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The iCard System works with the following Nintendo GameBoy platforms:  
 • GameBoy Advance SP  
 • GameBoy Advance  
 • GameBoy Color  
 iCardUSB works with a PC and allows information to be archived for later retrieval and analysis.

Information generated by a Timing and Scoring system delivers the data to iCard for broadcast and display.

**NOTE:** Information originates with the Timing and Scoring system and is upstream and separate from the iCard system.

Congratulations on the purchase of your iCard Real-Time Race Information receiver. iCard is the first handheld wireless system designed for distribution of race timing and scoring information that provides up-to-date race information and priced for everyday use by race fans and competitors. iCard allows the user to view unofficial, real-time Timing and Scoring information on a Nintendo GameBoy display platform. Under normal use, your iCard receiver will deliver fun, enjoyment, and convenient access to unofficial but accurate and timely scoring information race after race.

**OPERATING INSTRUCTIONS (Amateur Racing Format)**

### QUICK START GUIDE

**1**

Insert iCard®, turn on GameBoy®. When iCard® screen loads press (B)

**2**

Light blinks when data is being received

"Loading Data... Please Wait" shows when at a new event.

**3 MOVING AROUND**

Use to move highlighted line up or down. Press (B) to select highlighted line.

Press to hold most recent information on screen display. Release to update display.

Return to Previous Page

Move to new page

Battery indicator: changes from green to red as battery discharges

Press to switch between channels 1 and 2

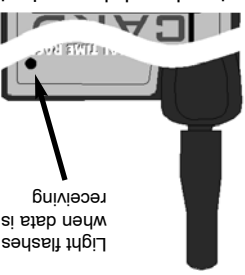
On GameBoy Advance and Advance SP models, the power LED on the GameBoy is green when the batteries are charged and red when batteries are low. Use the toggle to select the far left cursor and then press B button.

This menu pops onto the screen with four options: is handy anytime you want to return directly to the main menu. To do this, press the START button. There is a "hidden feature" on GameBoys that use the Leaderboard screen.



To view results of more than one competitor at a time use the Leaderboard screen. To view results of more than one competitor at a time use the Leaderboard screen. To view results of more than one competitor at a time use the Leaderboard screen. To view results of more than one competitor at a time use the Leaderboard screen.

Start button while holding down the Select button. Start button while holding down the Select button. Start button while holding down the Select button. Start button while holding down the Select button.

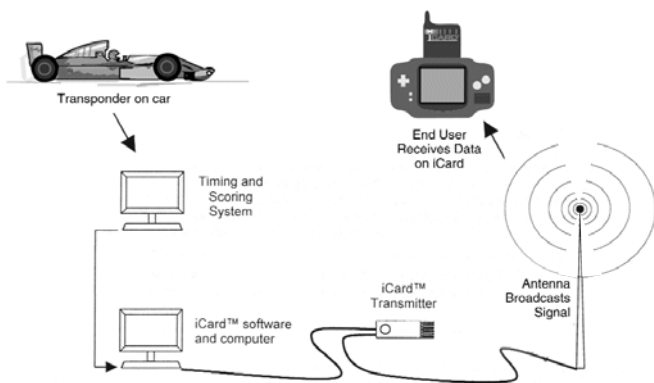


With the GameBoy power turned OFF, insert your iCard snugly into the cartridge slot. Turn the GameBoy ON then press START. The GameBoy logo should first appear followed shortly by the iCard welcome screen. Press the GameBoy START, A, or B to move to the race information display.

**GETTING STARTED**

TROUBLESHOOTING		
Trouble	Possible Cause	Remedy
Screen disappears	Low batteries	Check batteries and replace if needed Recharge batteries (IF rechargeable)
Data Missing	Sporadic reception	Hold unit so antenna is vertically oriented; move to a location where signal LED pulses on and off
Cars show up more than once on screen	Sporadic reception	Hold unit so antenna is vertically oriented and wait for iCard to receive update  Move to a location where signal LED pulses and wait for iCard to receive update
Display information is nonsense	Information from T&S system is abnormal  iCard is not properly seated in the GameBoy game slot	Correct T&S output  Turn GameBoy off, reset iCard, and restart
Lap time for a competitor is not shown but others are	Transponder on car is missing or not working  Data input to T&S system is incomplete	Install, repair, or replace transponder
Race Order is Wrong	Sporadic reception	Hold unit so that antenna is vertically oriented and wait for iCard to receive update  Move to a location where signal LED pulses and wait for iCard to receive update
Unit will not display anything but GameBoy is otherwise working	iCard cartridge not properly seated in GameBoy	Turn off, reset cartridge, and turn on GameBoy
Race results disappear from leaderboard once the race is over	T&S Administrator has begun the next race on the event schedule	View the final leaderboard standings from the Previous Session menu

## HOW iCard® WORKS



### The iCard® system consists of the following components:

- The iCard® software program that receives the Timing and Scoring information and prepares it for broadcast
- iCard® transmitter and antenna that sends the iCard® broadcast
- iCard® receivers that receive and decipher the iCard® broadcast for display on a Nintendo® GameBoy®

**NOTE:** Power for your iCard® receiver comes from your Nintendo® GameBoy®. There are no batteries to replace in your iCard®.

The iCard® system must be connected to an automated Timing and Scoring (T&S) system to receive information for transmission to your iCard®.

The T&S system consists of a transponder that is attached to each car and transmits a unique “signature” such that each time the transponder passes over a timing loop (typically buried underneath the track starting line) a signal is sent to the T&S computer indicating that the car has passed the timing loop.

**NOTE:** A change in car position is not detected and has not technically occurred until the cars cross the start/finish line. As a result, T&S and iCard® information changes and updates only when competitors cross the start/finish line.

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## iCard® DISPLAYS

### Current Session

The T&S system calculates competitor results differently depending on the session currently scored.

**NOTE:** Display information described below is the default display information in the iCard® transmission software. The Timing and Scoring operator has the ability to customize and change the transmitted and displayed information. As a result, the information on your display may be different from that described below.

- **Practice and Qualifying Sessions:** Competitor position is arranged with the fastest single lap by a competitor within an entire session determining that competitor’s rank among in the field.

– Default Display Information:

Leaderboard: overall rank/car no./competition class/last lap time  
Class Page: rank in class/competition class/best lap

Once a session is complete and after the T&S Administrator begins a new session, the final standings of the existing session are moved to the class pages and remain accessible from the main menu.

- **Race:** Competitor position is arranged in order of current track position. When a competitor is less than a lap behind the leader, the gap is displayed in seconds, or minutes and seconds (X.XXX seconds or X:XX minutes and seconds).

– Default Display Information:

Leaderboard: overall rank/car no./competition class/last lap time  
Class Page: class rank/competition class/class leader lap no. or gap between each competitor

Once a session is complete, “checker flag” is selected within the T&S system, and the session is “Stopped” in Orbits (or Chronx), the final standings of the existing session are moved to the “Previous Session” page and accessible from the main menu.

### Previous Session

This page displays the final results of the session immediately preceding that which is currently displayed on the leaderboard page.

### Scrolling Message Updates

Scrolling message updates are generated by manual input or automatically by the iCard® operating software. Messages are automatically generated when one of the top three positions change within a racing class. Manual updates may be displayed when the T&S operator types in a message.

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The T&S computer then calculates the time, matches the transponder signal with a competitor name and car number, and records the result lap after lap. The T&S computer, as a normal part of its operating function, generates an output stream of messages that the iCard® computer program receives.

Consequently, the iCard® system passes information from the T&S system to your handheld iCard®.

**NOTE:** The completeness and accuracy of the information displayed on the iCard® system is largely determined by the completeness and accuracy of the information generated from the T&S system.

As described above, iCard® accepts information from the Timing and Scoring (T&S) system and broadcasts it so that it is displayed on the iCard® receiver.

The iCard® system transmits information very fast, however, at the start of a race a huge volume of data must be initially sent and during these periods information is transmitted in prioritized batches. Priority is set and fixed in this order:

- Leaderboard information
- Scrolling message updates
- Menu, Previous Results, and information other than timing results

As a result, in events featuring 30 or more competitors the scrolling message updates and archived broadcast elements may be delayed so rapidly changing leaderboard information may remain current.

In order to display up-to-date information, your iCard® receiver must be receiving the broadcast signal. Signal quality depends on how far the receiver is from the transmitting antenna, whether or not there are structures between the receiver and antenna, and the orientation of the iCard® unit itself.

**NOTE:** For best signal reception hold the iCard® unit so that the antenna is either pointed up or pointed down. This may only be important when reception is weak.

**No race information is official until the results have been approved by the race stewards. iCard® information is not official and final results may change from that which is broadcast during or after a race.**

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## LIMITED WARRANTY

SPP Services, LLC (“SPP”) warrants this Product against defects in material or workmanship as follows:

**LABOR:** For a period of one (1) year from the date of purchase, if this Product is determined to be defective, SPP will repair or replace the Product, at its option, at no charge. After the Warranty Period, you must pay for all repair or replacement.

**PARTS:** In addition, SPP will supply, at no charge, new or rebuilt replacements in exchange for defective parts for a period of one (1) year. After the warranty period, you must pay for all parts costs.

To obtain warranty service, you must send the Product, or deliver the Product freight prepaid, in packaging affording a reasonable degree of protection to:

SPP Services, LLC  
3470 Haddon Hall Drive  
Buford, GA 30519

This warranty does not cover customer instruction, installation, set up adjustments or signal reception problems.

This warranty does not cover cosmetic damage or damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or modification of, or to any part of the Product, including the antenna. This warranty does not cover damage due to improper operation or maintenance, connection to improper power supply, or attempted repair by anyone other than SPP. This warranty does not cover Products sold AS IS or With ALL FAULTS, or display hardware (such as Nintendo® GameBoy®s). This warranty is valid only in the United States.

Proof of purchase in the form of a bill of sale or receipted invoice which is evidence that the unit is within the Warranty period must be presented to obtain warranty service.

This warranty is invalid if the serial number has been altered or removed from the Product.

REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE CONSUMER. SPP SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THIS PRODUCT. EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THIS PRODUCT IS LIMITED IN DURATION TO THE DURATION OF THIS WARRANTY.

Some states do not allow the exclusion or limitation of incidental or consequential damages, or allow limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may have other rights which vary from state to state.

For services assistance or resolution of a service problem, or for product information or operation, contact SPP at [www.iCardUS.com](http://www.iCardUS.com).

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