A great Duo

Digital Command Station
Vıessmann Commander

Vıessmann

&

Diagram Panel
Vıessmann GBS

digital future

Viessmann Commander - The Digital Command Station

The Innovation for your Digital Layout

The Big Colour Display with 800 x 480 Pixels
shows your locomotives, the status of signals and switches as well as routes and occupied track sections pin-sharp in colour.

The Actual Speed-Steps
of the locomotives are displayed at every time – even if the track diagram or other applications are shown

The Touch Guides
for the intuitive use of the touch fields on the touch screen give the Commander its remarkable design

On/Off and Emergency Stop
the operating status is indicated by a red or green illumination

Illuminated Symbols
on the touch fields assure safe operating even in darkend rooms

The Navigator
leads you infinitely through all menus, enables you to move the track diagram and to command digital accessories by a simple click.

The Touch Fields
are clearly arranged and can be easily operated with your fingers without an electronic pen

The Comfortable Control
of locos (DCC and Motorola system) is guarantied by two sensitively controllable speed-control knobs and two direction-buttons each.

A Totally New Philosophy of User Interface – Easiest Operation!

With the **Commander**, **Viessmann** enters new avenues. The user interface has a completely graphic surface that avoids all digital indications by bits and bytes. The images and symbols are shown in a photorealistic way on the colour display. The digital technology works in the background – invisible for the user.

Efficient and Systematic Operating

For the very first time, the **Commander** is a digital system that an equilibrium between the comfortable control of locomotives and the switching of turnouts and signals. You control the locos by two sensitively operating speed-knobs. You operate turnouts and switches by the integrated coloured touch-screen-track-diagram control panel of the **Commander**. It shows the track diagram of your layout including all switches and signals. With a tip on the symbol, you directly switch signals and turnouts. Beyond it routes are illuminated in yellow and occupied track sections in red.

Small layouts can be controlled as usual with decoders connected to the track power. It's an easy and cheap method which guarantees also the compati-

Innovative Concepts of the *Viessmann Commander*

140°
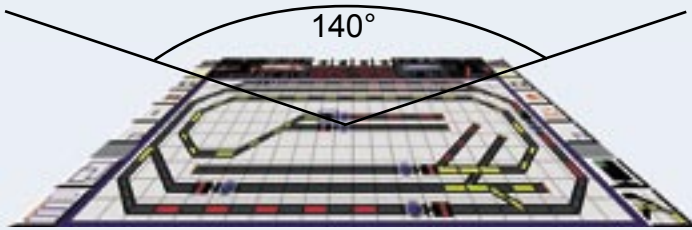
Brilliant Colour Display

The special colour display has an extremely wide viewing angle that can easily be seen even from the side.

Keyboard-Mode

– Switch accessories without track plan.
– Turnouts and signals are displayed according to their actual mounting position.
– The colour display allows easy recognition of the positions and aspects of signals and turnouts.

Track Layout

– Simply draw the track with a finger or pen.
– Function symbols uch as turnouts are put into position with the control knob.

Selection of Locomotives

– The easy-to-read locomotive selection allows immediate access to 8 trains - just touch and start!
– Further locomotives can easily be selected from lists - and if desired, your favourite locomotives are automatically put on top of the lists.
– The counter records the operating hours of all locomotives and reminds you of maintenance intervals.

Zoom-Function

– Enlarging the track plan in 3 steps.
– Move the visible section across the entire track plan with the navigator.

Convenient Operation

All menus, editors (e.g. for track plans, routes etc.) are built for easy and inuitive operation.
Only those actions are possible, that are permitted subject to the actual operational situation. An integrated loudspeaker gives additional acoustic feedback during operation.

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bility to previous components. An interface for older systems allows using their command devices and decoders further on in a wide range of application together with the *Commander*.

For bigger layouts *Viessmann* offers a separate control-bus, the LBus. Independently from the track signal he transmits all digital information more then ten times faster. The operation of many signals
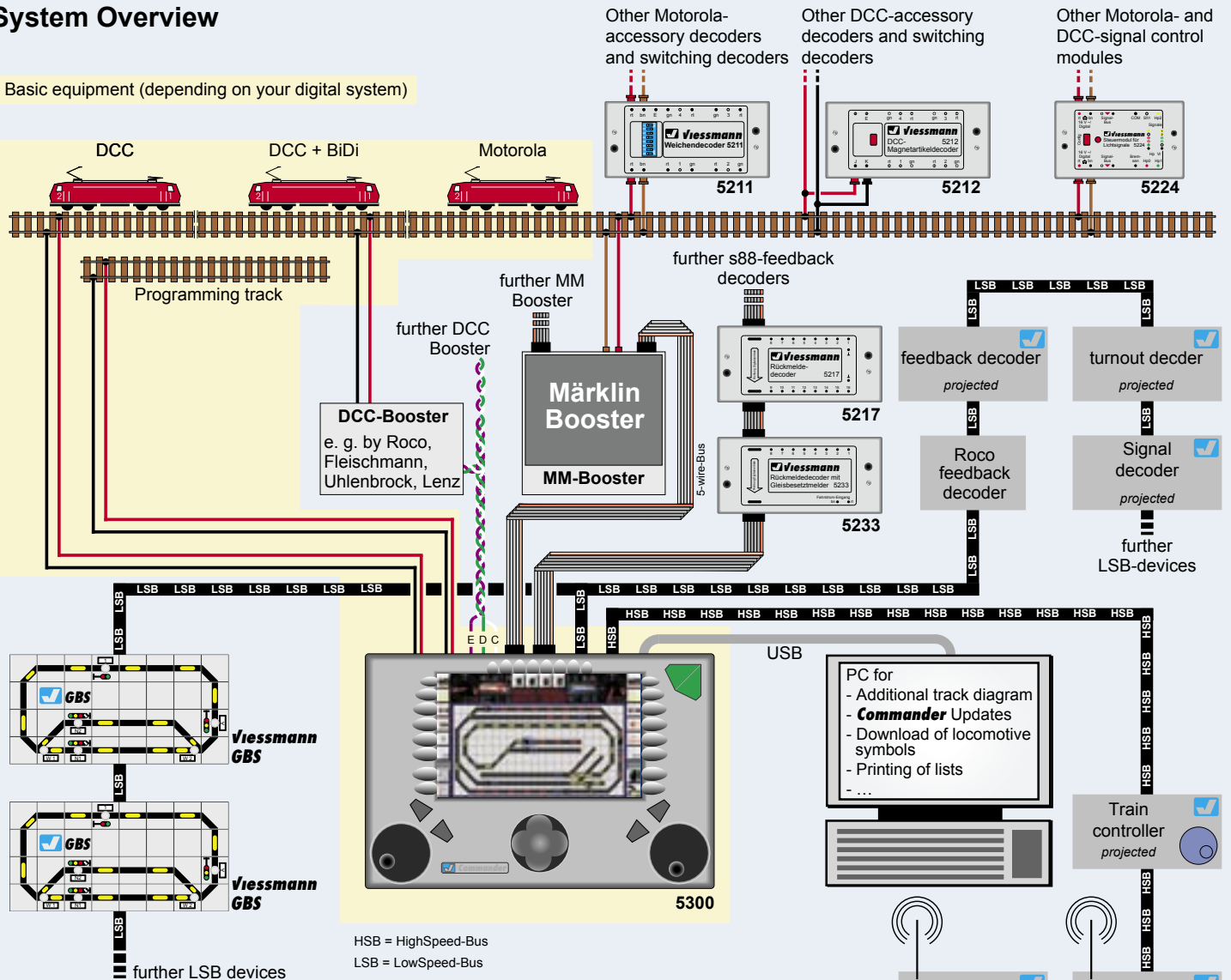
and switches at the same time is possible too. The LBus is as well responsible for a quick and safe feedback.

All devices that are connected to the HBus or LBus register themselves at the *Commander* (autoconfiguration). VBus and HBus open a door to new and efficient control commands and to an intelligent control of operational models.

Viessmann Commander - the System

System Overview
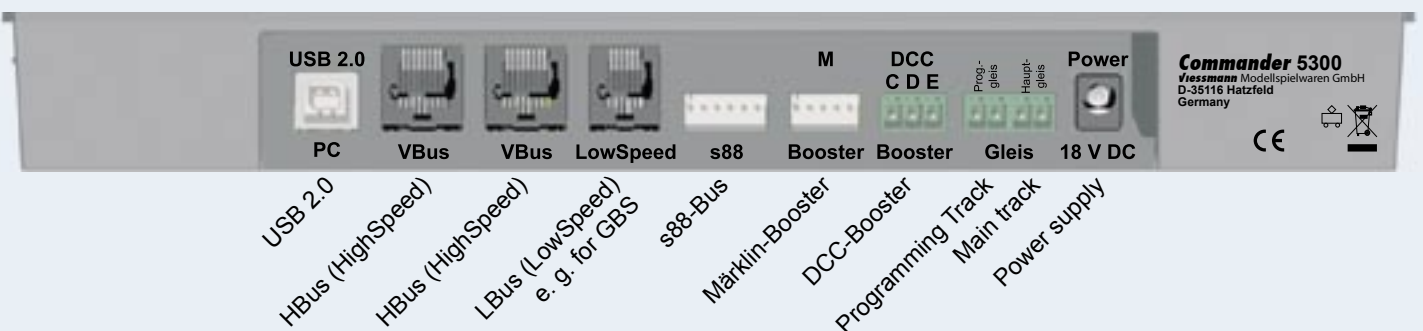
Basic equipment (depending on your digital system)

Other Motorola-accessory decoders and switching decoders

Other DCC-accessory decoders and switching decoders

Other Motorola- and DCC-signal control modules

DCC

DCC + BiDi

Motorola

Viessmann Weichendecoder 5211
5211

Viessmann DCC-5212 Magnetartikeldecoder
5212

Viessmann Steuermodul für Lichtsignale 5224
5224

Programming track

further MM Booster

further s88-feedback decoders

further DCC Booster

LSB LSB LSB LSB LSB

DCC-Booster
e. g. by Roco, Fleischmann, Uhlenbrock, Lenz

Märklin Booster

MM-Booster

Viessmann Rückmelde-decoder 5217
5217

Viessmann Rückmeldedecoder mit Gleisbesetztmelder 5233
5233

feedback decoder
projected

turnout decder
projected

Roco feedback decoder

Signal decoder
projected

further LSB-devices

5-wire-Bus

LSB LSB LSB LSB LSB LSB LSB LSB LSB LSB LSB LSB LSB LSB LSB LSB LSB

LSB HSB

E D C

USB

HSB HSB HSB HSB HSB HSB HSB HSB HSB HSB HSB HSB HSB HSB

Viessmann GBS

Viessmann GBS

PC for
- Additional track diagram
- *Commander* Updates
- Download of locomotive symbols
- Printing of lists
- ...

5300

HSB = HighSpeed-Bus
LSB = LowSpeed-Bus

further LSB devices

Train controller
projected

Radio train controller
projected

Radio signal module
projected

further LSB-devices

LSB-converter
projected

older devices DCC / Motorola

DCC / Motorola

Interface module
projected

further HSB-devices

Protecting your Investment

When designing the *Commander*, we have put special emphasis on protecting your previous investment in other digital devices, decoder etc. A wide range of standard connections - or interface modules - allows using your existing equipment.

The *Commander* coordinates as a hub the control of all devices on your layout. This makes another great advantage of the *Commander* over other control systems apparent, namely the fact that no computer is needed.

The *Commander* contains all functions of previous versions of train control software run on a PC (route control, time schedule operation, block control, fiddle yard control, alternating traffic between two endpoints ...).

Connection jacks of the *Commander*

USB 2.0

M

DCC
C D E

Prog.-gleis

Haupt-gleis

Power

Commander 5300
Viessmann Modellspielwaren GmbH
D-35116 Hatzfeld
Germany

PC

VBus

VBus

LowSpeed

s88

Booster

Booster

Gleis

18 V DC

CE

USB 2.0 | HBus (HighSpeed) | HBus (HighSpeed) | LBus (LowSpeed) e. g. for GBS | s88-Bus | Märklin-Booster | DCC-Booster | Programming Track | Main track | Power supply

GBS – the diagram panel for the *Vᵢessmann Commander*

Plug and Play – Fun and relaxation right from the beginning

modularer system – can be extended to any size

easy to assemble – only one cable to the command station

easy handling – fun is guaranteed

- auto configuration of the control modules

- minimal wiring due to the bus technology

- all assignments can easily be changed with the commander at any time

- illuminated track symbols and illuminated fields for individual marking

- individual and group buttons for turnouts and signals

- control button for routes

- several track diagram panels up to 100 m apart are possible

- symbol plates of 22 x 22 mm with 1 plug only

- symbols for turnouts and signals with multicolour status display

- very compact due to clever design of the symbol plates
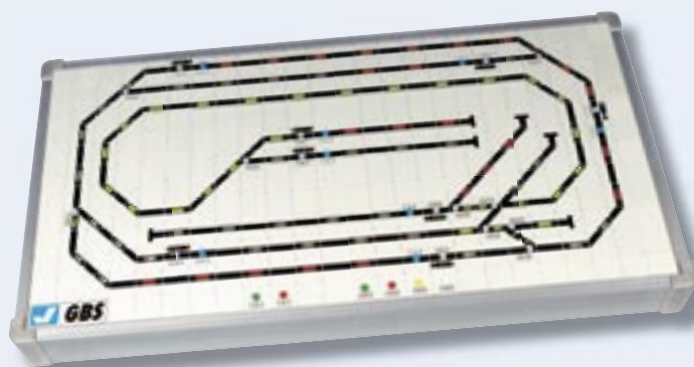
No Soldering, no Screwing, no Programming!

All track diagram symbols of the diagram panels are ready-made and have a connection wire with a standardized four-pole-plug. The symbols can be inserted from the top to a base carrier - the **GBS** module 5380. It carries 4 x 8 = 32 symbol plates. The plug is connected to one of the 16 ports of a connection board (5308) respect distribution board (5307). Both can be placed under the **GBS**-carrier module.
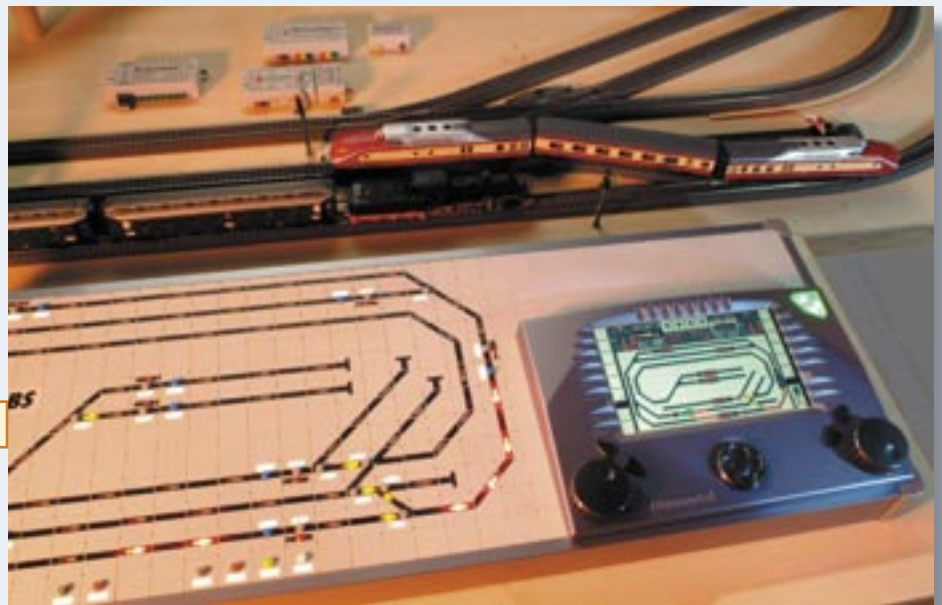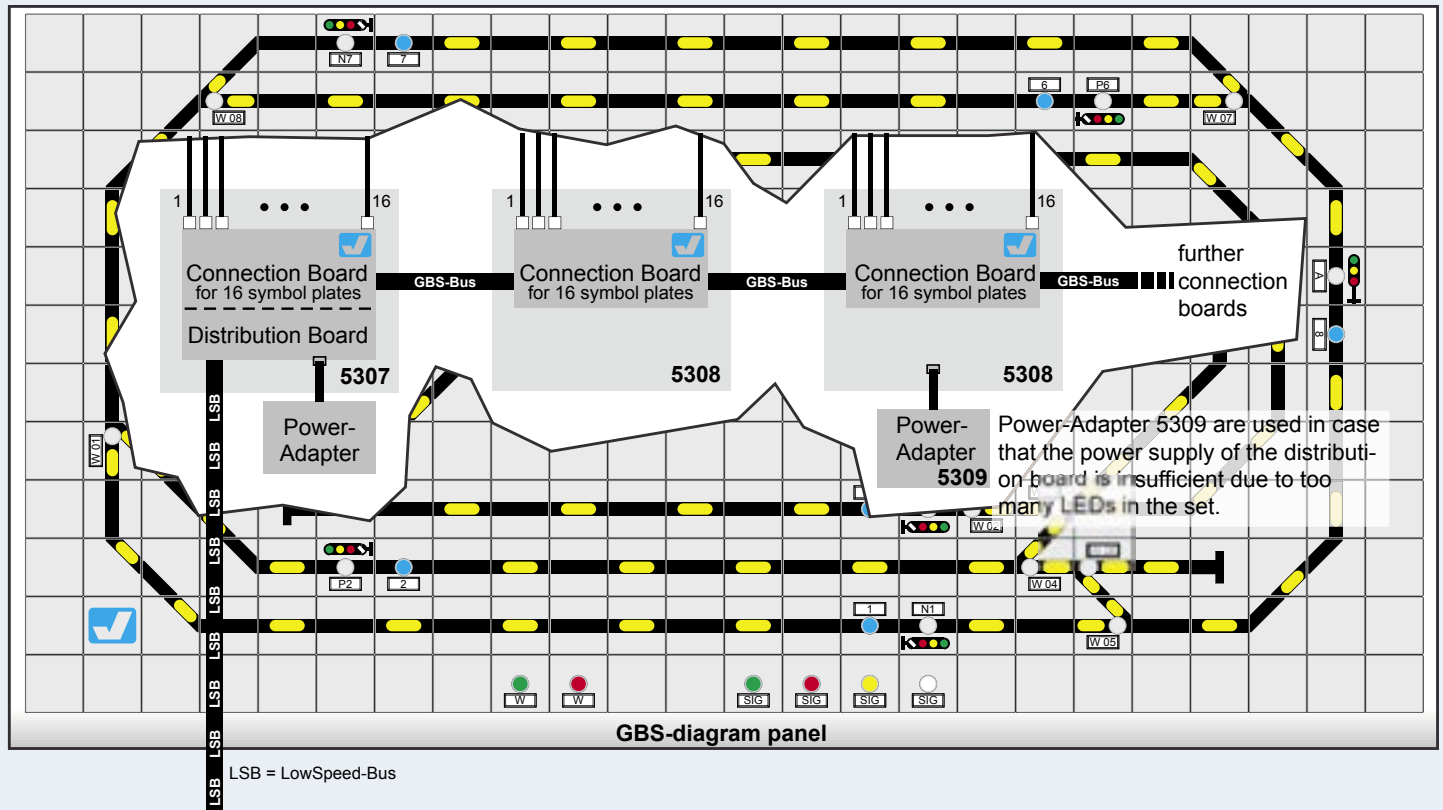
The intelligence of the complete diagram panel is concentrated inside the **Commander**. Therefore the symbol plates can be kept simple and cheap. The

Commander is necessary as control device for the track diagram panel. One **Commander** can manage several track diagram panels. They are connected to the **Commander** by a single HSB (High SpeedBus) cable. In order to connect the track diagram panel to the **Commander**, at least one distribution board (5307) is needed for each track diagram panel. This board translates the information of the HSB to the LSB information. The distribution board has already one integrated connection board with 16 plugs for symbol plates. Further connection boards can be connected to the distribution board.

The following page shows the system overview.

Viessmann GBS - the System

Connection Board for 16 symbol plates — 5307 Distribution Board — Power-Adapter — GBS-Bus

Connection Board for 16 symbol plates — 5308

Connection Board for 16 symbol plates — 5308

further connection boards

Power-Adapter 5309

Power-Adapter 5309 are used in case that the power supply of the distribution board is insufficient due to too many LEDs in the set.

GBS-diagram panel

LSB = LowSpeed-Bus

5300

Autoconfiguration

As soon as you put the plug of a symbol plate into the port of a connection board the *Commander* automatically identifies this plate and its function. The symbol appears on the display of the *Commander*. Now you can push it into the right position of your track diagram. That way you teach in the symbol plates to the *Commander*. Naturally the *Commander* memorizes the position of all symbol plates. You can adjust the track at any time - if you change your layout.

The on-screen diagram of the *Commander* and the *GBS* work absolutely synchronously. On the *Commander* and on the *GBS* different sections of your layout can be shown, e. g. the main station on the *GBS* and the shadow station on the screen of the *Commander*. Further *GBS* diagram panels can be placed at the harbour, the loco-depot or other places with intensive action.

Updates

The *Commander* as well as all future control units are suitable for updates. With a computer – at home, at your dealer's or in our factory – new software can be loaded. The *Viessmann* digital system is designed in such a way, that it allows the integration of innovative new devices – even of components, that are not known today. Thus *Viessmann* is perfectly prepared for the future.

5307
***GBS* Distribution Board** (no illustration)
with integrated ***GBS*** connection board (refer to 5308),
Power-adapter and connection cable.

5308
***GBS* Connection Board** (no illustration)
For connection of further 16 active ***GBS*** symbol plates, with data- and power connection cable.

5309
Power-Adapter (no illustration)
for additional power supply of ***GBS*** connection boards 5308,
in case that the power supply of the distribution board is insufficient due to too many LEDs in the set.

5310
***GBS* Startset** (no illustration)
content: 1 x 5307, 5 x 5320, 5 x 5321, 9 x 5322, 5 x 5325,
1 x 5326, 1 x 5329, 1 x 5340, 1 x 5341, 1 x 5350, 1 x 5351, 2 x 5352,
1 x 5380, manual.

5382
***GBS* Corner for the Frame Slat** (no illustration)

5383
***GBS* Connector for the Frame Slat** (no illustration)

5380
GBS* Module** (no illustration) for 4 x 8 ***GBS-symbol plates

Unmarked Plates and Track Symbols		Over- and Under-Passes		Turnouts, Crossings / Double Slp Switch (in conjunction with a turnout symbol)		Signals	
	5320 ***GBS* Unmarked Plate**		**5330** ***GBS* Underpass, straight**		**5340** ***GBS* Turnout Left illuminated** with push button and specification plate		**5350** ***GBS* Block Signal Symbol illuminated** with push button and specification plate
	5321 ***GBS* Track Symbol straight**		**5331** ***GBS* Underpass, diagonal** top left		**5341** ***GBS* Turnout Right illuminated** with push button and specification plate		**5351** ***GBS* Entry Signal Symbol illuminated** with push button and specification plate
	5322 ***GBS* Track Symbol straight,** illuminated		**5332** ***GBS* Underpass, diagonal** top right		**5342** ***GBS* Turnout Symmetrical illuminated** with push button and specification plate		**5352** ***GBS* Exit Signal Symbol illuminated** with push button and specification plate
	5323 ***GBS* Track Symbol straight,** illuminated with identification plate		**5333** ***GBS* Tunnel Portal Symbol**		**5343** ***GBS* Three-Way-Turnout illuminated** with push button		**5353** ***GBS* Stop Signal Symbol illuminated** with push button and specification plate
	5324 ***GBS* Track Symbol straight,** with push button and identification plate		**5335** ***GBS* Underpass, diagonal** top left with track above		**5344** ***GBS* Crossing Left** or manual turnout left	**Push-Buttons and Switches**	
	5325 ***GBS* Track Symbol diagonal**		**5336** ***GBS* Underpass, diagonal** top right with track above		**5345** ***GBS* Crossing Right** or manual turnout right		**5360** ***GBS* Push Button** specification plate and coloured heads
	5326 ***GBS* Track Symbol diagonal,** illuminated				**5346** ***GBS* Crossing Symmetrical** or manual turnout symmetrical		**5361** ***GBS* Toggle Switch** with specification plate
		End of a Track (Bumper)		**5347** ***GBS* Crossing Left** or manual turnout left illuminated		**Other Symbols**	
			5337 ***GBS* Bumper, diagonal** from bottom left		**5348** ***GBS* Crossing Right** or manual turnout right illuminated		**5370** ***GBS* Building Element,** to represent platforms etc.
A active symbol plate with connection cable, needs therefore a place in ***GBS*** connection board			**5338** ***GBS* Bumper, diagonal** from bottom right		**5349** ***GBS* Crossing Symmetrical** or manual turnout symmetr. illuminated		**5371** ***GBS* Uncoupling Track** with push button
			5339 ***GBS* Bumper**				**5372** ***GBS* Barrier Symbol**

Viessmann Commander - Technical Data

Specifications of the *Commander*

Hardware
- booster with 3,0 continuous current output
- programming track output with 1,5 continuous current
- integrated NMRA BiDi (RailCom) Cutout-Device
- 7 inch coloured touch screen display with 800 x 480 pixels
- 32 bit microcontroller and several real-time coprocessors
- completely own software for operation, control and graphics – therefore an extremely short reaction time!
- 2 sensitively controllable speed-control knobs, intelligent turn stop, key-function
- 4 separate direction buttons
- analogous navigator for the control of menus and functional models
- large, illuminated on-off respectively emergency stop push-button
- 2 connections for the Viessmann-HBus (HighSpeed-Bus)
- 1 connection for the Viessmann switching bus (LowSpeed-Bus)
- galvanically uncoupled feed back connection s88
- galvanically uncoupled connection for the Märklin booster
- connection for DCC booster
- USB 2.0 connection to a PC
- switching power supply 99VA
- dimensions of the Commander: 268mm x 180mm x 64mm

5300

Software
- DCC with 14, 28, 128 speed steps and 9.999 addresses
  • 20 additional functions (depending on the decoder-type)
  • programming on a separate programming track and on the main track (*programming on the main – POM)
  • equipment for the RailCom – train detection
- Märklin-Motorola old and new with 14 speed steps and up to 256 addresses
- control of locomotives and switches in the ful range of the decoder facilities
- automatic detection also of older decoders (without mfx or railCom facility) at specific feed back positions
- control of accessories, also of signals with many aspects
- intelligent, bidirectional and quick communication by the Viessmann switching-bus (LowSpeed-Bus) and self configuration of all connected devices

Features
- coloured track diagram with three zoom steps
- coloured display of tracks and signals on the touch fields
- coloured illumination of routes and occupied track sections (yellow/ red)
- train-identification-number shown in the track diagram
- menu-driven editors with indication of all functions of your layout in plain language, also for general system parameters including a plausibility test of all user inputs
- print out of parts list etc. by PC with connected printer
- automatic control of routes, shuttle trains and shadow stations by clock and / or feed back

- time table operation with integrated clock adjustable to model-time
- routes also access to locomotives, therefore there is no need for insulated track sections in front of signals (in case your layout is equipped with a feed back).
- ‚switching track'-functions at feed back positions for example to switch on/off additional functions like sound etc.
- manual operation via the track diagram also of signals with many aspects - up to 8 aspects for each signal
- keyboard mode for direct switching of signals and turnouts without previously entering data and track diagram
- multitraction
- programming of fixed combinations for switch/switch, and switch/signal
- graphic representation of loco images (foto-quality by colour depth of 16 bits), speed and additional functions
- possibility to use your own photos as loco images (download program for PC is included)
- 4.000 loco data-records with names at your option and assignment to any address you like
- extended control facilities for switches, functional models, signals (e.g.. signals with many aspects or three-way switches)
- routes with access to control of switches, functional models and locomotives
- clear editors with control of user inputs
- several Commander can be interconnected - trains are automatically undertaken at handing over points - ideal for club layouts or modular layouts
- the commander can be updated

Supply contents
- Commander
- power supply
- connection terminals for main tracks and programming track as well as for DCC booster output
- USB-cable
- detailed instructions
- CD with PC-software

| DCC | Mot. | s88 | HSB | LSB | DIGITAL2 |

For further information visit our special Commander-Homepage

www.viessmann-commander.de

Your *Viessmann*-hobby shop:

Viessmann   www.viessmann-modell.de

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