CONGRATULATIONS!
You now own the authentic Konami home version of Bill Elliott's NASCAR Challenge for the Nintendo Entertainment System. We suggest that you read this instruction manual thoroughly before starting your engine.

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THIS IS NO SUNDAY DRIVE!

Few modern sporting events match the sheer intensity and energy of NASCAR racing, where unbridled speed and driver skill create an atmosphere of excitement and unpredictability. These standard “street” cars are all radically modified to increase road handling, stability, stamina, acceleration and braking. Individual races can be as long as 500 miles. To win a race is difficult, to win a season borders on the impossible.

Championship racer Bill Elliott has teamed with Konami to bring you a game that delivers the gritty, gear-grinding thrills of NASCAR racing, right down to the smallest detail. When you accept Bill’s challenge, you’ll find yourself behind the wheel with our unique first person perspective. You’ll choose and modify your car to your specs, and can even practice racing strategies like drafting and the slingshot before competing. When you’re ready, you’ll go up against ruthless racers on authentic, in-scale recreations of some of the circuit’s most renowned courses. Be warned though, it’s not for the faint of heart. Who knows what can happen at 200 mph? Especially with Bill Elliott hot on your tail!

THE CHALLENGE

The light of a Daytona dawn dances across your glistening machine as your pit crew prepares it for 500 grueling miles. You can’t afford any mistakes. As a contender on the NASCAR Circuit, you know the consequences of a single error. The pressure never ends as you challenge the toughest tracks in the world: Daytona, Talladega, Sears Point and Watkins Glen. But the real test comes from bumper-to-bumper competition against 15 of the fastest drivers ever to put the pedal to the metal, including Bill Elliott—the hardest charging driver ever born!

But red-lining your tachometer is only the half of it. Before you can even buckle your seat belt, you must first select a car and customize it to your specs. This includes choosing a manual or automatic transmission, and a racing or qualifying engine. It also means you must adjust your tires, gear ratio and spoiler angle.

Once you’re up and running in the race, keep a careful eye on your gauges for any telltale warning signs. You’ve got command over an entire pit crew, so don’t hesitate to pull over, whether it’s to refuel or for something more serious.

Remember, good strategy is just as important as natural racing skills when it comes to taking the checkered flag.
HOW TO HIT THE ROAD, JACK

To begin, press the Start Button. This will bring you to the all-important Select screen.

Use the Select Button on the Controller to choose from: Select Track, Select Car, NASCAR License, Auto Qualify/Yes or No, Practice, and Skill Level. There are three Skill Levels to choose from:

- Novice — Opponents are slower than you are and you cannot crash.
- Rookie — Opponents are quicker than in Novice and you can crash.
- Pro — Same as Rookie except that your opponents race full out.

**NOTE:** The music comes on automatically, but if you don’t want it, push the Select Button at this point.

When you’ve selected a category, press the A Button to steer into that screen.

LICENSED TO THRILL

Even the big boys must have an official NASCAR license before they can get behind the wheel.

Use the Control Pad to move the cursor to the desired letter and then press the A Button to lock in your choice. Repeat this process until your name is fully registered. Then move the cursor to END and press the A Button.

To delete a letter, select the left/right arrows with the Control Pad and press the A Button to move the flashing box to the right of the mistake. Then move the cursor to RUB and press the A Button again. This will backspace and delete the mistake. Once the mistake is deleted, re-enter the correct letter.

By the way, don’t take your license for granted. If you don’t race by NASCAR rules Bill will ceremoniously revoke it and you’ll become the laughing stock of the racing world.

REGISTRATION/PASSWORD

To enter your registration number/password press the Select Button when you are on the License screen. Use the same controls as you used to enter your name. Enter the registration number that the game has previously given you. [Racers will receive their numbers automatically after a race is completed in the Championship Season. It appears on the Championship Season Total Point screen.] The registration number will be very long. This is because there are many variables that must be recorded. After the racer inputs his name the game will start at the next race in the season, with all car stats and race stats the same as when play stopped. Racers can re-adjust their cars if they want to.

HOW TO MAKE TRACKS

There are two types of tracks to choose from: High banked ovals (Daytona and Talladega) and challenging road courses (Sears Point and Watkins Glen).

To run a single race use the Control Pad to move the checked flag to your preferred track. Or move the checked flag to select Championship Season. Here you must race all four of the tracks twice with the order of the tracks pre-set. [The Championship Season is always raced at the Pro level! In both individual races and the Championship Season you]
can adjust the number of laps in order to make the races longer or shorter. Press the A Button to lock in your track or course decision. Next, press the Control Pad UP or DOWN to add or subtract miles from the race. You can set the race distance anywhere between 10 and 500 miles. Press the Start Button to return to the Select screen.

**NOTE:** You can return to the Championship Season at any time by inputting your registered name (your password).

**NASCAR POINT RATINGS & HIGH SCORE SCREEN**

After each race you’ll see a stats screen showing you how well you’re performing.

**YOUR DREAM MACHINE**

Once you’ve selected a track, you’re ready to choose one of three cars, a Pontiac Grand Prix, Ford Thunderbird or Chevrolet Lumina. Each is particularly well suited for NASCAR racing strategies. But ultimately, the performance your car delivers depends on you.

Press the Control Pad Up or Down to select a car, then press the A Button to lock in your choice and return to the Select screen. Remember, once you’ve chosen your ride, you must drive it the entire race or season. Your car of choice will be shown in the upper right hand corner of the Select screen.

**DIALING IN YOUR RACER**

Now that you have a speed machine in mind, here’s your chance to fine tune it. All NASCAR autos start out evenly matched. The trick is to modify them for optimum performance based on the track you’ve chosen, and also to fit your own driving style. Use the Control Pad to choose RACE or PRACTICE. If you choose RACE, press the A Button and you’ll see a detailed view of your track selection. Seeing the overview of your track will help you decide how to adjust your car. Press the A Button again to go to the garage. If you don’t want to make any extra adjustments to your car, press the Start Button and begin racing.

**A WORD ABOUT QUALIFYING**

AUTO QUALIFY determines your starting position in a race. If you choose NO for the AUTO QUALIFY Mode, you must drive two qualifying laps around the track to determine your starting position. The faster you go, the closer you’ll be to the coveted pole position (inside lane of the front row). But, should you lose control and crack-up, you’ll start in the last position (not a good thing to say the least).

If you choose YES for the AUTO QUALIFY Mode, you will automatically begin the race in a position near the middle of the pack (not a true test of your racing stature). To change from YES to NO and vice versa press the A Button.
THE TRANNY

Choose your transmission by pressing the Control Pad Left or Right. On oval tracks you don’t need to shift much so you should use a manual transmission. And if you do, you must shift or you’ll blow your engine. Road courses require constant shifting so it’s best to use the automatic transmission (at least until you’ve practiced your manual shifting a bit). However, in this game the automatic transmission has less horsepower. Press the Control Pad Down to choose an engine.

THE LITTLE ENGINE THAT COULD

Drivers, before you can start your engine, you must first choose one. Press the Control Pad Right or Left to select either a Racing or Qualifying engine. The Racing engine is a workhorse built for the long haul, while the Qualifying engine is built for blistering speeds for short periods of time. The Qualifying engine does not have a cooling system (radiator or water pump). This increases horsepower to achieve the best possible time. Do not use this engine in a race because you will only get a few laps in before the engine blows. Press the Control Pad Down to adjust your spoiler angle.

TO THE VICTOR GOES THE SPOILER

The angle of the rear spoiler keeps your car in road traffic and out of air traffic (in other words, it holds the car to the ground). More angle puts more force on the car, but tends to slow it down a bit. The flatter the spoiler, the less drag you have, but your chances of spinning out increase. You can set the angle anywhere between 20° and 70°.

*Hint from Bill: The spoiler is a key factor in the car’s handling. On the ovals, your spoiler should be between 25° and 35°. On road courses, set it between 45° and 70°. If the spoiler is set right you’ll get the downforce you need without excessive drag.

Press the Control Pad Left or Right to decrease or increase the spoiler angle. Then press the Control Pad Down to adjust your gear ratio.

GET IT IN GEAR

Gear ratio refers to how many RPMs your engine is turning. If your gear ratio is too low, the engine is turning too many RPMs and could explode. If your gear ratio is too high, the engine will turn too few RPMs. As a result your car will accelerate more slowly and prevent you from reaching full power potential. Your gear ratio can be set anywhere from 2.00 to 4.57.

*A Thought from Bill: On ovals, your gear ratio should be set so that when you’re in fourth gear, you start to red-line the tachometer (the tachometer needle is pointing at the beginning of the red line). Doing this will make your car run as fast as possible. On the road courses a low gear ratio gives you the best acceleration because you don’t often run the car at top speed.

Press the Control Pad Left or Right to increase/decrease your gear ratio and press the A Button. Then press the Control Pad Down to adjust your tire stagger.
MAKE SURE YOU'RE GOOD AND TIRED BEFORE YOU BEGIN

Tire stagger is the size difference between the inside tires and the outside tires. You want to adjust the stagger in your tires to compensate for the degree of bank on individual track turns, or when your car isn't handling properly. To shoot through turns, the inside tires are usually smaller than the outside tires. Tire stagger is more important on oval tracks than it is on a road course where you're constantly turning in both directions.

Press the Control Pad Left or Right to decrease/increase tire stagger. Choose between 0 and 3.00. Remember, all four tires can be changed at your command.

*Tire Tip from Bill: You should increase tire stagger if you want to try to hold a line at slightly higher speeds.

Too much staggering and you will spin out easily. If the car is "loose" (the back end wants to come around in turns) you'll need to tighten the stagger. If the car is "pushing" (the front end is hitting the outside wall in the corners) you'll need to loosen it.

When all of your adjustments have been selected, press the A Button and your crew of mechanics will go to work. To by-pass the car mechanic set up screen, press the A Button again.

Now you're ready to race, so press the Start Button. "Prepare to Race" will flash on the screen. Press the Start Button again to start the race.

NOTE: If you need to go back to the Game Select screen press the Select Button.

PRACTICE MAKES PERFECT

In the PRACTICE Mode, Bill offers his expert advice on four different racing techniques which you can test on the track. Before you begin, he'll give you some hints, but you can speed up this sequence by holding down the A Button. Here's what you'll need to know:

Drafting

At racing speeds, the air behind a car creates a partial vacuum. By positioning your car in a vacuum behind the leader, you can keep pace with him while using less acceleration than he is (which also saves you more gas). This technique is known as drafting. Drafting can set you up for another helpful maneuver called the sling shot.

NOTE: At tracks like Daytona and Talladega, if you're not running in the draft with the lead cars, you're going to lose position and slip back in the pack.

The Sling Shot and You

Executed at the precise moment, the sling shot can propel you past another racer leaving him to eat your dust. To attempt the sling shot start drafting the car in front of you, but keep a little distance. Remember, drafting gives you an edge in acceleration over the lead car. When you're ready to sling shot, kick in that extra acceleration to whip around the left side of the lead car. If you don't have enough speed to break past him, you'll fall far behind very quickly.

This is a very difficult move. Many elements ultimately effect the outcome of the
maneuver: how strong your car is running, how the other car is running and how polished and experienced you are at making the move.

Passing
The ability to pick and choose how and when you pass a car is crucial. Obviously, you want to get around the slower cars as you move to the front. Once you’re in a position to run with the leaders, your passing becomes even more critical. You can usually pass some of the slower cars in the back of the field if you’ve set up your car correctly for the track you’re running on. Knowing where your car handles best around the track is a factor when passing. Knowing how the car in front of you is handling and the driving style of the driver is a key factor in a successful and clean pass. In some cases, it might be wise to follow a car for a lap or two in order to judge these things before you attempt to pass. A misjudged pass can result in loss of position, damage to the car, unnecessary punishment to the tires or even an accident that could put you out of the race.

Following a Line
The line refers to the actual path your car takes around the track. Now as we all know, the shortest distance between two points is a straight line. So the quickest way to get around any race track or course is to use your car’s path—or line—as straight as possible. Which means the less weavering and lateral movement the better. (During game play, a green light will appear on the dashboard if you’re running a “good line.” If you’re “off line,” the green light will change to red.) The line you follow around the track will be determined by how well the car is handling. On a Superspeedway like Daytona and Talladega, the fastest way around is on the low side through the turns [otherwise known as hugging the turns]. On a road course, if you can get through the turns quickly, you’re going to run well. All of this will be determined by your tire stagger, the spoiler angle, the gear ratio you’re running and your driving ability. That’s why practice is so important. As you practice, you may want to experiment with different tire stagger, spoiler angles and gear ratios.

*Racer’s Tip from Bill: To steer around the banks on oval tracks, tap the left side of the Control Pad quickly. The faster you go the faster you have to tap. If you’re sliding out too much, change the tire stagger or spoiler angle.

On road courses learn the course. Find out how fast you can take each corner. Avoid skidding and running off the road in the corners and you’ll be faster around the course.

Pitting
Pit strategy is a key factor in winning or losing, running well, running up front or in the back of the field. The time you spend on pit row is lost track position, so getting in and out as quickly and efficiently as possible is essential. With few exceptions, everyone will pit for gas and four fresh tires during a caution period (when you see the yellow flag). When you pit under green flag racing, getting right or left side tires and gas is the most you can do and still maintain good track position. But remember, when green flag pit stops are made, everyone will pit about the same time, so the ordering will remain about the same after all the stops, if everyone has good clean stops. On a Superspeedway, seconds lost in the pits can equal the distance of two, three, four or more football fields. With competition as tough as it is in NASCAR, that could be the difference in winning or losing a race.

A Final Lap Consideration
Because stock car racing is so competitive, you must never stop adjusting and improving your car. Testing and practicing different car setups is crucial.
A VIEW TO A THRILL
Here's a bird's-eye view of your surroundings. Study everything carefully and memorize every detail, or else!

Position Indicator
Rear View Mirror
Lap Indicator
Roof
Steering Reference Dot
Horizon
Speedometer
Road
Tachometer
Oil Pressure Gauge
Damage Light
Temperature Gauge
Gearshift and Gearbox
Fuel Gauge
Race Conditions
Fuel Warning Light
NOTE: There is an Interval Timer located to the left of the rear view mirror. This indicates your distance behind Bill Elliott and is updated with each lap completed.
A NOTE ABOUT RACE CONDITIONS

There's a flag indicator on the dash that alerts you to race conditions. The flag will change colors accordingly: Yellow means caution; White means one lap left; Green indicates normal racing conditions; Black tells you you'll be disqualified if you don't pit for repairs within a few laps; Black with a white cross means you have been disqualified, and the coveted checkered flag waves only for the winner of the race.

If your car is running low on gas or is damaged, your warning lights will blink. They'll blink faster if you do not pit to correct the situation. Don't wait until the gas light goes solid—that means you've run out of gas. And you're immediately disqualified if the damage light goes solid.

LIFE IN THE PITS

Pit stops allow you to re-fuel, change tires and tire stager, adjust the spoiler angle and repair minor damage. Your pit number equals your starting position. You must enter the pits by turning off the track into the pit lane. While racing, steer your car to the inner pit lane. This is marked by a red arrow sign and an extra lane outside of the track lane markers. At the end of the pit lane, your view will change to pit row. Once you're cruising down pit row, press the A Button to accelerate or the B Button to brake. (Shifting is automatic while driving on pit row even if you have manual transmission.) Press the Control Pad in the desired direction to steer your car and avoid crashing into other cars or those pesky pit row walls. Also, use the Control Pad to steer to the left when you find your pit area number and your pit crew (dressed in yellow). If you overrun your pit area you will have to go back onto the track and come around again.

Once you're in the pit area, you have 20 seconds (countdown timer) of "free time" to select the work you want done. During this time your position is not affected. After this initial 20 seconds, the timer will start and your position will be affected. Put your pit crew into action by pressing the Control Pad Up or Down to select your option. Pressing the Control Pad Left or Right will increase or decrease your tire stager and spoiler angle. Press the A Button to begin work. While work is being done you may select another item for the pit crew to adjust when they've finished. If you only want gas, select Gas and press the A Button. Any other option selected will automatically include gas. Once work is done, press the Start Button and you'll get an overhead view of pit row. Use your driving controls to steer out of the pits and back onto the track. If you accidentally exit the pit area to pit row, you can re-enter the pit area by pressing the Select Button.

Remember, you have two minutes to enter pit row, decide what you want done, complete the work, and get back on track. If you take longer than two minutes to leave pit row, you'll be out of the race for good.

If you only require a small amount of fuel or need to repair damage that is only minor, press the Start Button to interrupt your crew and leave the pits quicker. This is most useful towards the end of a race.

If you're involved in a crash during a long race, your car is towed to the pit and repaired. But you will have lost one lap on the rest of the field when you resume racing.

NOTE: Even with a crew of five competent mechanics at your command, the work still takes time. Pit crew choices are ranked in ascending order of time needed for execution:
- Spoiler adjustment, Refuel, Tire change — one side, Tire stager adjustment, Repair damage, Tire change — both sides.

NOTE: If you select tire stager instead of a tire change option, the crew will automatically change your right side tires.
A NASCAR GLOSSARY

aerodynamics—The study of airflow and the forces of resistance and pressure that result from air flowing over, under, and around a moving car.
dyno—Short for Dynamometer, a machine used to measure an engine's horsepower and test and monitor its overall performance.
EIRI—Stands for "except in rare instances." It is used by NASCAR to enforce its decisions when there may not be a specific rule or regulation to cover such a decision.
esses—a series of sharp left and right-hand turns on a road course.
groove—the best route around a racetrack for a particular driver. The high groove takes a car closer to the outside wall for most of a lap. The low groove takes a car closer to the apron.

handling—a car's general performance. Handling depends on tires, suspension, geometry, aerodynamics, and other factors.
Jack the Bear—a car is said to be running like Jack the Bear when it is running at optimum efficiency.
loose—a car is said to be loose when its rear wheels break away from the pavement and its rear end swings toward the outside wall. This is also called oversteer.
magnaflux—Short for magnetic particle inspection. This is a procedure for checking all steel parts of a car such as suspension pieces, connecting rods, cylinder heads, etc. for cracks and other defects. It uses a solution of metal particles and fluorescent dye and a black light. Surface cracks appear as red lines.
NASCAR—National Association of Stock Car Auto Racing, featuring regular factory cars ("stock" cars) which have been modified for auto racing.
P&G—the procedure for checking the cubic inch displacement of an engine.
pits—the area of a racetrack off the racing surface where cars stop for servicing.
pushing—When a car's front end tends to push toward the outside wall on a corner, it is said to be pushing. This is also called understeer.
ragged edge—you are driving your car on the ragged edge when you push it to its extreme limits. Going over the ragged edge can result in loss of control.
rear-steer—a car in which the steering components are located behind the front axle.
right combination—Describes why a car, team and driver have performed well or won a race. This includes factors such as engine horsepower, tire wear, weight distribution, performance of the driver on the track and the crew on pit stops.
short track—a roadway that is less than a mile long.
slick—a condition of a track which makes it difficult for the car's tires to get good traction. A slick track is not necessarily wet or slippery because of water or oil.
sling shot—When the second car in a draft suddenly steers to the left breaking the vacuum. This provides an extra burst of speed that allows the second car to pass the first.
spoiler—A metal strip that helps control airflow, downforce, and drag. There is a front spoiler under the front end of the car near the axle. The rear spoiler is attached to the trunk lid. If you add more spoiler, you increase the angle of the rear spoiler in relation to the rear window. This aids a car’s cornering ability. Less spoiler aids straightaway speed.

stagger—The difference in size between the left side and the right side tires.

stroking—A driver is said to be stroking when he lays back and isn’t aggressive. A driver may stroke in order to conserve fuel or equipment before the end of the race, or he may have enough season points that he doesn’t have to win the race.

Superspeedway—A racetrack that is a mile or longer. This includes road courses.

tri-oval—A racetrack with a fifth turn in addition to the standard four corners.

NOTE: For reference only and not all terms apply to game play.

WARNING: DO NOT USE WITH FRONT OR REAR PROJECTION TV.

Do not use a front or rear projection television with your Nintendo Entertainment System® (NES) and this video game. Your projection television screen may be permanently damaged if video games with stationary scenes or patterns are played on your projection television. Similar damage may occur if you place a video game on hold or pause. If you use your projection television with this video game, neither Konami Inc. nor Nintendo of America Inc. will be liable for any damage. This situation is not caused by a defect in the NES or this game; other fixed or repetitive images may cause similar damage to a projection television. Please contact your TV manufacturer for further information.

COMPLIANCE WITH FCC REGULATIONS

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer’s instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient the receiving antenna
- Relocate the NES with respect to the receiver
- Move the NES away from the receiver
- Plug the NES into a different outlet so that computer and receiver are on different circuits

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful: How to Identify and Resolve Radio-TV Interference Problems. This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4

Treat Your Konami Game Pak Carefully

- This Konami Game Pak is a precision-crafted device with complex electronic circuitry. Avoid subjecting it to undue shock or extremes of temperature. Never attempt to open or dismantle the Game Pak.
- Do not touch the terminal leads or allow them to come into contact with water or the game circuitry will be damaged.
- Always make sure your NES Control Deck is SWITCHED OFF when inserting the Game Pak or removing it from the NES Control Deck.