **G**RAPHICS

Use this Option to set up or change the graphics for the best compromise between 'looks' and performance on your computer. *Big Race USA* graphics, especially during Frenzies, make heavy demands on system RAM, video card memory, and the processor. We suggest you start with Graphic Detail set to Low (see below) and build up to the best your computer can support.

If you change Resolution and/or Colour Depth settings, you will be prompted to test the new video mode when you exit the Graphics menu.

The Graphics Options are described below.

## **Screen Flipping**

When Enabled, *Big Race USA* keeps two frames (instead of one) in your video card's memory and 'flips' them. Enabling Screen Flipping can make movements more fluid, but limits maximum display resolution and colour depth. Screen Flipping may not available at higher display resolutions, depending on the amount of memory on your video card.

#### Resolution

Choose one of five display resolutions, ranging from 640x480 to 1600x1200 pixels. *Big Race USA* will only enable display resolutions your hardware can support. The more memory on your video card, the higher the maximum display resolution. Maximum display resolution is also a trade-off with the colour depth you select.

#### Colours

Choose one of three basic colour depths from five options: 256, 256+, 65,000, 65,000+, and 16M. The + means 'with dithering,' which increases the apparent number of colours but can make graphics look speckled. Higher colour depths make heavy demands on system RAM, video RAM and the system processor: avoid these unless you have a near-recommended specification computer. Maximum colour depth is a trade-off with the display resolution you select.

### Detail

Choose one of four preset Graphic Detail levels— Low, Medium, High, and Very High—to make quick adjustments to all settings, or choose Custom to fine tune the individual settings. If you notice problems during gameplay with fluidity of ball movement, stuttering, or slowdown (especially during Frenzies), reducing the amount of graphic Detail will usually fix them. The individual graphics Detail settings are described below.

#### Motion Blur Detail / Motion Blur Level

Choose Off, or one of four Motion Blur Detail settings. When Motion Blur is on, *Big Race USA* adds a blur effect to fast moving balls; use Detail to choose the realism of the blur, and Level to control how frequently the blur is applied. Motion Blur is very processor intensive and you should choose Off unless you have a near-recommended specification processor.

#### **Dot Matrix Size**

Choose one of four dot matrix display (DMD) sizes, or Automatic to let *Big Race USA* select a DMD size based on the Resolution setting.

#### **Ball Rolling Display**

When Enabled, *Big Race USA* adds small imperfections to the surface of the ball so that you can see more clearly how the ball is spinning, sliding, and rolling. This effect is entirely cosmetic and does not affect the way the game plays.

## **Graphics Updated Per Frame**

Choose one of seven graphics update speed settings ranging from 1% (slow) to 100% to control how often the dot matrix display, table lights, and other graphical table effects are updated. Slower speeds usually improve fluidity of ball movement; faster speeds (100%) improve the realism of the lighting effects.

#### **Dot Matrix**

The *Big Race USA* dot matrix display (DMD) shows the current score, is used to play video modes, and provides additional information during gameplay.

You can choose a DMD which is Solid—with no table features showing through, or Transparent—so you can see the ball while it's moving behind the DMD

You can also choose a Permanent DMD—which is always visible, or an Intelligent DMD—which is visible only when necessary (when an event is triggered, or to play a video mode).

#### **Nudge Scrolling**

Use this setting to control the way *Big Race USA* displays the effects of nudging the table. This effect is entirely cosmetic and does not affect the way the game plays. The six Nudge Scrolling settings are described below; note that only the five settings applicable to the *Big Race USA* version you have loaded (Windows or DOS) are displayed in the menu.

#### Disabled

The display does not move in response to nudges. The physical effects of nudges still occur within the game.

#### Two Way -

#### (Windows Version Only)

The display 'jumps' vertically (only) in response to all nudges.

#### Two Way

The display 'slides' vertically (only) in response to all nudges (sideways and upwards). This display movement is smoother than the Two Way – setting.

#### Two Way + (DOS Version Only)

The display 'jumps' in the appropriate direction in response to nudges.

#### Four Way -

**Windows Version:** The display 'jumps' in the appropriate direction in response to nudges. **DOS Version:** The display 'slides' vertically in response to upwards nudges and 'jumps' horizontally in response to sideways nudges.

#### Four Way

The display 'slides' in the appropriate direction in response to nudges.

## AUDIO

Use this Option to set up or change the audio for the best compromise between sound quality and performance on your computer.

Audio output is an integral part of *Big Race USA* gameplay and Dolby Surround Sound is used throughout.

All sound in *Big Race USA*, including the music tracks, is played by your computer from audio samples stored in system RAM.

Unlike previous *Pro Pinball* titles, the *Big Race USA* CD-ROM **does not** contain any CD audio tracks and **will not** play in a CD audio player.

Big Race USA sounds make heavy demands on system RAM, so we suggest you start with Audio Quality set to Low (see below) and build up to the best your computer can support.

The individual Audio Options are described below.

# Test Mechanical Sound / Test Speech and SFX / Test Music

Use these Options to choose a test  $Big\ Race\ USA$  game sound from each category. Each selected test sound plays repeatedly until you switch it Off.

You then use the Volume Controls to adjust the levels of each type of sound to your personal taste.

#### **Volume Controls**

Use these Options to set your preferred volume levels for each category of *Big Race USA* game sounds. Note that you won't hear any sounds unless you use the Test settings described above to choose and play test sounds.

#### Configuration

Use these Options to set up or change the way *Big Race USA* plays audio on your computer. The Audio Configuration menu settings are described below.

## Mode

Choose one of Mono, Stereo, and Swapped Stereo settings.

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Choose Swapped Stereo if the flipper sounds play on the wrong speaker.

#### Quality

Choose one of four preset audio Quality levels— Low, Medium, High, and Very High—to make quick adjustments to all settings, or choose Custom to fine tune the individual settings.

The audio quality available depends entirely on the amount of system RAM in your computer.

The individual audio Detail settings are:

# Speech and SFX Sampling Rate / Mechanical Sampling Rate

Choose one of three sound sampling rates for each category, from 11kHz (slow) to 44kHz. Faster rates produce better quality sound, but require larger amounts of system RAM; slower rates produce poorer quality sound, but require much less system RAM

#### **Mechanical Sound Compression**

When Enabled, stores mechanical sounds in a compressed form which uses less system RAM.

#### **Output Channels**

Choose the number of sound card channels to use to play game sounds and music, from 4 to 16.

#### **Music Track Length**

Choose Short or Normal versions of the *Big Race USA* music tracks. **We strongly suggest that you** *only* select Normal music tracks if you have 32 MB or more of system RAM available.

## **E**XAMINE **T**ABLE

Use this Option to see the incredible detail within the *Big Race USA* playfield in extreme close-up. Press the Arrow keys to move, the Enter key to zoom in, and the Esc key to zoom out.

## TABLE RULES

Use this Option to view the rules card on the *Big* Race USA table, which gives an outline of the basic rules of gameplay.

This is by no means an exhaustive list of all the aspects of the game, and there are many hidden features and modes that you will only discover by practice and repeated play.

### **S**LIDESHOW

Use this Option to view a slide show tour of the *Big Race USA* playfield in close-up, clockwise from the bottom left of the table. This will help you to understand and learn the playfield layout.

Press the Enter key to see the next slide in the show; the show continues looping until you exit by pressing the Esc key.

CREDITS / START SIMULATION /
QUIT TO WINDOWS / QUIT TO DOS

Self-explanatory.

# PAUSE MENU (IN-GAME OPTIONS)

Pressing the Pause Game key (Esc key) during gameplay pauses the game in progress and displays the Pause Menu, which allows you to change some game Options, use the Operator or Head-To-Head menus, or exit from *Big Race USA* to the operating system.

You can also use the Pause Game key during Attract Mode (when no game is in progress).

The individual Pause Menu items are described below

### **RETURN** TO **SIMULATION**

Continues the game in progress, or resumes Attract Mode

## START NEW GAME

Starts a new game. Any game in progress is immediately abandoned.

## ADD PLAYER

Adds a new player to the game in progress, up to a maximum of four. This must be done before the final player's Ball 1 drains (goes out of play).

### DIFFICULTY LEVEL

Sets one of five preset game difficulty levels from Extra Easy to Extra Hard, or a Custom game difficulty setup which you have previously created by altering Adjustment settings using the Operator's Menu (see page 29).

## TABLE SETUP

#### **Slope**

Sets the angle of the table slope, in half-degree steps from four degrees to eight degrees.

The higher the angle, the faster the ball will travel down the table.

#### Condition

Sets the condition of the table, from New to Neglected.

A clean new table does not spin the ball as much as an older neglected table; so on a new table, the ball tends to slide more and travel faster. Playfield rubbers and mechanics are also less powerful on more neglected tables.

## Lower Flippers / Upper Left Flipper / Upper Right Flipper Power

Sets the power levels of all flippers. Note that increasing flipper power will not necessarily make the gameplay any easier.

#### ACTIVATE OPERATOR'S MENU

# NOTE: Selecting this item abandons any game in progress.

Enters the Operator's Menu system on the dot matrix display. The Operator's Menu System is described in detail starting on page 26 of this manual.

## EXIT OPERATOR'S MENU

# (only displayed while Operator's Menu is active)

Exits the Operator's Menu system and resets the table to Attract Mode.

## ADJUST VOLUME

Sets the volume levels of game sounds and music.

## HEAD-TO-HEAD

Enters the Head-To-Head menu system, which is described in detail starting on page 53 of this manual

## QUIT TO OPTIONS

Abandons the game in progress (if any) and displays the Options menu (see page 47).

## QUIT TO WINDOWS / QUIT TO DOS

Exits *Big Race USA* completely and returns to the operating system.

## CONNECTING HEAD-TO-HEAD

NOTE: Head-To-Head play requires each player to have their own copy of the Big Race USA CD-ROM, even if the two computers are connected by a serial cable or are on the same local area network.

**Windows NT4.0 Users Please Note:** For Head-To-Head play, Microsoft DirectPlay V5.0 is needed: if you don't already have this, you can upgrade your system by running the file **dplay50a.exe**, supplied on the *Big Race USA* CD-ROM.

Big Race USA supports two player live Head-To-Head play with an opponent on a remote computer. Most methods for connecting two computers are supported, including serial connection by cable or modem, LAN connection for local networks, and Internet connection using TCP/IP. With an Internet connection, you can join the official Big Race USA Ladder on the Pro Pinball Web pages and compete against players from all over the world.

## FRIENDLY AND LADDER MATCHES

The Head-To-Head game rules are described in the Table Rules section of this manual on page 9. In Friendly matches, you can play as many games as you like: *Big Race USA* will keep a running score of the number of games won by each player. Ladder matches are always the best of three

games, but you can continue to play Friendly games together after your Ladder games are finished.

## STARTING A HEAD-TO-HEAD SESSION

Select Head-To-Head from the Pause Menu to enter the *Big Race USA* Head-To-Head menu. You must first choose whether to connect directly, or through the Empire Lobby. Direct connection uses Microsoft DirectPlay and allows only Friendly match play: Empire Lobby connection allows Friendly or Ladder match play via the Internet.

### **DIRECT CONNECTION**

To connect using DirectPlay, click on the Friendly button in the DirectPlay section. From the dropdown list of connection types available on your computer (serial cable, modem, TCP/IP, etc.), select the connection type you want to use, then click on the Next button. Depending on the type you choose, you may need to supply details about the connection (for example, TCP/IP address).

Next, a selection dialog is displayed, where you can enter your name and select from a list of other (connected) players. Don't panic if the list is empty; other players may be able to see and select you on *their* list.

Click on the name of the person you want to play against, then click on the Connect button, then wait for the other person to accept your challenge. (If they refuse, the selection dialog is displayed again.)

Similarly, the person receiving the challenge will see a dialog with the name of the challenger, which they can Accept or Decline.

Once a challenge is accepted, both computers display the Head-To-Head Pause Menu (described below).

### **Troubleshooting DirectPlay Connection**

Most DirectPlay games require you to first choose to be either a Host—who sits waiting and only 'sees' others when they join in, or a Client—who can 'see' all available Hosts and choose one to connect to.

Pro Pinball tries to be both Host and Client at the same time, so that all players can 'see' everyone else. However, this isn't always successful, especially on modem and serial connections.

If you have trouble connecting then one of you should set up specifically as Host only; the other as Client only. You will each have to click on the Configure button in the DirectPlay dialog to do this. The Host will then have to wait to be challenged by the Client.

#### EMPIRE LOBBY CONNECTION

Though you can also use the Empire Lobby to find an opponent for a Friendly match, you will usually want to play a Ladder match.

#### **Empire Lobby Connection Requirements**

You need an Internet connection to use the Empire Lobby. To play Ladder matches, you also need a registered User ID (see below). You can instead use the special User ID **guest** (the password is **password**) if you only want to play Friendly matches.

#### How to Register a User ID

Registering a User ID costs nothing, but you need an e-mail address. Browse to the Pro Pinball registration page at:

http://www.empire-interactive.com/propinball/ brusa and follow the instructions to Create a User ID and choose a password. The registration server will send you an Activation Key by e-mail: before you can play Ladder matches, you must revisit the registration page and Activate your User ID by typing in the Key.

## **Connecting to the Empire Lobby**

At the *Big Race USA* Head-To-Head menu, click the Setup ID button and enter your User ID details if you have not already done so.

Make sure your modem is not already connected to another service.

Click on the Friendly or Ladder button to connect to the Empire Lobby. If you have trouble connecting, try Exiting the game and establishing your normal Internet connection: then load the game and try connecting again.

#### **Empire Lobby Dialog**

When connected, a dialog is displayed which shows your details, a list of other players' names—and whether they want Friendly or Ladder games, and a Chat window. If the list is empty, you are the only player currently connected (your own name isn't shown in the list). To chat to other players, type in the Chat window and press Enter or click on Send. Note that all players see all messages: there is no facility for 'private' Chat within the Empire Lobby.

Click on any player's name to let them know you want a game with them: a green arrow icon pointing away from you will be displayed beside their name. Note that you can click on as many names as you like.

A name which displays beside a blue arrow icon pointing towards you means that person wants a game with you; click on the name and the Empire Lobby will try to start a game. This won't *always* start a game, because the other person may already be playing someone else. Again, you can click on as many names as you like.

When you are successfully connected to another player, both computers display the Head-To-Head Pause Menu (see below). Provided you both chose Ladder, you will be connected for a Ladder match, but if **either** of you chose Friendly, you will be connected for a Friendly match.

#### Ladder Matches

If the connection to the other player is broken before the end of a Ladder match, that match is null and void. Please note that results from **all** Ladder matches, even partially completed ones, are logged and will be uploaded the next time you connect to the Empire Lobby.

Your position on the official Ladder can be viewed by browsing the Ladder Web page at: http://www.empire-interactive.com/propinball/ brusa. Positions on the official Ladder are only updated periodically, so recent position changes may not have been applied yet.

## HEAD-TO-HEAD PAUSE MENU

Head-To-Head has its own Pause Menu with options which are not present on the normal Pause Menu. Because most of the normal Pause Menu options are not present on the Head-To-Head Pause Menu, you should make any changes to those using the normal Pause Menu before entering Head-To-Head.

The Head-To-Head pause menu shows the status of the current game, and allows you to Chat to your opponent (this **is** a private Chat, even if connected through the Empire Lobby), Start or Continue play, Disconnect, or change the overall sound volume.

Note that if either player Pauses the game, **both** computers will Pause.

To stop playing Head-To-Head games and end your connection, Pause the game and click on Disconnect.

# WORLD WIDE HIGH-SCORES TABLE

Empire Interactive maintains a World Wide High-Scores Table for *Big Race USA* on its Web site at http://www.empire-interactive.com/propinball/ brusa.

The finest pinball players in the world post their high-scores to this Table, and former world championship players feature in the current *Pro Pinball: The Web* and *Pro Pinball: Timeshock!* High Score Tables.

#### How to Enter a Score in the Table

Once your high scoring game has ended, press and hold both Flipper Buttons for at least two seconds.

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This displays the high-score code for the game just played.

Make a careful note of your high-score code because the World Wide High-Scores Table will ignore invalid codes.

On your next visit to the World Wide High-Scores Table, type in your name and your code. The Table will update automatically.

# INTERNET UPDATES AND FEEDBACK

Any enhancements to *Big Race USA* will be provided free of charge to registered users via our World Wide Web site at:

### http://www.propinball.com.

The version number of *Big Race USA* that you currently have installed is displayed on the Credits screen of the Options menu.

Cunning Developments, the Pro Pinball development team, welcomes all comments and bug reports you may have; please send these to us by e-mail to brusa@propinball.com. We do read all the messages sent to us, but we cannot guarantee a personal response.

# CREDITS

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## TECHNICAL SUPPORT

If you need technical support, please contact us and we will do our best to help you resolve your problem.

Our specialists will almost certainly need to know some technical details about your computer to be able to help you. This is likely to include:

- · processor make and model
- · amount of system RAM
- graphics card make and model, including amount of RAM on the card
- · sound card make and model
- · name and version of operating system
- the version number of *Big Race USA* that you are currently using (see page 56)

Please have these details ready before you contact us: doing so will help us to help you.

HOW TO CONTACT US

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