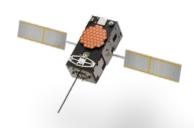


FALLER Car System Contents

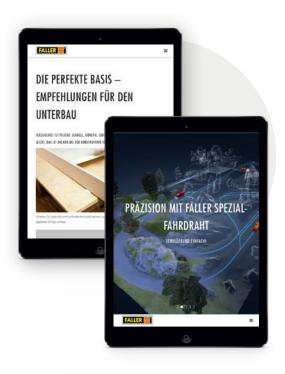






# CAR SYSTEM DIGITAL — PURE INNOVATION

Road show! Cars are an element of our culture and as such simply exciting. Integrated in your installation as miniature road traffic in motion, they provide an extraordinary overall impression embracing your building models and your landscape arrangement. With »Car System Digital« you are going to exhaust all the benefits offered by modern information and communication technology to scale modelling, and will be able to focus on what really counts here: your creativity.



Cruising! Each individual Car System Digital vehicle fascinates alone through an entire spectrum of realistic details that nearly make you forget the scale of 1:87. The adjustment of driving behaviour to the traffic flow and the observance of the applicable traffic regulations are fully automatic. You thus get noticeably more functionality for conventional miniaturization: it's safer, more exciting, and fully interconnected! You will find in-depth information relating to Car System Digital vehicles **on page 4.** 

Cockpit! The »Car System Digital« software is able to handle all traffic scenarios, autonomously and in accordance with the situation, regardless of the density of traffic, circuit layout, and installation size. It offers outstanding ease of operation when designing and controlling model layout construction, and allows you to keep a complete global view of the process at any time. You will find a general view of the »Car System Digital« software **from page 6.** 

Circuit! »Car System Digital« always conforms to the layout you have designed, to the existing building arrangement and railway circuit, and thus reduces your construction work to embedding the guide wire, building the component »Turnout« into the road, and fastening the ultrasonic satellites above the model installation. Do you feel like a test drive now? All you need for perfectly designed and fitted streets and roads can be found **from page 39.** 

Products protected through: European patent no. 13 152 513.1-1658 US patent no. 8,781,648

# PERFECTION, PRECISION, PASSION

Car System Digital vehicles can be personalized down to the smallest details and set new standards through their faithful reproduction of the real originals. Combined with the »Car System Digital« software they meet the most stringent requirements regarding their driving characteristics and functions - It will be guaranteed ecstasy and definitely the distinguishing mark of your model layout.



#### 161309

Car System Digital 3.0 VW Crafter »Fire Rescue« (HERPA) - Epoch V



Car System Digital 3.0 MAN TGA »Street Sweeper« (HERPA) • Epoch V

#### 161306

Car System Digital 3.0 MAN TGS TLF »Fire engine« (HERPA) • Epoch VI





161349 (HO, N)

# Processor-controlled charging unit

The latest generation of microprocessor controlled charging stations reliably charges all analog or digital Car System vehicles equipped with Li-ion or NiMH batteries. The digital vehicle's basic light and sound functions can be switched on and off using the charging station's control keys. You don't need a separate command station for adjusting basic functions. The charging station operates with 16 V AC voltage. The boost charge function reduces charging time for digital vehicles to about 1 hour. If you use the complete Car System Digital system, you only need the station for charging your digital vehicles.



Car System Digital 3.0 Lorry Scania R 13 HL



Car System Digital 3.0

MB Citaro »City bus«

(RIETZE) - Epoch VI

161313



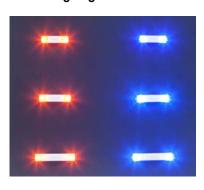
Car System Digital 3.0 Lorry MB Atego »Sixt«



Car System Digital 3.0 Lorry MB Actros LH'96 »Roll-off container«



## Flashing lights



163760 163761

13.5 mm, orange 13.5 mm, blue

163762 15.7 mm, orange

163763 15.7 mm, blue

163764

163765 20.2 mm, orange 20.2 mm, blue Rotating beacon modules (RKL modules) / flashing lights are intended to operate on 0.8 to 3.3 V DC, and can be used for both, Car System vehicles and the equipment of stationary models. Modules are 3.5 mm wide and 2.4 mm high including PCB. Total length 13.5 mm: Cars/SUV.

Total length 15.7 mm: Vans. Total length 20.2 mm: Lorries.















## 5 self-flashing LEDs

Eye-catcher! Light-emitting diodes with built-in microcircuit, to be used wherever a flashing lamp is required, e.g. as a visual signal on stationary models of vehicles (police, rescue service, fire brigade, construction industry, municipal companies, or agriculture), during gate opening and shutting movements, for the illumination of funfair models, and many others more.

Supply voltage: 3-4 V DC Current input: up to 30 mA Flashing rate: approx. 1.5 Hz International component size: 0805

Length: 2 mm, Width: 1.25 mm, Height: 1.1 mm Advice: For lighting effects on Car System vehicles, use the Flashing lights, Art. 163760 to 163765.

163740 red

163741 orange

163742 blue

### 5 SMD-LFDs

5 SMD reflector LEDs with powerful directional luminosity that like head lights does not radiate towards the interior of the vehicle. Suitable e.g. for the lighting of funfair kits, the equipment of vehicles with lights and many others more. SMD LEDs are characterized by their weak generation of heat and long service life. PAS format: 0603, corresponds to 1.6 x 0.8 mm. Operate LEDs only with the stated low voltage.

163750 white

163751 blue

163752 red 163753 orange



#### 163759

# Car System Digital LED Lighting kit for lorry MB SK, MAN F2000 (HERPA)

Light functions for your Car System Digital vehicles. The lighting kit contains two PCBs provided with LEDs that ensure all the lights on lorry models »MB SK« or »MAN F2000«. The adapted positions of the fastening holes and LEDs allow direct fastening of the PCBs to the bumpers of the vehicles. The LED lighting kit contains:

- Front board with headlights and turn signal lamps
- Rear board with rear lights and turn signal lamps
- Set of cables





#### 163758

# Car System Digital LED Trailer light bar

Light functions for your trailer on a Car System Digital tractor. Board provided with LEDs to ensure all the lights of a towed trailer, e.g. one by HERPA.

- Board with rear lights and turn signal lamps to be fastened to the trailer
- Protective resistors required already present on the board
- Set of cables for the soldering in the Car System Digital vehicle: supplied
- Plug-and socket connection set for the trailer: supplied



#### 163701

## Analog-Digital Conversion Kit

Printed circuit board allowing to retrofit various analog Car System vehicle models for digital operation with ultrasonic locating, fully automatic distance control and modifications of the driving speed while playing. Moreover all soldering pads required for additional lighting and equipment with sound functions are provided on the board. Experienced modellers will thus be able to convert any analog Car System vehicle to an integrally Car System Digital model. Compatible with Car System H0 bus and truck models.

# Analog-Digital Conversion Kit — Upgrade to the future

Simply lift up your existing Car System installation to a fully new

With the »Analog-digital conversion kit«, art. 163701 you will clear the way for the location and control of your conventional miniature vehicle in Car System Digital operation. The programmable conversion PCB also features soldering pads allowing the optional equipment of the vehicle with light and sound functions. While simply continuing to use your existing road net.

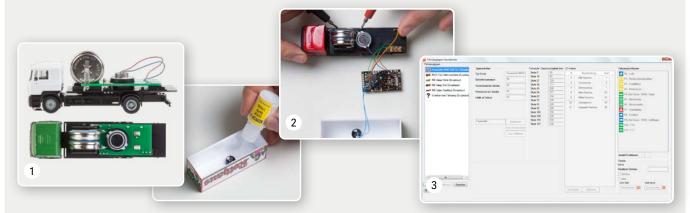
#### General view of product

Besides the conversion PCB the parts supplied with the conversion kit also include **the ultrasonic capsule allowing the location of the vehicle.** That capsule sends to the satellites, beyond the

audible range of frequencies, regular signals that are used by the system to determine the position of the vehicle. A suitable positioning ring ensures the accurate fixing of the capsule to the roof. To make the emission and reception of **information by radio** possible the conversion PCB features an aerial.

#### Know-how

Some basic knowledge of electronics and soldering is required to convert the vehicle. In the comprehensive instructions for use we have thus compiled for you all soldering recommendations that we consider to be useful, we also give plenty of tips and recommend the suitable materials and tools allowing the optimum equipment of your workplace environment.



#### Conversion in three simple steps

- 1 Empty the interior of the vehicle, prepare it and install the ultrasonic capsule in the roof.
- 2 Connect to the conversion PCB the vehicle's components »Charging socket«, »On/Off switch«, »Dry-reed sensor«, »Motor«, »Batteries«, the »Temperature sensor« supplied to monitor the battery charging process as well as the ultrasonic capsule.
- 3 Programme the vehicle using the »Car System Digital« software.

#### Putting the digital vehicle into operation

After the conversion all functions in the vehicle can be activated and modified by radio while driving, either by clicking on the relevant symbol in the software menu, or by means of a command sent by an automation, or via the integrated voice actuation. Whenever the converted digital vehicle is not within the radio control area of a Car System Digital master, it will behave like any other analog vehicle and can also be used on analog Car System installations without any difficulty.

#### Notes

Please observe that car and sprinter van models are not scheduled for conversion to Car System Digital operation at the moment and that, after mounting the PCB, you will immediately require the Car System Digital software and hardware to set up and operate your new digital vehicle.



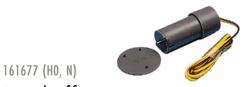
All you need

# THE BASICS AT A GLANCE

Car System and Car System Digital are founded on the same simple basic principle: a guide wire made of steel secured on a flat support and a vehicle placed onto that support that is switched-on and follows the run of the guide wire. With roads designed true to reality and various elements ensuring traffic control, you realize miniature road traffic full of life without major technical means.

With both Car System and Car System Digital, combining a few products already allows to achieve the whole range of possible functions. These basics will allow you to achieve the fastest and easiest integral driving experiences on your model layout.

PRODUCTS	Car System Digital	Car System
Special contact wire, art. 161670	✓	$\checkmark$
Laser-Street elements	$\checkmark$	$\checkmark$
Groove cutter, art. 161669 (as an alternative to Laser-Street elements)	✓	✓
Knifing filler, art. 180500	✓	✓
Transformer, art. 180641	$\checkmark$	$\checkmark$
Processor-controlled charging unit, art. 161349	✓	✓
Car System Digital Beginner's Set, art. 161355 (Software, Master, 3 satellites)	✓	
Expansion module, art. 161352	$\checkmark$	
Stop section, art. 161675		$\checkmark$
Branch-off junction, art. 161677	$\checkmark$	$\checkmark$
Parking space, art. 161674		$\checkmark$
3 Sensors, art. 161773		$\checkmark$
Traffic-Control, art. 161651		✓



# Branch-off junction

Whenever it is activated the magnetism of the branch-off junction steers a vehicle onto a second turning-off guide wire. This occurs via the magnet fastened to the steering slider built into the vehicles.



161773 (HO, N)

### 3 Sensors

For Car System Digital operation you only need sensors if you want to perform functional changes in areas that are not covered by the satellites, for instance in tunnels, underground garages or other shadow areas on your model layout. Of course you also always have the possibility to control consuming devices through checkback signals sent by sensors.

# HIGHEST DEMANDS — MET AMAZINGLY SIMPLY

The »Car System Digital« software provides central control of your miniature road traffic and a permanent survey on your computer, independently of the size of your installation, density of traffic, or complexity of our traffic scenarios. Thanks to the nearly cableless structure and virtual recording of circuit, realization will only require minimal technical means. Highest priority is given to the pleasure of driving with fascinating vehicles.

Your individual installation Your road net is recorded, drawn und stored, geometrically correct, in the software through a simple drive of a digital vehicle covering each possible itinerary only once. After you have subse-GPS for the hobby room quently indicated the existing turnouts, you are able to set up on Determination of the position accurate your circuit layout, using the mouse, as many monobloc sections to the last millimetre using ultrasound as you want for the most varied traffic scenarios. The software interface offers you the possibility to survey the traffic flow with all scenarios, and to control them centrally. **SATELLITES** Vehicle Ultrasonic position signal min. MS Windows XP SP2 Real time control of all vehicle functions Feedback **DIGITAL VEHICLE INSTALLATION AND CAR SYSTEM** charging level **CONTROL SOFTWARE DIGITAL MASTER** Charging **EXPANSION MODULE** PROCESSOR-CONTROLLED **CHARGING UNIT LIGHT SIGNALS AND** 

**CONTROL COMPONENTS** 

Car System Digital → Software





## **Modules**

#### Location by ultrasounds:

Each digital vehicle features an **ultrasonic transmitter** in the roof and constantly transmits its position via the **satellites**. Processing its XYZ coordinates allows to display the position and movement of the digital vehicle in real time on the software interface. By combining measurements and calculations the position is correctly displayed at all times, even during the passage through a tunnel.

#### Communication by radio:

Each digital vehicle features an integrated **DCC decoder** and radio transmitter/receiver. After being switched on, the digital vehicle is identified by the **digital master** and visualized with all its features on the user interface. The vehicle is controlled by radio. Distance control between digital vehicles is fully automatic.

#### Virtual sections

Exact location makes any insertion of sensors into the road unnecessary. After they have been installed, virtual sections or point signals can be hidden, if desired, or only displayed when activated to ensure a better survey. A digital vehicle that approaches virtual traffic lights will slow its speed depending on its distance to the point signal. Braking distances will thus be of varying length, but braking never is abrupt.

#### Automations and traffic signs

It's your choice whether you want to drive manually or have the entire installation monitored by automations: this includes, among other things, all traffic regulations, traffic light sequences, direction signals at turnouts, speed changes, loudspeaker sounds or light functions of your digital vehicle such as headlights, flashlight turn signals or warning signal flashers. Simply realize each of your visions, and change it again as often as you like. The easiest setting variant is placing traffic signs by drag and drop.



10

# Car System Digital Beginner's Set

The beginner's set, without the vehicle, provides all components that are necessary for getting started with fully automated operation of the Car System Digital. In addition to the 3 satellites, the Car System Digital Master, as well as the software necessary for the controls, are included in the set. The software is Windows compatible from Version XP SP2. In addition to a totally realistic road load, a fully comprehensible distance control of the vehicles is also possible! Playful fun is guaranteed.

The »Standard« software license type included covers the operation of up to 10 digital vehicles.





#### 161354

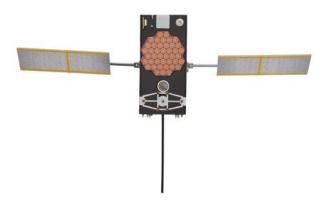
# Car System Digital Master

The Car System Digital Master (wireless base station) controls the communication between the necessary components and controls all functions. The communication between the satellites and the respectively vehicles is ensured by means of a wireless transmission through the respective reception module.

The Car System Digital Master possesses the following interfaces:

- USB interface for connection to a PC
- LocoNet Master connection for expansion with any LocoNet Components desired, e.g. connection of PC expansion module
- parallel power supply for satellites
- interface for any random DCC digital centre
- independent power supply with 16 V alternating voltage
- high-performance wireless antenna

The »Basic Version« software license type included covers the operation of 2 digital vehicles.



#### 161353

# Car System Digital Single satellite

The satellites serve to locate the vehicle. The duration of the vehicle ultrasound signal is transmitted to all the satellites and therefore, the position of the vehicle can be precisely determined with an accuracy of 10 mm. Depending on the size of the system, 3 satellites are necessary for the fully automated digital operation of the Car System Digital.

181 × 302 × 108 mm



161352 (HO, N)

# Expansion module

The extension module is connected to the Digital Master through LocoNet cable and fully automatically identified as hardware component by the »Car System Digital« software. Its 11 inputs and 12 outputs allow to preconfigure and control any light signals built into the circuit such as e.g. physical traffic lights, LEDs or lamps, to install and actuate Car System control components such as e.g. turnouts, parking spaces or sensors as well as other consuming devices. After virtually recording the track these components or devices all appear in the system window and are provided with a digital address. The extension module operates on 16 V alternating current. Several extension modules can be connected in series. The extension module may also be directly connected to any LocoNet capable digital control unit (e.g. Uhlenbrock Intellibox II) and be operated via such control unit.



161391 LocoNet Cable 0,5 m

161392 LocoNet Cable 2,0 m



161393 LocoNet Extension cable 2,0 m



161394 LocoNet Y-junction

163789

163790

orange

white



Assorted stranded wires

0.04 mm², 10 colours, 10 m each 06/19

# Stranded wire 0.04 mm², 10 m 06/19 163781 red 163786 blue 163782 black 163787 violet 163783 green 163788 brown

yellow

163784

163785



# FALLER.DE ONLINESHOP



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Large range of products

Nearly everything for scale modelling and the decoration of model railway installations: kits, animated models, Car System, tools, and plenty of useful products for model installations.

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You will find a specialised retailer shop in your neighbourhood under »Retailer search« at <u>www.faller.de</u>



# CAR SYSTEM — THE CLASSIC INSTALLATION

For over 25 years now, Car System has been the eye-catcher on all installations of car fans among model-makers. The prerequisites to livening up any model landscape with turbulent street traffic in a fascinating way are conceivably simple.

All you need for this purpose is a Car System vehicle, a road made of wood and FALLER's speciality guide wire embedded in it. It's guaranteed amazement and ecstasy!

Operated by a built-in motor and fitted with a magnet fastened to a small steering glider rotating the front axle to and for every Car System vehicle neatly follows the run of the guide wire. This will allow you already to let a vehicle drive very simple rounds with minimum technical means. There certainly are exciting routes everywhere on your installation, and you will find Car System vehicles suitable for the most varied themes **from page 20.** 

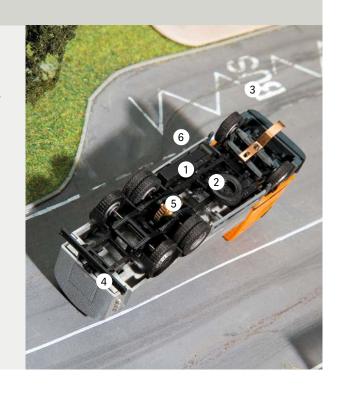
Should you want a vehicle to stop briefly, in front of a zebra crossing for instance, simply use the component »Stop point«. For the option allowing to take different routes, use the component »Turnout«. All control components are installed under the board, thus the third one called a »Parking space« too, which is used for the permanent stopping of vehicles. To actuate these control components it is usually easiest to use some push buttons. You will find a general view of all control modules **from page 28.** 

Should the traffic flow without any action on your part, it is sufficient to build a small »sensor« into the course of the road. Whenever a Car System vehicle drives over that sensor, a component will receive the pulse for switching. In such a case automatic control is obtained by connecting sensors and components to the »Traffic Control« unit that features several inputs and outputs to this end. That »Traffic Control« also allows to handle simultaneously several traffic scenarios connected to it. Pulses can be transmitted to the »Traffic Control« not only via sensors, but also via any keys, switches or switching tracks.

Traffic gets particularly realistic when using various light signals such as traffic lights, road blocks in front of street building sites, or radar speed checks, which can be regulated, if desired, through the "Traffic Light Control" unit. All products suitable for road construction and the complete equipment of a circuit with light signals can be found **from page 32.** 

## The Car System vehicle

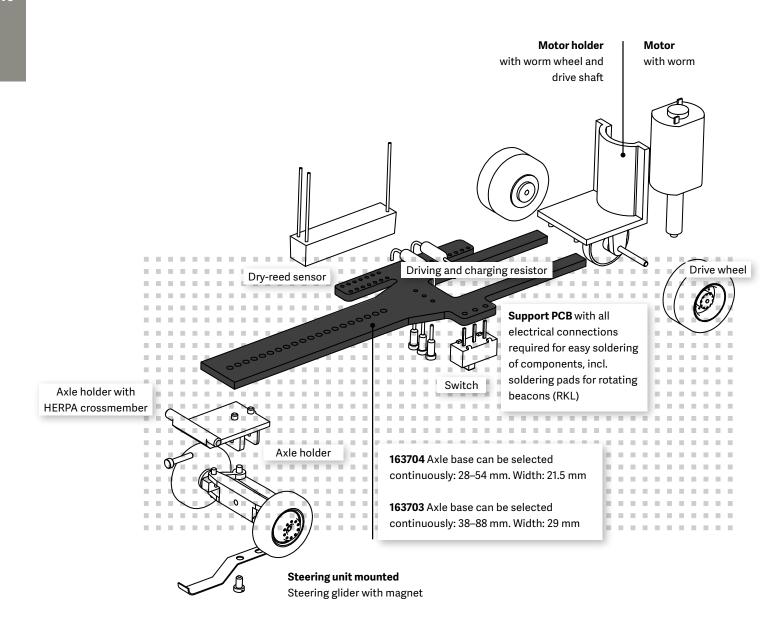
- "They drive by themselves! How does that work?" This is a question we hear quite often, because after all, this is characteristic of the fascination of the FALLER Car System. As if driven by a ghost hand, the cars and trucks drive along and stop at red lights and railway crossings. Of course, it is no secret how it works! We simply need to take a closer look at the vehicle:
- 1 **Powerfull bell-type armature motor** with up to 800 charging cycles and more than 2,000 continuous-duty hours
- 2 **ON/OFF slide switch** for starting and stopping the vehicle
- 3 Extra powerful permanent magnet mounted on the three-pointbearing front axle for exact track holding even in sharp bends
- 4 Exhausted storage batteries can be revived through the **charging**socket
- 5 Rear-axle drive units (shaft, worm gear and drive worm)
- 6 The vehicles can be stopped via a reed contact at stops (such as bus stops, traffic lights, level crossings)



# BUILD YOUR OWN CAR

Integrate stationary models of your choice very easily in the Car System world.

Four different products are available to carry out the motorization of stationary models of vehicles and make them fit for Car System operation: two sets providing all chassis components and two preassembled chassis.



## Chassis kits

Both chassis kits contain all the components required to build a fully functioning Car System H0 chassis, with the exception of the rechargeable batteries:

- Support PCB
- Motor with worm
- Motor holder with worm wheel and drive axle
- Drive wheels
- Front axle with wheels
- Steering glider with magnet
- Front axle holder
- Switch
- Charging socket
- Dry-reed sensor
- Resistors adjusting charging current and vehicle speed





#### 163704

Car System Chassis kit »Van«



#### Conversion info for bus and lorry models:

- Fastening of motor and gear unit at choice horizontal (e.g. in buses and trucks with dropped frame) or vertical (e.g. in semitrailer trucks)
- Built-in HERPA standard crossmember can be removed when using any bodywork of other manufacturers

#### Conversion info for van models:

- also suitable for TT models

163703

Car System Chassis kit »Bus, Lorry«

The preassembled conversion chassis allow to make your HERPA dream model of any lorry fit for Car System operation. You choose your own bodywork and driver cab.



#### Infos on bodywork type:

- Trunks and tarpaulins 7.15 m long in the original can be plugged directly
- Trunks and tarpaulins 6.8 m long in the original: intermediate plate of conversion chassis can be shortened
- Trunks and tarpaulins 7.45 m long in the original: corresponding projecting length at the rear
- Platform bodywork: fastening according to the cutout of the platform

#### Infos on driver cab:

- All cabs from HERPA cab-over-engine trucks can be used, except Renault models
- Clearance for front wheels by clipping the bottom part of the cab (mud guard, access)
- Fastening of the cab by means of bumper and HERPA standard crossmember







#### 161470

Car System
Conversion chassis
»Two-axle truck«

#### 161471

Car System
Conversion chassis
»Three-axle truck«

#### 161472

Car System Conversion chassis »VW T5«

New Item 2019

For the friends of the N gauge, too, road traffic is getting unique.



#### 163710

Car System Chassis kit »N-Bus, N-Lorry«

New Item 2019



# **Conversion instructions**



Assembly of trunk or tarpauling, differs depending on the length of the stationary models: Trunks and tarpaulins 7.15 m long in the original can be plugged directly.

**Platform bodywork:** Fastening according to the cutout of the platform.



Trunks and tarpaulins 6.8 m long in the original: Intermediate plate of conversion chassis can be shortened. In the first picture this is approx. the rear length of the black intermediate plate, which is longer than the green PCB.



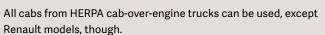
Trunks and tarpaulins 7.45 m long in the original: After mounting, the trunk or tarpaulin features a corresponding projecting length at the rear. Visible only when you examine the vehicle's underside.





The assembly of the driver cab is identical on all stationary models: Remove the separator on the frame of the driver cab bottom: on the small bearing frame of the cab bottom the small separator has to be removed using nippers.









**Fix the frame of the driver cab bottom:** the frame of the driver cab is fixed on the conversion chassis with instant adhesive Expert Rapid, Art. 170500. For neat pinpoint application of the adhesive we recommend to use a fine dosing needle suitable for instant adhesive.



Clip the bottom part of the cab (mud guard, access): on the inside of the mudguard, using a sharp knife, cut out adequate recesses to give the front wheels some clearance when steering.





**Place the driver cab:** finally plug the driver cab onto its bearing frame and fasten it by means of bumper and HERPA standard crossmember.



Completely modified vehicle model: Conversion time approx. 5 – 10 minutes.

# CAR SYSTEM VEHICLES

Your model layout is full of little stories that can fascinatingly come to life using road traffic in motion. Whether town, country or industry, you will certainly find in FALLER's Car System product range your dream model for the thematic world of your choice



161642

Truck MB Atego, white (HERPA) - Epoch V - New Item 2019



161485

# MB 0302 »Touring«

(WIKING) • Epoch III • New Item 2019



161484

SUV MB »G Class«

(HERPA) • Epoch IV



161543

# VW Touareg »Police«

with flashing light (WIKING) • **Epoch V** 



#### 161559

# VW Touareg »Emergency doctor«

with flashing light (WIKING) • **Epoch V** 



161587

## Ford Transit

(BREKINA) - Epoch IV



#### 161582

## VW T5 Bus

(WIKING) • Epoch V

21

■ CAR SYSTEM



#### 161583

VW T5 Transporte (WIKING) - Epoch V



#### 161586

VW T5 Bus »ADAC«
(WIKING) - Epoch V



#### 161563

VW T5 »Fire brigade«

with flashing light (WIKING) • **Epoch V** 



161617

Setra S 6
(BREKINA) - Epoch III



#### 161632

MB T2 Vario »Police«



#### 161599

MAN TGS TLF »Fire brigade«

with flashing light (HERPA) • **Epoch VI** 



#### 161556

MB Citaro »City Bus«
(RIETZE) • Epoch VI



MAN Lions Coach Bus »MeinFernbus« (RIETZE) - Epoch VI

■ CAR SYSTEM
Em HO
Car System > Vehicles



#### 161588

# MF Tractor

with wood chips trailer (WIKING) • **Epoch V** 



161536

## MF Tractor

with trailer (WIKING) • **Epoch V** 



#### 161482

Lorry MAN TGA »Street sweeper«



#### 161606

MAN 635 »Refuse lorry«



#### 161610

MB Sprinter »bofrost\*«



#### 161566

MAN 635 »Coal Merchant« (BREKINA) - Epoch III



#### 161554

Truck MAN TGS
»Repair Shop Service Truck«
(HERPA/RIETZE) - Epoch VI



#### 161480

Lorry MB SK'94
»Building site container«
(HERPA)- Epoch V



#### 161481

Lorry MB Actros LH'96 »Roll-off container«

(HERPA) • Epoch V



**■**H0

#### 161483

Lorry MB Actros LH'96 »Chemical transporter Bertschi« (HERPA) • Epoch V



#### 161597

Lorry Scania R 13 HL »Platform with wooden crate« (HERPA) • Epoch VI



#### 161598

Lorry Scania R 13 TL »Sea container« (HERPA) • Epoch VI



#### 161634

Scania R 13 »Short stock truck« (HERPA) • Epoch VI



#### 161595

Lorry Scania R 13 HL »Koch« (HERPA) • Epoch VI



#### 161555

Truck MB Atego »Dachser Refrigerated Box« (HERPA) • Epoch VI



#### 161560

Lorry MB Atego »Hertz« (HERPA) • Epoch V



#### 161561

Lorry MB Atego »Sixt« (HERPA) • Epoch V



#### 161584

Lorry MB SK »Emons« (HERPA) • Epoch V



#### 161592

Lorry MB Atego 04 »FedEx« (HERPA) • Epoch V



161690 (HO, N)

# Storage battery charger (230 V)

Suitable for charging all accumulators built into Car System vehicles.



161349 (HO, N)

# Processor-controlled charging unit

The microprocessor controlled charging stations reliably charges all analog or digital Car System vehicles equipped with Li-ion or NiMH batteries.

#### All-round customer assistance

If you need some advice on our products, order spare parts, or want us to repair or service any article, FALLER customer service department is always ready to help and will be pleased to provide you with expert assistance.

Moreover, all information on our products and all instruction manuals are available for download as PDF files on www.faller.de.

E-mail: kundendienst@faller.de Phone: +49 7723 651-106

#### Technical assistance by phone:

Monday: 8.00 hrs - 16.00 hrs Tuesday - Thursday: 8.00 hrs - 12.00 hrs

# CAR SYSTEM START-SETS

With the countless possibilities that FALLER Car System has to offer it is best to select one of the numerous starting sets to begin with. There are a number of starting sets available for a quick start into the Car System world, which differ almost only by the vehicle.

Each of these starting sets contains everything you need to get the FALLER Car System running on your layout. Simply select the start set with your favourite vehicle and you can get started! First steps could not be easier.



# Car System Start-Set MB 0317k Bus »Jägermeister«

Package contents:

• Bus MB O317k (BREKINA)

**■**H0

- · Storage battery charger
- Special guide wire 10 m
- Roadway knifing filler
- Roadway paint
- Roadway markings
- Crash barriers
- Barrier stakes
- Detailed assembly instructions

#### **Epoch III**



#### 161499

# Car System Start-Set »Night-Bus«

Package contents:

- Nightbus MB O 405 (WIKING)
- Storage battery charger
- Special guide wire 10 m
- · Roadway knifing filler
- Roadway paint
- Roadway markings
- Crash barriers
- Barrier stakes
- Detailed assembly instructions

#### **Epoch V**

# The content of a start set



Storage battery charger/batteries



10 m Special contact wire



Street filler



Roadway paint





Guardrails, border posts, street markings

■ CAR SYSTEM
Ear System > Start-Sets



#### 161504

# Car System Start-Set »MB Sprinter«

Package contents:

- MB Sprinter (HERPA)
- Storage battery charger
- Special guide wire 10 m
- Roadway knifing filler
- Roadway paint
- · Roadway markings
- · Crash barriers, Barrier stakes
- Detailed assembly instructions

#### **Epoch V**



#### 161505

# Car System Start-Set »Truck MAN«

Package contents:

- Truck MAN (HERPA)
- · Storage battery charger
- 10 m special contact wire
- Road knifing filler
- Roadway paint
- Street markings
- Guard rails, Boundary posts
- Detailed assembly instructions
- Country-specific decoration curve

#### **Epoch V**



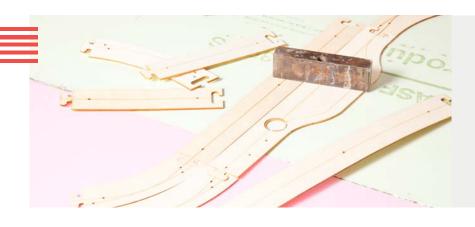
#### 161607

# Car System Start-Set »DHL lorry«

Package contents:

- Lorry MAN F2000 evo
- Storage battery charger
- Special guide wire 10 m
- Roadway knifing filler
- Roadway paint
- Roadway markings
- Crash barriers, Barrier stakes
- Detailed assembly instructions

#### **Epoch V**



#### Just do it with two start sets

A start set contains, except the road to be built, all components you need for Car System operation. The various start sets differ only by the model of Car System vehicle contained in the kit. When combining with the Laser-Street Basic-Set »Street elements«, art. 161900 you get the quickest possible start with Car System.

# MOBILE ON TRACK N

Roads are also coming alive for fans of the N track. Kept on track magnetically and energised by a rechargeable battery, the Car System vehicles drive across the model landscape on their own.

Already a miracle of precision in H0, the components and functional elements are even smaller, more compact and more sensitive here.



#### 162008

# Car System Start-Set MB 0302 »Post bus«

Package contents:

- MB O302 »Post bus« (WIKING)
- · Storage battery charger
- Special guide wire 10 m
- Roadway knifing filler
- Roadway paint
- Roadway markings
- Crash barriers
- Barrier stakes
- Detailed assembly instructions

#### **Epoch III**



162051

LKW MB SK

(WIKING) • Epoch III



#### 162052

Lorry MB SK »Platform/Tarpaulin« (WIKING) • Epoch V



# CONTROL



161651 (HO, N)

# Traffic-Control

The new Traffic Control! Modified and improved. Nearly every traffic situation can be simulated. Whether you want to plan a bus stop, diagonal parking lot, work zone, right-hand or left-hand traffic. The vehicle will stop by itself. Along with 8 inputs and 8 outputs, a total of 15 control programs can be selected via microswitches. Rotary control knobs allow to adjust different periods of time. Comprehensive instructions for use with plenty of examples of connections and control sequences are supplied. 16 V alternating voltage; an ideal complement is transformer art. 180641!

# **COMPONENTS**



161675 (HO, N)

## Stop section

The accumulator voltage is interrupted via a reed switch in the vehicle by means of the magnetic field of the electric coil. Connection: 22 V, DC voltage, 160 mA.



# Branch-off junction

Whenever it is activated the magnetism of the branch-off junction steers a vehicle onto a second turning-off guide wire. This occurs via the magnet fastened to the steering slider built into the vehicles.







161674 (HO, N)

## Parking space

Parking space for the permanent stopping of vehicles in car parks. The vehicle is reactivated by means of the magnetic field of the electric coil. Connection: 16 V, AC voltage. Current draw 330 mA.



161773 (HO, N)

### 3 Sensors

Sensors are designed for the control of stop points, branch-off junctions, etc. They are activated by additional magnets fitted to the bottom of vehicles. Connection to Traffic-Control (art. 161651). Max. switching power 5 W  $\circ$  Max. switched current 200 mA

161622 (HO, N)

## Car System Basic set »Components«

The extremely economical beginner's package with the major functional elements allowing to build Car System installations. Package contains:

- 1 Traffic-Control (art. 161651), 3 Sensors (art. 1 × 161773),
- 2 Stop sections (art. 161675), 1 Branch-off junction (art. 161677),
- 2 additional magnets

To the traffic control unit can be connected the functional elements branch-off junction, stop point, electrical parking place, bus and petrol station stop, and distance control, all these elements being designed to regulate traffic flow. The control sensors allow to trigger various procedures of the functional elements. The electric branch-off junction is to be used to have vehicles turn off in the specified direction, the stop point being required to have the vehicles halt and drive again in diverse traffic situations.



161659 (HO, N)

## Relay module

Interacting with scenarios on the spot. Module composed of 2 relays (12 V DC) on small PCB that allows to trigger various actions on the model layout by plugging some wire straps (also called jumpers).

- Connected to the »Traffic-Control«, Art. 161651 or the »Extension module«, Art. 161352 the module can switch on and off e.g. a smoke generator, Art. 180690 or a modeller's synchronous motor, Art. 180629 (alternating current).
- Connected to an »Extension module« one of the outputs can actuate a motor in forward motion, while the other output will actuate the motor in reverse motion, by plugging the wire straps accordingly.
- It is also possible for the module to link various digital systems potential-free: one of the systems switches the relay on and that signal will be processed in another system.
- By plugging the wire straps accordingly, two signals can be generated out of one signal: since a normally closed contact and a normally open contact of the relay are used, either one contact or the other will be closed depending on whether the relay has pulled



up or is open. By suitably connecting the relay module it is also possible to reverse a signal.

 By connecting the relay module in series, it is possible to switch higher current values or even other voltages (e.g. an alternating voltage) on modules the outputs of which are too weak for the required current.

Further possible uses are described in the instruction manual supplied.







161667 (HO, N)

# Car System Bus stop set

Advantageous combination. The set contains all parts required to build a personalized functioning lane width neutral bus stop. Along with a control unit suitable for a bus stop (16 V alternating current) there are 1 Stop section, 1 Branch-off junction, 2 Sensors, 1 additional magnet (H0/N), 5 m of Special contact wire, 1 mounting template (H0/N) as well as detailed instructions within the set.



# Car System Bus stop set incl. Laser-Street

Roads and control technique in the advantageous set. This set allows to build a 2-lane H0 oval using Laser Street elements inclusive of a functioning bus stop. Along with a control unit suitable for a bus stop (16 V alternating current) there are the required Laser Street elements (H0), 1 Stop section, 1 Branch-off junction, 2 Sensors, 1 additional magnet (H0), 5 m of Special contact wire as well as detailed instructions within the set.

190847 190847GB (HO, N)

You will find the Internet version of »Pro Tips Car System« with convenient search function and all wiring diagrams to download as PDF files on www.faller.de/de/Profitipps Car System

# PROFITIPPS »CAR SYSTEM« PLANNING, DESIGN, TECHNIQUE

The indispensable reference and learning book for fascinating miniature road traffic.

The comprehensive manual »Pro Tips Car System« contains all fundamentals as well as detailed expert know-how relating to the topics Vehicles, Road building and Traffic control. Learn step by step the essential working techniques leading to the successful operation of Car System, and immediately implement your own ideas and projects.

All information on Car System in one volume

Comprehensive descriptions and illustrations

Connection diagrams for plenty of traffic scenarios

Professional road building for Car System and Car System Digital

For newcomers and advanced modellers





# LIGHT SIGNALS



161654 (HO, N)

# Traffic Light Control

This Traffic Light Control allows you to pilot every kind of traffic light installed on Car System layouts. Power supply through FALLER Transformer (art. 180641). With detailed instructions for use.

- up to 4 traffic lights can be connected (12 LEDs)
- the length of time of the different lights can partly be programmed at will
- up to 16 different LEDs (of 20 mA each) can be connected without having to use a surge protector
- running lights possible with up to 8 lamps

#### Play of light

Traffic lights are now part of every installation. But their cycle time has to be correct. This control unit allows to regulate complex crossroads. On doing so the Traffic Light Control ensures the right light is switched on. All signal patterns required can be represented at the traffic lights. The unit will meet the most varied requirements.







## 2 LED Traffic lights

Two traffic lights with LED signals in the colours green, yellow and red. Equally suitable for Car System and Car System Digital. By connecting them to the control unit »Traffic Light Control« art. 161654 they help represent the international signal sequence with three states (green/yellow/red). By connecting them to an »Extension module« art. 161352 they help represent the international signal sequences with three states (green/yellow/red), four states (green/yellow/red/yellow-red) or five states (green/ green blinking/yellow/red/red-yellow).





161840 162060

## 2 LED Traffic lights with electronics

Two traffic lights with LED signals in the colours green, yellow and red with a control box. Equally suitable for Car System, Car System Digital or independent operation. The most current international signal sequences can be triggered via the inputs of the box: one regulator each for country setting and duration.

Possible signal lights:

- -green/yellow/red
- -green/yellow/red/red-yellow
- -green/green blinking/yellow/red/red-yellow.

#### 161656 162056

# 2 LED Traffic lights with Stop sections

Designed for use in conjunction with the Traffic-Light-Control (art. 161654).











#### 161830

# 2 LED Warning lights

**■** H0 **■** N

Two warning lights with three yellow LEDs each. By connecting them to the control unit »Traffic Light Control« art. 161654 they help build a 6-lamp running light or two 3 lamp running lights. Permanent lighting possible by supplying a fixed voltage.

# **USEFUL HELPERS**



180641

# Transformer

Transformer for high output. Especially applicable for the operation of fair rides, electrical appliances, lighting, power supply for Car System controls and other model making accessories. With overload protection.

16 V, AC voltage 3.15 A 12 V, DC voltage 0.6 A (controlled) 5 V, DC voltage 0.6 A (controlled) 147 × 84 × 64 mm



180633 (HO, N)

### Rectifier

Rectifier to transform 16 V alternating current into direct current. Especially applicable for LED lighting in order to avoid a slight flickering of the small bulbs (art. 180647, 180648, 180649 as well as the lights 180630 + 180633).



161351 (HO, N)

## PC-standard module

The standard module (PC-interface) allows controlling the Car System via a PC. With the assistance of the software, actions can be controlled, the modules configured and activated accordingly. Also ideal for upgrading an existing system and its controller. The basic unit is delivered with a version specifically adapted to the Car System of Win-Digipet (Demo Version).

11 inlets for sensors, 12 outlets for functional elements.



161352 (HO, N)

# Expansion module

The expansion module is connected to the basic module (interface) per LocoNet, to have more inputs and outputs for stop sections, branch-off junctions, traffic lights, lighting, sensors and parking spaces for more complex model layouts. Several expansion modules can be connected in series. 11 inputs for sensors, 12 outputs for operational elements.

# **CROSSINGS**

#### 120243

# Unprotected level crossing

Set intended for the design of the area between the tracks. Covering flush with the road using a plank, a concrete filler block or a rhomboid metal insert, all supplied. Suitable for all kinds of H0 tracks (also C-M-K) and Car System.

**Epoch III** • 113 × 14 mm (3 x)







#### 120171

# Gated railway crossing

This microprocessor-controlled level-crossing is equipped with 4 flashing St. Andrews crosses, 2 gates over the entire width of the road and a gatekeeper's lodge. Function is triggered through a sensor, digital input is also possible. Suitable for all types of track and several juxtaposed tracks. Can also be used in the Car System for right-hand and left-hand traffic, on one or two lanes. Stopping places have to be bought separately. 12-16 V AC/DC.

**Epoch III**  $\circ$  incl. motor  $\circ$  Railway lodge: 72  $\times$  65  $\times$  59 mm  $\circ$  Level crossing: 310  $\times$  210  $\times$  44 mm  $\circ$  Depth: 34 mm





#### 222169

## Gated railway crossing

Microprocessor-controlled level-crossing equipped with 4 flashing St. Andrews crosses, 2 gates over the entire width of the road and a gatekeeper's lodge. Function triggered through a sensor, digital input also possible. Suitable for all types of track. Can also be used in the Car System for right-hand and left-hand traffic, on two lanes. Stopping places (art. 161675) have to be bought in addition. 12-16 V AC/DC voltage.

**Epoch III**  $\circ$  incl. motor  $\circ$  Level crossing: 210  $\times$  190  $\times$  90 mm  $\circ$  64  $\times$  54  $\times$  44 mm





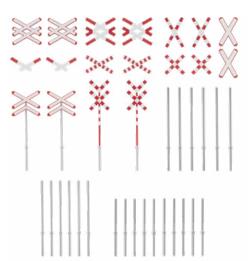
#### 120244

### Railway gate with drive parts

Modern level crossing with printed gates, warning lightings and St. Andrews crosses. Includes the driving parts allowing to retrofit the kit with two servos. Suitable for FALLER Car System!

Epoch V - Movable model -

Single-track: 295 × 210 × 43 mm  $\circ$  Double-track: 371 × 210 × 43 mm



#### 180949

# International St. Andrews crosses

Assortment of printed international St. Andrews crosses from Germany (Period III), Austria, Switzerland, Italy, France and Belgium.

**Epoch III** 



#### ■HO ■N

# MAKING ROADWAY DESIGN A CERTAIN SUCCESS

Roads are every city's nerve cords just as a design will only truly come alive with animated streets. The right basic knowledge and the extensive FALLER accessories make roadway designs a breeze. There are different techniques and accessories depending on what you wish to accomplish.

#### FALLER Laser-Street

FALLER Laser-Street features prefabricated street elements which simply connect together and already have a groove for the contact wire. Custom roadway routeings and integrating curves, passing points, branches, bridges and slip roads can also be implemented just as easily. Roadways are particularly simple and accurate to design with FALLER Laser-Street, without foregoing the familiar variety in the design.

#### Customisation

The groove cutter also allows roadway designs to be customised to your ideas. We merely recommend a minimal curve radius of 150 mm to ensure a smooth flow of oncoming traffic for all Car System vehicles. The unmatched routeing allows you to include unique design features in detail. See page 41 for additional customisations.

#### Galleries

Our galleries will guide you without a lot of words, illustrating key process steps. You will then know how roadways are installed and how to plan the installation of various components. FALLER Laser-Street roadway elements can be used temporarily or as a complete roadway system. "Finishing and decorating" will provide you with everything you need to know about decorating your new roadway.

#### **Materials**

We recommend using rigid foam sheets and a wooden frame for creating model designs. Your design will be lighter and easier to work with. For streets we recommend using 3 mm thick three-layered poplar plywood, which is also what we use for FALLER Laser-Street elements.





### Laser-Street – Streets in quick build



# 2

#### Street layout:

First, the street layout is arranged by simply placing the roadway segments where desired. This is child's play, with the help of the connecting segments. All roadway segments have a laser-cut groove in which the contact wire is later placed. Important: Glue the subsurface of the segments!

#### Bends:

Just like in real traffic vehicles swing out. This means that the guide wire is directed towards the exterior whenever the course of the road features a bend. Bend segments can be used on both sides, so that the same segment allows to build left-hand and right-hand turns



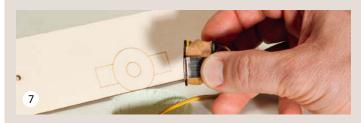


#### Variable circuit layout:

Variants in the course of the road are very easy to design using the element of flexible roadway. That part is of a most versatile use and allows a suitable circuit layout in extremely reduced space. Without much effort, you have brought your personal touch in the roadway.

#### **Combined method:**

Whoever wants to individualize it even more, will be able to design their own roadway sections using 3 mm thick plywood. Simply separate the connection points of the roadway elements and modify them to obtain the required length. Then integrate the 3 mm thick plywood.





#### Mounting aids:

All roadway segments have been prepared to allow building-in functional elements. Whether it be a branch-off junction (art. 161677), a stop point (art. 161675), a parking place (art. 161674) or a sensor (art. 161773). For each possible element we have provided a mounting aid.

#### **Drilled holes:**

For the branch-off junction the opening and the shoulder have been cut already for the course of the guide wire, so that the junction merely has to be inserted and fixed. At all appropriate points in the course of the guide wire, holes have been drilled, in which sensors can be inserted.



# 11

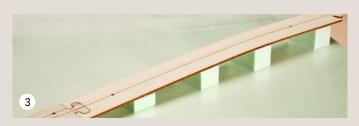
#### Applying filler:

To obtain a smooth roadway and eliminate any further inequalities, seal the surface using some knifing filler (art. 180500).

#### Road coating:

Whoever wants to obtain a very smooth surface, will be able to eliminate small inequalities using fine emery paper after the knifing filler has set. The important point is that the guide wire must still show through everywhere. Now, you can finish the work using roadway paint (art. 180506).





#### Transitions of terrain:

Roadway segments consist of 3 mm thick three-layer plywood and are easy to bend, yet they are still very sturdy. Small rigid-foamed blocks rapidly allow you to build in differences of level into the road and to design transitions in the relief accordingly.



#### **Groove cutter:**

Then draw the desired course for the lane and cut the groove intended for the guide wire using the groove cutter (art. 161669). It could hardly be easier and quicker to implement one's own ideas. You have every possibility to build individually, while simultaneously exploiting the advantages offered by the roadway elements.



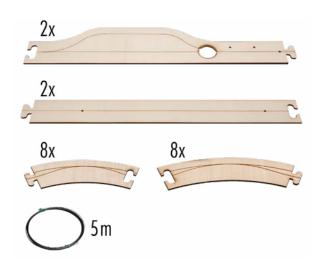
#### Mounting:

The various mounting aids allow you a bus stop within a few minutes, for instance. Moreover, these parts allow you to understand the general building system ruling the structure of functional articles, which considerably simplifies the implementation of your own ideas.



#### **Decoration:**

Depending on your own ideas, you may want to decorate the road with roadway markings, marker posts, crash barriers, traffic signs and traffic boards. It is not necessary to conceal the road verge in a complicated way. Usually applying some knifing filler or shaping it with scatter material will do. It's a very simple way to obtain an appropriate road verge.



#### Possible setup



### Laser-Street Basic-Set »Street elements«

With these parts which are easily to processed by interlinking street parts that already contain the groove for the guide wire, different single and double lane streets can be built. Guide wire included.

Lasercut

#### 161900

The content corresponds to 2  $\times$  161920, 2  $\times$  161921 and 2  $\times$  161930. Length of route: 4750 mm

#### 162100

The content corresponds to 2  $\times$  162120, 2  $\times$  162121 and 2  $\times$  162130.

Length of route: 3300 mm



161940

#### **Laser Street**

Lasercut - 212,5 × 102,5 mm (2 x)

»Forks and junctions 45°«



161941

#### Laser Street »T Junction«

Lasercut • 425 × 312,5 mm



#### 161945

#### Laser street »Terminal loop«

Lasercut • 411 × 320 mm



#### 161942

#### Laser street »Basic car park«

Lasercut - 873 × 320 mm



#### 161943

#### Laser street »Car park expansion«

Lasercut • 411 × 320 mm



#### 161910 162110

#### Laser-Street street straight

Lasercut •

 $425 \times 50 \text{ mm } (2 \text{ x}) (H0) =$ 

300 × 30 mm (2 x) (N)



#### 161911 162111

#### Laser-Street street straight

Lasercut •

212,5 × 50 mm (4 x) (H0) •

 $150 \times 30 \text{ mm } (4 \text{ x}) (N)$ 



#### 161920 162120

#### Laser-Street street curve 45°

Lasercut •

 $R = 268 \times 50 \text{ mm } (4 \text{ x}) (H0) =$ 

 $R = 150 \times 30 \text{ mm } (4 \text{ x}) (N)$ 



#### 161930 162130

#### Laser-Street »Bus stop set«

Lasercut •

425 × 83 mm, 425 × 50 mm (H0) •

 $300 \times 50$  mm,  $300 \times 30$  mm (N)



#### 161931 162131

#### Laser-Street flexible street

Lasercut •

250 × 50 mm (2 x) (H0) •

 $150 \times 30 \text{ mm (2 x) (N)}$ 



#### 161921 162121

#### Laser-Street street curve 45°

Lasercut •

 $R = 218 \times 50 \text{ mm (4 x) (H0)}$ 

 $R = 120 \times 30 \text{ mm } (4 \text{ x}) (N)$ 





### Custom roadway design

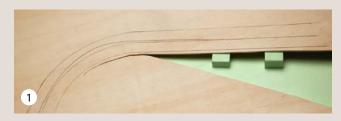
To integrate FALLER Car System into your existing design the so-called sunken method may be right for you.

Use the Groove Cutter (art. 161669) to customise the routeing of the contact wire and adapt the flow of traffic to local factors.

#### **Preparation**

Our recommendation: Use rigid foam sheets with a wooden frame for the base frame and use 3 mm thick poplar plywood for streets and other constructions. This is the maximum distance a stopping section coil may be from the top of the roadway. All functional elements can now be installed directly below the roadway. This will also reduce the overall weight of your design.

Make the surface of the roadway as smooth as possible and consider the turning radius of the vehicle to be used in the width. Longer vehicles require a wider road, especially for curves, than cars. The minimum curve radius should therefore not be less than 150 mm



#### Planning:

Mark the roadway by outlining it on the plywood and perform a test run to ensure the roadway is uniform. To do so lay out the wire, affix it with an adhesive strip and test the route with a vehicle

Please refer to the following chart for minimum roadway widths:

#### Single lane roadway width

	НО	N
Straight areas	50 mm	30 mm
Curves	70 mm	45 mm

#### Upward and downward hills

When constructing upward or downward hills or crests it's important to round the roadway at the respective transitions for vehicle control. Upward hills should not be steeper than 12 % (120 mm over 1000 mm roadway).

Once you know how the roadways should be routed you can start.



#### **Cutting:**

The Groove Cutter (art. 161669) is ideal for installing the special contact wire. This small machine features a slitting cutter which is guided along the marked path. Cutting the right groove height and width allows for optimal contact wire installation.



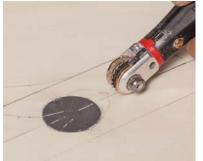
#### Installing contact wire:

Press the contact wire into the groove with a flat head screwdriver or joiner, ensuring it is correctly seated in the groove.

### Precision with FALLER special contact wire

Use only FALLER special contact wire (art. 161670) to build roadways, as using magnetic tape or soft iron wire may result in unwanted functional problems. To ensure traffic flows smoothly without incidents neither the individual magnetic fields of vehicles or functional elements nor the overall magnetic field of your model set should be impaired. Using the FALLER special contact wire will prevent potential malfunction sources in traffic caused by weaker, stronger or permanent local magnetic fields.





#### The right scale

The ideal tool for the individual street layout. The machine is equipped with a slotting cutter. The adjustment slider on both sides of the cutter guarantees the best possible result. In this way, it is possible to cut the exact depth the contact wire requires into the roadway. It doesn't get better and more precise than this. The groove cutter can be run straight off our transformer (art. 180641)!

#### 161669 (HO, N)

### Groove cutter

This groove cutter was developed and made especially for laying the contact wire in the FALLER Car System. Detailed instructions enclosed. Connection: 12 V, DC voltage. Adapter cable and comprehensive instructions are included.



161670 (HO, N)

### Special contact wire

10 m. Diameter and alloy adapted for use with steering magnet.



180500

# Roadway and terrain knifing filler, white

Used for road and terrain construction. Selfadhesive modelling material to be handled with no problem. This material is suitable for road construction in the FALLER Car System.

Content: 500 g

STRASSEN-





170654

# Roadway and terrain knifing filler, grey

Terrain construction dark-grey, self-adhesive modelling material. It is particularly suitable for terrain and rock modelling and for road construction in the FALLER Car System.

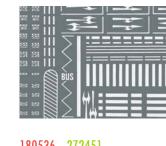
Content: 500 g



180506 180507

### Roadway paint

Roadway paint for creating realistic roads. Particularly suited for road construction with the FALLER Car System. Also suitable for adding colour when creating rocks or to conceal flaws in rigid foam sections.



#### **180536** 272451

#### Street markings

Self-adhesive rub-on street markings of all the necessary roadway marking symbols.

Epoch IV (H0) • Epoch III (N)



#### 180931

32 Marker posts Epoch III

#### 272910

20 Marker posts Epoch III



#### 180533

**■** H0 **■** N

#### Set of traffic signs

Period V set of town signs and traffic signs with digital printing along with posts and St. Andrews crosses.

**Epoch V** 

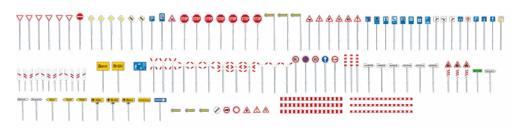


#### 180534

#### Set of traffic signs

Period III set with digitally printed town signs and other traffic signs with posts as well as St. Andrews crosses.

**Epoch III** 



#### 272449

#### Set of traffic signs

Set of 120 town signs and traffic signs with digital printing along with posts and St. Andrews crosses.

**Epoch IV** 



#### 272450

#### Set of traffic signs

Europe international (1977 – 1985) Contents: rub-on sheet, rub-on stylus, moulded traffic signs.

**Epoch IV** 



#### 180535

#### Crash barriers, 32 Marker posts

Crash barriers and marker posts for making the roadway safer. Total length: 1600 mm

**Epoch III** 



#### 272452

#### Crash barriers, 40 Marker posts

Crash barriers and marker posts for making the roadway safer. Total length: 860 mm

**Epoch III** 



#### 180538

#### Streetlamp set

26 street light dummies in 6 different designs. Do not light up.

Epoch IV



#### 180537

#### Set of sidewalk tiles

Tile Size: 160 × 113 mm (2x) Kerbstones: 3420 mm

**Epoch III** 



#### 272540

#### Set of sidewalk tiles

Tile dimensions: each 60 × 87 mm Kerbstones: 1660 mm

**Epoch III** 

### SPARE PARTS

Car System vehicles consist of various wear and tear parts that need to be replaced after a certain amount of usage like tires. Batteries also can only be recharged a limited number of times.

If you like working on your Car System vehicles yourself just follow your feeling for quality. Order your wear and tear parts or spare parts directly from FALLER. We offer the matching parts for nearly every Car System vehicle. Just browse our completely revised parts programme and you will find everything from steering parts or tires for different vehicle types to Reed switches or different motors. Please visit our website > www.faller.de for the full range of Car System spare parts including pictures and brief descriptions.

#### Please note:

- We cannot guarantee spare part supply for vintage cars among Car System vehicles if the needed spare part is not in stock or impossible to procure.
- Using the previous article numbers, you will get spare parts while stocks last.

### Front axles



#### Front axlesprinters (with wheels)

163001 completely assembled for sprinters (with wheels)

163002 completely assembled for lorries / buses (with wheels)

163003 completely assembled for lorries / buses (with NQ wheels)

163004 completely assembled for passenger cars (with wheels)

163007 completely assembled for Ford Transit (with wheels)

163008 completely assembled for delivery trucks (with wheels)

163009 completely assembled for N buses (with wheels)

163010 completely assembled for N lorries (with wheels)

163011 completely assembled for classic lorries (with wheels)

163012 completely assembled for lorries 7.5 t. (with wheels)

163013 completely assembled for tractors (with wheels)

163014 completely assembled for TT bus (with wheels)

163015 completely assembled for bus (with wheels)
163016 completely assembled for Bus MB Citaro

163017 completely assembled for Bus MB MAN

163051 assembled for lorries without wheels (17 mm)

163052 assembled for passenger car sprinters, without wheels (12 mm)

163053 assembled for passenger cars slim, without wheels (9 mm)

163054 assembled for N without wheels (8 mm)

### Tyres and rim



#### 2 wheels (twin tyres)

163101 tyres and lorry rims

163102 tyres and classic lorry rims

163103 NQ tyres and rims for lorries / various buses

163104 tyres and rims for electric bus

163111 tyres and rims for 7.5 t.

163112 tyres and rims for fire brigade

#### 2 wheels tyres and rims (Rear axle)

163117 for delivery trucks and bus

#### 4 wheels

163106 (HO, N) with tyres and rims (e.g. N buses/Trabant)

163109 with tyres and rims for Ford Transit

#### 4 tyres and rims

163107 for N lorries

163108 for Sprinter / T5

163110 for N lorries

163113 for passenger cars

163114 for passenger cars large / tourist train

#### **Batteries**



#### Rechargeable battery

163251 (H0, N) 400 mAh

163252 120 mAh

163253 250 mAh (double)

163254 250 mAh (double, flat)

163255 150 mAh (double, flat)

163256 (H0, N) 150 mAh

163257 450 mAh (double)

163258 (H0, N) 40 mAh

### Steering parts



#### 2 steering parts lorries

163201 for NQ lorries

163202 for lorries

163203 (H0, N) N-gauge vehicles/VW bus

163204 (H0, ∏) for TT bus / Mercedes G

163205 for special vehicles

163206 for delivery vans

163207 for tractors

### Reed sensors



#### Reed sensor

163451 glass tube small (GR-31 5-12)

163452 large moulded

163453 glass tube large

163454 (H0, N) long blue (MK06-5-C)

163455 changer, electric bus (MK06-8)

163456 (H0, N) short blue (MK06-4-C)

Car System → Spare Parts

□ HO □ TT □ N

□ CAR SYSTEM

#### Motors



#### Motor

163301 ø 10 mm, left worm, module 0.3

163302 ø 10 mm with surface, module 0.3

163303 (H0, N) ø 7 mm, module 0.3

163304 ø 10 mm, module 0.3

163305 ø 7 mm, module 0.16

163306 ø 6 mm short, module 0.16

163307 ø 6 mm long, module 0.16

163308 ø 6 mm long, module 0.16 five-pole

163310 ø 10 mm short worm, module 0.3

### Charging sockets



163601 5 charging sockets, unmounted (to inject)

163602 5 charging sockets, moulded

### Magnets



163221 2 additional magnets H0 163222 (H0, TT, N) 2 calibration magnets

163223 2 additional magnets N

### On and off switch



163401 for lorries

163402 (H0, N) for passenger cars and N vehicles

163403 for electric bus 163404 for circuit board

### Worm gears



#### Worm gear

163551 module 0.3 Z30

163552 module 0.3 Z18

163553 module 0.3 Z20

163554 module 0.16 Z20

163555 module 0.16 Z35

### Motors brackets



163501 for ø 10 mm motor, axle 24 mm/module 0.3 Z30 163502 for ø 7 mm motor, axle 24 mm/module 0.3 Z18



## **WORKSHOPS**

We show you how easy it is. In FALLER workshops at our headquarters in Gütenbach our experts will show you the best working techniques as well as all essential tricks and knacks when putting them into practice. Our workshops are equally aimed at beginners and advanced hobbyists. We make of you a mobility expert.

#### Workshop Car System

You will learn everything on road construction, vehicle technology and the different control components and control modules to design and arrange circuit layouts and traffic scenarios according to road traffic regulations.

#### Workshop Car System Digital

During that course you will familiarize yourself with all particularities of digital vehicles and their interactions with »Car System Digital« hardware and software. Which are the differences between Car System and Car System Digital? How do ultrasonic locating and radio communication operate? How are control commands given? No question on your part will remain unanswered.

#### Workshop Car System Digital »Vehicle conversion«

Within two days you will learn in theory and practice all knowledge required to convert a conventional analog Car System model vehicle to Car System digital operation. After such conversion your vehicle will feature a lot of new digital functions.

The number of participants is limited. So you should quickly book a place. More details on • <a href="https://www.faller.de">www.faller.de</a>





### Shall we meet there?

Experience FALLER live: it's possible in Baden, Franconia, Saxony, Westphalia and Wurttemberg. Anyone who wants to do it in a more international way can also meet us in France, the Netherlands, Italy, Austria or Poland. Anywhere you want, any time you want – we look forward to it!

#### **GERMANY**

#### Intermodellbau

Trade fair for model making and model sport, Dortmund www.intermodellbau.de

#### Modell-Hobby-Spiel

Exhibition for model making, model railway, creative crafts and toys, Leipzig www.modell-hobby-spiel.de

#### **Faszination Modellbau**

Exhibition for model making and model sport, Friedrichshafen www.faszination-modellbau.de

#### Internationale Modellbahn Ausstellung and Märklintage

Göppingen / Cologne www.maerklin.de www.modellbahn-koeln.de

#### FRANCE

Salon international du train miniature Parc Expo, Orléans www.ovle.fr

#### RailExpo

Salon international du modélisme ferroviaire Parc des Expositions, Chartres www.railexpo.info

#### ITALY

#### **Hobby Model Expo**

Parco Esposizioni Novegro, Milan www.parcoesposizioninovegro.it

#### **AUSTRIA**

#### Modellbau-Messe

Trade fair, Vienna www.modell-bau.at

#### **POLAND**

#### **Hobby Salon**

International Fair, Posen www.hobby.mtp.pl

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