HELLA GUTMANN SOLUTIONS

mega macs 66

Quick Start Guide

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Table of Contents

1 About this Quick Start Guide

The quick start guide comprises the most important information in a clearly visible form to facilitate the start with the mega macs 66.

1.1 Reading the Manual

You can find the manual with detailed information about the use of your mega macs 66 in the device under ? or on the homepage of Hella Gutmann **www.hella-gutmann.com/de/workshop-solutions/diagnose**. This page provides the current download versions of the manuals and quick start guides as well as other valuable product leaflets for optional accessories and products of Hella Gutmann, which can support you in your daily work.

2 Safety Precautions

2.1 Safety Precautions – Risk of Injury

When working on the vehicle, there is a risk of injury through rotating parts or rolling of the vehicle. Therefore observe the following:

- Protect vehicle against rolling away.
- Additionally place gear selector lever of AT vehicles to park position.
- Deactivate the start/stop system to avoid an inadvertent engine start.
- Connect the device to the vehicle only when engine is shut down.
- Do not reach into rotating components when engine is running.
- Do not run cables near rotating parts.
- Check the high-voltage parts for damage.

2.2 Safety Precautions for the mega macs 66

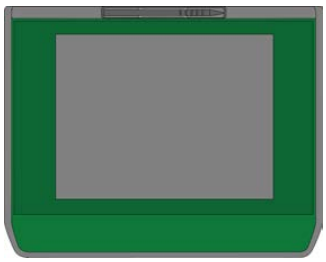
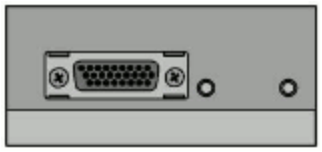
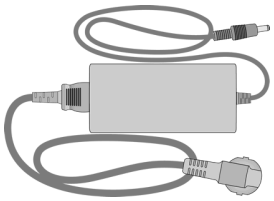


To prevent incorrect handling and resulting injuries to the user or destruction of the device, pay attention to the following:

- Select functions and menus on the touch screen display only with clean fingers.
- Only connect original power adapter to the power cord (supply voltage 10–15 V).
- Protect the TFT LCD and the device from long periods of exposure to solar radiation.
- Protect the device and the connecting cable from hot components.
- Protect the device and the connecting cables from rotating parts.
- Regularly check the connecting cables/accessory parts for damage (destruction of the device due to short circuit).
- Connect the device exclusively according to user manual.
- Keep the device away from fluids such as water, oil or gasoline. The mega macs 66 is not waterproof.
- Protect the device from strong impacts and do not drop it.
- Do not open the device on your own. Only technicians authorised by Hella Gutmann are allowed to open the device. Warranty and guarantee will be rendered void at any case of unauthorized tampering of the device or if the protective seal is damaged.
- Immediately contact Hella Gutmann or a Hella Gutmann trading partner in case of any malfunctions.

3 Product Description

3.1 Delivery Contents

Quantity	Designation	
1	mega macs 66	
1	Diagnostic module DT 66	
1	Bluetooth adapter	
1	OBD and diagnostic plug	
1	USB cable for connection to a PC	
1	Mains supply and power cable for the mega macs 66	
1	Stylus	
1	HGS data carrier	
1	Quick Start Guide	

3.1.1 Checking delivery contents

Please check the delivery contents upon receiving your device so that complaints can be issued immediately regarding any potential damage.

Proceed as follows to check the delivery contents:

1. Open the package supplied and check for completeness based on the delivery slip.

   Should you identify any damage to the package, then open the package in the presence of the delivery service and check the device for hidden damage. Any transport damage to the package supplied and damage to the device shall be registered in a damage report by the delivery service.

2. Take the device out of the packaging.

	**CAUTION** Danger of short circuit due to loose parts in or on the device Danger of destruction of the device/the automotive electronics Never put the device into operation if you suspect that there are loose parts in or on it. Please contact the Hella Gutmann repair service or a Hella Gutmann trading partner immediately in this case.

3. Check the device for mechanical damage and shake it slightly to ensure that there are no loose parts inside.

3.2 Intended use

The mega macs 66 is a mobile device for detecting and rectifying faults in automotive electronic systems.

The device enables access to extensive technical data such as wiring diagrams and service data, set values and descriptions of vehicle systems. A lot of this data is transferred to the device directly from the Hella Gutmann diagnostic database via online connection. Therefore, the device must be permanently online.

The device is not suitable for repairing electrical machines and tools or home electrics. Diagnostic devices from other manufacturers will not be supported.

If the device is used in a way not authorized by Hella Gutmann, the safety of the device may be influenced.

The device is intended for industrial use. Outside of industrial environments, e.g. in commercial areas or in the center of a town, radio interference suppression measures may be necessary.

3.3 Using the Bluetooth Function

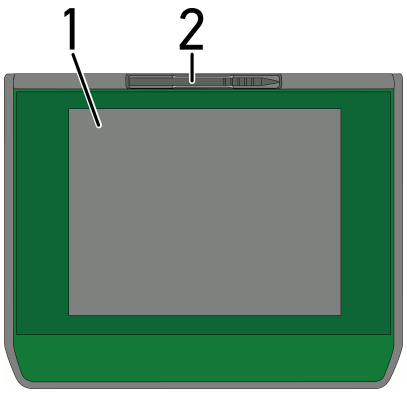
The terms of use of the Bluetooth function may be restricted or prohibited through law or corresponding legal regulations in certain countries.

Pay attention to the provisions in force in the respective country before using the Bluetooth function.

3.4 Scope of Functions

The range of functions of the mega macs 66 depends on the country, the licenses acquired, and/or the optionally available hardware. This documentation may therefore describe functions that are not available on the individual device. Missing functions can be enabled by acquiring a corresponding license subject to charge and/or additional hardware.

3.5 Display



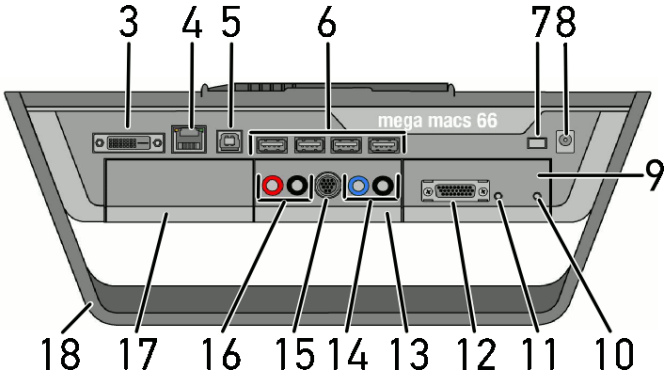
	Designation
1	TFT LCD (touch screen)
2	Stylus

3.5.1 Operating the Device

	NOTICE Damage or destruction of the display Never touch the display using a tool or pointed metal object. Always use the stylus or a finger.

The device is equipped with a touch screen display. All menus and functions can be selected and/or activated by slightly touching with the stylus or the finger or just by pressing the arrow keys ▼ ▲.

3.6 Connections of the mega macs 66



	Designation
3	**DVI-D interface** Transmit digital signals with the DVI-D interface. These signals can be depicted with the help of a screen or projector.
4	**Ethernet interface** Use the Ethernet interface to connect the device to the following hardware: • PC • Printer • Network
5	**USB device interface** Use the USB device interface for data exchange between the PC and the device.
6	**4x USB host interface** The USB host interfaces (USB interfaces for short) can be used to connect external tools such as a printer.

	Designation
7	**Main switch** Switch the device off completely.
8	**Power supply socket** This is the power supply of the device and internal battery charge connection.
9	**Diagnostic module DT 66** Use the DT 66 to diagnose the automotive electronics and to forward the data to the device.
10	**Green LED** The green LED signals the communication module is switched on and ready.
11	**ON/OFF button** Switch on or off the diagnostic module if it is not plugged into the module slot.
12	**ST2 connection** Connect the ST2 plug here.
13	**Measurement module MT 66** This module contains a 2-channel oscilloscope for measured variables such as the following: • Voltage • Current (with current clamp) • Resistance
14	**Oscilloscope 1 connections** Connect a test lead to Scope 1. • blue = signal • black = ground
15	**ST3 connection** Connect additional measuring instruments such as a clamp meter here.
16	**Oscilloscope 2 connections** Connect a test lead to Scope 2. • red = signal • black = ground
17	**Additional module slot** Another module can be inserted here.

	Designation
18	**Positioning handle** Using the positioning handle, the device can be set up, carried or fixed to the steering wheel in the vehicle.
	Internal: 1x WLAN, 2x Bluetooth module All wireless connections are integrated in the device and are permanently switched on.

4 Installation of the Hella Gutmann Drivers Package

4.1 System Requirements of Hella Gutmann Drivers

- Microsoft Windows 7 or higher
- Windows administrator rights

4.2 Installation of the Hella Gutmann Drivers Package

To obtain all the data about the related vehicle provided by Hella Gutmann, the device requires a permanent online connection and the installed driver package Hella Gutmann Drivers. To keep the connection costs down, Hella Gutmann recommends a DSL connection and a flat rate.

1. Install the Hella Gutmann Drivers on the office or repair shop PC.

   The driver package Hella Gutmann Drivers program is on the supplied HGS data carrier.

2. Connect the device to a web-compatible PC.

   Once the connection symbol in the top symbol bar changes from black to green, the online connection has been set up successfully and is active.

5 Putting Into Operation

This section gives a description of how to switch on and off the device as well as all the necessary steps for the first use of the device.

5.1 Charging the Battery

Prior to putting the device into operation, charge the battery for at least 8 to 10 h (device is switched off meanwhile).

Proceed as follows to charge the battery:

1. Press in main switch until it locks into place.

   The electric circuit to the battery is now closed.
2. Insert the voltage supply plug into the device's socket.
3. Insert the power plug into the plug socket.

   The battery is charged.

5.2 Switching on the Device

☞	**NOTICE** When starting the device for the first time and after every software update, you need to confirm the general terms and conditions (GTC) of the Hella Gutmann Solutions GmbH. Otherwise, certain device functions will be unavailable.

To switch on the device:

1. Press in main switch until it locks into place.

   The device switches to standby mode.
2. Lightly touch the display.

   The general terms and conditions appear.
3. Read the general terms and conditions and confirm them at the end of the text.

   A user selection window appears.

   The respective user name is saved for all data stored in the Car History. This enables quicker identification of the mechanic who performed the repair work if a query is subsequently made.
4. Double-click ».

5. Enter the user name.
6. Confirm your entry with ✓.
7. Activate the **Stay logged in** check box if necessary.

   If the **Stay logged in** check box is activated, you will not need to select a user name when switching on in the future.
8. Confirm your entry with ✓.

   The input is saved automatically. The main menu appears.

Now you can start working with the device.

5.3 License Release

☞	**NOTICE** In order to use the full scope of the purchased licenses you need to connect the device to the HGS server prior to the first start-up.

Proceed as follows to connect the device with the HGS server:

1. Select **Contracts** under **> Settings** in the main menu.
2. Select the **>License<** tab.
3. Retrieve **My licences** with ▶.

   Data is downloaded. Purchased licences are displayed.
4. Switch the device off and on again.

Now you can start working with the device.

5.4 Switching Off the Device

☞	**NOTICE** Under normal conditions it is sufficient to switch off the device with ⏻. For transport and storage the device must be switched off with the main switch so that it cannot be switched on unintentionally by external influences.

Proceed as follows to switch off the device:

1. Switch off the device with ⏻.
2. Observe the confirmation prompt.

3. Switch off the device with ✓. Abort the procedure with ☒.
   After switching off, the device is in standby mode.

6 Configuring the Device

Configure all interfaces and functions under **>Settings<** in the main menu.

6.1 Configuring Interfaces

Set the interfaces for the printer, BPC-Tool, Ethernet, Bluetooth, WLAN and UMTS module here.

Configure all interfaces of the device under **Settings > Interfaces**.

If there are several possible connections to devices or tools, the fastest and most stable connection is always preferred.

The hierarchy for connection is as follows:

1. Ethernet
2. USB
3. Bluetooth
4. WLAN

6.1.1 Configuring the Ethernet

Your network settings can be made here.

Proceed as follows to connect the device to a network (router) via an Ethernet interface:

1. Insert the Ethernet cable (not included in the delivery contents) into the Ethernet port of the device and the remote station.
2. Select **Interfaces** under **> Settings** in the main menu.
3. Select the **>Ethernet<** tab.
4. Open a list under **IP address mode** with ⌄.

   If **>Determine automatically (DHCP)<** is set, then the device automatically searches for the IP address.

   If **>Determine manually<** is selected, you must enter the address of the remote station under **mega macs IP address**, e.g. 192.168.255.255.
5. Select **>Determine automatically (DHCP)<** or **>Determine manually<**.

   The selection will be saved automatically.

6.1.2 Configuring the Bluetooth Adapter

Here you can configure the Bluetooth adapter.

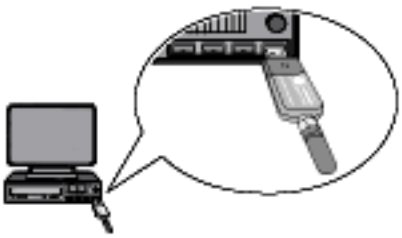
The integrated Bluetooth module enables a wireless connection to a PC on which the driver package Hella Gutmann Drivers is installed.

Searching for the Bluetooth Adapter

☞	**NOTICE** If the device has already been delivered with a Bluetooth adapter then both devices are already assigned to each other ex works.

Proceed as follows to search for the Bluetooth adapter:

1. Insert the Bluetooth adapter into the USB port on the PC.



2. Select **Interfaces** under **> Settings** in the main menu.
3. Select the **>Bluetooth<** tab.
4. Activate the check box to make settings.

   A confirmation prompt appears if WLAN was previously activated in the device.
5. Observe the confirmation prompt.
6. Confirm the confirmation prompt with ✓.
7. Do this via 🔍 **Search for Bluetooth adapter**.
8. Observe the information window.
9. Confirm the information window with ✓.

   Connection is established and the search for a Bluetooth adapter is in progress.

   Once the connection from the device to the Bluetooth adapter has been set up successfully, a selection list of the Bluetooth adapters that have been found is then displayed.

10. Select the desired Bluetooth adapter.

    The selection will be saved automatically.

The automatically assigned Bluetooth adapter address appears in the field **Bluetooth adapter address**.

6.1.3 Searching for and installing a WLAN interface

Proceed as follows to connect the device to a network (router) through WLAN interface:

1. Select **Interfaces** under **> Settings** in the main menu.
2. Select the **>WLAN<** tab.
3. Activate the check box to make settings.

   A confirmation prompt appears if either Bluetooth or UMTS was previously enabled on the device.
4. Observe the confirmation prompt.
5. Confirm the confirmation prompt with ✓.
6. Open a list under **IP address mode** with ⌄.

   A drop-down list appears.

   If **>Determine automatically (DHCP)<** is set, the device automatically searches for the IP address. This option is set ex works.

   If **>Determine manually<** is selected, you must enter the address of the remote station under **mega macs IP address**, e.g. "192.168.255.255".
7. Select **>Determine automatically (DHCP)<** or **>Determine manually<**.

   The selection will be saved automatically.
8. **Create wireless network** with 🔍.

   The device searches for wireless networks.

   Once the device has successfully finished searching for wireless networks, a pick list of wireless networks found is displayed.
9. Select the required wireless network.
10. Regard the window with information and instructions.
11. Confirm the info and instructions window with ✓.
12. Enter the WLAN password.

13. Confirm the password with ✓.

    The input is saved automatically.

    The following message appears if the wireless network has been set up successfully:

    - the name of the selected wireless network under **Wireless network (SSID)**
    - the security system of the selected wireless network under **WLAN security**
    - the IP address of the installed Hella Gutmann Driver under **Gutmann Portal IP address**

14. Click the symbol on the right of the header to check the connection status.

    The device is connected to the Internet if *Data server* is displayed under **Connection** and *connected* under **WLAN**.

You can use the WLAN connection now.

7 Working with the Device

7.1 Icons

7.1.1 General Symbols

Icons	Designation
	**Switch off** Switch the device off.
	**Enter** Call up the selected menu.
	**Confirm** Perform functions such as the following: • Start the selected function. • Confirm the present entry. • Confirm your menu selection.
	**Cancel** Cancel functions such as the following: • Active function • Input
	**Start** Start a function or procedure.
	**Delete** Delete data or entries.
	**Arrow keys** Navigate with the cursor in menus or functions.
	**Printing** Print the current window.
	**Help** Open the user manual and explanations on the individual menus or functions.

Icons	Designation
	**Virtual keypad** Open the virtual keypad for text input.
	**Drop-down list** Open a selection window.
	**Select all** Select all available elements.
	**Unselect all** Unselect all available elements.
	**Zoom in** Zoom in the present view.
	**Zoom out** Zoom out of the present view.

7.1.2 Symbols in the Main Menu

Icons	Designation
	**Home** Return directly to the main menu.
	**Vehicle selection** Select a vehicle or access the Car History. First select a vehicle to access the following functions depending on the vehicle: • Diagnostics • Vehicle information
	**Diagnostics** Here you will find vehicle-specific ECU diagnostics, e. g.: • Trouble code reading • Parameter readout • Coding

Icons	Designation
	**Vehicle information** Here you will find information regarding the selected vehicle e.g.: • Assistance in finding the installation location of a component • Timing belt and service data • Technical data • Wiring diagrams • Recall campaigns of vehicle manufacturers and importers
	**Measuring technology** This menu contains the 2-channel oscilloscope and the guided measurements with automatic signal evaluation. The 2-channel oscilloscope supports the following measured variables: • Voltage • Resistance • Current • Temperature • Pressure
	**Applications** Here you will find useful applications such as: • Calculation of labour rates for working on the vehicle • Glossary with explanation of technical terms • E-mail contact to the Hella Gutmann support
	**Optional HGS tools** Functions for linked accessory tools are stored here, e.g. for battery diagnostics.
	**Settings** Configure the device here.

7.1.3 Symbols in the Vehicle Selection Menu

Icons	Designation
 	**Preselect the vehicle** Pre-filter the database for the vehicle type: • Passenger cars • Motorcycles
 	**Vehicle database** Select a vehicle from the database, e.g. according to the following criteria: • Manufacturer • Type • Year of manufacture • Engine code
	**Car History** Call up the Car History.
	**Display Car History files** Call up a list of saved diagnostic data records on a certain vehicle.
	**VIN identification** Read out the VIN of the vehicle using the OBD plug.
	**OBD diagnostics** Here you can only start the OBD diagnostics by selecting the vehicle manufacturer and the fuel type.
	**Page forward** Go one page forward.
	**Page back** Go one page back.
	**information** Call up additional information regarding the selected vehicle e.g.: • Vehicle type • Engine displacement • Output • Engine code

Icons	Designation
	**Update the Car History** Update the list of vehicles in the Car History and the vehicle status here.
	**Vehicle search in the vehicle database** Search for a vehicle in the vehicle database using its VIN, its manufacturer key no. or its license plate number.

7.2 Diagnostics

7.2.1 Preparing Vehicle Diagnostics

The selection of the correct vehicle is a basic precondition for trouble-free vehicle diagnostics. The device provides assistance to simplify the selection, e.g. indicating the installation position of the diagnostic port or vehicle identification through VIN.

The following ECU functions are possible under **>Diagnostics<** in the main menu:

- Trouble code reading
- Parameter readout
- Actuator test
- Service reset
- Basic setting
- Coding
- Test function

Proceed as follows to prepare vehicle diagnostics:

1. Select the desired vehicle under **>Vehicle selection<** in the main menu.
2. Select **>Diagnostics<** in the main menu.

3. Take the diagnostic module (DT 66) out of the mega macs 66.

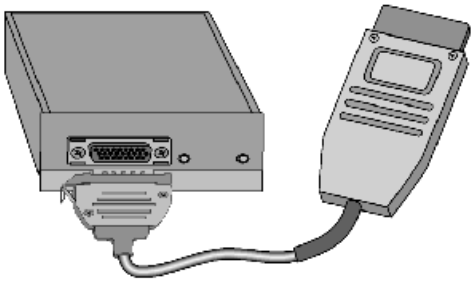
NOTICE

Short circuit and voltage peaks when connecting the ST2 and data link connectors

Danger of destruction of automotive electronics

Switch off the vehicle ignition before connecting the ST2 and data link connectors.

4. Insert the ST2 connector into the ST2 socket of the DT 66.



CAUTION

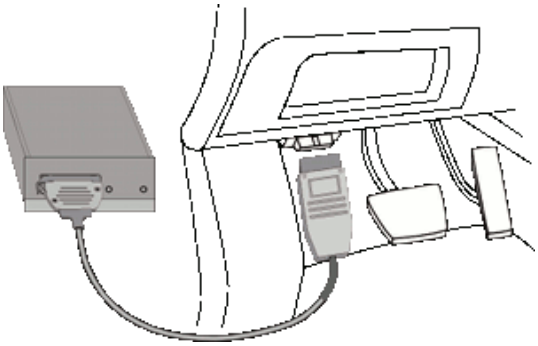
Pulling off of the OBD plug when operating the clutch

Risk of injury or material damages

Proceed as follows before startup:

1. Apply the parking brake.
2. No gear is engaged.
3. Regard the window with information and instructions.

5. Insert the OBD plug into the vehicle's diagnostic connector and place the DT 66 inside the vehicle cabin.



6. Select **>Diagnostics<** in the main menu.

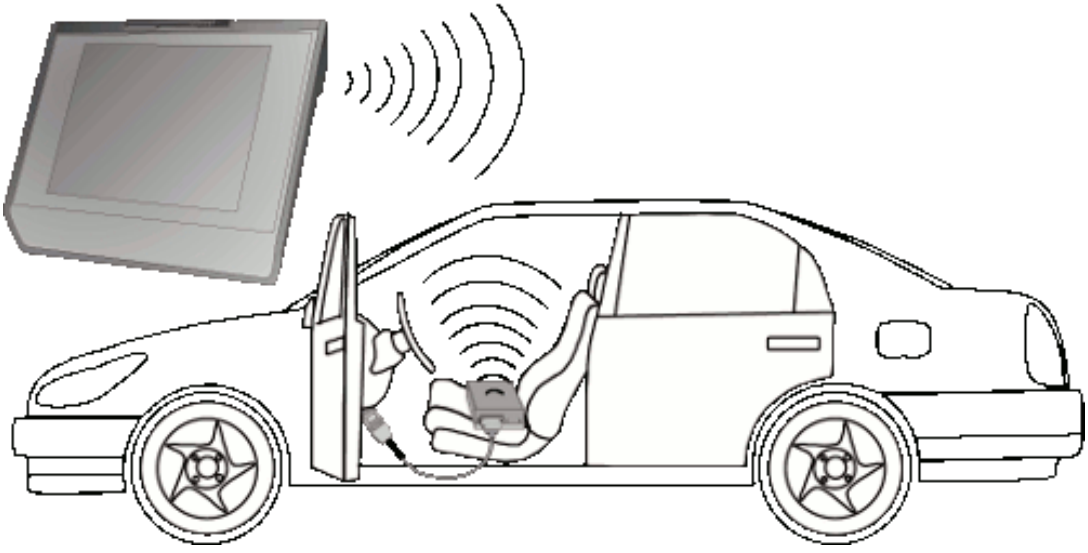
Now you can select the type of diagnostics.

7.2.2 Performing Diagnostics

Proceed as follows to perform diagnostics:

1. Perform steps 1 to 5 as described in section **Preparing vehicle diagnostics (Page 25)**.
2. Use ⌄ to select the desired diagnostics under **Function**, **Assembly** and **System**.
3. Observe the information window, note window and instruction window as applicable.
4. Start the communication with ▶.

   The diagnostic procedure between the device and the DT 66 takes place via Bluetooth. The connection to the DT 66 is established if the symbol changes from black to green.



5. Repair the vehicle. Then delete the saved trouble codes from the vehicle system.

7.3 Calling Up Vehicle Information

Here you have an overview of the vehicle information including the following:

- Car History
- Component Help
- Service data

☞	**NOTICE** You require an online connection if you wish to access all available information.

Proceed as follows to call up vehicle information:

1. Select **>Vehicle information<** in the main menu.
2. Select the desired type of information using the symbols.

   Certain types of information may not be available depending on the selected vehicle.

7.4 Oscilloscope

The use of measuring technology requires the optionally available measurement module (MT 66).

The oscilloscope can be used for measuring and/or depicting the following measured variables:

- Voltage
- Current
- Resistance
- Temperature
- Pressure

Current measurements are allowed exclusively using the clamp meter from Hella Gutmann. Depending on the required measurement, different meters are to be used.

A light blue bar in the top toolbar indicates how much of the memory space reserved for this purpose in the Car History has been used. If the blue bar is complete, the oldest data is deleted from the Car History memory and the free memory is assigned new data.

	**CAUTION** Overvoltage Fire hazard/danger of destruction of the device and its surroundings Comply with the max. permitted voltage load of the oscilloscope channels: • Direct current voltage (DC): 200 V • Alternating voltage (AC): 160 V

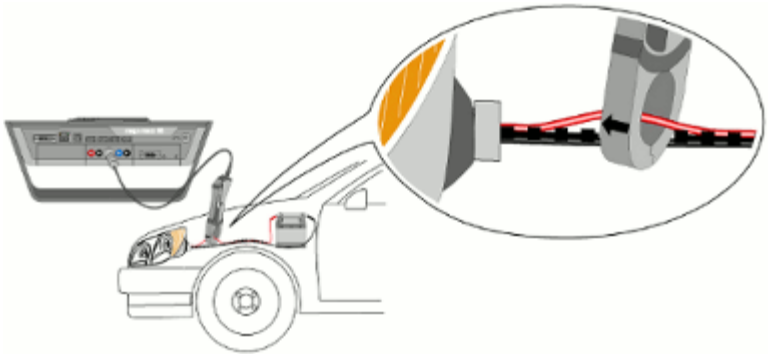
7.4.1 Performing oscilloscope measurements

Proceed as follows to perform oscilloscope measurements:

1. Select **>Measurements<** in the main menu.
2. Select the **>Oscilloscope<** tab.

	**NOTICE** Only the measured variable **Voltage** is supported for the oscilloscope channels 2 and 4.

   The window for measured variables and channels appears.
3. Plug in the test lead and/or signal cable into the MT 66.
4. Connect the test lead to the component in question if necessary.
5. Where necessary, connect the signal cable to the infrared thermometer of Hella Gutmann or the LPD kit.



6. Should you use the green current clamp (CP 40), black current clamp (CP 200), or blue current clamp (CP 700), then connect it with the arrow pointing towards the battery around all positive cables, or with the arrow pointing away from the battery around all negative cables respectively.
7. Activate the check box for the desired measured variable and the oscilloscope channel.
8. Confirm the selection with ✓.

   Measurement will be started.
9. Use ▼ ▲ ◀ ▶ to set the time and measured variable ranges.

   The ideal measuring range of the device can alternatively be determined automatically with .
10. Start Auto Set with > .

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