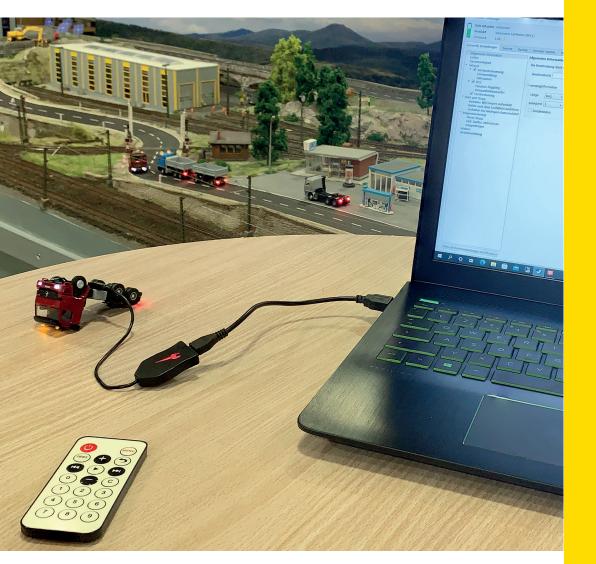


# CarManager







User guide

Innovation, die bewegt!

# **1. General information**

The CarMotion vehicles can be configured using the programming device (item 8401), in combination with the CarManager software that can be downloaded for free from our website. The remote control (item 8402) can also be used to a certain extent. You will need a terminal with a USB connection and either Windows or MacOS software.

Before making any significant changes to your vehicle settings, we recommend that you create a data backup. This will enable you to return to this version at any time.

Visit our website (www.viessmann-modell.com/carmotion/) to obtain the latest software versions for your vehicles and the CarManager. Once connected to the internet, the CarManager software checks for updates and refers you to the update page.

Note: The software does not update automatically. Updates must be downloaded and installed manually.

To download the latest version of the USB driver for your software, visit: https://www.silabs.com/developers/ usb-to-uart-bridge-vcp-drivers?tab=downloads.

#### **1.1 System requirements**

Your system must meet the following requirements:

Free hard drive space: 100 MB

Software: Windows 7 / MacOS X 10.11 or higher

## **2. Introduction**

With the Viessmann programming device (item 8401) and the CarManager software, you can customize your Viessmann CarMotion vehicle to suit your layout

The CarManager offers a variety of setting options to configure the basic functions of your vehicle and specific operational scenarios. You can give control commands for a specific time, a specific distance, or both. You can also update your vehicle with the latest software versions

We highly recommend that you read this user manual carefully to familiarize yourself with the functionality and the range of setting options

Open the CarManager app and connect the programming device (item 8401) to your terminal. The USB adapter should be recognized automatically. If the programming device is not recognized, you need to install the required driver (see Chapter 1).

Connect the vehicle to the programming device via the six-pole connection socket, as shown in the vehicle's manual. If the vehicle does not switch on automatically, use the magnetic bar attached to the vehicle to turn it on. When you turn on the vehicle, the motor stops automatically. However, you can still control all other functions using the remote control (item 8402). This will help you to familiarize yourself with the handling of the remote control (range and control of the vehicle's functions).

When the programming device and vehicle are properly connected, the main screen is displayed (Figure 1), showing the item number for the connected vehicle.

**Note:** All options in the CarManager are further explained by tooltips. To activate, move the mouse cursor over an entry field. A text field with further explanations will open up.

F	Viessmann CarMan	ager					
	USB adapter Product Firmware		n CarMotio	n (8011)			
	General settings	Service	Backup	Update	decoder	Info	
	General info Lights				eneral info		ony for information purposes, has no offer

## 3. Menu overview

This user manual is designed to familiarize you with the numerous setting options for your vehicles. This will allow you to adjust them to the characteristics of your layout and the planned operation.

**General information:** In this section, you can assign a description or further specifications to the vehicle. This subject is explained in more detail in Chapter 4.1.0.

Lights: This section allows you to configure the light functions and brightness of your vehicle's lights.

**Speed:** This section enables you to set the basic speed, as well as the acceleration and deceleration rate of your vehicle.

**Infrared:** In this section, you can choose from a wide range of configurations that allow you to realize your personal ideas and take into account the specific characteristics of your layout. For example, layouts depicting urban traffic will require somewhat different configurations than layouts showing rural landscapes. A multitude of configurations are available for you to not only implement your personal preferences but also to respond to the circumstances of your CarMotion system. For instance, systems that depict urban traffic require slightly different settings than those depicting rural landscapes. This chapter also covers functionalities intended for other car systems. Additionally, the functionality of the remote control, Art. 8402, is explained.

Start and Stop: In this chapter the start and stop behaviour of the vehicle is explained.

**Magnetic control:** This chapter explains how the magnet sequences in the CarMotion system interact with the vehicle and the various options available to the user. One of these options is the ability to set the vehicle to start moving slowly and come to a smooth stop

**Macros:** This chapter contains a description of additional commands that can be activated by passing over magnet sequences, using infrared transmitters, or by meeting specific conditions.

**Direct configurations:** Just like on your model railway, you can directly access and modify configuration variables (CVs) according to your preferences. These CVs are numbered consecutively and come with a brief explanation when selected.

# 4. Menus

In the following chapters you will find the different setting options of the CarManager software described in detail.

#### 4.1 General information

You can give your vehicle an individual name in the "Description" text field. This is useful when you have multiple vehicles of the same type (fig. 2). You can also assign a value to the vehicle in the "Vehicle information" box (fig. 3). This is especially helpful when using external modules that process information about vehicle length. We recommend using the following categorization for road clearance and turning radius:

- Value 0: passenger cars or very short trucks (such as items 8010, 8011, 8030)
- Value 1: longer trucks, trucks with semitrailers or buses
- Value 2: trucks with a long trailer
- Wert 3: special purpose vehicles with an excess length

**Note:** "Very Short Trucks" are vehicles that can navigate curves with the same minimum radius as passenger cars.

ar <b>Fig:</b> <sup>Mo</sup> <b>2</b> <sup>on</sup> (8011)						
e Backup	Upd	ate decoder	Info			
		General info	)			
		ony for information purposes, has no effect on the controlling or the behaviour of the vehicle.				
		Vehicle inf	ormatio	1		

Fig. 3 ive cruise control ning lanes	Description Vehicle information			
on mapping atibility mode	Length short 💌	The vehicle information can be used for controlling by		
te control p during long stop	Category 1 -	external modules. They don't have a direct effect on the functioning of the		

Organizing vehicles into "categories" can be useful when sending specific control commands to individual vehicles through external modules. Up to 8 categories can be created (fig. 4).

Fig. 4 ive cruise control ning lanes	Description Vehicle information	
on mapping atibility mode te control	Length short -	The vehicle information can be used for controlling by
p during long stop	Category 1	external modules. They don't have a direct effect on the functioning of the

The "special status" checkbox is used to distinguish a vehicle from others (as shown in fig. 5). By selecting this option, the vehicle may be granted certain privileges, such as the ability to pass through red traffic lights Please note that selecting a specific vehicle length, category, or assigning a special status will not affect the driving behavior of the vehicle.

ni <b>līgig. 5</b> Ianes	Vehicle information	
on mapping atibility mode te control p during long stop ommand after departure	Length short • Category 1 • special status	The vehicle information can be used for controlling by external modules. They don't have a direct effect on the functioning of the vehicle itself.
on low battery		

# 4.2 Lights

In this menu, you can choose which lights you want to turn on when the vehicle is powered on. You can adjust the brightness of each light using the sliders. If your vehicle has roof warning lights, you can also select the type of beacon you want to use. You can see all the light functions and brightness levels directly on the vehicle, so you can customize them to your liking (see figure 6).

Note: If you choose a higher brightness setting for the lights on your vehicle, the battery life will be shorter

# 4.3 Speed

In this section, you have the ability to adjust three crucial speed parameters. Firstly, you can set the default speed, which indicates the maximum speed the vehicle can achieve, along with its acceleration and deceleration rates (refer to Figure 7.

eneral settings Service Backup Up	odate decoder Info	
General info	Lights	
Lights		
Speed	Default lights	Brightness of lights
<ul> <li>Infrared</li> <li>Adaptive cruise control</li> </ul>	✓ Head- and taillights	Headlights, low beam
Finetuning Traffic lanes	✓ High beam	Headlights, high beam
<ul> <li>DCC</li> <li>Function mapping</li> </ul>	Roof beacons	Brake lights, driving
Compatibility mode	Turn signals, left	Brake lights, braking
<ul> <li>Remote control</li> <li>Start and Stop</li> </ul>	Turn signals, right	Turn signals
Behaviour during long stop Execute command after departure	Roof beacon type fading,	, faster (simulating a rotating beacon)

**Note:** If you use the remote control (item 8402) to adjust the speed of your vehicle, the default speed will also be affected

The acceleration rate refers to how fast the vehicle's speed increases per second, measured in kilometers per hour. If the default setting of 10 is selected, the vehicle will take approximately 6 seconds to accelerate from 0 to 60 km/h. **Note:** To achieve a more realistic and diverse driving experience, it is recommended to increase the acceleration rates for vehicles without semi-trailers or trailers.

**Deceleration rate:** The deceleration rate is calculated in a similar way, but only applies when the vehicle can brake freely. For instance, a vehicle traveling at 60 km/h will decelerate at the default rate of 15 km/h per second and come to a complete stop within 4 seconds. At 30 km/h and the same deceleration rate, the vehicle will stop within 2 seconds

The rate at which the vehicle slows down can be adjusted in this section, and it will be utilized when you decrease the speed of the vehicle through the remote control or when it is impacted by a magnet sequence, such as S S N, which could indicate entry into a speed-restricted area with a limit of 30 km/h.

It is important to note that this deceleration rate does not affect the behavior of the vehicle's distance control functions, nor does it have an impact when the vehicle slows down at a stop point. In these instances, the deceleration rate is automatically and dynamically adjusted to allow the vehicle to slow down in response to the distance. This setting is saved in the vehicle's software..

Eig 7	
Fig. 7 Viessmann CarManager	- 0
USB adapter connected Product Viessmann CarM Firmware 1.02 General settings Service Backu	● State Englis
General info Lights Speed ▼ Infrared ▼ ✓ Adaptive cruise control Finetuning Traffic lanes ▼ ✓ DCC Function mapping Compatibility mode ✓ Remote control * Start and Stop Behaviour during long stop Execute command after depa Behaviour on low battery * Magnetic control North: Stop South: Smooth braking Magnetic sequences Macros Direct configuration	Speed         Default speed

### 4.4 Infrared

The infrared system on Viessmann CarMotion vehicles is expertly calibrated to deliver an aesthetically pleasing driving experience. The vehicle's infrared receivers are situated beneath the front bumper (as depicted in figure 8), while the emitters are located at the rear (to the left and right of the coupler pockets) as illustrated in figure 9. Through the infrared emitters, the vehicles relay information to subsequent vehicles, including vehicle category, speed, and other useful driving data. It is important to safeguard these areas against dirt and damage. **Note:** The infrared control may be affected by strong sunlight or near-complete darkness.

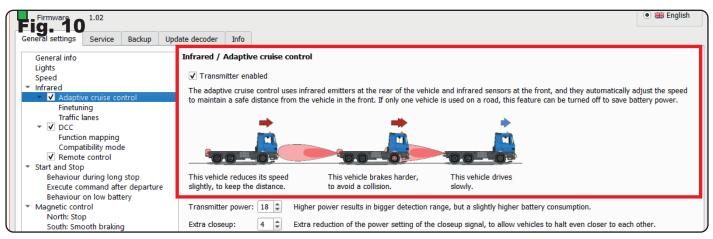
Fig. 8 Fig. 9 Fig. 9

#### 4.4.1 Distance control

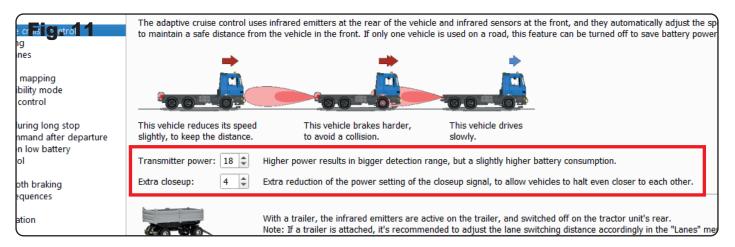
Infrarot-Empfänger

The CarMotion system uses two infrared signals of varying intensities, transmitted in alternation, to regulate the distance between two vehicles. This feature allows a vehicle approaching from behind to adjust its deceleration rate according to the speed difference between the two vehicles and automatically match its speed to that of the vehicle in front (see fig. 10). As a result, the vehicle's speed may differ significantly from the speed set in the basic settings. However, the basic speed is reinstated as soon as the obstruction from the vehicle in front is removed.

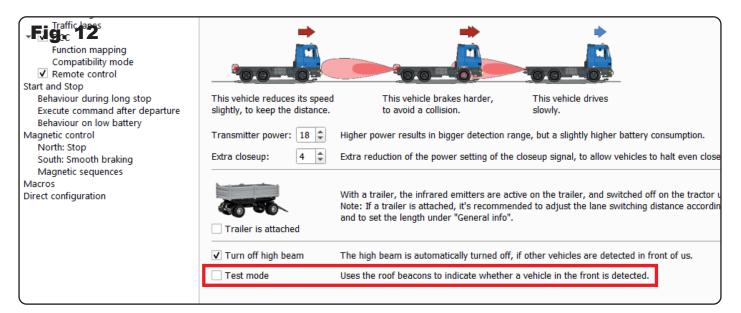
Infrarot-Sende



The default settings for CarMotion layouts assume that the vehicles have good visibility and are traveling at moderate speeds (fig. 11). However, for layouts where higher speeds are required, we suggest adjusting the transmitter intensity for the infrared far range to a value of 25 and reducing the intensity for the infrared close range to 0. This will allow the vehicles to initiate braking maneuvers earlier and make the best use of collision protection. Additional adjustments are detailed in section 4.1.2 "Fine-tuning".



If you have at least two CarMotion vehicles, and at least one of them has rotating flashing lights, it is recommended that you temporarily activate the "Test mode" checkbox for these (fig. 12). This mode allows you to check the reception of the infrared signals by observing the LEDs of the roof beacons. The right roof beacon flashes when receiving strong infrared signals (far range), and the left beacon indicates weak infrared signals (close range). This function is particularly useful in critical areas such as curves or turning points to ensure that the vehicle in front is detected in time. The transmitters and receivers operate along the longitudinal axis of the vehicles, so for vehicles that need to stop at right angles to each other, it is essential to check if braking distances are sufficient. High speeds require greater distances and higher transmitter intensities for collision protection. Low transmission intensities are suitable for urban layouts as they simulate flowing traffic. You can use the test mode to determine the distances between vehicles to avoid rear-end collisions.



If you want to use a trailer, we recommend activating the "Trailer is attached" checkbox (fig. 13). Although the distance control for the trailer is active even without checking this option, it has limited strength since the infrared transmitters on the tractor unit are also active. By activating this option, the distance control of the trailer will work at full strength, and collision protection can be ensured. Additionally, by turning off the infrared signals on the tractor unit, the vehicle's battery life can be extended

# **Marning**!

If you intend to use a vehicle without a trailer, but the control box is still active, the distance control system will not function as the infrared signals from the vehicle will be turned off.

Fig. 13		00-0-	
during long stop mmand after departure on low battery	This vehicle reduces its speed slightly, to keep the distance.	This vehicle brakes harder, to avoid a collision.	This vehicle drives slowly.
rol	Transmitter power: 18 🖨	Higher power results in bigger detection rang	e, but a slightly higher battery consumption
o oth braking equences	Extra closeup: 4	Extra reduction of the power setting of the clo	oseup signal, to allow vehicles to halt even
ation	Trailer is attached	With a trailer, the infrared emitters are active Note: If a trailer is attached, it's recommende and to set the length under "General info".	
	✓ Turn off high beam	The high beam is automatically turned off, if	other vehicles are detected in front of us.
l	Test mode	Uses the roof beacons to indicate whether a	vehicle in the front is detected.

Additionally, you have the option to command the vehicle to switch off the high beam (if it is on) when a leading vehicle is detected. Once the vehicle no longer receives driving information from the leading vehicle, it will automatically turn the high beam on. This option can be activated through the "Turn off high beam" checkbox (see fig. 14)

Fig. 14	to maintain a safe distance fro	m the vehicle in the front. If only one vehicle is used on a road, this feature can be turned off to
ping mode ol		
long stop d after departure battery	This vehicle reduces its speed slightly, to keep the distance.	to avoid a collision. slowly.
raking Ices	Transmitter power: 18 Extra closeup: 4	Higher power results in bigger detection range, but a slightly higher battery consumption. Extra reduction of the power setting of the closeup signal, to allow vehicles to halt even closer
	Trailer is attached	With a trailer, the infrared emitters are active on the trailer, and switched off on the tractor un Note: If a trailer is attached, it's recommended to adjust the lane switching distance according and to set the length under "General info".
	✓ Turn off high beam	The high beam is automatically turned off, if other vehicles are detected in front of us.
	Test mode	Uses the roof beacons to indicate whether a vehicle in the front is detected.

#### 4.4.2 Fine-tuning

In this chapter, you will learn how to adjust the driving behavior of a following vehicle to a leading vehicle. The main objective is to determine how the vehicle reacts when it no longer receives the infrared signal from the preceding vehicle.

The "signal dropout" option specifies the duration for which the last driving information from the preceding vehicle is considered valid in case of signal loss (fig. 15). This setting allows you to adjust the response time when a vehicle no longer receives infrared information. The signal loss is deemed valid by the vehicle when the set time span is exceeded and no new information is received from the preceding vehicle during this time. As a response to the signal loss, the following vehicle may accelerate at a reduced acceleration rate to its preset base speed, if it is higher than the last driven speed. This deceleration in acceleration is intended to prevent the vehicle from accelerating excessively and following the preceding vehicle too closely, even though it is still on the same lane.

**Example:** The time interval is set to 1 second. If no new driving information is received from the preceding vehicle within this time interval, the vehicle accelerates at a reduced acceleration rate to its set base speed.

		Language
Product Viessmann CarMotion (80	11)	🔘 💻 Germa
Firmware 1.02		💿 🚟 English
General settings Service Backup Up	date decoder Info	
General info	Infrared / Adaptive cruise control / Finetuning	
Lights Speed Infrared	Signal timeout 1,0 = sec If the signal from the vehicle in front of us is lost, this is the time we wait before again.	we can start accelerating
<ul> <li>Adaptive cruise control</li> </ul>	Timeout from standstill 1,5 🕏 sec Same as above, for the case we were standing still, to simulate the driver's react	tion time.
Finetuning Traffic lanes	Limit the acceleration 2,5 = when the signal is lost, acceleration will be limited for a short time period, to avo	id acceleration in tight
Function mapping	Braking distance, far 90 🌲 mm Distance driven until the speed of this vehicle will match the speed of the preceed	ding vehicle.
Compatibility mode Compatibility mode	Braking distance, close 35 🗘 mm Same as above, in case the closeup signal is also received.	
<ul> <li>Start and Stop Behaviour during long stop</li> <li>Execute command after departure</li> </ul>	Signal on switching off switch off Command sent to the vehicle behind us, if we are being switched off. The duratic procedure, during which the signals are sent, can be set on the page "start and s	

With the "start-up delay" option, the vehicle reacts similarly to a "signal failure". It is intended to simulate the driver's reaction time after the preceding vehicle has driven off (fig. 16).

igeadapt6	connected				Language
Product	Viessmann CarMotion (8	011)			🔘 💳 Germa
Firmware	1.02				💿 쁆 Englis
General settings	Service Backup U	odate decoder Info			
General info		Infrared / Adaptive cruise	control /	Finetuning	
Lights Speed		Signal timeout 1,0	sec	If the signal from the vehicle in front of us is lost, this is the time we wait before we can see in	start accelerating
<ul> <li>Infrared</li> <li>✓ Adaptive</li> <li>Finetunin</li> </ul>		Timeout from standstill 1,5	sec	Same as above, for the case we were standing still, to simulate the driver's reaction time	
Traffic lar		Limit the acceleration 2,5	\$ sec	When the signal is lost, acceleration will be limited for a short time period, to avoid accele curves.	eration in tight
Function mapping Compatibility mode		Braking distance, far 90	<pre>\$ mm</pre>	Distance driven until the speed of this vehicle will match the speed of the preceeding vehicle	cle.
✓ Remote (		Braking distance, close 35	mm	Same as above, in case the closeup signal is also received.	
	uring long stop	Signal on switching off swi	tch off 👻	Command sent to the vehicle behind us, if we are being switched off. The duration of the procedure, during which the signals are sent, can be set on the page "start and stop".	shutdown

The "acceleration limit" option specifies the time frame for the reduced acceleration rate at which a following vehicle accelerates to its set base speed in the event of a signal loss (fig. 17). This option can be useful, for example, in tighter curves where "line of sight" to the preceding vehicle is briefly lost. The "accordion effect" between the vehicles can be avoided.

		Language
Product Viessmann CarMot	n (8011)	🔘 💻 Germa
Firmware 1.02		💿 🚟 Englisl
General settings Service Backup	Update decoder Info	
General info	Infrared / Adaptive cruise control / Finetuning	
Lights Speed Infrared	Signal timeout 1,0 + sec If the signal from the vehicle in front of us is lost, this is the time we wait before we dagain.	an start accelerating
🔻 🗹 Adaptive cruise control	Timeout from standstill 1,5 ¢ sec Same as above, for the case we were standing still, to simulate the driver's reaction t	ime.
Finetuning Traffic lanes V DCC	Limit the acceleration 2,5 + sec When the signal is lost, acceleration will be limited for a short time period, to avoid ac curves.	celeration in tight
Function mapping	Braking distance, far 90 🗢 mm Distance driven until the speed of this vehicle will match the speed of the preceeding v	vehicle.
Compatibility mode Remote control	Braking distance, close 35 🖨 mm Same as above, in case the closeup signal is also received.	
<ul> <li>Start and Stop Behaviour during long stop</li> <li>Execute command after depart</li> </ul>	Signal on switching off switch off Command sent to the vehicle behind us, if we are being switched off. The duration of procedure, during which the signals are sent, can be set on the page "start and stop".	

The "long braking distance" option describes the reaction to receiving the long-range infrared information from the preceding vehicle. The vehicle tries to adjust its speed to that of the slower preceding vehicle within a standard set driving distance of 90 mm (fig. 18).

The "short braking distance" option describes the vehicle's reaction to receiving the close-range infrared information from the preceding vehicle. If the vehicle enters the close range of a preceding vehicle, the vehicle brakes to the speed of the preceding vehicle on the set braking distance to prevent a collision (fig. 19).

	connected						Language
Product	/iessmanı	n CarMotior	n (8011)				🔘 💻 Germ
Firmware 1	1.02						💿 🚟 Englis
General settings	Service	Backup	Update decoder	Info			
General info			Infrared /	Adaptive	e cruise control / I	Finetuning	
Lights Speed Infrared			Signal tim	eout	1,0 🗘 sec	If the signal from the vehicle in front of us is lost, this is the time we wait before we can st again.	art accelerating
<ul> <li>Adaptive</li> <li>Finetuning</li> </ul>		ntrol	Timeout f	rom stand	still 1,5 🗘 sec	Same as above, for the case we were standing still, to simulate the driver's reaction time.	
Traffic lan			Limit the	acceleratio	on 2.5 韋 sec	When the signal is lost, acceleration will be limited for a short time period, to avoid accele	ration in tight
<ul> <li>DCC</li> <li>Function r</li> <li>Compatib</li> </ul>			Braking d	stance, fai	r 90 🗘 mm	Distance driven until the speed of this vehicle will match the speed of the preceeding vehic	le.
✓ Remote c		-	Braking d	stance, clo	ose 35 🗘 mm	Same as above, in case the closeup signal is also received.	
<ul> <li>Start and Stop Behaviour du Execute com</li> </ul>			-	switching	off switch off 💌	Command sent to the vehicle behind us, if we are being switched off. The duration of the s procedure, during which the signals are sent, can be set on the page "start and stop".	shutdown

· ·		rMotion (80	11)				Language O 💻 German O 🗱 English
General settings Serv	vice Bac	ckup Upo	date decoder	Info			
General info			Infrared / /	Adaptive c	ruise control / I	Finetuning	
Lights Speed Infrared			Signal time	out	1,0 🗘 sec	If the signal from the vehicle in front of us is lost, this is the time we wait before we can stragain.	art accelerating
<ul> <li>Adaptive crui</li> </ul>	se control		Timeout fro	om standstil	1,5 🗘 sec	Same as above, for the case we were standing still, to simulate the driver's reaction time.	
Finetuning Traffic lanes ▼ ✓ DCC			Limit the ac	celeration	2,5 🜲 sec	When the signal is lost, acceleration will be limited for a short time period, to avoid acceler curves.	ation in tight
Function map			Braking dist	tance, far	90 🗘 mm	Distance driven until the speed of this vehicle will match the speed of the preceeding vehicl	e.
Compatibility Remote contr Start and Stop			Braking dist	tance, close	35 🗘 mm	Same as above, in case the closeup signal is also received.	
Behaviour during			Signal on s	witching off	switch off 🔻	procedure, during which the signals are sent, can be set on the page "start and stop".	nucuown

Hint: To achieve a more realistic driving operation, the braking distances can be adjusted. To determine the best possible values for your CarMotion system, we recommend that you carry out driving tests with different settings.

A slow-moving section directly behind a curve would be a case that may require adjustments. A vehicle is in the slow-moving section but is not visible to a vehicle coming from behind due to the curve. In this case, the braking distance may need to be adjusted in the "short braking distance" parameter. The roof blinkers in test mode can help to determine when the vehicles can actually "see" each other.

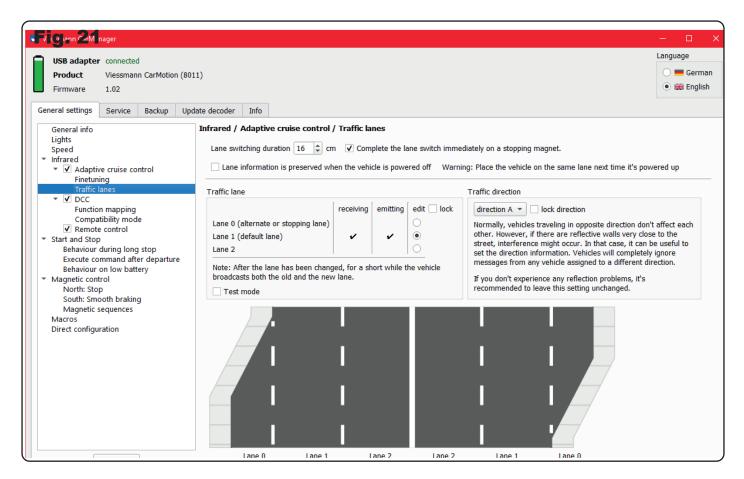
The "Signal on shutdown" option of the vehicle allows you to gather all vehicles at a stop behind the front vehicle and turn off the leading and all following vehicles with a single shutdown command - either magnetic or remote. However, you can also customize the command to bring all vehicles to a standstill or allow the vehicles to ignore the shutdown command (fig. 20)

Figs ad 20 Firmware	connected Viessmann 1.02	n CarMotior	(8011)				Language O 💻 German ④ 🎇 English
General settings	Service	Backup	Update decoder	Info			
General info			Infrared /	Adaptiv	e cruise control / F	finetuning	
Lights Speed Infrared			Signal time	eout	1,0 🗘 sec	If the signal from the vehicle in front of us is lost, this is the time we wait before we can sta again.	art accelerating
<ul> <li>Adaptiv</li> </ul>		ntrol	Timeout fr	om stand	still 1,5 🗘 sec	Same as above, for the case we were standing still, to simulate the driver's reaction time.	
Finetuni Traffic la ▼ ▼ DCC	2		Limit the a	cceleratio	on 2,5 🗘 sec	When the signal is lost, acceleration will be limited for a short time period, to avoid accelera curves.	ation in tight
	mapping		Braking dis	tance, fa	r 90 🌲 mm	Distance driven until the speed of this vehicle will match the speed of the preceeding vehicle	э.
Compat ✓ Remote	ibility mode control	2	Braking dis	tance, clo	ose 35 🗘 mm	Same as above, in case the closeup signal is also received.	
<ul> <li>Start and Stop Behaviour of Execute cor</li> </ul>	during long			witching	off switch off 💌	Command sent to the vehicle behind us, if we are being switched off. The duration of the sl procedure, during which the signals are sent, can be set on the page "start and stop".	hutdown
Behaviour o							

#### 4.4.3 Lanes

With our CarMotion system, you have the ability to drive on 3 logically independent lanes. Lane 1 serves as the standard lane, Lane 0 should be used as a stopping lane, such as for a bus stop. Lane 2 can be used as an overtaking or turning lane on your layout (fig. 21).

This distinction of tracks is important so that vehicles with different speeds can pass each other. For example, in the case of a bus stop, an incoming vehicle does not know that an infrared signal from the front vehicle, which is standing on its own stopping track, is irrelevant – meaning that it does not have to brake, even though the front vehicle is signaling a speed of 0 km/h. Therefore, it is important that the stopping vehicle sends the track information for track 0 in this case. However, the vehicle coming from behind drives on track 1 and therefore ignores the received speed level and passes the stationary vehicle.



With the option "Duration of track change", you can specify the distance with which a vehicle completes the track change (fig. 22). A track change is initiated by a magnet sequence and the vehicle sends the information for both tracks backward for a certain amount of time. This prevents a vehicle approaching from behind from accelerating too quickly and running into the swing range of the front vehicle, which has not yet completed the track change. Depending on the situation, the value can be adjusted here. The test mode is also recommended here to determine a suitable distance.

Fig. 22										
🗾 Viessmann CarMa	nager									– 🗆 🗙
USB adapter Product Firmware		d In CarMotio	n (8011)							Language — German • 🎇 English
General settings	Service	Backup	Update decoder	Info						
General info Lights Speed Infrared V Adaptiv	/e cruise co	ntrol	Lane swit	ching durati	on 16 🔹 cn	n 🗸 Com	plete the la		tely on a stopping magnet. Place the vehicle on the same lane next time it's pr	owered up
			Traffic lane		stopping lane)	receiving	emitting	edit 🗌 lock	raffic direction direction A	n't affect each

With the checkbox "Finish track change immediately when stopping at a stop magnet", you have the option, especially in confined spaces, to automatically complete a completed track change where the distance between the corresponding magnet sequence and a stop magnet is not sufficient (fig. 23).

Fig. 23		
Viessmann CarManager		– 🗆 🗙
USB adapter connected Product Viessmann CarMotion (80 Firmware 1.02	11)	Language O 💻 German ④ 🎇 English
General settings Service Backup Up	late decoder Info	
General info Lights Speed ▼ Infrared ▼ I Adaptive cruise control Finetuning	Infrared / Adaptive cruise control / Traffic lanes Lane switching duration 16	wered up
Traffic lanes	Traffic lane     Traffic direction       receiving     emitting     edit     lock       direction A      lock direction	

If a vehicle is not switched off on the main track, you can activate the "Track information retained" option (fig. 24). Then, when the vehicle is turned back on, it knows that it is on a secondary track and therefore sends the correct infrared commands backward.

#### Note:

In this case, however, you must also switch the vehicle back on the corresponding track. Otherwise, vehicles approaching from behind could collide due to incorrect track information.

Fig. 24		
Viessmann CarManager		– 🗆 X
USB adapter connected Product Viessmann CarMotion (8011) Firmware 1.02		Language O = German • # English
General settings Service Backup Update	e decoder Info	
General info Lights Speed V Infrared GAdaptive cruise control Finetuning	nfrared / Adaptive cruise control / Traffic lanes Lane switching duration 16 ♀ cm ✔ Complete the lane switch immediately on a stopping magnet. Lane information is preserved when the vehicle is powered off Warning: Place the vehicle on the same lane next time it's powered off	ered up
- 10 1	Traffic lane Traffic direction       Image: Traffic lane     Traffic direction       Image: Traffic lane     Image: Traffic direction       Image: Traffic lane     Image: Traffic direction	

By using the "Track lock" option, you have the option to assign a fixed track to a vehicle (fig. 25). The vehicle will then not respond to track change commands..

Viessmann CarMai	nager							– u ,
IG. 25 Badapter	connected							Language
Product	Viessman	n CarMotion	(8011)					🔘 💻 German
Firmware	1.02							💿 蹝 English
General settings	Service	Backup	Update decoder	Info				
Lights Speed Infrared C Adaptiv Finetun Traffic I	ing	ntrol					diately on a stopping magnet. ng: Place the vehicle on the same lane next time it's p	owered up
Compa Compa Start and Stop Behaviour Execute co Behaviour Magnetic cont North: Stop	during long mmand afte on low batte rol	stop er departure ery	Lane 1 (o Lane 2 Note: Aft	alternate or stopping lane) default lane) ter the lane has been chang ts both the old and the new mode	~	edit lock	direction A      lock direction     Normally, vehicles traveling in opposite direction du     other. However, if there are reflective walls very cl     street, interference might occur. In that case, it ca     set the direction information. Vehicles will complete     messages from any vehicle assigned to a different     If you don't experience any reflection problems, it's     recommended to leave this setting unchanged.	lose to the n be useful to ely ignore direction.

**Note:** In rare cases, vehicles driving in opposite directions may still influence each other. In general, this has no effect, except when the vehicles are moving slowly and one is, for example, standing at a bus stop. Then, it could happen that a slowly passing vehicle also stops under unfavorable conditions.

With the option "block traffic direction", you have the possibility to assign a fixed direction of travel to a vehicle. The vehicle then only reacts to infrared information coming from vehicles in the same direction of travel (fig. 26).

исээтналт салмана	ye.						~
Fig. 26	connected					Language	
Product	Viessmann CarMotion (	(8011)				🔿 💻 German	n
	1.02					💿 🚟 English	
General settings	Service Backup (	Update decoder Info					
General info Lights		Infrared / Adaptive cruise contro					
Speed		Lane switching duration 16	m 🗸 Complet	te the lane switch imme	ediately on a stopping magnet	fan de la companya de	
<ul> <li>✓ Infrared</li> <li>✓ ✓ Adaptive</li> <li>Finetuning</li> </ul>		Lane information is preserved v	hen the vehicle	is powered off Warn	ing: Place the vehicle on the	same lane next time it's powered up	_
Traffic lar		Traffic lane			Traffic direction		
▼ ✓ DCC Function	mapping pility mode		receiving	mitting edit 🗌 lock	direction A 💌 🗌 lock o	direction	
▼ Start and Stop		Lane 0 (alternate or stopping lane)	~	✓ ○ ●	other. However, if there a	ng in opposite direction don't affect each are reflective walls very close to the	
Behaviour du	uring long stop mand after departure	Lane 2		0	set the direction informat	t occur. In that case, it can be useful to tion. Vehicles will completely ignore	
Behaviour on Magnetic contro	n low battery	Note: After the lane has been char broadcasts both the old and the ne		while the vehicle		cle assigned to a different direction. ny reflection problems, it's	
North: Stop South: Smoo		Test mode			recommended to leave th		
Magnetic sec Macros Direct configura							
		Lane 0 Lane 1	Lane	2 Lane 2	Lane 1	Lane 0	

In "test mode", you can directly check on which lane the vehicle is located. The illumination of the left roof warning light corresponds to lane 1, the right roof light corresponds to lane 0 (fig. 27).

Finetuning				
FIG. Z Traffic lanes	Traffic lane			Traffic direction
<ul> <li>✓ DCC Function mapping Compatibility mode</li> <li>✓ Remote control</li> <li>✓ Start and Stop Behaviour during long stop Execute command after departure Behaviour on low battery</li> <li>✓ Magnetic control North: Stop South: Smooth braking Magnetic sequences Macros Direct configuration</li> </ul>	Lane 0 (alternate or stopping lane) Lane 1 (default lane) Lane 2 Note: After the lane has been chang broadcasts both the old and the new	~	● ● ●	direction A      lock direction A     lock direction A     lock direction A     lock direction and the street of the street, interference might on set the direction information messages from any vehicles and the street of the

#### 4.4.4 DCC mode

When the DCC mode is activated, the CarMotion vehicles can receive DCC commands from external infrared transmitters, both from vehicles and stationary transmitters, on the track (fig. 28).

Viessmann Carivial							-
Fig. 28	connected	I				Language	a
Product	Viessman	n CarMotio	n (8011)			0 💻	German
Firmware	1.02					۰ 👪	English
General settings	Service	Backup	Update decoder	Info			
Compa Compa Remote Start and Stop Behaviour	ing anes n mapping tibility mode e control	e stop	The detect emitter.	vehicle to be contro	olled by external roadside IR emitters which use DCC. polarity of the signal. If the vehicle doesn't react to DCC commands, first try reversing the track polarity h/h	of the IR	

#### 4.4.4.1 Function mapping

In this overview, you have the opportunity to assign the desired function keys to the functions of the vehicle (fig. 29).

Product Viessmann CarMotion (80	11)													
Firmware 1.02														
eneral settings Service Backup Up	date decoder Info													
General info	Infrared / DCC / Function mappi	ng												
Lights Speed		FO	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12
<ul> <li>Infrared</li> <li>✓ Adaptive cruise control</li> </ul>	Head- and taillights	~												
Finetuning	High beam		•											
Traffic lanes  V DCC	Roof beacons			•										
Function mapping Compatibility mode	Restore default mode						✓							
<ul> <li>Remote control</li> <li>Start and Stop</li> </ul>	Macro 1 (blink right)								✓					
Behaviour during long stop	Macro 2 (blink left)									•				
Execute command after departure Behaviour on low battery	Instant acceleration and braking					•								
<ul> <li>Magnetic control North: Stop</li> </ul>	turn off IR emitters				•									
South: Smooth braking Magnetic sequences	Macro 3										•			
Macros	Macro 4											~		
Direct configuration	Macro 5							•						
	Macro 6													
	hazard lights													
	departure / ignore North magnet													
	cv		35	36	37	38	39	40	41	42	43	44	45	46
	value		2	4	128	8	1	128	2	4	4	8	0	0

#### 4.4.4.2 Compatibility mode

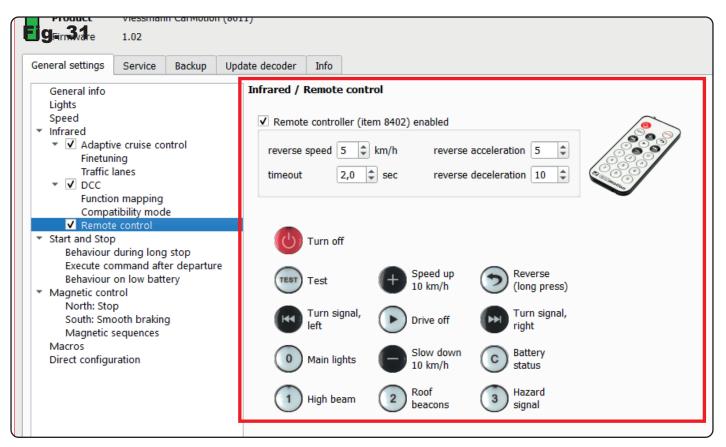
With the compatibility mode, you have the possibility to make the CarMotion vehicles compatible with vehicles that use the DCCar or OpenCar format for distance control (fig. 30).

**Note:** However, you cannot fully exploit the full potential of the CarMotion distance control. It can lead to impairments of the functioning of the distance control, and the cooperation with DCCar and OpenCar vehicles is limited to start and stop operation.

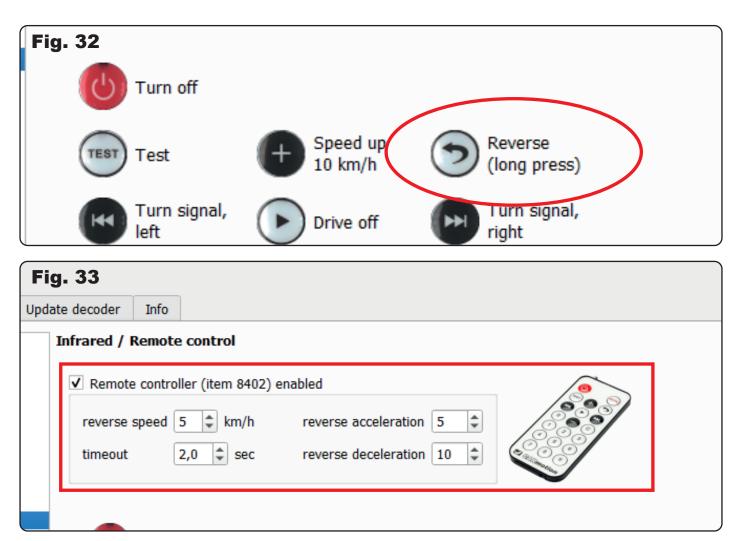
Fig	. 30						
🗾 Viessma	ann CarMan	ager					- 🗆 >
Pro	3 adapter duct nware		d In CarMotio	n (8011)			Language O = German O # English
General	settings	Service	Backup	Update decoder	Info		
Light Spee • Infra • 5	ed ared ✓ Adaptive Finetunin Traffic la ✓ DCC Function	ng ines i mapping ibility moc		DCC com This setti If you dor	patibility ng enab n't requi	mode for collision avoidance: don't use DCC compatibility mode es compatibility with vehicles of other manufacturers which use DCC between vehicles for collision avoidance. e this compatibility mode, it is hightly recommended to turn it off. Using the compatibility mode hinders the use of a lower data rate, and is more susceptible to external interference.	<sup>;</sup> multiple lanes,

#### 4.4.4.3 Remote control

n this chapter, you will find an overview of the currently switchable functions with the Viessmann CarMotion remote control Art. 8401 (fig. 31).

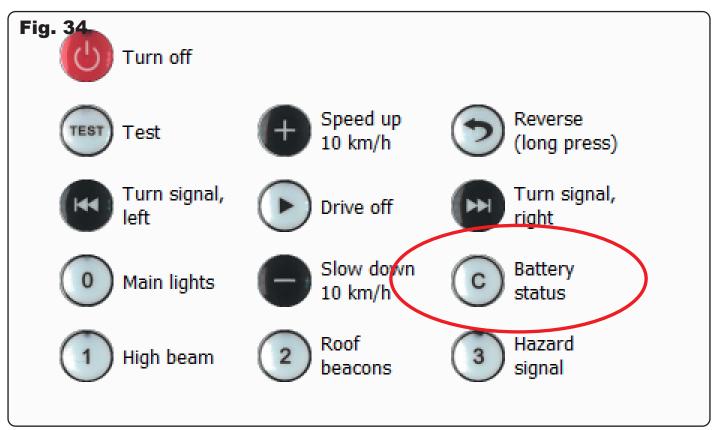


**Note:** For reversing the vehicle, press and hold the button and aim at the front of the vehicle. The reversing lights of the vehicle turn on after about 2 seconds and the vehicle moves in reverse (fig. 32). To individually adjust the reverse drive of each CarMotion vehicle, you can set additional parameters such as reverse speed and acceleration rate (fig. 33).



**Note:** To display the current battery charge level of a vehicle, press the "C" button (fig. 34). Depending on the battery charge level, the cabin interior lighting blinks once, twice, three or four times:

- One short blink: the battery is empty or almost empty (0% 25%).
- Two blinks: below-average battery charge (25% 50%).
- Three blinks: above-average battery charge (50% 75%).
- Four blinks: the battery is full or almost fully charged (75% 100%).



#### 4.5 Start und Stopp

In this menu item, you can adjust the behavior of CarMotion vehicles when turning on and off.

"Engine delay after turning on": Specifies the time after which the engine is turned on after the vehicle is switched on (fig. 35).

General info       Start and Stop         Lights       Speed         ✓ Infrared       ✓ Adaptive cruise control         Finetuning       Traffic lanes	5 Settings Service Backup Linda	te decoder Info
<ul> <li>DCC</li> <li>Function mapping</li> <li>Compatibility mode</li> <li>Note: the delay after the power-off means how much t</li> <li>passes between detecting the poweroff signal and acture</li> <li>powering off the vehicle. During this time the vehicle st</li> </ul>	neral info hts eed ared ✓ Adaptive cruise control Finetuning Traffic lanes ✓ DCC Function mapping Compatibility mode ✓ Remote control rt and Stop Behaviour during long stop Execute command after departure	Delays when powering on or off delay motor after power-on 2,0 = sec interior light lingers after power-off 2,0 = sec Note: the delay after the power-off means how much time passes between detecting the poweroff signal and actually powering off the vehicle. During this time the vehicle still sends IR commands, and, if so configured, can switch off
<ul> <li>Magnetic control</li> <li>North: Stop</li> <li>South: Smooth braking</li> <li>Magnetic sequences</li> </ul>	gnetic control North: Stop South: Smooth braking	

"Interior lighting remains on after switching off": Specifies the time for which the cabin interior lighting remains illuminated after the switch-off command (fig. 36). This simulates the opening of the driver's door and the driver getting out. During the switch-off command, infrared information is transmitted to the rear, and, if set, vehicles behind can be switched off simultaneously.

Fig. 36						1		
General settings	Service	Backup	Updat	e decoder	Info			
Finetun Traffic ▼ ✓ DCC Functio Compa ▼ Remote Start and Stop Behaviour Execute co Behaviour ▼ Magnetic con North: Sto South: Sm	lanes on mapping atibility mod e control during long ommand afte on low batt trol	e I stop er departur ery		delay mo interior li Note: the passes b powering	en powe tor afte ght linge e delay a etween g off the comma	ering on or off r power-on ers after power-o after the power-o detecting the pow vehicle. During the onds, and, if so co ne back.	ff 2,0 ff means how veroff signal a his time the ve	and actually ehicle still

#### 4.5.1 Behaviour during extended stops

Here, you have the option to make settings on how the CarMotion vehicle should react during a longer stop at a stop sign (fig. 37). The cabin lighting of the vehicle can be turned on, and the roof beacons and main lights of the vehicle can be turned off after a certain standing time. With a programmable time delay, you can, just like the original, realize turning on the lights on the vehicle with a time lag!

Fig. 37 Firmware	Viessmann C 1.02	CarMotion (801	1)					
General settings	Service E	Backup Upd	ate decoder	Info				
Finetun Traffic I ▼ ✓ DCC Functio Compa ✓ Remote ▼ Start and Stop Behaviour ▼ Magnetic cont North: Stop	anes n mapping tibility mode control during long st mmand after on low battery rol p poth braking	top departure	Behavior af	ter bein on cab l off roof dela off main dela dela g is zer	ng stopped o light after beacons aft y turning ro n lights after y turning m y departure to seconds,	of beacons back agai	in after start after start changed.	

By checking the "Turn on cabin lighting after..." checkbox, you have the option to simulate the driver getting out of the vehicle, with the cabin lighting automatically turning on after the set time (fig. 38).

Product	Viessman	n CarMotio	n (8011)					
Fig. 38 Firmware	1.02							
General settings	Service	Backup	Update decoder Info					
General info Lights Speed ♥ Infrared ♥ ♥ Adag Finet Traff ♥ ♥ DCC Func Com ♥ Rem ♥ Start and St Behavio Execute	otive cruise co uning c lanes tion mapping patibility mod ote control op ur during long command aft ur on low batt	ntrol e stop er departur	Start and Stop / Behaviour during long stop         Behavior after being stopped over a stopping coil for a long time         Turn on cab light after       0 \$ sec         Turn off roof beacons after       0 \$ sec         delay turning roof beacons back again after start       \$ sec         Turn off main lights after       0 \$ sec         delay turning main lights back again after start       \$ sec         delay turning main lights back again after start       \$ sec					
North: S South: S		g	After the vehicle starts again, the changes are reversed.					

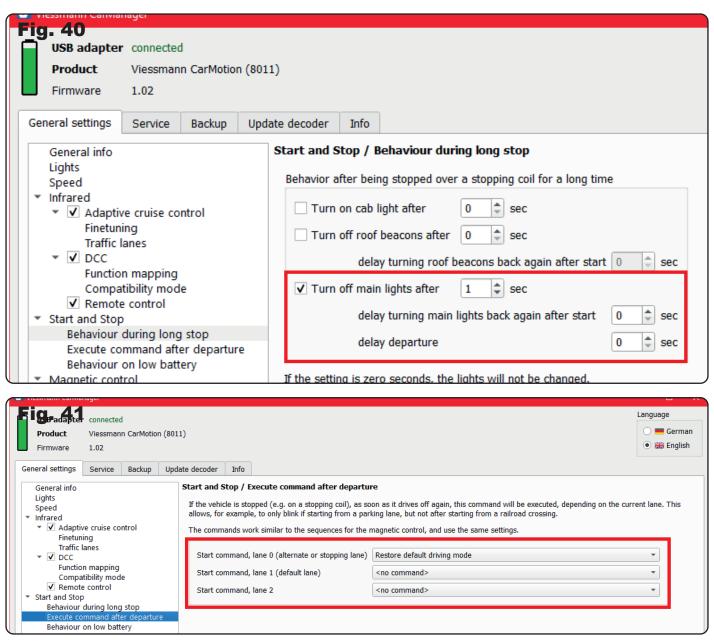
The rotating flashing lights on the vehicle can be turned off in the same way with the "Turn off round lights after..." option. Just like in reality, you also have the option for them to automatically turn on again when you continue driving (fig. 39).

F	ig. 39					
	Viessmann CarMa	nager				
ſ	USB adapter Product Firmware General settings		i n CarMotio Backup	n (8011) Update decoder	Info	fo
	Finetur Traffic ▼ ▼ DCC Functio Compa			Behavior a	fter beir on cab l off roof dela	<ul> <li><b>/ Behaviour during long stop</b></li> <li>being stopped over a stopping coil for a long time</li> <li>cab light after 0  sec</li> <li>coof beacons after 1  sec</li> <li>delay turning roof beacons back again after start 0  sec</li> <li>main lights after 0  sec</li> </ul>

The same settings can also be made for the vehicle's main lights under "Turn off main lights after..." (fig. 40). A small particularity here is the start delay after the lights are turned on again, so that the vehicle only continues to drive after the lights have been turned on again

#### 4.5.2 Execute command after starting

In this menu item, you can assign a control command to the vehicle after restarting at a stop. This is dependent on the lane being driven on (fig. 41).



#### 4.5.3 Low battery behaviour

If the vehicle has a very low battery level, you can set how the vehicle should react here.

In this menu, you can assign the vehicle three different behaviors when the battery level is low. You can command the vehicle to reduce speed to, for example, 30 km/h and turn on the hazard lights.

In addition, you can execute the command to stop and send this stop command to vehicles behind (fig. 42).

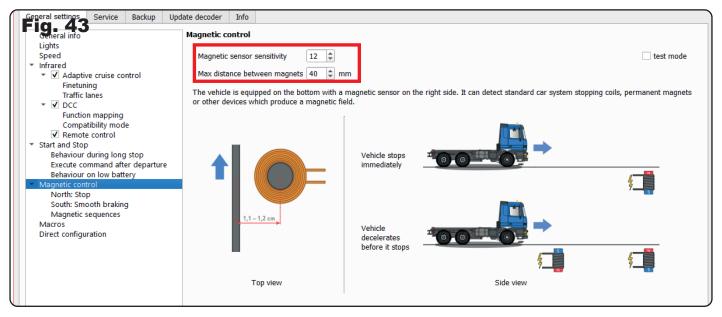
**Note:** Vehicles that are forced to stop due to a preceding or already standing vehicle with a low battery level will only start again when they are moved to continue driving via the remote control (Play button) or when turned off and on again. Another option is to place a ready-to-drive vehicle in front of it and let it drive away. The previously executed stop command is then cancelled.

/ Behaviour on low battery
the charge in the battery is very low
num speed to 30 🗘 km/h
arning signal (both turn signals on)
halt others before shutdown (using IR)

#### 4.6 Magnet control

The CarMotion vehicles are equipped with a Hall sensor on the right side of the vehicle, which detects electromagnetic stop coils, permanent magnets or other components that generate a magnetic field.

In this menu, you can adjust the sensitivity of the Hall sensor. The range of the detection radius of, for example, permanent magnets, can be influenced (fig. 43).



In addition, information about the maximum distances of installed permanent magnets can be given to the magnetic sensor. This information is particularly important for magnetic control.

Note: The more sensitive the Hall sensor is set, the more susceptible it is to external magnetic fields.

You can also use the "test mode" to check if the vehicle detects magnets while driving (fig. 44).

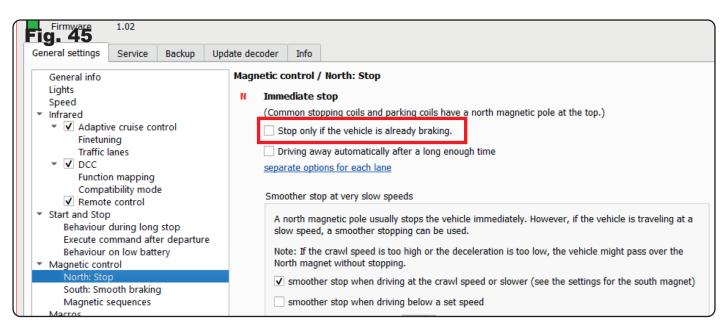
General settings Service Backup Upo	date decoder Info		
Fig. 44	Magnetic control		
Lights Speed Infrared	Magnetic sensor sensitivity		test mode
<ul> <li>Adaptive cruise control</li> <li>Finetuning</li> </ul>	Max distance between magnets 40 🜲 m	Im	
Traffic lanes	The vehicle is equipped on the bottom with a or other devices which produce a magnetic fie	magnetic sensor on the right side. It can detect standar eld.	d car system stopping coils, permanent magnets
Function mapping Compatibility mode		Vehicle stops immediately	→ {_ <b>_</b>
North: Stop South: Smooth braking Magnetic sequences Macros Direct configuration	1,1 – 1,2 cm	Vehicle decelerates before it stops	

#### 4.6.1 North: Stop

In this menu item, you can adjust the stopping behavior of the vehicle when it is at a stop or a north pole (stop command) is detected on the road using the magnetic sensor.

When the checkbox is activated, you have the option to only stop the vehicle if it is already performing a braking maneuver (fig. 45). Otherwise, the vehicle ignores the north pole (stop command) and continues at normal speed. This option is particularly useful at intersections with traffic lights, for example, to allow the vehicle to cross a yellow light.

For this, two electromagnetic stop coils are necessary, which are coupled together. One coil acts as a trigger for the slow driving section (south pole directed towards the road surface) and the other stop coil (north pole directed upwards) serves as a normal stop location in front of the traffic light. Once the traffic light turns red, but the vehicle has already crossed the south pole, the vehicle ignores the stop command and drives over the yellow light.



A very useful setting is the automatic continuation after a certain period of time. To make the driving operation as varied as possible, a period of time can even be selected at random here. The vehicle then drives independently and randomly within this limited time period at each stop location. The time period can be chosen between 1-255 seconds (fig. 46)

Hinweis: The option for automatic continuation at stop locations is deactivated from the factory.

In addition, you can choose to let the vehicle continue randomly depending on the lane (fig. 47).

Firmware 1.02		
Fig. 46		
General settings Service Backup Upo	late decoder Info	
General settings Service Backup Upo General info Lights Speed ▼ Infrared ▼ ✓ Adaptive cruise control Finetuning Traffic lanes ♥ ✓ DCC Function mapping Compatibility mode ✓ Remote control ♥ Start and Stop Behaviour during long stop Execute command after departure Behaviour on low battery ♥ Magnetic control North: Stop South: Smooth braking Magnetic sequences Macros Direct configuration	late decoder       Info         Magnetic control / North: Stop         Immediate stop         (Common stopping coils and parking coils have a north magnetic pole at the top.)         Stop only if the vehicle is already braking.         ✓ Driving away automatically after a long enough time       30 \$\$\$\$ sec + random up to 0 \$\$\$\$\$\$\$ sec separate options for each lane         Smoother stop at very slow speeds       A north magnetic pole usually stops the vehicle immediately. However, if the vehicle is traveling at a slow speed, a smoother stopping can be used.         Note: If the crawl speed is too high or the deceleration is too low, the vehicle might pass over the North magnet without stopping.         ✓ smoother stop when driving at the crawl speed or slower (see the settings for the south magnet)         □ smoother stop when driving below a set speed         Deceleration rate during this: 40 \$\$	

So, you have a lot of options to simulate specific scenarios on your CarMotion system!

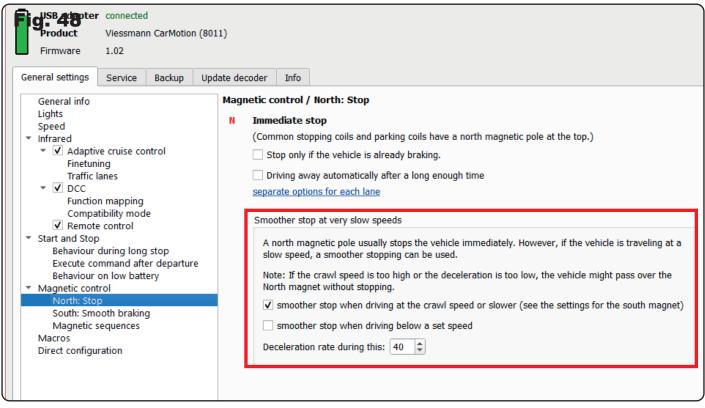
In the submenu for gentle stopping at low driving speeds, you have the option to let the vehicle brake gently at a stop location (fig. 48). Only a very short braking ramp can be driven, as the magnet must not be crossed,

-Speed	N Immediate stop
FIGhrared	(Common stopping coils and parking coils have a north magnetic pole at the top.)
<ul> <li>Adaptive cruise control</li> <li>Finetuning</li> </ul>	Stop only if the vehicle is already braking.
Traffic lanes	Driving away automatically after a long enough time
<ul> <li>DCC Function mapping Compatibility mode</li> <li>Remote control</li> <li>Start and Stop Behaviour during long stop</li> </ul>	<ul> <li>lane 0 (stopping)</li> <li>lane 1 (default)</li> <li>lane 2</li> <li>common option for all lanes</li> </ul>
Execute command after departure Behaviour on low battery Magnetic control	Smoother stop at very slow speeds
North: Stop	
South: Smooth braking Magnetic sequences	A north magnetic pole usually stops the vehicle immediately. However, if the vehicle is traveling at a slow speed, a smoother stopping can be used.

but the impression of an abrupt stop is avoided. This option is already activated from the factory. Additionally, you can activate gentle stopping when the speed falls below a certain limit. Here, you can set the speed from 1km/h up to a maximum of 30 km/h.

In both cases, you can also adjust the braking rate to your needs

**Hint:** We recommend placing a south pole before stop locations so that the vehicle does not stop abruptly at a stop location but comes to a gentle and uniform stop.



#### 4.6.2 South pole: Gentle braking

With the help of a south pole magnet, you can initiate a gentle braking process for your vehicle. The vehicle will be decelerated to the set crawling speed, regardless of its initial speed, over the chosen braking distance. Once the crawling speed is reached, the vehicle will maintain this speed until it reaches a stopping point or a chosen time or distance limit. If the time or distance limit is exceeded and the vehicle has not reached a stopping point within the limit, it will resume its normal driving operation. The time span during which the vehicle will drive at crawling speed can be limited to between 1-255 seconds (fig. 49).

<b>iä</b> <sup>***</sup> 49	1.02					💿 🏭 En
General settings	Service	Backup	Update decoder	Info		
Compa Compa Remoti Start and Stop Behaviour Execute co Behaviour Magnetic con North: Sto	ing anes n mapping tibility moc a control during long mmand aft on low batt rol p <u>sooth brakin</u> sequences	le 9 stop er departur iery	S Sm (A s The this enc nor	ooth bra stopping c smooth l mode wa	oil mounted upside down can also be used.) oraking mode slows down the vehicle to the defined crawl speed over the given braking distance, regardless of the s activated. After reaching the crawl speed, the vehicle will continue driving with that reduced speed until a stop co or if a limit is set. If a time or distance limit is reached and the vehicle still didn't encounter any stopping coil, it will tion. it 0 = sec limit 30 = cm	il is

The driving distance at crawling speed can be set to a maximum of 255 cm (fig. 50).

Fig. 50 USB adapter	r connected	I				
Product	Viessman	n CarMotio	n (8011	1)		
Firmware	1.02					
General settings	Service	Backup	Upda	ate decoder	Info	
Compa ✓ Remot ✓ Start and Stop Behaviour Execute co Behaviour ✓ Magnetic con North: Sto South: Sm	ing lanes atibility mode control during long ommand afte on low batt trol p ooth braking sequences	e stop er departur ery	'e	S Smo (A st The st this r enco norm	oth bra opping o smooth l node wa	coil mounted upside down can also be used.) braking mode slows down the vehicle to the defined crawl speed as activated. After reaching the crawl speed, the vehicle will con , or if a limit is set. If a time or distance limit is reached and the ation.

The crawling speed can be limited to a maximum of 30 km/h (see Fig. 51).

The adjustable braking distance can be a maximum of 100 cm (fig. 51)..

🗾 Viessmann							- 0					
Fig.	onnected	i					Language					
Produc	t Viessman	essmann CarMotion (8011)										
Firmwa	e 1.02						💿 🚟 Englis					
General sett	ngs Service	Backup	Upda	te decoder	Info							
▼ V C F F V Start an Beha Exec Beha V Magnet Noor Sout Mag Macros	daptive cruise co netuning affic lanes CC ompatibility mod emote control I Stop viour during lon <u>c</u> viour during lon <u>c</u>	e I stop er departur ery		S Smoo (A sto The s this n encou norm	oth bra opping c smooth t node wa untered, al opera time lim	a mounted upside down can also be used.) braking mode slows down the vehicle to the defined crawl speed over the given braking distance, regardless of the is activated. After reaching the crawl speed, the vehicle will continue driving with that reduced speed until a stop or or if a limit is set. If a time or distance limit is reached and the vehicle still didn't encounter any stopping coil, it wittion. it 0	oil is					

**Hint:** You can extend the distance for driving at reduced speed by placing several south pole magnets within the set limits. This is particularly useful for CarMotion systems where different driving distances at crawling speed are required without changing the vehicle settings.

**Note:** The magnets should be placed at least 5 cm apart to avoid being interpreted as a double south pole by the vehicle.

#### 4.6.3 Magnet sequences

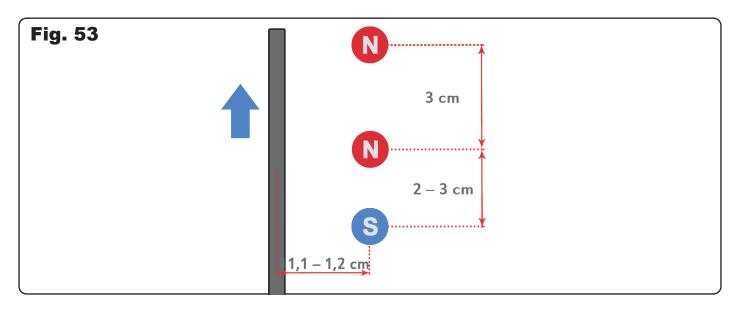
To ensure compatibility with other car systems, the following functions are assigned to these magnet sequences from the factory:

- N: Immediate stop
- S: Uniform deceleration
- S N: Cancels existing magnet commands: turn signals are turned off, old speed is resumed, and the lane is reset to the base lane.
- S S: Informs vehicles of a lane change to the stopping lane for distance control.
- S N N: Blinks right for 30 cm, while speed is limited to 30 km/h.
- S N S: Blinks left for 30 cm, while speed is limited to 30 km/h.
- S S N: Limits speed to 30 km/h
- SSS: Turn on high beam

General settings Service Backup Upda	e decoder   Info	
Fig. 52	Aagnetic control / Magnetic sequences	
Lights	Magnetic commands	
Speed	Magneuc commanus	
<ul> <li>Infrared</li> <li>Adaptive cruise control</li> </ul>	N Immediate stop	
Finetuning	S Smooth braking	
Traffic lanes	S N Restore default driving mode	•
Function mapping Compatibility mode ✔ Remote control	S S Macro 5 (stopping lane, brake)	•
<ul> <li>Start and Stop</li> </ul>	SNN Macro 1 (turn signal right, speed limit 30)	▼ 30 🗘 cm 30 🗘 km/h
Behaviour during long stop Execute command after departure	SNS Macro 2 (turn signal left, speed limit 30)	▼ 30 🗘 cm 30 🗘 km/h
Behaviour on low battery Magnetic control	S S N Macro 3 (speed limit 30)	▼ 30 🗘 km/h
North: Stop South: Smooth braking	SSS Macro 4 (high beam on)	•
Magnetic sequences Macros Direct configuration		N 3 cm 2 - 3 cm S

**Note:** Individual north and south poles are immutable and always represent a stop (north pole) or uniform deceleration (south pole) for the CarMotion vehicles.

**Note:** The arrangement of individual magnets in a magnet sequence must always be viewed in the direction of the vehicle's travel. This is also recognized by the vehicle's magnetic sensor (Hall sensor) and the stored command is executed. The sensor has a relatively large detection range. For optimal function, we recommend placing the permanent magnets just below the road surface, with their centre located 1.1-1.2 cm to the right of the guide wire or the centre of the magnetic tape. A disctance of 3 cm is recommended between the magnets, but for two unequal-polarity magnets, the distance can be reduced to 2 cm for space reasons. (fig. 53).



The individual control commands can be customized to your needs. Control commands are available that can be configured individually for each vehicle via the "Macros" menu (fig. 54). You have the option to assign an individual control command to each vehicle for the same magnet sequence!

Pure variety for your individual driving operation with our CarMotion vehicles!

For further details on configuring individual control commands, please refer to the following chapter 4.7.0 "Macros".

Fig. 544ng	S Smooth braking	
	S N <no command="">         S S       Immediate stop         S NN       Restore default driving mode         S N S       Macro 1 (turn signal right, speed limit 30)         S S N       Macro 2 (turn signal left, speed limit 30)         Macro 3 (speed limit 30)</no>	30 ≑ cm 30 ≑ km/h 30 ≑ cm 30 ≑ km/h 30 ≑ km/h 30 ≑ km/h
North: Stop South: Smooth braking Magnetic sequences Macros Direct configuration	SSS       Macro 4 (high beam on)         Macro 5 (stopping lane, brake)         Macro 6         Macro 7         Macro 8         Macro 9         Macro 10         Macro 11         Macro 12         Macro 13         Macro 14	

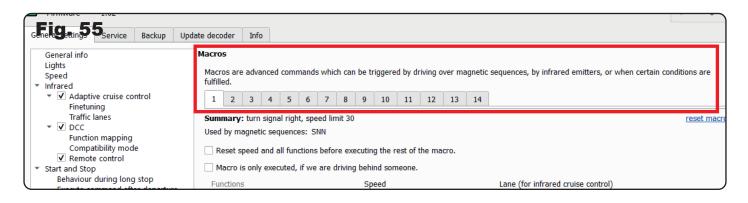
#### 4.7 Macros

In this menu, you will find the possibility to make your layout operation with CarMotion vehicles even more individual and varied.

Macros are advanced commands that can be triggered by crossing magnetic sequences, infrared transmitters, or by certain conditions being met.

In the top tab bar, you can switch between 14 different macros and customzie them to suit your driving needs (fig. 55).

Behind each macro is a control command that can be further configured. The first 5 macros are pre-configured with control commands. Macros 3-5 can be customized at any time.



In the "Overview" section, you can see which control command is being executed and which magnetic sequence is triggering it. fig. 56).

You can set the command to be executed in the "Magnetic sequences" submenu in the CarManager (see section 4.6.3).

**Example:** The magnetic sequence SNN is assigned to Macro 1. When the vehicle crosses this magnetic sequence, it will blink right and the speed will be limited to a maximum of 30 km/h. The control command will be executed over a distance of 30 cm. Another macro can be assigned to this macro at this point (fig. 54) or a speed and distance limit can be imposed. If this control command needs to be further customized, select Macro 1 in the "Macros" settings. As you can see, the summary describes exactly how this control command works (fig. 56).

Fig. 56													
General settings	Service	Backup	Update decoder	Info									
General info Lights Speed Infrared V Adaptiv Finetun Traffic	ing	ntrol	Macros ar fulfilled.	3	4 5	6	7	8	9	riggere	ed by d	riving o	over ma
✓ DCC Functio	n mapping itibility mod	e			sequenc	es: S	NN s befo	re ex	ecutir	-		the ma	cro.

With the two checkboxes, you have the option to set the vehicle to its basic speed and to clear all temporary driving information that was caused by other external control commands before executing the commands assigned to this macro (fig. 57). Alternatively, you can also execute a macro only when the vehicle is behind another preceding vehicle.

Fig. 57	1102												
General settings	Service	Backup	Update decoder	Info									
Finetun Traffic ▼ ▼ DCC	-		Macros Macros are fulfilled. 1 2 Summary Used by m	3 : turn si	4 5 gnal rig	6 ht, spe	7 eed lir	8	9	riggere 10	ed by d	riving o	over mag
✓ Remote ▼ Start and Stop				peed ar is only e						-			icro.

You can also activate additional "light functions" on the vehicle for certain driving commands (fig. 58).

Fig. 58											
-	ate decoder	Info									
General settings     Service     Backup     Update       General info     Lights     Speed       Infrared     ✓     Adaptive cruise control       Finetuning     Traffic lanes       Traffic lanes     ✓       ✓     DCC       Function mapping       Compatibility mode       ✓     Remote control       ✓     Start and Stop       Behaviour during long stop       Execute command after departure       Behaviour on low battery       ✓     Magnetic control       North: Stop       South: Smooth braking       Magnetic sequences       Macros       Direct configuration	Macros Macros are fulfilled. 1 2 Summary Used by m Reset s Macro i Functions no cha no cha no cha	a advance 3 4 : speed 1 agnetic s peed and s only ex	imit 30 eequences d all funct ecuted, if Head- a High bes Roof be Turn sig	6 7 SSN ions befo f we are o nd tailligh	8 rre exe driving	9 10 ecuting the behind so Speed set ma 30 \$	11 rest of t meone.	12 the ma	13 acro.	agnetic 14	c sequences, by infrared emitters, or when certain con Lane (for infrared cruise control)          don't change lane         don't change direction         Special status         don't change status
	End condit		eed and f	unctions s	set by	this macro Any next		e effec	t)		

In the "Speed" section you can influence the vehicle's driving behaviour. For example, you can set a maximum speed limit or instruct the vehicle to gently brake at a particular magnetic sequence. You can also provide the vehicle with a custom braking distance as an additional option (fig. 59).

Fig. 59 aptive cruise control	1 2 3 4 5 6 7 8	9 10 11 12 13 14	
Traffic lanes V DCC Function mapping	Summary: stopping lane, brake Used by magnetic sequences: SS		
Compatibility mode V Remote control Start and Stop	<ul> <li>Reset speed and all functions before ex</li> <li>Macro is only executed, if we are driving</li> </ul>	-	_
Behaviour during long stop Execute command after departure	Functions	Speed	Lane (for infrared cruise co
Behaviour on low battery Magnetic control	no change 💌 Head- and taillights	smooth braking 🔹	set lane 0 (alternate
North: Stop South: Smooth braking	no change 💌 High beam	✓ custom braking distance	don't change direction
Magnetic sequences Macros	no change 🔻 Roof beacons	9 🗘 cm	Special status
Direct configuration	no change 💌 Turn signals, left		

Additionally, you can give the vehicle a "lane or direction information" while it is executing the control command (fig. 60).

Infrared	runnea.		
	1 2 3 4 5 6 7 8	9 10 11 12 13 14	
Traffic lanes	Summary: stopping lane, brake		1
▼ ✓ DCC	Used by magnetic sequences: SS		
Function mapping Compatibility mode ✔ Remote control	Reset speed and all functions before ex	ecuting the rest of the macro.	
<ul> <li>Start and Stop</li> </ul>	Macro is only executed, if we are drivin	g behind someone.	
Behaviour during long stop Execute command after departure	Functions	Speed	Lane (for infrared cruise control)
Behaviour on low battery	no change 🔻 Head- and taillights	smooth braking •	set lane 0 (alternate or stopping lane) 🔻
<ul> <li>Magnetic control</li> </ul>	no change · nead and tainights	Shiooth Draking	set lane o (alternate of scopping lane)
North: Stop	no change 🔻 High beam	✓ custom braking distance	don't change direction 🔹
South: Smooth braking Magnetic sequences	no change  Roof beacons		
Magnetic sequences	Not beacons	9 🗘 cm	Special status
Direct configuration	no change 🔻 Turn signals, left		
	no change 🔻 Turn signals, right		don't change status

Another option is to enable or disable the vehicle's "identification" during a control command (fig. 61).

F	ig. 61																
<b>V</b> 1	'iessmann CarMan	ager															-
	<b>USB adapter</b> Product Firmware		i n CarMotio	n (8011	)												Langua O
Ge	eneral settings	Service	Backup	Updat	te deco	der	Info										
		ng anes ibility mod control during long mmand aft on low batt ol oth brakin equences	e J stop er departur ery		fulfille Sumi Used Ref M Fur	os are ed. 2 <b>mary:</b> by ma eset sp	3 stopp ignetic opeed a s only inge i inge i inge i	4 ing c sec and a exec - + - + - F - T	I command 5 6 lane, brak quences: S all function cuted, if we Head- and High beam Roof beaco Furn signal	7 SS s befo e are o tailligh ns s, left	8 9 re executi driving bel Sp (	10	11 rest of neone. h brak	12 the ma	acro.	• 14	c sequences, by infrared emitters, or when certain conditions          Lane (for infrared cruise control)         set lane 0 (alternate or stopping lane) *         don't change direction         Special status         don't change status
					End	conditio	ons (s	pee	d and func	tions s	set by this	macro	will los	e effe	ct)		

You can also terminate the execution of the control command associated with the macro according to self-selected criteria. For example, with the control command "left blinker" you can choose to end the command after a certain period of time or distance. The default setting for this is 30 cm. You can also choose to end the command by crossing over another magnetic sequence or by depending on a north pole (stopping or restarting at a stop location) (fig. 62).

Fig. 62																	
Viessmann CarMar																	- 🗆
USB adapter Product Firmware		n CarMotior	n (801	1)													Language O 💻 Gerr O 🚟 Engl
General settings	Service	Backup	Upd	ate deco	oder	Info											
General info Lights Speed Infrared V Adaptiv Finetuni	ng	ntrol		fulfille 1	os are ed. 2	3	4	5 6	7	8 9			ng ov .2	ver ma	ignetic	sequences, by infrared emitters, or when certain	
	n mapping ibility mod control during long mmand afte on low batt rol o both braking equences	stop er departur ery	e	Used	by ma eset sp lacro is nctions	agnetic peed a s only e s ange ange ange	exec	al left, spe quences: s all function cuted, if w Head- and High bear Roof bead Turn sign	SNS s before e are dr d tailligh n cons	e execut iving be	hind sor	neone. aximum s			•	Lane (for infrared cruise control) don't change lane don't change direction Special status don't change status	reset ma
				End	Time	ions (sj limit	peec	Turn sign d and func 0 = se 30 = cr	tions se	t by this	Any next Stopped		ma	gnet	et		

**Note:** Depending on the control command assigned to a magnetic sequence, some options may be mutually exclusive. In this case, the fields will be grayed out and cannot be selected. For example, with macros 1 and 2, you cannot activate both direction indicators simultaneously (fig. 63).

Ficture 63	Macro fulfille		advan	icea	com	mano	s whic	n can	De tr	iggere	a by ar	iving o	ver ma	agnetic	sequences, by infrared emitters, or when certain com
Adaptive cruise control	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
Finetuning Traffic lanes V DCC Function mapping Compatibility mode Remote control	Used		gnetic eed a	sec nd a	quenc all fun	es: S	NS s befo	re exe		g the n		he ma	cro.		
<ul> <li>Start and Stop Behaviour during long stop Execute command after departure</li> </ul>		nctions		exec	utea,	, ii we	are	mving	·	nd son eed	leone.				Lane (for infrared cruise control)
Behaviour on low battery Magnetic control North: Stop South: Smooth braking Magnetic sequences Macros		no cha no cha no cha <b>turn o</b>	nge " nge "		High Roof	l- and beam beac signa	n ons	,		<b>set m</b> 30 🗘		m spe	ed	•	don't change lane       don't change direction       Special status
Direct configuration		turn o		Ŧ		signa									don't change status 👻
	End o	conditio	ons (s	peed	d and	funct	ions s	et by	this n	nacro v	vill lose	e effec	t)		
		Time Distan			0 30	see		, [ [ [	Sto	y next opped o leased	on a no		5	et	

**Note:** If you make any settings that you do not like, you can perform a reset at any time that only applies to the selected macro (fig. 64).

As you can see, with the advanced control commands (macros), we offer you diverse possibilities to make your driving operations even more varied, like few other car systems!

Fig. 64	4											
🖊 Viessmann CarMa	inager											- 🗆 X
USB adapter Product Firmware		n CarMotion (8	8011)									Language
General settings	Service	Backup L	Jpdate decoder	Info								
General info Lights Speed Infrared ✓ Adapti Finetun Traffic	ning	ntrol	Macros are fulfilled.	3	4 5	6	which ca	n be trigge 9 10			er magnet 13 14	etic sequences, by infrared emitters, or when certain conditions are
Compa Compa Remote Start and Stop Behaviour	p during long	stop		speed ar is only e	nd all fur	nctions b		ecuting the g behind s Speed			0.	Lane (for infrared cruise control)
Behaviour Magnetic com North: Sto South: Sm	on low batte trol p ooth brakin <u>c</u> sequences	, 	no ch no ch no ch	ange 🔹 ange 🔹 ange 🔹 ange 🔹	High l	- and tail beam beacons signals,	5	smoo ✓ cus	th brai tom bra cm	<b>ing</b> king dista	•	set lane 0 (alternate or stopping lane) *         don't change direction *         Special status
			no ch	ange 🔹 tions (sp e limit	Turn Deed and	signals, d function	right ns set by	y this macn	d macro		net	don't change status 🔹

#### 4.8 Direct settings

All the editors (settings) mentioned above, which are clearly and thematically presented in their respective chapters, are numbered as CVs here. Similar to programming a digital locomotive, you can directly select the desired configuration variable (CV) and assign it a value. Each CV is accompanied by a brief description text (fig. 65).

Viessmann CarMoti	n (8011)
· · · · · · · · · · · · · · · · · · ·	(0011)
Firmware 1.02	
General settings Service Backup	Update decoder Info
General info Lights Speed ▼ Infrared ▼	Direct configuration         CV       160         Value       7       6       5       4       3       2       1       0         Macro 6         Lane and options       -       Bit 7: Resets speed and all functions to default.         -       Bit 6: Only activate command if we are driving behind someone (IR cruise control).         -       Bit 5: Brake         -       Bit 5: 4-3: speed options. 0: don't change speed, 1: set speed to this value, 2: set this as max speed, 3: set -         Bits 2-0: -

There are CVs in which individual bits can be activated with a checkmark. Here, you have the freedom to choose which bits should be active or not. (fig. 66).

You have the option to read values of a configuration variable using the "Read" button. Alternatively, you can transfer values into the selected CV using the "Write" button. Changed values for the CVs are only adopted after clicking the "Write" button (fig. 67).

Fig. 66									
🗾 Viessmann CarMa	nager								
USB adapter Product Firmware	Viessman 1.02	n CarMotior							
General settings	Service	Backup	Update decoder	Info					
Compa	ing		Direct confi CV 1 Value 0 Macro 6	60 🗢	76	54	32	1 0	
Fig. 67 Viessmann CarManager USB adapter connected Product Viessman Firmware 1.02 General settings Service	n CarMotion (8011	l) Ite decoder Inf	0						− □ × Language ● ■ German ● ■ English
General info		Direct configura	ition						

Speed ▼ Infrared ▼ Infrared Traffic lanes ▼ ▼ DCC	CV 160 \$ Value 0 7 6 5 4 3 2 1 0	Read Write Reset
Function mapping Compatibility mode	Macro 6 Lane and options	

**Note:** Before making significant changes, it is recommended to create a backup file in the "Backup" tab. This will allow you to easily restore the previous operating state at any time.

**Note:** If you make any settings that you do not like, you can always perform a reset that applies only to the configuration variable (CV) (fig. 68).

<b>Fig. 68</b>		
Viessmann CarManager		- 🗆 ×
USB adapter connected Product Viessmann CarMotion (801 Firmware 1.02 General settings Service Backup Upd	1) ate decoder Info	Language German English
General info Lights Speed ▼ Infrared ▼ Infrared Traffic lanes ▼ Ø DCC	Direct configuration       CV     160       Value     0       7     6     5     4     3     2     1     0	Read Write Reset
Function mapping Compatibility mode	Macro 6 Lane and options	

To reset the vehicle to factory settings, use the "Reset to factory settings" button (fig. 69).

Fig. 69	Magnetic	commands
Figee69 ✓ Infrared ✓ ✓ Adaptive cruise control Finetuning	N	Immediate stop Smooth braking
<ul> <li>Traffic lanes</li> <li>▼ DCC</li> <li>Function mapping</li> <li>Compatibility mode</li> <li>▼ Remote control</li> <li>▼ Start and Stop</li> <li>Behaviour during long stop</li> <li>Execute command after departure</li> <li>Behaviour on low battery</li> <li>▼ Magnetic control</li> <li>North: Stop</li> <li>South: Smooth braking</li> <li>Magnetic sequences</li> <li>Macros</li> <li>Direct configuration</li> </ul>	SN SS SNN SSS SSS	<no command=""> Immediate stop Smooth braking Restore default driving mode Macro 1 (turn signal right, speed limit 30) Macro 2 (turn signal left, speed limit 30) Macro 3 (speed limit 30) Macro 4 (high beam on) Macro 5 (stopping lane, brake) Macro 6 Macro 7 Macro 8 Macro 9 Macro 10 Macro 11</no>
		Macro 12 Macro 13 Macro 14
Reset all		

# 5. Service

In the "Service" tab you will find user statistics as well as the option to recalibrate the vehicle's magnetic sensor. User statistics include the distance traveled as well as the total operating time (fig. 70). The model's traveled distance is converted to kilometres to scale.

Firmware 1.02	<b>Product</b> Viessmann CarMotion (8011)       Firmware     1.02							
General settings Service	e Backu	p Update dec	coder	Info				
Usage statistics								
		model	real v	vorld eq	uivalent			
Travel distance (total)		206.51 m	206.51 m 18.0 km					
Trip		206.51 m	18.0	km		<u>reset</u>		
Trip since last motor re	206.51 m	18.0	km		<u>reset</u>			
Operation time (total)	1:13:38 h							
Time since last service		1:13:38 h				<u>reset</u>		

A very helpful indication is the "distance traveled since last service". This can be reset, for example, after changing tyres (fig. 71). This way, you always have an overview of your maintenance activities on the vehicle.

Product Viessmann CarM Firmware 1.02	Viessmann CarMotion (8011) 1.02					
eneral settings Service Back	up Update de					
sage statistics						
	model	real world equiva	lent			
Travel distance (total)	206.51 m	18.0 km				
Trip	206.51 m	18.0 km	reset			
This state has been seen as a large set	206.51 m	18.0 km	reset			
Trip since last motor replacement						
Operation time (total)	1:13:38 h					

Recalibrating the magnetic sensor can be useful if, for example, yo have replaced the vehicle's motor. To do so, you only need to activate the "I understand the conditions mentioned above" checkbox to perform the calibration (fig. 72).

r <sup>ip</sup> 72	206.51 m	18.0 km	reset					
Trip since last motor replacement	206.51 m	18.0 km	reset					
Operation time (total)	1:13:38 h							
Time since last service	1:13:38 h		reset					
Calibrate magnetic sensor								
The magnetic sensor is already factory calibrated. New calibration might be necessary if the motor is replaced, causing the detection radius of northern and southern magnetic poles to differ.								
unier.								
Calibration is also necessary if ar	ny magnets are f	astened to the ve	hicle.					
	external magnet			/ of the				
Calibration is also necessary if ar Warning: During calibration, no	external magnet and upright!			/ of the				
Calibration is also necessary if ar Warning: During calibration, no vehicle, and the vehicle should st	external magnet and upright!	ts are allowed to		y of the				

# 6. Backup

To create backup files for your individually configured vehicle, use the option to create a backup file in the "Backups" tab.

Backing up data is especially useful when making major changes to the vehicle settings. If you are not satisfied with the changes, you can easily revert back to the backup file.

Backups can also be used to transfer your settings to other vehicles easily without having to configure each vehicle individually.

To create a backup, click on the "Create Backup" button. A backup file will be automatically generated and displayed in the menu field in blue text. (fig. 73).

Fi	g. 73							
•	Viessmann CarMar	nager						
٢	USB adapter	connected	I					
	Product	Viessman	n CarMotio	n (8011)				
	Firmware	1.02						
G	eneral settings	Service	Backup	Update decoder	Info			
	Downloads all configuration data from the decoder, so it can be uploaded to another one. Create backup Upload backup							
	2022-11-21 13:0	5:28 Viess	CM8011 1.0	12				

To save the backup file on your device, use the "Save data to File" button and save the file to your desired location (fig. 74). You can also easily load an existing backup file into the CarManager by clicking the "Open Data from File" button (fig. 75). Once the desired backup file has been uploaded, you can transfer it to the vehicle by clicking the "Upload Backup" button (fig. 76).



Downloads all configuration data from the decoder, so it can be uploaded to another one.							
	Create backup						
	Upload backup						

2022-11-21 13:05:28 ViessCM8011 1.02

# 7. Decoder-Update

In this menu you can bring your CarMotion vehicles up to date with the vehicle updates we provide. .

To do this, download the latest vehicle firmware from our website (https://viessmann-modell.com/carmotion/ software-firmware/) and then select it by clicking "Select..." (fig. 77). After that, you can transfer the software to your vehicle using the "Update" button (fig. 78). The process may take a few seconds.

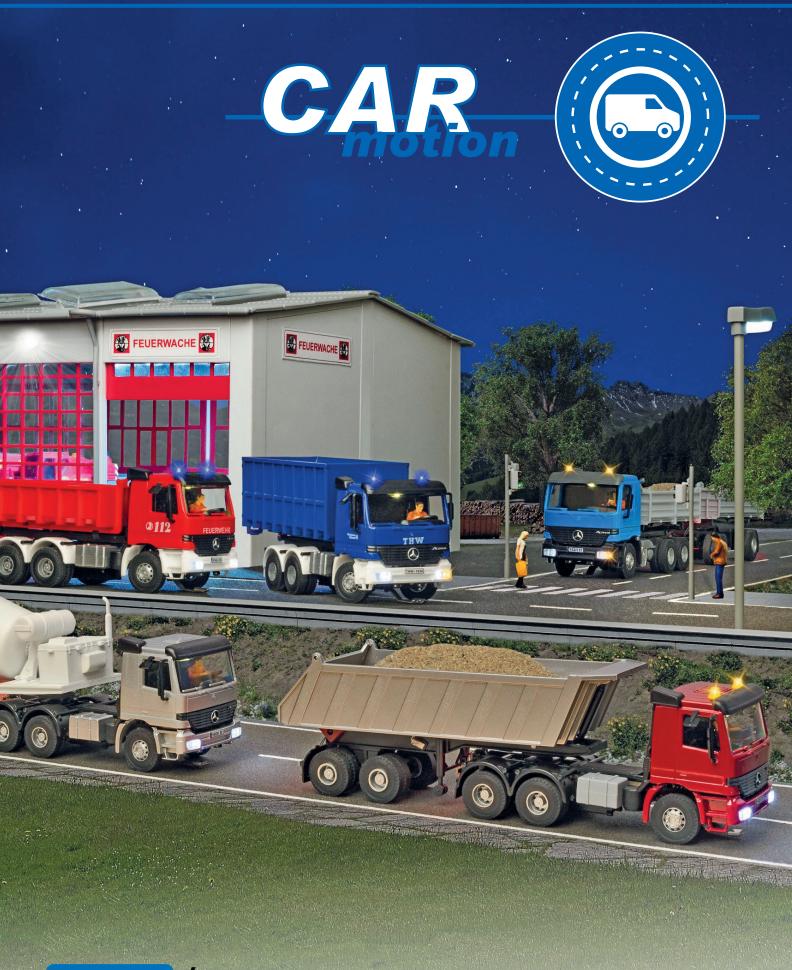
Fig. wa77 1.02	💿 🚟 English					
General settings Service Backup Update decoder Info						
Select firmware file						
C:/Users/l.hogen.OFFICE.000/Downloads/car 1.02.vgu	Select					
Update						
2022-11-21 13:06:26 : Update successful! Elapsed time: 10.0 s						
USB adapter connected						
Fighuer 8 Viessmann CarMotion (8011)	🔘 💻 German					
Firmware 1.02	💿 諯 English					
General settings Service Backup Update decoder Info						
Select firmware file						
C:/Users/l.hogen.OFFICE.000/Downloads/car 1.02.vgu	Select					
Update						
2022-11-21 13:06:26 : Update successfull Elapsed time: 10.0 s						

## 8. Info

In the "Info" menu field, the software version installed by you will be displayed, as well as the latest version available for free download on our website (fig. 79).

		ayei									
	<b>. 79</b> USB adapter	connected	I								
	Product	Viessman	Viessmann CarMotion (8011)								
	Firmware	1.02									
Ge	eneral settings	Service	Backup	Update decoder	Info						
	Viessmann Carl	-									
1	Installed version	1.00									
	Newest version	1.00									

We hope you enjoy our CarMotion vehicles!





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