



The future of vehicle

diagnostics has arrived

### mega macs X:

### putting the power in your hands

The new and highly innovative mega macs X from HELLA <u>GUTMANN</u> is a revolution in vehicle diagnostics.

A flexible, modular system with state-of-the-art diagnostic technology at its core, a range of software options and accessories ensures the mega macs X provides the optimal diagnostic solution whatever your workshop requirements may be, now and as your needs grow.

#### **COST-EFFECTIVE**

With four software modules providing varying degrees of functionality, from basic features to advanced capabilities, with mega macs X you pay only for what you need.

#### **FLEXIBLE**

Choose the appropriate software module for your workshop's requirements and upgrade easily at any time.

### **USER-FRIENDLY**

With all diagnostic procedures operated using a separate display and input device of your choosing – whether a tablet, notebook or PC – there's no need to carry a heavy diagnostic tool.

Set-up is easy too. If using the HELLA GUTMANN Tablet – or any other tablet with a camera – simply scan a QR code to initiate the process.





### Powerful, flexible and built to last

The hardware at the heart of this new diagnostic set-up is the mega macs X device. Expertly designed, the mega macs X is both compact and robust, ensuring it can more than meet the demands of busy workshop environments. It contains a powerful processor – the "brain" of the solution – for faster diagnosis and repair.

A built-in bracket at the rear of the device allows the mega macs X to be easily attached to a vehicle window when in use, the OBD plug has an integrated flashlight that makes it quicker and easier to connect the device to the vehicle, and a green LED bar indicates diagnostic progress.

With no in-built display or keypad, the mega macs X connects wirelessly to your preferred external display and input device, whether a tablet, notebook or PC running Windows, Mac OS, Linux or Android.

#### **HELLA GUTMANN TABLET**

The optional HELLA GUTMANN Tablet is a powerful Android tablet designed specifically for the mega macs X. With a focus on only the essential functions of the device, the HGS Tablet can operate at maximum speed and efficiency, however email capabilities are included to allow diagnostic reports to be sent directly from the tablet.

It comes with a shock-proof casing, designed to protect the tablet from drops on to a concrete floor from a height of up to 4 metres, and a docking/charging station with basic interfaces (such as HDMI and ethernet) allowing the connection of other devices.

### MT-USB MEASUREMENT TECHNOLOGY MODULE

The optional MT-USB connects to the mega macs X via the USB socket and turns it in to a practical two-channel multimeter for voltage measurements of up to 60V, as well as current and resistance measurements (subject to licence type). devices.





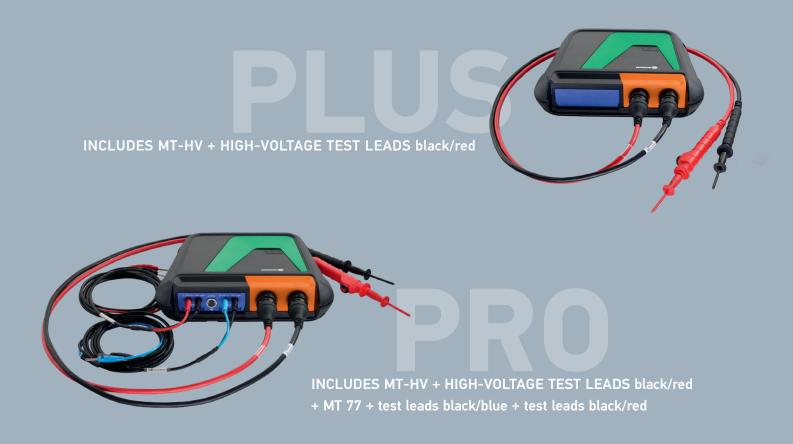


### HIGH VOLTAGE MEASUREMENTS FOR HYBRID AND ELECTRIC VEHICLES

For high voltage requirements look no further than the MT-HV. With the same sleek design as the mega macs X, the MT-HV is just as flexible. Connecting easily via Bluetooth, the MT-HV was developed especially for use alongside the mega macs X and includes all the measurement functions you need for working on electric and hybrid vehicles. Users can also find support for high voltage measurements including vehicle specific information such as methods, measuring points and the appropriate target values.

To get started your mega macs X will require the SDI software X3 and an





### THE MEASUREMENT CAPABILITIES OF THE MT-HV COVER ALL THE NEEDS TO WORK ON ELECTRIC AND HYBRID VEHICLES:

- High Voltage measurement up to 1,000 VDC
- Insulation resistance measurements, adjustable in steps
- Potential equalization measurements on HV components
- Resistance measurement (HV service connector)
- Guided Low & High Voltage measurements

### **HIGH-VOLTAGE TEST LEADS AND PROBES**

Test leads especially for high-voltage measurements with large diameter. Safety is assured by features like the manual operating button which must be pressed during the entire measurement procedure. High voltage test leads black/red with extra large contactor. If required, the test probes can be replaced and OE-specific adapters can be fitted.

#### **GUIDED MEASUREMENTS**

Step-by-step measurement and safety instructions are available with the 'Guided Measurement' function. This contains precise specifications on how and at which measuring points measurements must be performed. Each step performed is then confirmed via the button on the red high-voltage measuring cable. As an added benefit, the documentation of the voltage disconnection is stored within the car history, via the mega macs database, where it can be recalled and printed if required.

## Functionality that can flex to meet your needs

#### YOUR CHOICE OF SOFTWARE

Our Smart Diagnostic Interface (SDI) software modules range from entry level to full service. Each software module enables basic functions on the mega macs X, such as reading and deleting trouble codes and service resets, with support for PassThru, CAN-FD and DoIP protocols. However, four different software modules unlock a range of additional features such as actuator tests, basic settings, codings and ADAS calibrations.

#### THE SOFTWARE LICENCE

Each software module purchased includes the corresponding licence for 12 months, providing access to software updates and the HELLA GUTMANN technical support line.

Should your workshop's requirements change, simply upgrade your licence and your software will automatically update to the corresponding level and unlock additional functionality.

SOFTWARE MODULES					
SDI module X¹	SDI module X²	SDI module X <sup>3</sup>	SDI module X <sup>4</sup>		
LICENSES'					
License X¹	License X <sup>2</sup>	License X³	License X <sup>4</sup>		
	FUNC	CTIONS			
Reading/deleting trouble codes (without global check) DoiP technology	<ul> <li>DoiP technology</li> <li>Service reset</li> <li>Basic setting</li> <li>Parameters</li> <li>Codings</li> <li>Actuator test</li> <li>Test function</li> <li>Cyber Security Management</li> <li>Automated retrieval</li> <li>of kilometer/mileade reading</li> </ul>	Reading/deleting trouble codes DoiP technology Service reset Basic setting Parameters Codings Actuator test Test function Proposed online solutions based on trouble codes Cyber Security Management Automated retrieval of kilometer/mileade reading	<ul> <li>Reading/deleting trouble codes</li> <li>DoiP technology</li> <li>Service reset</li> <li>Basic setting</li> <li>Parameters</li> <li>Codings</li> <li>Actuator test</li> <li>Test function</li> <li>Proposed online solutions based on trouble codes</li> <li>Cyber Security Management</li> <li>Automated retrieval</li> <li>of kilometer/mileade reading</li> </ul>		
	MEASURING	TECHNOLOGY"	:		
		Multimeter     2-channel oscilloscope	<ul> <li>Multimeter</li> <li>2-channel oscilloscope</li> <li>Guided measurements</li> <li>Pressure measurements</li> <li>Guided high-voltage measurements*</li> </ul>		
		Required measurement technology MT-HV with MT 77	Required measurement technology MT-HV with MT 77		
	D	ATA			
		Component test values Component location Timing belt data Wiring diagrams Cabin air filter Fuses/relays Flat rate units Service data HGS Data Battery management	Component test values Component location Timing belt data Wiring diagrams Cabin air filter Fuses/relays Flat rate units Service data HGS Data Battery management PIN data Service information Diesel information Interactive wiring diagrams Symptom-based solutions		
SERVICES					
	Technical Help Line	Technical Help Line	Technical Help Line		
NEW FUNCTIONS AND DATA TYPES					
			ADAS & LIGHTING     E-mobility		

# **Technical specifications**

MEGA MACS X	
Processor	ARM dual processor 1.2 GHz RAM 2 GB DDR3 EMMC 32 GB
Interfaces	USB-C DC-In Ethernet
Supply voltage	12 V to 24 V DC
Temperature of work area Storage temperature Weight	0°C - 45°C 10°C to 50°C 1420 g
Dimensions	210 x 193 x 80 mm (H x W x D)
Demands on an external displaying device	Screen diagonal 25.4 cm (10")     Screen resolution at least 1024*768 Pixel     Wi-Fi corresponds to IEEE 802.11 n     Google Chrome browser at least version 81

Supply voltage	12 - 32 V
Power input	10 W type
Current consumption	1 A
IP degree of protection	IP 20
Overload protection	Max, 1000 volts
Dimensions	300 x 360 x 80 mm (L x W x H)
Measuring channels	1 (galvanically isolated
Measured variables of HV modules	<ul> <li>High voltage</li> <li>Potential equalisation measurement</li> <li>Insulation resistance measurement</li> <li>Resistance measurement (service disconnect plug)</li> </ul>
High voltage test lead red	Length 1,500mm     Test probe holder with operating button & 4mm test connection (safety connector) for manufacturer-specific test adapter     Includes removable test probe
High voltage test lead black	<ul> <li>Length 1,500mm</li> <li>Test probe holder with 4mm test connection (safety connector) for manufacturer- specific test adapter</li> <li>Includes removable test probe</li> </ul>

CHARGING TRAY FOR MEGA MACS X		
	Inductive energy transfer	
Non-contact charging	according to HELLA GUTMANN	
procedure	standard	
	(no QI charging procedure)	
Supply voltage	15 VDC	
Temperature of work area	0 °C to 45 °C	
Storage temperature	_10°C to 50°C	
Weight	590 g	
Dimensions	164 x 164 x 37 mm (H x W x D)	

HELLA GUTMANN TABLE	Т
Software	Android 9.0
Operating temperature	−10 °C to 50 °C
Processor	Rockchip RK3399
RAM/	4 GB RAM
data storage medium	64 GB eMMC
Display	X10.1" WUXGA 1200x1920 IPS 470 nits
Δ 1:	1 digital microphone
Audio	2 integrated speakers
	10-point multi-touch, glove, with
Input	capacitive stylus, glove mode
	and wet-touch mode
	<ul> <li>Docking station</li> </ul>
Interfaces	• USB 3.0
interraces	• USB 2.0
	Micro USB 2.0
	• Wi-Fi IEEE 802.11 a/b/g/n/ac
Remote interfaces	Bluetooth® 4.1
	Bluetooth® 4.2
Battery charging voltage	3.7 V
Battery capacity	10,800 Ah / 40 Wh
Battery run time	up to 8.5 h
Dimensions	283.4 mm x 192 mm x 21.9 mm
Weight	1280 g

DOCKING STATION HELLA GUTMANN TABLET		
Supply voltage	AC adapter 65 W (19 V / 3.42 A)	
Temperature of work area	0°C to +45°C	
Storage temperature	_10°C to +60°C	
Weight	2500 g	
	• HDMI x 1	
	<ul> <li>USB 2.0 (type A) x 4</li> </ul>	
	<ul> <li>VGA port x 1</li> </ul>	
Interfaces e.g.	<ul> <li>Display port x 1</li> </ul>	
interraces e.g.	<ul> <li>LAN port x 1</li> </ul>	
	<ul> <li>Audio MIC in x 1</li> </ul>	
	<ul> <li>Audio line out x 1</li> </ul>	
	• DC-IN x 1	

### Getting started with mega macs X

Once you take delivery of your mega macs X, simply connect your preferred display device, download your chosen software and start diagnosing!

Set-up couldn't be simpler.

