



5300
Commander

Quick Start



Viessmann

Learning-DVD
included

technic & price
simply ingenious

Preface

Dear model railroader,

congratulations on the purchase of the **Viessmann Commander**! With the **Commander** you can easily and comfortably control your locomotives and also the whole range of operations on your layout. The unique track diagram of the **Commander** allows you a quick and intuitive access to all operations on your complete layout.

Choosing the **Commander** you purchased a device which is perfectly prepared for the future. The existing infrastructure of your layout can be integrated. User-friendliness avoiding all indications by bits and bytes and avoiding any use of an soldering device is featuring the **Commander**. Experience unexpected possibilities of control. You can completely concentrate upon the operations on your layout.

By the way, for actual information and software updates we have a special **Commander**-Homepage
www.viessmann-commander.de

We wish you lots of fun and success !
Your **Viessmann**-Team

Contents of delivery

Please, check the following list. If something is missing, please contact the specialist dealer where you purchased this device.

- this Quick Start guide
- DVD „**Commander**-attachments“
- **Viessmann Commander**
- power supply, mains connection cable included
- connection plugs for track and booster
- electronic stylus

Symbol key



Attention!
To follow absolutely!



Info, advice, tip



Not allowed!

Table of content

Important information	4	4. Put the locomotive on the track	14
Possibilities of use	4	5. Running a train!	15
Correct use of the product	4		
Safety instructions	4	Basic functions	15
Intention of the operating instruction	5	Running a locomotive	15
Explanation of the symbols	5	Operating turnouts and signals	17
		Feedback	18
Exploring the Commander	5		
Schematic overview of the Commander		Editors	18
and the touch fields	5	Locomotive editor	19
Multifunction Button	7	Turnout- and signal editor	22
Switching the Commander on and off	7	Track diagram editor:	25
Control panels	8	Route editor	27
Touchscreen	9		
		System set-up	31
Connection	9	Protocols / Amplification values	31
Connection jacks of the device	10	Starting mode	31
Wiring diagram	10	Language	31
		Model-time	31
Displaying modes		Display-brightness	31
on the Commander	11	Software-update	31
Mode track diagram & loco	12		
Mode locomotives	12	Information	33
Mode track diagram	12	Technical specifications	33
Direct mode	13	Conformity declaration	33
Route display	13	Pollution control / disposal	34
		Warranty information	34
Running the system /		Further informations	34
Quick start in 5 steps	14		
1. Taking out of the packaging	14	Appendix	
2. Connections	14	Overview over the menus	35
3. Turning On	14	Overview of touch fields	36

Important information

This product is not a toy. Not suitable for children under 14 years!

Please read the operating instructions before and during the first installation of the **Commander** completely and with attention. Please keep the operating instructions for later reference. It is a part of the product.

Possibilities of use

With the **Commander** you can control your entire layout. The **Commander** is designed for the comfortable control of your locomotives as well as for the operation of turnouts, signals and other functional devices. The **Commander** can be used for the data formats Märklin-Motorola old and new as well as for the format NMRA/DCC. The **Commander** fits for all scales.

Correct use of the product

The **Commander** has to be used strictly in conformity with this operating instruction. This product is intended:

- For connection to a model railroad layout in conformity with this operating instruction
- For connection to the included power supply

- For operation in dry areas
- For use in compliance with the safety instructions below.

Using the product for any other purpose is not approved and is considered as incorrect. The manufacturer cannot be held responsible for any damage resulting from the improper use of this product; liability in such case rests with the user.

There are no parts inside the casing to be maintained or cleaned.

Never try to open the **Commander**. In this case the guaranty will expire. Incorrect use of the **Commander** can destroy the device.



Safety instructions

- Don not leave the **Commander** unattended while it is switched on. The **Commander** must not be used for the control of any device driving or carrying persons.
- The **Commander** is not a toy. Please make sure that it is used by children only under supervision.
- For the power supply of the **Commander** use only the included power supply.

- Please check regularly if there are any damages to the casing or to the cables. Never use obviously damaged parts and never try to repair them yourself.
- The display is a very sensitive component. Never rest on it. Don't touch it with any hard or sharp pointer.
- If necessary clean up the **Commander** only with a soft cloth wet with folk and without fluffs. Never use household cleaners, they may corrode the surface.
- Please ensure that there is enough ventilation for the power supply and the **Commander**. The installation in a closed compartment or drawer will lead to a dangerous overheating and fire risk.
- The environment of the **Commander** must be rain prove, dry, dust-free and not exposed to direct solar radiation. Please avoid any great variations in temperature
- Taking the **Commander** from cold to warm rooms, the device needs at least 1 hour of acclimatisation.

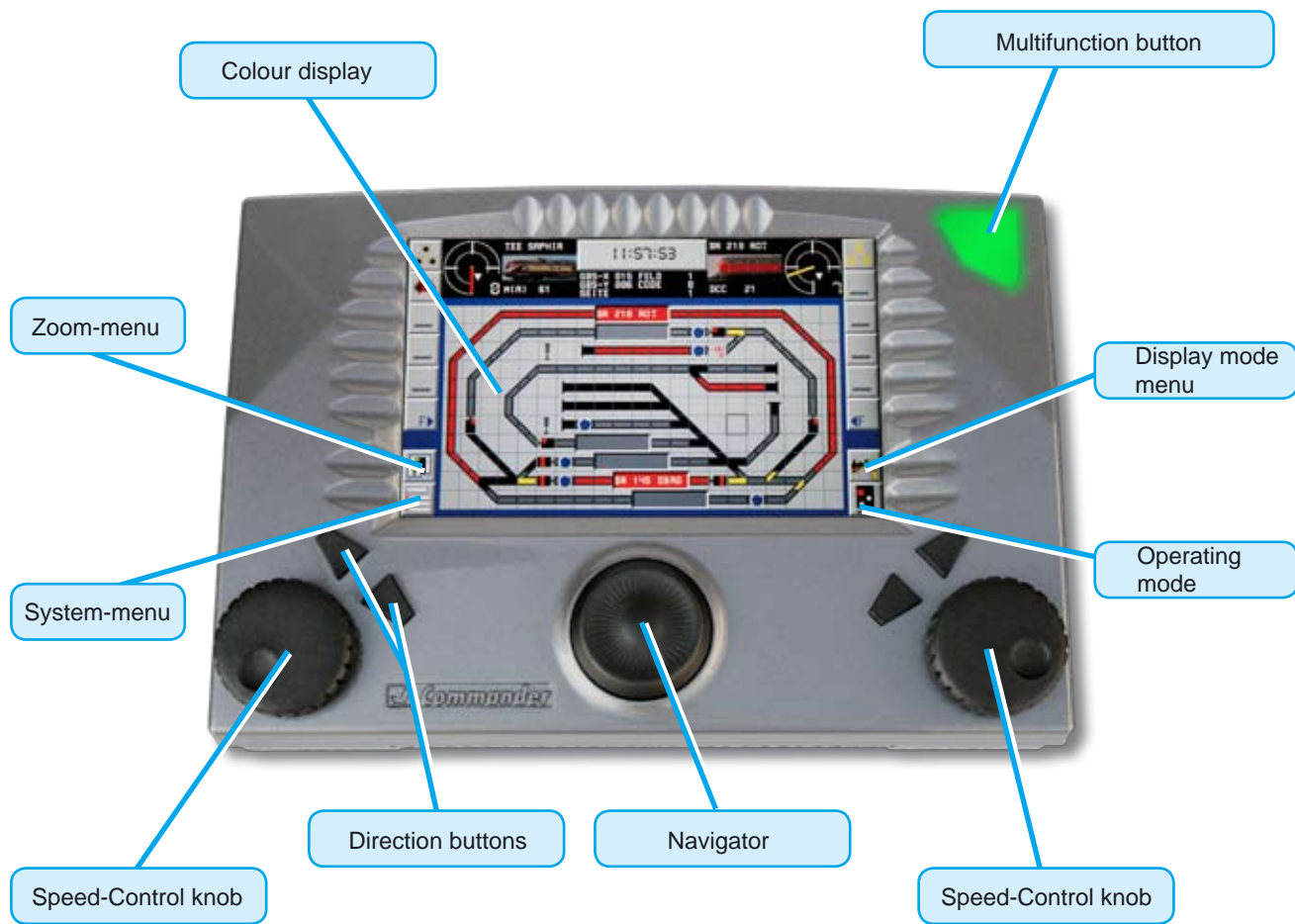
Intention of the operating instruction

The **Commander** is intended for an intuitive operating. To allow a quick start we intentionally made this operating instruction short. But the digital model railway is a complex theme. For detailed information please look at the included DVD and in the **Commander** reference manual.

The DVD contains a multimedia instruction. You can play it on a DVD-player or on your PC. Choose the terms of reference you want (e. g. drawing a track diagram). Step by step a movie will show you what to do. Additionally the DVD includes this short operating instruction as a PDF-document and software programs (computer programs) for the **Commander**.

Explanation of the symbols

Most of the control commands of the **Commander** are activated by touch fields on the display. You will find the most important touch field symbols and a schematic overview of the menus on the inside of the folding backside-cover from this booklet. Fold out this page to have it in full view while working with the instructions.



Exploring the Commander

Schematic overview of the **Commander** and the touch fields

To start with, you will find a schematic overview of the **Commander** and the touch fields on the left side.

Multifunction Button

You turn the **Commander** on and off with this pushbutton. Additionally you can activate two different emergency stop functions. The operating status of the device is indicated by the illumination of the pushbutton

Button	Function (explanation)
off	Device is off
blinking green	Device is starting
green	Device turned on, normal operating mode
blinking red-green	Device turned on, emergency stop, track power on
red	Device turned on, emergency stop, track power off
blinking red	Shutdown

Switching the Commander on and off

Switching on:

- Push the pushbutton until it's blinking green (approx. 1-2 seconds).

Switching off:

- Hold down the pushbutton until it flashes red. (> 3 seconds).
- Verify the screen request.

The **Commander** will shut off.

Emergency stop 1:

This emergency status stops automatically all trains. The track power is still on.

This function is not available in multi protocol operation (Motorola and DCC).

- To activate the emergency stop 1, press shortly the multifunction pushbutton.
- Releasing the pushbutton the emergency stop is deactivated.

Emergency stop 2:

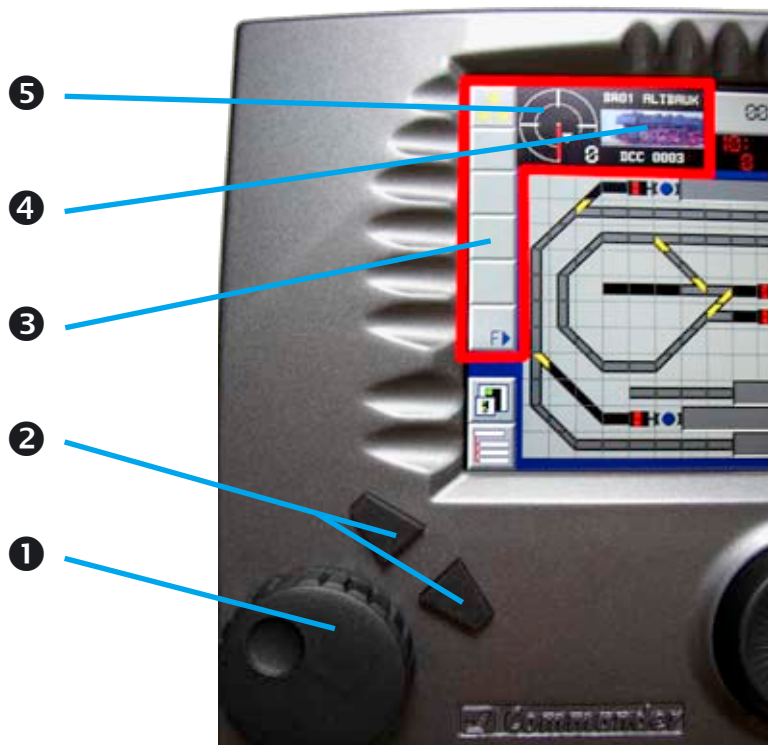
This emergency status stops automatically all trains and cuts off the track power.

- To activate the emergency stop 2, press the multifunction pushbutton till the illumination is permanently red.
- To deactivate the emergency stop press the pushbutton shortly again.



Control panels

The 2 control panels of the **Commander** are equivalent one to another. They are on the right and on the left side of the display and composed of the following components:



① Speed- control knob with intelligent turn stop. Turning clockwise the train runs quicker. You slow down the train by turning anti-clockwise. Just press the speed-control knob and the actually controlled locomotive will stop immediately (emergency stop).

② Two direction-buttons in order to change the direction of travel.

③ Function-touch fields in order to choose the additional functions of the locomotive by a fingertip.

④ Locomotive-selection-field to call up the list of locomotives. The **Commander** shows a locomotive icon of your free choice in this field as well as the address and the name of the locomotive.

⑤ Speed indication field: The **Commander** indicates the actual speed of the locomotive (speedometer and speed steps / speed in km/h).

Emergency Stop:

Push down the speed control knob controlling the train, you want to stop.



Touchscreen

The colour display of the **Commander** is a touch screen. The input can be done with your fingers (fingertip) or with the stylus included.

Take care that no waterdrops are left on the touch screen. This may cause a discoloration of the surface of the touch screen.

Never expose the touch screen to very bright sunlight or to ultraviolet radiation.



Please don't touch the display with any hard or sharp pointer like a ballpoint, pencil or needles.
This may scratch the display.

All touch fields of the display are sensitive. Additionally, switching-fields are set off specially. The **Commander** opens either another menu or carries out an operation just by a simple fingertip on a touch field.

Maintenance service of the touchscreen

Please avoid to scratch the sensitive surface of the display.

Clean the **Commander** with a damp lint free cloth or a one-way cloth for glasses.

Connection

Connecting the **Commander** please pay attention to the following advices.

Apply them also in case of modification of the wiring e. g. if you change or add signals or tracks.



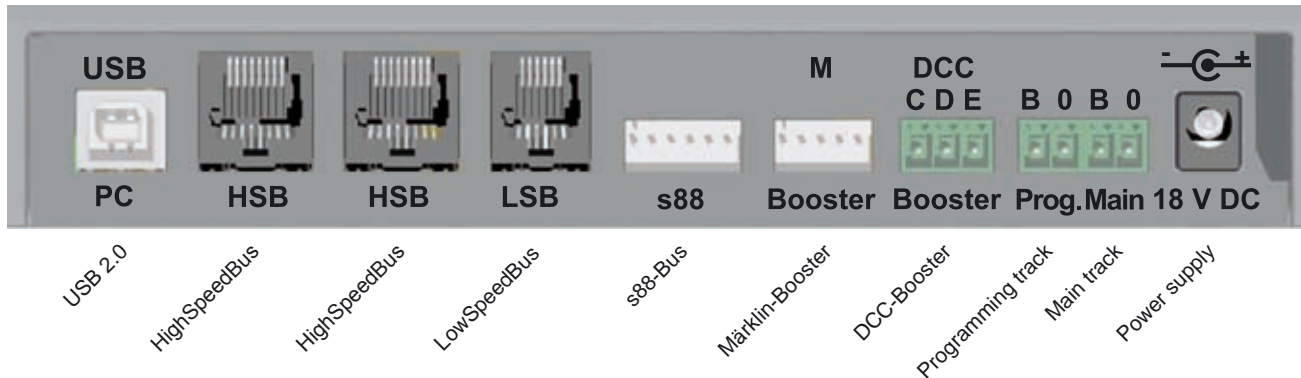
All connection and installation work has to be performed with the operating power switched off, except when connecting new devices to the **viessmann** SpeedBus connection jacks!

They should be connected during the running system in order to make possible the autoconfiguration.

The power source must be protected to prevent the wiring catching fire in case of a short circuit. Use only model railway transformers build in compliance with VDE/ EN!

Make sure that the cross section of the wires is large enough when performing electrical connections.

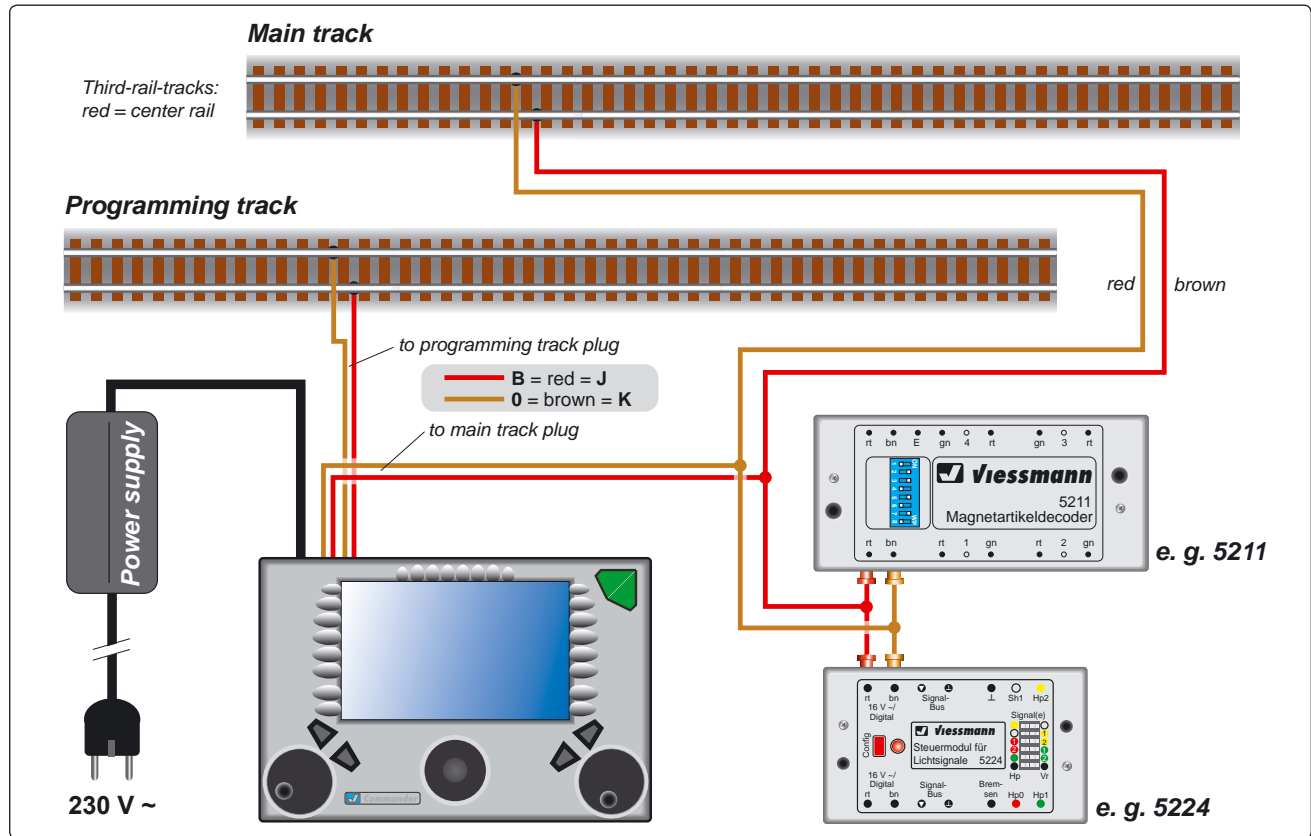
Connection jacks of the device



Wiring diagram

Notice: the polarity of the track connections is irrelevant for DCC- systems.

Using the Märklin Motorola format, please pay attention to the correct polarity, otherwise older decoders may not work correctly.



Displaying modes on the Commander

The **Commander** can display several different operating modes. You can individually control the different operations this way. You make your choice in the menu “displaying mode”.

Mode track diagram & loco

This mode is the standard displaying mode. It represents the track diagram and to control panels for the locomotives.



Mode locomotives

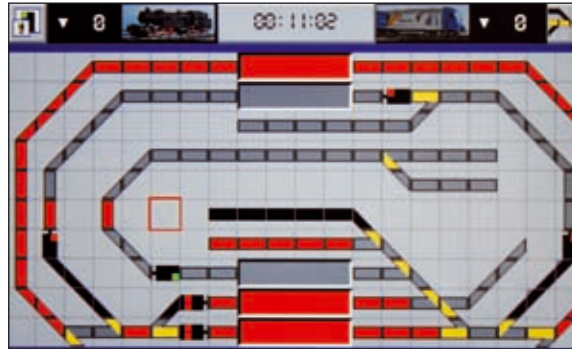
You have immediate access to 8 trains. The actually controlled locomotives have a black background. You activate them by a fingertip on the respective speedometer. You can choose your locomotive out of the list by a fingertip on the respective icon.

For the locos in use, the **Commander** displays the actual hours of operation.

Mode track diagram

The control panels are reduced in favour of a full-screen representation of the track diagram.

This mode is just right if you want to switch mainly and don't need the detailed loco control panels.



Direct mode

This mode imitates the keyboard of classic digital command stations.

You see first the feedback information from the left to the right. Next to it you can access the locomotives by a direct input of the addresses or you can switch accessories by the push buttons arranged in groups on the right side.



Route display

This mode is used for control of automatic operation. The **Commander** displays via table an overview of routes in use.

Detailed information about the display modi can be found in section 1.2 of the reference manual.

Running the system / Quick start in 5 steps

The intuitive operational-concept makes it really easy to work with the **Commander**. The following five steps show you how quickly you will be enabled to control your trains with the **Commander**. We wish you much fun and success with the new **Commander**!

1. Taking out of the packaging

Be careful while taking out the **Commander** of the packaging. Acquaint yourself with the elements of the control panel illustrated on page 6.

2. Connections



Notice:

the polarity of the track connections is irrelevant for DCC-systems.

Using the Märklin Motorola format, pay attention to the correct polarity, otherwise older decoders may not work correctly. Follow the illustration.

- Connect the track output of the **Commander** to the track connection of your layout.

- Connect the programming track output of the **Commander** to the programming track connection of your layout.
- Connect the power supply to the **Commander** and then to a proper plug socket.

3. Turning On

Press the multifunction pushbutton on the top right of the device till it is illuminated green to turn on the **Commander**. This will take approx. 1-2 seconds. The **Commander** boots up now.

After that, the **Commander** is in the mode "locomotive and track diagram" and the display shows an exemplary track diagram. As standard displaying mode a locomotive is already assigned to each of the two control panels.

4. Put the locomotive on the track

Put a digital locomotive on the programming track. The **Commander** will automatically identify the engine.

A window "train identification" opens up and the digital address of the locomotive standing on the programming track is indicated. (see illustration on the right side).

You can assign the locomotive to the right (right arrow) or to the left control panel (left arrow) by a fingertip on the touch field "**Loco on control panel**".

Another option is to edit the data record (see chapter "locomotive—editor").



Selection of a locomotive

Touch the locomotive icon of one of the two control panels.

A loco-list will pop up. The navigator enables you to have a look at the list and to select a locomotive:

- Move the navigator to the left or to the right in order to see the complete list.
- Move the navigator in the respective direction in order to scroll up or down the sub lists.
- Touch a loco description or a loco picture to gain control over the loco at the control panel.

5. Running a train!

You can run the locomotive with the chosen control panel now. But you can also run her on the programming track and activate the additional functions (light, sound etc.) Put the locomotive on any place you want on the main track and try out the driving behaviour and the additional functions of the locomotive.

Basic functions

The following passages acquaint you with the basic functions of the **Commander**. The best way is to read the passages with attention and to try out the functions with the **Commander** immediately. This way you learn how to operate the **Commander** very quickly and you can put aside the operating instruction. But, please keep the operating instruction in order to consult it.

Running a locomotive

You can easily run your locomotives with the two control panels of the **Commander**. The **Commander** is equipped with an internal locomotive data base where you can set up your locomotives including icons and further features like name, icon, driving behaviour etc. But, you can control a locomotive with the **Commander** only if you have entered it in the data base before. The **Commander** shows the loco data-records assorted in several sub lists (steam locomotives, diesel locomotives, electrical locomotives etc.). Thus you have a clear arrangement.

You have also the option to run the locomotive in the direct-mode. At the touch of one of the locomotive icons in the direct-mode, the icon will disappear and be replaced by an address field. You define the

train identification



digital format and you enter the address of the locomotive by the central keyboard. You can control this locomotive now with the respective control panel as usual.

loco list

ELEKTRO-LOKOMOTIVEN	
	BR 145 DBAG DCC 45
	E10.3 BUGELF DCC 10
	LUFTHANSA 111 DCC 11
	BR120 TEE DCC 12
	E40 MARKLIN DCC 40
	BR143 S-BAHN DCC 43
	BR145 RH-PFZ DCC 45
	BR151.0 GRUN DCC 51

Setting up a locomotive:
Put a new loco on the programming track. The **Commander** will automatically identify the locomotive and a window “**train identification**” pops up. Here you can set up, respectively edit a new loco data-record.

You can open a menu where you can set up all specifications of the loco and the decoder (address, digital format, name, icon, driving behaviour...) by a fingertip on the appropriate touch field. You will find more information in the chapter “locomotive editor” on page 19 or in the reference manual (chapter 2.1).

Selection of a locomotive:

- Touch the loco icon of the control panel you want to operate with. A list of saved locos opens up.
- The navigator enables you to select and to scroll the respective sub list. The locomotive you just have selected has now a red background.
- Touch loco description or loco picture to take control over the loco.

You have immediate access to up to 8 trains if you are in the displaying mode “locos”. Just a fingertip on the speedometer and you can exchange the locomotives.

**Notice:**

A locomotive controlled by a control panel continuous to run with the adjusted speed, even if it is no longer shown on the display.

The new selected locomotive is taken over with the previously adjusted speed. The **Commander** adapts the neutral position of the speed control knob.

So you can turn back into the neutral position of the speed control knob individually for each locomotive.

Running a train:

If you have assigned a loco to one of the control panels, you can run it immediately including the access to all functions.

- Select the driving direction by pushing the respective direction-pushbutton
- Turn the speed control knob slowly to the right, till the trains reaches the pre-determined speed. By turning the knob to the left you reduce the speed.
- Press the knob and the just controlled train will stop immediately (emergency stop)
- You switch on or off the additional functions like light, sound etc. by a touch of the additional function-touch fields.
- Further additional functions are called up by the touch field "F ►".
To close the menu "additional functions"

you only have to touch any free place on the track diagram.

Operating turnouts and signals

The track diagram offers you the most comfortable possibility of switching turnouts and signals. Therefore you must draw up the track diagram of your layout first (see chapter editors). Alternatively you can use the direct mode to switch turnouts and signals.

Operating function models on the track diagram:

- Touch the symbol of the function model you want to switch with your finger. A choice of different options (turnout positions and signal aspects) will be displayed on touch fields appearing between the two locomotive control panels.
- You switch the turnout or signal directly by a fingertip on the respective symbol. The new position is displayed on the track diagram.

Operating in the direct mode:

The direct mode of the **Commander** imitates the keyboard of classic digital command stations. A switch-group consists of 16 touch fields at the time. The amount of groups depends on the address range of the digital system in use.

Additional functions of a loco.

- By touching either the field marked with “GRP – “ or the field marked with “GRP + “ you select the group you want.

Two different switch positions can be determined for one accessory (e. g. turnout or signal) by a single touch field.

- Press shortly once on the respective touch field to operate the accessory. The illuminated indication field shows you the switching status by changing between red and green.

Assignment of addresses to the **switching fields:**

You assign the addresses of the switch decoders to the respective touch fields of the track diagram in the turnout- and signal editor. For further information please refer to the corresponding chapter on page 22 as well as in the reference manual (chapter 2.2).

Feedback

The **Commander** can receive feed back information by the s88-Bus or by the **Viessmann** SpeedBus. The Roco Feedback-Module 10787 can be connected to the **Viessmann** LowSpeedBus as well.

To use the feedback in a practice way, create the track diagram of your layout first. For further information please refer to the chapter “Track diagram editor” from page 25 on.

The feed back is also displayed in the **direct mode**. In this mode the feed back information is indicated by red or green illuminated fields on the left third of the screen. You select the respective feed back-module by a touch on the symbol “MOD - “ or “MOD + “.

From the basic of the feed back information the **Commander** can carry out many standard functions and indicate occupied track sections. Red illuminated fields on the track diagram show occupied track sections. Please note that not all field types of the track diagram can be illuminated.

To set up feedbacks check chapter „Feedback Editor“ starting on page 24 and open chapter 2.7 in „E/A-Unit-Editor“, also check in reference manual 2.3 „Feedbacks“.

Editors

The **Commander** offers several different editors in order to visualize your layout and to control the locomotives.

Locomotive editor

You can enter and change the locomotives' data with this editor. You can modify a data record at any time. Select the respective locomotive and hand her over to a control panel.

- Touch the speedometer of the control panel with your finger or an electronic stylus until the locomotive window opens (approx. 1-2 seconds).
- Carry out the desired modifications and save them as well in the locomotive decoder as in the locomotives' data record of the **Commander**.

The menu consists of several index cards you can choose to edit them (for the MM-format, not all data records are available):

1. locomotive picture, address, texts
2. additional functions
3. locomotive driving behaviour
4. decoder setup
5. speed step table
6. programming the CV (variable coefficient)

7. speed step preselection
8. editing of the locomotive list

- Touch the different setting keys (e. g. address, name etc.) in order to make the adjustment.
- You have either fields with numbers or fields with letters, fields to click on or slide controls to your disposal to enter the data, in dependence on the context.
- Confirm the input you made by the number-or character-fields with "OK".
- Register the CV-data for each CV apart in the locomotive decoder.





Märklin-Motorola-Decoder:

The address of older locomotive decoder with the Märklin-Motorola format is adjusted by Dual Inline switches (DIP-switches). The **Commander** shows you graphically how to adjust the switches for the respective address, in the Märklin-Motorola-protocol.

- Press the key “**Save**” in order to save the complete new data-record of the locomotive and to charge it in the locomotive-data record of the **Commander**.
- Don't forget to register the adjusted data in the locomotive decoder too.
- You close the menu by a touch on the “**Exit**”-key in the bottom right-hand corner.

Touch fields:



Read selected data of the locomotive decoder



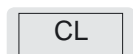
Transmit selected data to the locomotive decoder



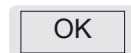
Entering-mode of a text



Entering-mode of numbers and special characters



Delete entry



Finish, confirm input



Save complete data record in the Commander



Exit menu

Remark on the additional functions:

You have different additional functions to your disposal, as light, sound, movement etc, depending on the locomotive model or the decoder type. The five priority-function keys are always displayed and thus immediately accessible.

All other additional functions are selected by the “F►” touch field.

You can edit the additional functions with the **index card 2** of the locomotive editor.

The index card has three sections. On the left you see a list of all possible additional functions. With the navigator you scroll through the list.

All available function keys are listed in the middle part.

The five priority-function keys that are always displayed on the control panel in order to have an immediate access are shown on the right hand side.

- Touch the respective function-key (F01 – F12). It begins to blink. With the navigator you scroll through the list of the additional-function-symbols.
- Press the symbol you want and it will be transferred to the selected function key.

How to edit the priority function keys:

- Touch the respective function-key (F01 – F12). It begins to blink.
- After that, press the priority-function key you want. The symbol will be transferred to this selected priority-function key.

Remark on the driving behaviour and the decoder setup:

The inputs for the driving behaviour of the locomotive are done on the index cards 3 and 4. There you can modify the values from the CV's 2 to 8 and 28 / 29.

Please, make sure to read the locomotive decoder CV values 2 to 8 for each CV apart and to save it again onto the decoder in case of a modification. You can change the values by a tip on the respective number or by moving the slide control.

The values of the CV's 28 and 29 can be entered as a number directly. Alternative you can touch the listed options.

The **Commander** calculates automatically the correct value of the CV.

Please refer to the operating instruction of the decoder.

Remark on the speed step table:
You can easily define a separate speed for each speed step with the graphical speed step table. The **Commander** offers you symbols of three already predefined tables. You can activate them by a tip on the desired symbol. Alternative you can adjust the speed individually. Keep your finger or the electronic stylus pressed on the respective speed step-bar and pull it to the speed you want.

Remark on the CV-programming:
You can select the CVs individually and edit them bit by bit or as a decimal value. Please execute modifications only if you have acquainted yourself with the subject. This way you avoid programming incorrect data to the decoder as that could be the cause of malfunctions.

Remark on the preselection of speed steps:
You can define three speed levels with different speeds for each locomotive: low speed, average speed and cruising speed.

These values can be used to assign individual speeds to each loco when programming a route.

Programming of the speed regulation:

- Regulate the speed by one of the speed control knobs.
- Confirm the adjusted speed value by pushing the key “Set”.
- The „SET“-Button locks in the standard speed values.

Remark to locomotive-lists:

You can organize your loco list with the index card “edit the locomotive list”. Assign your locos to the different sub-lists and define the position where the locomotive should be listed in the respective list.

Organize the locomotive list:

- Select a loco out of one of the lists with the navigator. Its background will change to red.
- Touch „P“-Button to park the loco.
- Select the new position of the loco in one of the lists with the navigator. Attention: the parked loco will be inserted in the list just above the selected locomotive position.
- Add the loco to the respective list by pushing the arrow pointing to “Locomotive list”.

Turnout- and signal editor

Turnouts and signals can be connected to the track power of the **Commander** (main track output) or to the new **Viessmann** LowSpeedBus output. But you need special decoders for a connection to the LowSpeedBus.

Set-Up turnouts and signals:

The Turnout- / Signal-Editor allows you to assign the digital address to a trackplan symbol.

- Activate the menu “**turnout –and signal editor**” by pressing the system-touch field (left down below).
- Push slightly on the respective symbols next to the label “**Turnout/ Signal**” in order to open the editor.

Turnout- and signal editor



Tip:

You can also call up the menu “turnout- and signal editor” if you are in the track diagram-mode. Simply press the respective turnout- or signal symbol on the track diagram for approx. 1 – 2 seconds. This presupposes that you have drawn the track diagram first. The configuration of the switches and signals can be done directly from the diagram then.



The following adjustment options are at your disposal:

Symbol-Type: The **Commander** shows you the respective symbol of the track diagram.

Address: Touch slightly the address field and enter a standard address-value by the keyboard on the touch screen (Please refer to the operating instruction of the decoder). You can delete your input with "CL" or confirm it with "OK".

Adjusting the outputs of the decoder: You can reverse the outputs of an incorrect connected switch motor so it acts reversed.

Indication: You can adapt the representation of the turnout to the track diagram.:

On the next page of the menu you adjust the format of the digital system and you determine if the decoder executes a particular switching command every time the system starts.

- Enter the desired adjustments.
- To finish, touch the key "**Save**" in order to save the complete data record of the respective accessory on the **Commander**.

- You close the menu by pushing "**Exit**". You can modify your adjustments at any time by calling up the menu again.

Connection to the track power:
Connect the decoders (accessories with solenoid drive and signal-decoder) to the red and brown connections of the track power according to the decoder operating instruction. Carry out the decoder programming procedure according to the operating instruction..

DCC-decoder:

Activate the programming mode of the decoder. Touch the respective touch field of the track diagram and operate the switch. The **Commander** transmits a control command to the corresponding address. The decoder saves the received address as its own.

Alternative you can directly enter a control command to the chosen address in the "direct mode", on condition that the decoder is in the programming mode.

Most of the decoder confirm the transmission of the address by the execution of an operation and return to the normal running mode after that. Please follow exactly the operating instruction of the decoder.





Märklin/Motorola- Decoder:

The address of older locomotive decoder with the Märklin-Motorola format is adjusted by Dual Inline switches (DIP-switches).

The **Commander** shows you graphically how to adjust the switches for the respective address, using the Märklin-Motorola-protocol.

Feedback Editor

In this editor you designate the appropriate track sections in the track plans to the feedback module inputs.

- Activate the menu “**feedback editor**” by pressing the system-touch field (lower left).
- Push slightly on the respective symbol next to the label “**feedback**” in order to open the editor.

The set up window opens. A schematic diagram shows the surface of a feedback module (a feedback module seen from above).

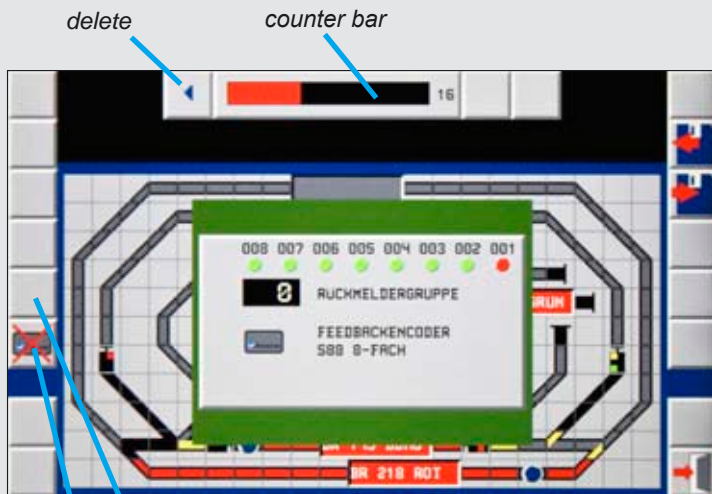
- Touch the address-field and enter the address of the feedback module.

At the upper and lower side of the feedback encoder icon 8 or 16 inputs are shown.

- Select an input by finger-tip on the input-symbol.

The respective input will be illuminated in red. Assign now the corresponding fields on the track diagram to the activated input.

Display mode of the feedback editor



show feedback module (only if the module is invisible)

hide feedback module

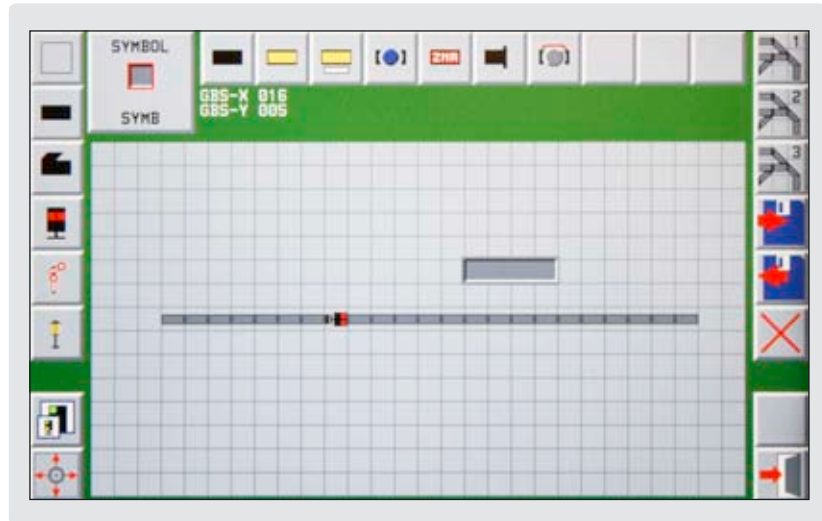
Assign track diagram fields:

- Press the touch field
“**hide feedback encoder**”.
- Touch the fields of the track diagram you want to be indicated as occupied track section by illumination in colour, one after the other. The progress-bar at the top in the middle of the picture figures the enumeration of selected fields.
- You can delete your last inputs with the arrow key pointing to the left, in case that any input error occurred.
- Delete the respective fields by pressing the “**delete**”-key.
- If you use circuit tracks or light sensors for feedback etc. for an active input activate the „MOM“-button.
- You can simulate the feedback with the two switching fields on the right of the counter bar.
- Once you have all feedback sections assigned to the corresponding feedback module inputs, save the entered sections by pressing the key “**Save**”.
- To finish, you press the key “**show feedback decoder**”. The **Commander** saves the entered fields and shows the feedback menu again. Now, you can assign the corresponding fields to the next input of the feedback module.
- In order to close the menu, touch the “**Exit**”-key in the bottom right-hand corner.

Track diagram editor:

The track diagram enables you to draw or modify track diagrams directly with the **Commander**. You can draw up and save three different track diagrams. The track diagram can be larger than the displayed section on the **Commander**.

Track diagrams can only be edited when the **Commander** is in the mode “manual operation”. The touch field in the bottom right-hand corner must represent a red signal (symbol of the signal aspect Hp0 or Hp0/Sh1).



How to edit track diagrams:

- Select the desired track diagram.
- Activate the menu “**track diagram editor**” by pressing the system-touch field (left down below).
- In order to open the editor push slightly on the respective symbol next to the label “**Track diagram**”.

You are now in the track diagram editor and you can see the raster field of the chosen track diagram just **in the middle**.

On the left you see an arrangement of touch fields representing different categories of symbol field types (Track symbols, turnout symbols, signal symbols etc.). You select the respective category.

The fields belonging to this category are displayed **at the top**. On the left is a selection list where the just active field type will be pointed out by an enlargement and indicates you the item-no of the track-symbol.

On the right you have touch fields in order to administrate the track diagram:



Delete track diagram (cancels the whole diagram)



Load track diagram (loads down the last saved configuration of the diagram)



Save track diagram (saves the actual configuration of the track diagram)

Editing track diagrams is very easy:

- Select the desired field type out of the different categories of symbol field types. The respective symbol is displayed on the selection list and at the same time on the actual position of the cursor on the track diagram-area.
- Drag it to the final position with your finger or an electronic stylus.
- Turn the symbol as long as it points to the right direction with the speed-knob.
- Press now the navigator or speed knob until you hear a click, in order to fix the symbol in the track diagram.

This way you can draw field by field the whole track diagram.

- By pressing the “**Save**”-symbol you save the track diagram.
- After that you leave the track diagram editor by touching the key “**Exit**”.

Route editor

The control of routes is an important tool to automate the operations on your layout. You can call up and exploit routes automatically either time controlled or by feedback modules, or manually at the touch of a button. The **Commander** is able to visualize active routes by a yellow illumination.



More information and detailed examples can be found in chapter 1.1.3 and 2.4 of the reference manual.

How to set up and edit a route:

You have to design the track diagram before setting up a route.

So, draw the track diagram of your layout with the **Commander** first.

- Call up the menu “**Route**” by pressing the system-touch field (left down below).
- Push slightly on the respective symbol next to the label “**Route**” in order to open the editor. You are now in the route editor. You can program all parameters of a route using the 9 index cards you have to your disposal.

On the left and right hand side of the index cards are several different touch fields in order to edit the inputs.



previous index card



next index card



save complete route on the Commander



load complete route



delete selected index card entry





exit menu



Call up the relevant track diagram to select track sections. Interconnection of different track diagrams in order to define starting point and destination is possible.



Show again the menu of the index card.

Go through the index cards one after another and make the respective entries in order to set up and to edit a route.

Index card 1:

- Enter the route number and the explanatory comment using the alphanumeric screen keyboard.
- Select the operating mode (automatic or manual operation)
- Define the starting point and the destination on the track diagram (optional). Touch one of the index card-selection fields (previous or next index card). After that a track diagram opens up.
- Choose the appropriate track diagram.
- Touch the respective symbol field you want. The chosen symbol field shows a red flashing frame.

- Return to the index card.

Index card 2:

You can call up a route either by feedback modules or time controlled. In order to do that, press the desired touch field. On the track diagram you select the feedback modules you take into consideration for an automatic call up of the route.

In case that a passing train activates the respective feedback module the **Commander** can automatically switch over and open the proximate route, if it is not occupied. Using intelligent feedback modules the route control can also be activated in dependence of a special train.

Index card 3:

Enter all feedback sections belonging to a route into the index card “respect feedback”. This way you ensure that a route is only switched and unlocked, if the respective sections are really free.

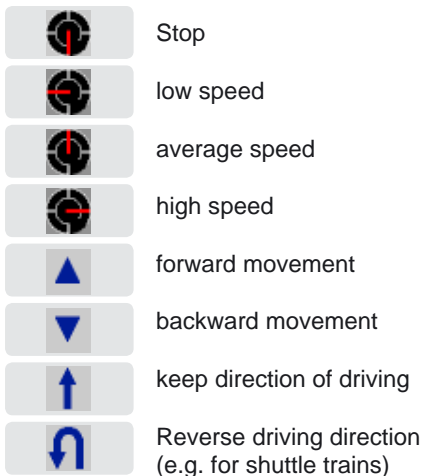
Index card 4:

You enter all commands that are necessary for the operations on the route in the index card “control commands”. This includes the switching of turnouts and signals belonging to the route but also the driving behaviour of the train.

You select the turnouts and signals in the track diagram. Touch the respective

accessory symbol and adjust the position with the corresponding key on the touch fields (e. g. straight ahead or diverging route, signal aspect “stop” or “proceed”). After that return to the index card.

Touch the explanatory comment area associated to a control command (e.g. 03 no command) in order to pick out a loco. After that, you select the loco symbol-field out of the touch fields on the right hand side. A list of touch fields opens up and you can adjust direction and speed of a train with the appropriate key.



The programmed control commands of this locomotive are valid for all locos.

In case that you want to define them for a special locomotive, select a locomotive icon out of the list of locomotives as follows:

Touch the locomotive symbol-field out of the row of command touch fields. Select a locomotive out of the list then. This way the programmed route and speed adjustments are only valid for this specific locomotive. By entering different locomotives you can define for each train an individual route and running speed .

index card 5:

You can assign “switching-track”-functions to specific feedback sections by the index card 5. An order consists of two parts: A feedsection and the actual order.

The **Commander** carries out a specific function, like the activation of a sound or the switching of headlights when a locomotive reaches the respective feedback section.

The stop order for a loco at the end of a route should be given in any case by a circuit track entry in this index card.



index card 6:

Define at least one feedback section as destination contact. Touch the selection field of the index card. A track diagram

opens up. Select the appropriate track diagram. If you touch the respective symbol field on the track diagram, it shows now a red flashing frame.

Switch back to the index card.

index card 7:

This index card is intended for the cancellation commands of a route.

After the train has passed the route, you can cancel her and open the track sections for the next train.

The elements the route is composed of (turnouts and signals) have to be switched back to their initial position. Refer to the procedure described in the index card 5.

index card 8:

By this index card you set up the route locking (flank protection).

For reasons of safety different routes can not be switched at the same time (e. g. exit tracks running parallel in the station and leading to the same main track).

The **Commander** defines automatically which routes should be locked in case that they try to use the same feedback modules.

In case of conflicting routes not using the same feedback modules you can program the reciprocal interlocking manually.

- When the entries are done in all index cards, save the route and close the editor by pushing the “**Exit**”-key.

You can call up again the route by entering the route number in the route editor and modify the inputs.

How to recall routes automatically or manually check in reference manual chapter 1.1.3.

System set-up

In the system setup-menu you define specific system parameters, normally only once. Touch the system-menu touch field (left down below) and select the respective parameters in order to adjust them.

Protocols /

Amplification values

Choose the data format. The **Commander** is designed for the Märklin-Motorola data format old and new as well as for the data format of the NMRA-DCC system. Multi-protocol operation is possible.

Starting mode

Select one of the three modes: automatic control, semi automatic control or manual control and more values. The **Commander** boots up in the respective starting mode.

Language

Determine the language by the flag-symbol.

Model-time

The **Commander** can accelerate the sequence of time in contrast to the real-time in order to make the operations on

your layout more realistic. You can adjust the accelerating factor from 1,0 (real-time) to 10 (model-time) infinitely variable with the slide control.

Display

The slide control under the icon „brightness“ enables you to adjust the display-brightness infinitely variable.

At two more points you can recalibrate the touchscreen and the navigator. This could be necessary after updates or extended non-usage.

Software update

We are always bringing the software of the **Commander** up to date. Please take a look at our special **Commander**-Homepage www.viessmann-commander.de from time to time, to see if there are any updates of your software version. The update can be downloaded and installed on the **Commander** afterwards.

We would be glad to inform you of new software packages with extended operational features. So, please register your **Commander** right now at **Viessmann!**

Observe in any case the instructions for the update-software.



Information:

You need a PC equipped with the windows system and USB 2.0 connection jacks for the update.



Attention:

Switch of all energy saving options!

Your computer definitely should not switch over to the standby mode or to the state of rest. This can especially occur to laptops. Adjust the energy saving options by windows before executing the update.

How to update the Commander:
The software update can easily be installed on the **Commander** by yourself.

- Connect the switched on **Commander** to the PC by an USB-cable.
- Install the driver for the USB-interface at the first interconnection of **Commander** and PC.
You will find the driver on the DVD and in the internet.
- Press the system-menu touch field (left down below) in order to open the “**system-parameter**”-menu.
- You activate the software mode at a slight touch on the respective symbol

next to the label “**software update**”.

The **Commander** is now in the software update mode.

- Please respect the information of the **Commander**.
- To start up the update software double-click on your PC.
- Follow the instruction of the update software on your PC.

Attention:

As the update of the **Commander** can take up to 20 minutes, please don't get impatient.

Never cut off the power supply of the **Commander** during the update procedure! In consequence of an incomplete update the **Commander** may not boot up any more.

Sending in the **Commander** to the **viessmann** after-sales-service would then be unavoidable and at the owner's expense reset.



Information

Technical specifications

Commander:

Dimensions: 268 mm x 64 mm x 180 mm

Weight: 1,1 kg (only **Commander**)

Operating voltage: 18 V =

Booster-Output: 3,0 A

Programming-track Output: 1,2 A

Display: TFT-Display, 800 x 480 Pixel

Ambient temperature:

5 – 35° C (operation)

-10 – 45° C (storage)

Protocols: Märklin-Motorola old / new,
NMRA-DCC

Power supply:

A power supply with the technical specifications listed down below is included in the content of delivery. For the electricity supply of the **Commander** use exclusively this power supply.

Dimensions: 150 mm x 75 mm x 40 mm

Input voltage: 110 – 230 V~

Input frequency: 47 – 63 Hz

Output voltage: 18 V=

Output current: 5,5 A

Conformity declaration

We, **Viessmann Modellspielwaren**

GmbH, Am Bahnhof 1, D-35116 Hatzfeld,
declare our exclusive responsibility that the
product,

Viessmann Commander,

this declaration relates to and is built in
conformity with the following technical
standards:

EN 55014-1:2002-09, EN 55014-2:2002-
08, EN 61000-3-2: 1995, EN 60742: 1995,
EN 61558-2-7: 1998

As agreed with the guidelines:

89 / 366 / EWG

and 73 / 23 / EWG.

The **Commander** carries the CE-sign.

Pollution control / disposal

Waste disposal of old electrical and electronic devices by a waste separation system in compliance with the European Union and other European countries.

The disposal of products marked with a crossed out dustbin together with the normal rubbish is not allowed. At the end of it's life they must be handed in to a collecting point for the recycling of electrical and electronic devices.

The above mentioned symbol on the product, the operating instruction or the packaging points it out. The raw materials can be recycled, according to their designation.

By reuse, exploitation of the raw material and other forms of recycling old devices, you contribute considerably to the pollution control.

Ask your local government for information about the appropriate waste disposal department.

Warranty information

All functions of every component are checked over before delivery. There is a two-year warranty for the component from the date of purchase onwards. In case that any malfunction occurs during that time, please contact **viessmann** immediately. If a test shows that the source of trouble is a production-or material defect, the component will be repaired free of charge. Excluded from the guarantee are defects of the component resulting from incorrect use. Excluded from the guarantee are all defects of the component resulting from non-compliance with the operating instruction, misuse, improper handling, overload, usurpation, structural modifications, use of force, superheating etc. The manufacturer cannot

be held responsible for any damage and consequential damage resulting from the improper use of this product (non-compliance with the operating instruction, misuse, improper handling, overload, usurpation, structural modifications on your own authority, use of force, reaction on humidity, superheating etc.). Liability in such case rests with the user.

Further informations

Detailed information is offered in the reference manual. For more information about the use of the **Commander**, please look at the included Learning-DVD.

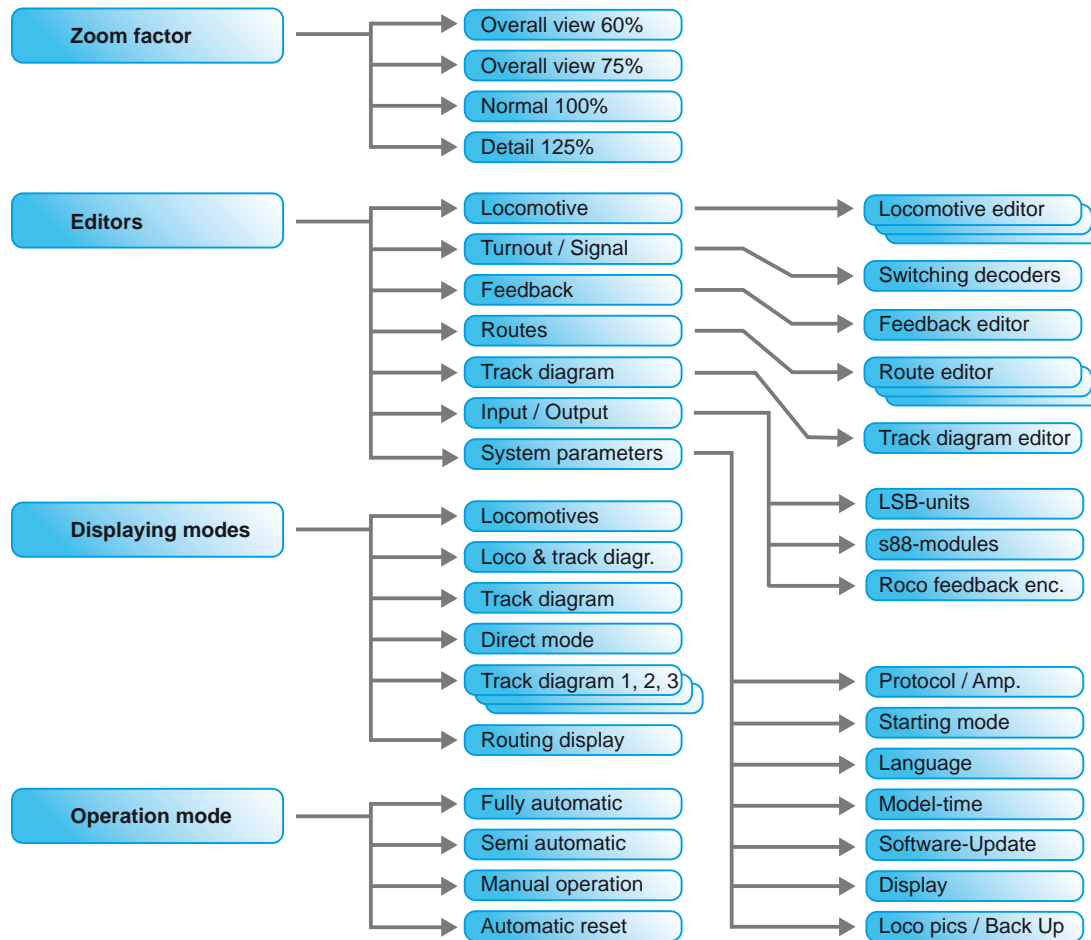
You can play it on any commercial DVD-player or on your PC. The DVD contains a multimedia instruction. The operation of the **Commander** is explained step by step by short video films. Additionally the DVD includes this short operating instruction as PDF-document and software programs (computer programs) for the **Commander**.

Please take a look at our special **Commander**-Homepage:

























www.viessmann-commander.de

We wish you lots of fun and success with the **Commander** now!

Overview of the menu structure



Overview of the touch fields

	Zoom-menu		previous index card
	System-menu / editors		next index card
	Display mode-menu		load
	Mode „locomotive and track diagram“		save
	Mode „locomotives“		delete
	Mode „track diagram“		read data of the loco-decoder (CV-values)
	Direct Mode		write data into the loco-decoder (CV-values)
	Operating mode „fully automatic“		Editor: locomotives
	Operating mode „semi automatic“		Editor: turnout and signal
	Operating mode „manual“		Editor: feedback
	Operating mode „stop automatic“		Editor: route
	Exit menu		Editor: track diagram

5300

Commander

Quick Start

SachNr.: 92373

Version: 11/2009 Ko



Viessmann
Modellspielwaren GmbH
Am Bahnhof 1
D – 35116 Hatzfeld (Eder)

© 2009 **Viessmann** Modellspielwaren GmbH

All rights reserved. Errors and omissions excepted, subject to alteration due to technical improvements and rights to alteration of terms of delivery without notice reserved. All electrical information and mechanical measure indications without warranty. Excluded from the guarantee are defects resulting from incorrect use.

The manufacturer cannot be held responsible for any damage and consequential damage resulting from the improper use of this product as e.g. non-compliance with the operating instruction, improper handling, structural modifications on your own authority etc.. Liability in such case rests with the user. Not suitable for children under 14 years. Risk of injury can result from improper use.

Märklin is a registered trade mark of Gebr. Märklin & Cie GmbH, Göppingen (Germany). RailCom is a registered trade mark of Lenz Elektronik GmbH, Gießen (Germany). All other trade marks are ownership of the respective owner of the legal rights.

Any copy or reproduction of this documentation is only allowed on the prior written authority of **Viessmann**.