

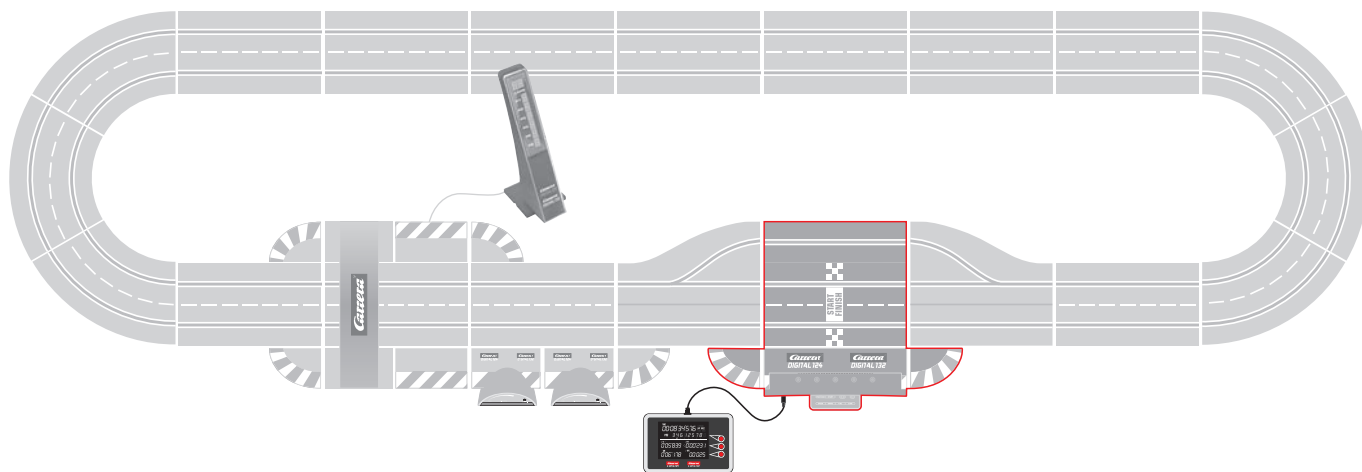
**Carrera**<sup>®</sup>  
**DIGITAL 124**

**Carrera**<sup>®</sup>  
**DIGITAL 132**

## 20030355 LAP COUNTER

- D** Montage- und Betriebsanleitung
- GB USA** Assembly and operating instructions
- F** Instructions de montage et d'utilisation
- E** Instrucciones de uso y montaje
- P** Instruções de montagem e modo de utilização
- I** Istruzioni per il montaggio e l'uso
- NL** Montage- en gebruiksaanwijzing
- S** Monterings- och bruksanvisning
- FIN** Asennus- ja käyttöohjeet
- N** Montajse- og bruksanvisning
- H** Ósszeszerelési és használati útmutató
- PL** Instrukcja obsługi i montażu
- SK** Návod na montáž a pre prevádzku
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- BG** Ръководство за монтаж и експлоатация
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- RO** Instrucțiuni de montaj și de utilizare
- DK** Monterings- og driftsvejledning
- RC** 安装和使用说明
- J** 取扱説明書
- ROK** 조립과 작동 방법
- Arabic** إرشادات التركيب و الاستخدام
- TR** Montaj ve işletme kılavuzu
- RUS** Инструкция по монтажу и эксплуатации

Aufbauvorschlag · Assembly proposal · Suggestion de montage · Propuesta de montaje  
Sugestão de montagem · Suggerimento per il montaggio · Opbouwvoorstel · Monteringsförslag  
Kokoamisedotus · Oppbyggningsforslag · Felépítési javaslat · Propozycja montażu  
Návrh postavenia · Návrh na uspořádání · Предложение за монтаж · Πρόταση σύνδεσης  
Propunere de asamblare · Oppbyggningsforslag · 建造指南 · 組立方法 · 조립방법  
إرشادات البناء والتركيب · Kurma önerisi · Предложение по монтажу



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## Welcome

Welcome to the Team Carrera!  
The operating instructions contain important information regarding setting up and operating your Carrera DIGITAL 124/132 electronic Lap Counter. Please read them carefully and keep them in a safe place afterwards.  
If you have any queries, please do not hesitate to contact our distributor or visit our websites:  
**carrera-toys.com**

Please check the contents for completeness and possible transport damage. The packaging contains important information and should also be retained.

Please note that the electronic Lap Counter will only function in conjunction with the 20030352 Carrera DIGITAL 124/132 Control Unit. The Lap Counter can be used for Carrera DIGITAL 124/132 cars.

Should you need information on operating the 20030352 Carrera DIGITAL 124/132 Control Unit, please refer to the operating instructions for the Control Unit.

We hope you will have a lot of pleasure with your Carrera DIGITAL 124/132 electronic Lap Counter.

## Safety instructions

**WARNING!** Not suitable for children under 36 months. Danger of suffocation due to small parts which may be swallowed. Warning: risk of pinching caused by function.

Regularly check the track and cars for damage to cables, plugs and housings! Replace defective parts.

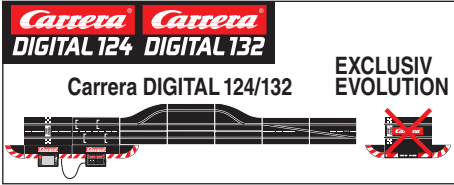
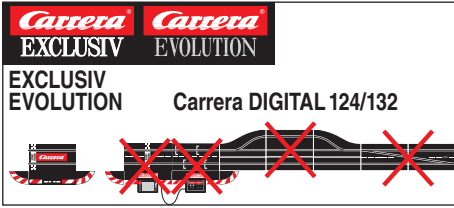
The car racetrack is not suitable for outdoor operation or operation in wet locations! Keep away from liquids.

Do not place any metal parts onto the track to avoid short-circuits. Do not place the track in the immediate vicinity of delicate objects, as these could be damaged by cars hurled from the track.

Pull the plug before cleaning the racetrack! Only use a damp cloth for cleaning, no solvents or chemicals. When it is not in use, store the track in a dry and dust-protected location, preferably in the original cardboard box.

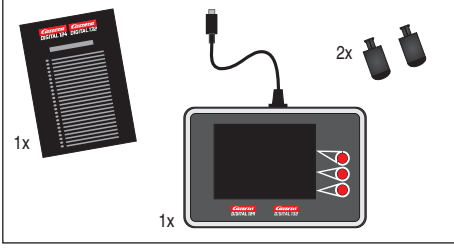
Do not operate race track at face- or eye-level – risk of injury due to cars being catapulted off the track.

## Important information



Please note that Exklusiv/Evolution (analog system) and Carrera DIGITAL 124/132 (digital system) involve two separate and completely independent systems. We hereby expressly indicate that both systems must be kept separate when setting up the track, i.e. no connecting rail from Exklusiv/Evolution may be used together with the connecting rail and Black Box of the Carrera DIGITAL 124/132, even if only one of the two connecting rails (Exklusiv/Evolution connecting rail or Carrera DIGITAL 124/132 connecting rail and Black Box) is attached to the current supply. Furthermore, no other Carrera DIGITAL 124/132 components (switches, electronic lap counter, pit stop) may be built into an Exklusiv/Evolution course, i.e. via analog operation.  
Non-compliance with the above information may result in damage or destruction of the respective Carrera DIGITAL 124/132 components. In this case no warranty may be claimed.

## Contents of package



- 1 Lap Counter including connection cable
- 2 Feet
- 1 Instructions

Please check the contents for completeness and possible transport damage. The packaging contains important information and should also be retained.

## Description

The Lap Counter 20030355 is exclusively for use with the Control Unit 20030352 and makes lap counting and time recording possible for up to 8 vehicles of which 6 may be actively controlled. Autonomous Car and Pace Car can be shown in addition.

**Note:** when several autonomous cars are running, they will all be counted together at position 7 and all pace cars together at position 8.

When the Pit Lane 20030356 is used, lap counting and time recording can also be done in the Pit Lane. For further information on this, see also operating instructions for the Control Unit 20030352.

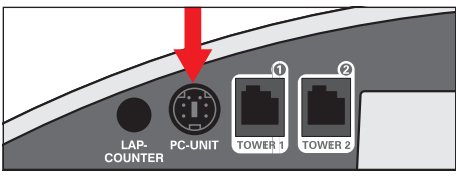
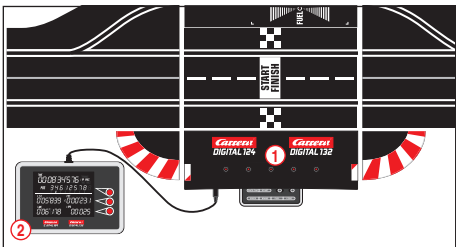
- Factor settings:
- Lap races = 50
  - Time races = 5 minutes
  - Contrast = 20
  - Brightness = 20

## Functions

- Training mode
- Lap races max. 9999
- Time races max. 49:59'59"
- F1 or slot mode selectable for the end of the race
- Position indicator on the display

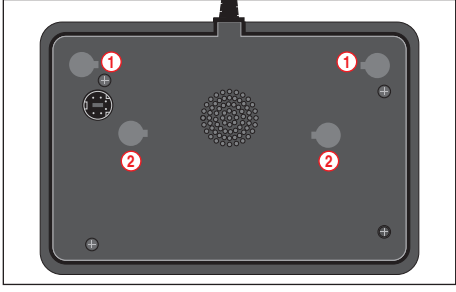
The Lap Counter has a memory function. As soon as the factory settings are altered, the new values are retained until they in turn are reset.

## Connection



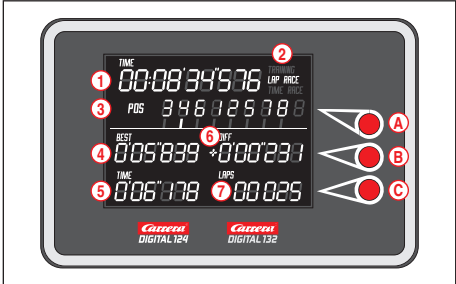
No special track section is required for the Lap Counter ②. The unit is connected directly to the socket "PC UNIT" on the Control Unit ① and it is immediately ready for operation.

## Setting up the Lap Counter



The slots for fitting the feet are located on the rear of the casing. According to how you want to set them, they can be placed in position ① or ②. To fit the feet, push them fully into the slots until they latch in place. To remove the feet, simply pull them out of the slots.

## Display summary



- ① Complete display
- ② Race mode
- ③ Position indicator
- ④ Fastest lap time
- ⑤ Previous lap time
- ⑥ Distance behind the leader
- ⑦ Number of laps completed
- A - C operating keys

## Preparation of start

Before the Lap Counter is used, all vehicles must be coded. To code the individual vehicles, refer to the operating instructions for the Control Unit.

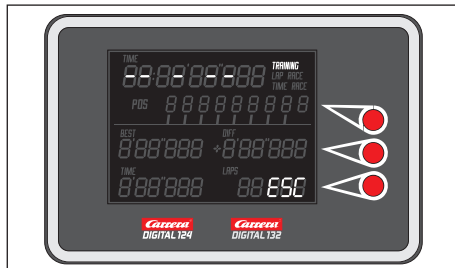
## False start

If the hand controller of a car is moved during the starting lights phase, this will be treated as a false start. The vehicle causing the false start moves forwards a short distance and the LED on the respective car/hand controller flashes. The race or training will not be given the „all clear“ and the starting procedure must be repeated.

## Training mode

The training mode is used for training and for determining the grid position for the race; it can be started without lap or time settings. For setting the training mode, proceed as follows:

1. Switch the Control Unit on with the ON/OFF switch.
2. After about a second, the middle LED on the Control Unit will light continuously and a short acoustic signal is given.
3. The Carrera DIGITAL 124/132 electronic Lap Counter switches automatically into training mode.



4. Press once on the start key on the Control Unit - all LEDs will light up continuously.
5. Place the vehicle(s) already coded on the connecting track section.
6. Then press the start key once again and the starting sequence is initiated, LEDs light up and acoustic signals are given.
7. The training session begins on completion of the start sequence and the overall time ("TIME") begins to count down.

During and after a training session, you can switch over to the individual cars by pressing **key A**. In the position indicator a vertical line will now be shown under the car selected. The following details will then be shown for the respective car on the display:

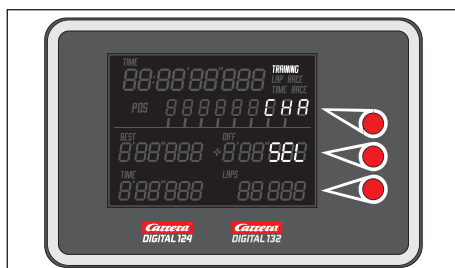
- fastest lap time
- time of the last lap
- distance behind the leading vehicle in time and in laps
- number of laps completed.

To finish the training session press **key C** ("ESC") once while the cars are running. To return to the main menu, **key C** ("ESC") must now be pressed once again.

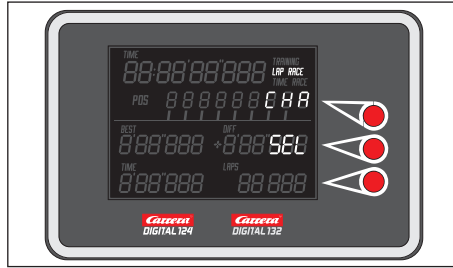
**Note:**  
when the training mode is ended, all data are lost. Individual lap times of over 09:59:999 cannot be shown in the display.

## Lap Races

To set up a lap race, press **key C** ("ESC") in the main menu. The display will now switch to selection mode.

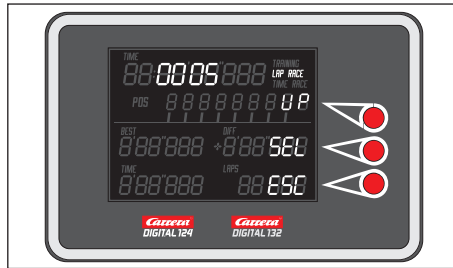


The word "TRAINING" will flash and the letters "CHA" for change and "SEL" for select will be shown on the display. The mode is changed by repeatedly pressing **key A** ("CHA") until "LAP RACE" flashes.

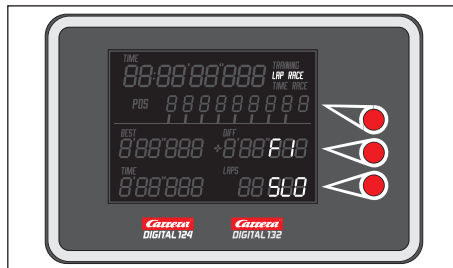


The selection is confirmed by pressing **key B** ("SEL") and you are taken to the next input.

In the next step, the number of laps will be selected. Basically the unit is selected first, then the "tens", then the "100s" and finally the "1000s" - the respective figure in the display will flash. To increase the number, press **key A** ("UP"). To move on to the next figure, press **key B** ("SEL") and set the value as described above. If the number of laps previously set is not to be changed, confirm by pressing the **key B** ("SEL") until the lap number display disappears.



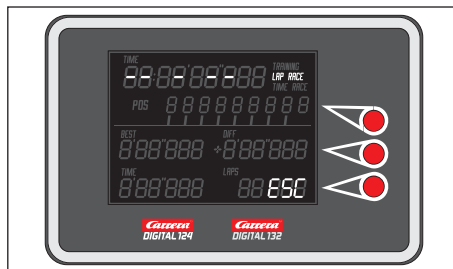
Once you have set the number of laps, you must next specify the mode for the end of the race. Use the respective key to select either "F1" or "SLOT".



**F1 mode**  
After the leading car has completed the prescribed number of laps, for the remaining cars only the current lap will be registered.

**Slot mode**  
All cars must complete the prescribed number of laps before the race is finished.

Once the mode is selected the display switches over to "Ready" mode and waits for the start signal.



Press once on the start key on the Control Unit and place the vehicles on the connecting track section. Then press the start key once again. The starting sequence is initiated, and the time on the Lap Counter starts to run.

During and after a lap race you can switch over to the individual cars by pressing **key A**. In the position indicator a vertical line will now be shown under the car selected. The following details will then be shown for the respective car on the display:

- fastest lap time
- time of the last lap
- distance behind the leading vehicle in time and in laps
- number of laps completed.

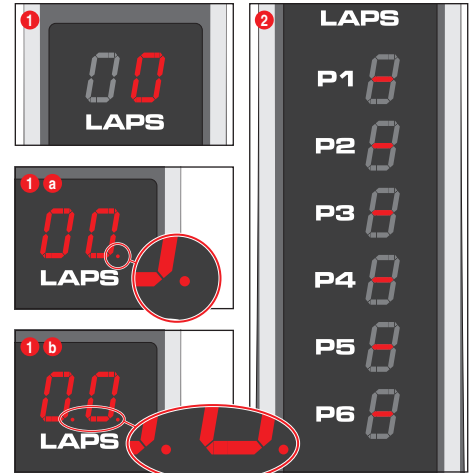
When a car has finished the race, this is shown in the corresponding position by flashing on the display. At the end of the race an acoustic signal is given and the display indicator starts to flash.

To stop a lap race which is in progress, press **key C** ("ESC") while cars are running.

## Display - lap race Position Tower

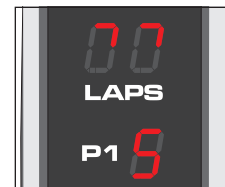
When the Lap Counter is used in conjunction with the Position Tower 20030357, the number of laps set is shown in the uppermost display segment. During the race this will count down to zero, until the race is finished by the leading car.

The two-position lap indicator can show a maximum of 250 laps using the display segment. The "hundreds" positions are represented by the dots at the bottom right in the respective segment.



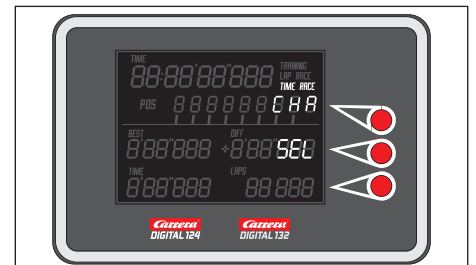
- 1 Two-digit LED-segment display to indicate the number of laps
  - 1 a Display 100 laps
  - 1 b Display 200 laps
- 2 One-digit LED-segment display to indicate race position of 6 cars maximum

When a number of laps in excess of 250 is set, two ticks are shown in the upper display segment. The display only starts to count down to zero when there are 250 laps left to run.

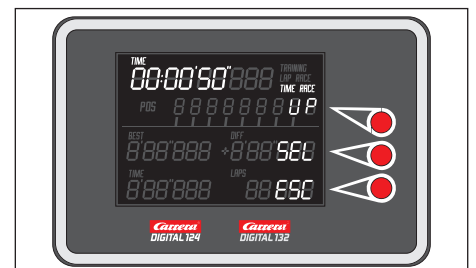


## Time Racing

To set up a time race, press **key C** ("ESC") in the main menu. The display will now switch to selection mode. The mode is changed by repeatedly pressing **key A** ("CHA") until "TIME RACE" flashes in the display.



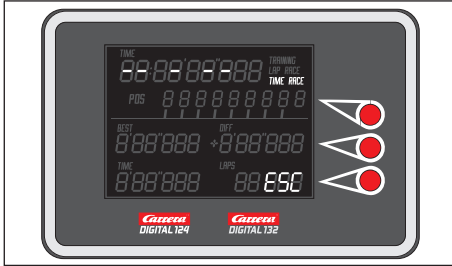
Confirm the selection by pressing **key B** ("SEL") to go to the time input.





After this selection the seconds field will flash. Basically the seconds are selected first, then the minutes and finally the hours - the display cursor will flash in the respective field. To increase the number, press **key A** ("UP"). To move on to the next field, press **key B** ("SEL") and set the desired time as described above. If the previously-set race time is not to be changed, confirm by repeatedly pressing the **key B** ("SEL") until the time display disappears.

Once the time is input the display switches over to "Ready" mode and waits for the start signal.



Press once on the "START" key on the Control Unit and place the vehicles on the connecting track section. Then press the start key once again. The starting sequence is initiated, and the overall time on the Lap Counter starts to count down.

During and after a time race you can switch over to the individual cars by pressing **key A**. In the position indicator a vertical line will now be shown under the car selected. The following details will then be shown for the respective car on the display:

- fastest lap time
- time of the last lap
- distance behind the leading vehicle in time and in laps
- number of laps completed.

When the overall time has elapsed, the race is over and an acoustic signal will be given and the positions of all cars will flash on the display. In the uppermost line "TIME" the overall time of the leading car will be shown.

To stop a time race which is in progress, press **key C** ("ESC") once while cars are running.

### Display - time race Position Tower

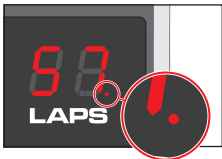
When the Lap Counter is used in conjunction with the Position Tower 20030357, the time still to run is shown in the uppermost display segment. During the race this will count down to zero, until the race is finished by the leading car.

For a time race, a maximum time of 49:59'59" can be set. The hours are signalled by two dots in the display segment. When the hours have elapsed the minutes remaining are shown by the dot in the right-hand display segment. At the start of the final minute of the race, the display starts to count down to zero in seconds without a dot.

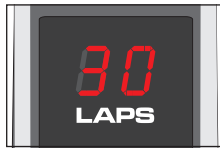
#### Hour indicator



#### Minute indicator



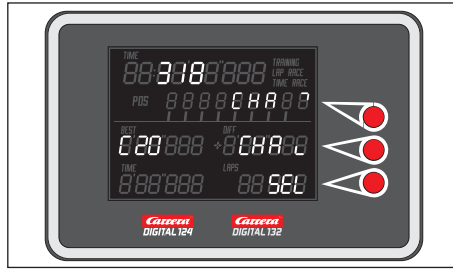
#### Second indicator



### Display settings

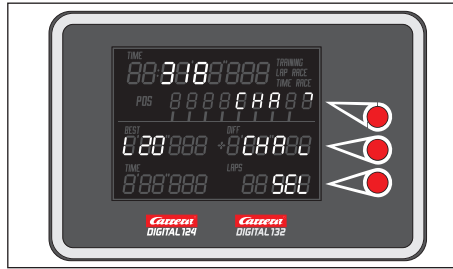
To improve legibility, the **contrast** of the display can be adjusted in 20 steps. For this, switch off the Control Unit. Now, while switching on the Control Unit, hold **key A** down until the indicator display changes to match the corresponding illustration. The uppermost line then shows the respective software version.

The contrast of the display can be altered in max. 20 steps by using "CHA 1" and "CHA L". To store the value selected, press **key C** ("SEL").



To improve legibility, the background brightness of the display can be adjusted in 20 steps. For this, switch off the Control Unit. Now, while switching on the Control Unit, hold **key C** ("ESC") down until the indicator display changes to match the corresponding illustration. The uppermost line then shows the respective software version.

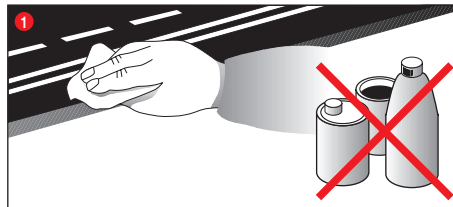
The background brightness of the display can be altered in max. 20 steps by using "CHA 1" and "CHA L". To store the value selected, press **key C** ("SEL").



### Reset function

To reset all Lap Counter settings, while switching on the Control Unit, hold down **key B** of the Lap Counter. Hold the key down until the training display reappears. All data will then be reset to the factory settings. (see description)

### Maintenance and care



To ensure a proper operation of the motor-racing circuit, all race-track components should be regularly cleaned. Pull the plug prior to cleaning.

1. **Racetrack:** Keep the track surface and track slots clean with a dry cloth. Do not use any solvents or chemicals for cleaning. When it is not in use, store the racetrack in a clean and dust-protected location, preferably in the original cardboard box.

### Troubleshooting Driving tips

#### Troubleshooting:

- In case of any malfunctions, please check the following:
- Has the connection to the power supply been established correctly?
  - Have transformer and speed controllers been connected correctly?
  - Are the track connections faultless?
  - Are the racetrack and track slots clean and free of any foreign objects?
  - Are the sliding contacts in order and do they make contact with the track slot?
  - Are the cars correctly coded to the according speed controller?
  - The track's current feed will be switched off automatically for 5 seconds, if there is an electrical short circuit: this will be notified by audible and visual signals.
  - Are the cars placed on the track in running direction? In case of non-functioning push the running direction switch which is on the car's bottom.

#### Note:

During operation small car parts as spoilers or mirrors may get off or brake due to being original detailed parts of the car model. To avoid this it is possible to remove them before operation.

#### Driving technique:

- You can drive fast along the straight track but you should brake before the curve and then accelerate again when coming out of the curve.
- Do not fasten or block the vehicles when the motor is running: overheating or damage to the motor could result otherwise.

**Note:** When using track systems which are not manufactured by Carrera the existing guide keel has to be replaced by the special guide keel (#20085309). While using the Carrera crossing (#20020587) or high banked curve 1/30° (#20020574) slight driving noise might occur which is due to the full-scale genuineness and does not affect flawless operation.

All Carrera spare parts are available in the webshop: [carrera-toys.com](http://carrera-toys.com)  
Delivery exclusively to Germany, Austria, Netherlands, Belgium and Luxembourg.

### Technical specifications

#### GB Output voltage: Toy transformer

- 18 V --- 54 VA (Carrera DIGITAL 124)
- 14,8 V --- 51,8 VA (Carrera DIGITAL 132)

#### Electricity modes:

- 1.) Operating mode = cars are operated via speed controllers
- 2.) Idle mode = speed controllers not activated, no game
- 3.) Stand-by mode = after approx. 20 minutes idle mode the connecting section switches to stand-by mode. LED flashes at long intervals. **CURRENT CONSUMPTION < 0,5 watt / 0,5w**  
By operating the speed controller the stand-by mode is finished, the racetrack returns to idle-mode again.
- 4.) Off-state = power supply unit disconnected from mains supply



This device is marked by "selective sort through" symbol related to sort through domestic, electric and electronic, waste. This means the product must be treated by a specialized "sorting/collecting" system in accordance with European directive 2002/96/CE, to reduce the impact upon environment. For more precise information, please contact your local administration. Electrical product which are not going through special collecting, are potentially dangerous for environment and human health, because of dangerous substance.

#### USA Output voltage: Toy transformer

- 18 V --- 54 VA (Carrera DIGITAL 124)
- 14,8 V --- 51,8 VA (Carrera DIGITAL 132)

#### Electricity modes:

- 1.) Operating mode = cars are operated via speed controllers
- 2.) Idle mode = speed controllers not activated, no game
- 3.) Stand-by mode = after approx. 20 minutes idle mode the connecting section switches to stand-by mode. LED flashes at long intervals. **CURRENT CONSUMPTION < 0,5 watt / 0,5w**  
By operating the speed controller the stand-by mode is finished, the racetrack returns to idle-mode again.
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Conforms to the safety requirements of ASTM F963.



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