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IMPORTANT

Before operating or maintaining this unit, please read this manual carefully, paying attention to the safety warnings and precautions.

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1 Safety Precautions

The AUTEL MaxiProgrammer 201 (XP201 for short) has been carefully designed to help automotive technicians maintaining and servicing modern vehicles.

To avoid personal injury or damage to vehicles, please read this manual first and observe the following safety precautions whenever working on a vehicle.

Make sure:

- The diagnosis or service is performed in a safe environment.
- The vehicle is operated in a well-ventilated work area.
- The vehicle parts and XP201 components are welded at a constant temperature.
- The vehicle and XP201 are powered off and grounded.
- The XP201 is dry, clean, and free from oil, water, grease and dust.
- Electrostatic interference is avoided during operation. If a failure occurs due to electrostatic interference, please try to operate again.

2 Introduction

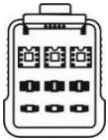

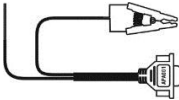


The MaxiProgrammer 201 is specially designed to read Volkswagen vehicle key chip data, clone and generate exclusive keys, read/write on-board EEPROM data, and read/write Freescale 9S12 MCUs. By working with diagnostic tool and PC that are both loaded with programmer software, the MaxiProgrammer 201 can read/write key chip data quickly and accurately.

Specifications

Table 2-1 *Specifications*

Item	Description
Operating Temperature	-10°C ~ 85°C (14°F ~ 185°F)
Storage Temperature	-20°C ~ 85°C (-4°F ~ 185°F)
Port	Mini USB, VGA_DB15
Input Voltage	5 VDC
Operating Current	< 250 mA
Maximum Consumption	1 W
Device Dimensions (L*W*H)	130 mm * 68 mm * 28 mm
Package Dimensions (L*W*H)	201 mm * 167 mm * 75 mm
Net Weight	466 g
Gross Weight	11 kg (20 pcs)

Accessories Included

	APB001 – EEPROM Adaptor
	APA002 – EEPROM Socket
	APA001 – EEPROM Clamp Integrated MC9S12 Cable
	User's Manual
	APC001 – USB Cable (Standard USB – Mini USB) APC002 – USB Cable (Mini USB – Mini USB) (Optional) The two types of USB cables work with different products, please choose the corresponding USB cable for the product you use.

Components and Ports

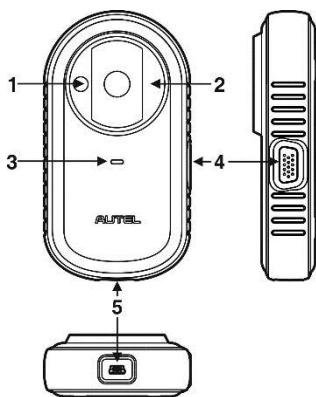


Figure 2-1 *MaxiProgrammer 201 Views*

1. Vehicle Key Chip Slot – holds the vehicle key chip.
2. Vehicle Key Slot – holds the vehicle key.
3. Status LED Light – indicates the current operating status.
4. Connection Port – connects EEPROM Adaptor and EEPROM Clamp Integrated MC9S12 Cable.
5. USB Port – provides data communication and power supply.

Vehicle Key Slot

Holds the Vehicle Key to read and write vehicle key information.

Vehicle Key Chip Slot

Holds the Vehicle Key Chip to read and write vehicle key chip information.

Status LED Light

The status LED of the XP201 indicates the operating status of the

device. See [Table 2-2](#) for detailed description.

Table 2-2 *Status LED Light on the Front Panel*

LED Light	Color/Status	Description
Power	Solid Green	Powered on and Default Status
	Flashing Green	Communication Status
	Solid Red	Error Status

Connection Port

There are two accessories that can be paired with the connection port: EEPROM Clamp Integrated MC9S12 Cable and EEPROM Adaptor.

EEPROM Clamp Integrated MC9S12 Cable

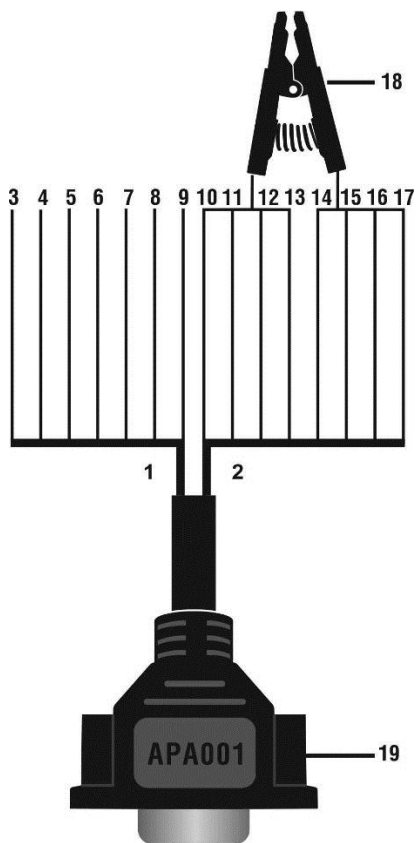


Figure 2-2 EEPROM Clamp Integrated MC9S12 Cable

1. MC9S12 Cable

Table 2-3 *Definitions of MC9S12 Cable*

No.	Color	Definition	Pin correspond to DB15	Note
3	Green	TXCLKS	1	
4	Black	GND	2	Shielded line
5	White	TOSC	6	Shielded line
6	Blue	TSW	7	
7	Brown	GND	8	
8	Yellow	TRESET	11	
9	Red	VDD	12	

2. EEPROM Clamp Cable

Table 2-4 *Definitions of EEPROM Clamp Cable*

No.	Color	Definition	Pin correspond to DB15	Note
10	White and Red	P1	5	Pin 1 is red
11	White and Purple	P2	15	
12	White and Blue	P3	10	
13	Grey	P4	4	
14	White and Brown	P5	14	
15	White and Green	P6	9	

16	White and Orange	P7	3	
17	White and Black	P8	13	Pin 8 is black

Here are the possible causes for EEPROM read/write failure and data error when connecting the clamp to the test board for EEPROM read/write:

- A. EEPROM read/write operations are affected by the circuit of the connected test board;
- B. EEPROM read/write operations of the test board are affected by the read/write operations of the clamp;
- C. The signal is damaged by large resistance. A large resistance will be generated when connecting the clamp to a fast communicating EEPROM or using a long cable for connection.

Therefore, it is recommended to dismantle the chip on the EEPROM, weld the EEPROM to the EEPROM adaptor or place in the EEPROM socket, and then insert it in the EEPROM adaptor.

18. EEPROM Clamp

19. DB15 VGA Port

EEPROM Adaptor

The EEPROM adaptor is compatible with three 8-pin packaging TSSOP, SOP, DIP connections, and each packaging reserves three same ports, so the device will function properly when one port is damaged. For SOP8 packaging, the EEPROM adaptor can also work with the EEPROM socket. To do this, place the pins of the SOP8 EEPROM into the EEPROM accordingly and then insert them into the EEPROM adaptor.

USB Port

The USB port is used for the data communication between the XP201

and the diagnostic device or the PC, and it is also the port for power supply charge.

EEPROM Read/Write Supported Types

Chip Type	Name	Chip Type	Name
ATMEL	AT24C01	ST	M24C04
ATMEL	AT24C02	ST	M24C08
ATMEL	AT24C04	ST	M24C16
ATMEL	AT24C08	ST	M24C32
ATMEL	AT24C16	ST	M24C64
ATMEL	AT24C32	FAIRCHILD	NM24C16U
ATMEL	AT24C64	FAIRCHILD	NM24C16UT
ATMEL	AT24C128	FAIRCHILD	NM24C17U
ATMEL	AT24C256	FAIRCHILD	NM24C17UT
ATMEL	AT24C512	MICROCHIP	85C72
ATMEL	AT24C1024	MICROCHIP	85C82
ATMEL	AT24C128_1.8	MICROCHIP	85C92
ATMEL	AT24C256_1.8	NXP	PCF8582C
ATMEL	AT24C512_1.8	NXP	PCF8594C
ATMEL	AT24C01A	NXP	PCF8598C
ST	ST24x01/ST25x01	ATMEL	AT25010
ST	ST24x02/ST25x02	ATMEL	AT25020
ST	ST24x04/ST25x04	ATMEL	AT25040
ST	ST24x08/ST25x08	ATMEL	AT25080
ST	ST24x16/ST25x16	ATMEL	AT25160

Chip Type	Name	Chip Type	Name
ST	M24C01	ATMEL	AT25320
ST	M24C02	ATMEL	AT25640
ATMEL	AT25128	MICROCHIP	25xx080
ATMEL	AT25256	MICROCHIP	25xx160
ATMEL	AT25512	MICROCHIP	25xx320
ATMEL	AT25010_1.8	MICROCHIP	25xx640
ATMEL	AT25020_1.8	MICROCHIP	25xx040_TSSOP
ATMEL	AT25040_1.8	MICROCHIP	25xx320_TSSOP
ATMEL	AT25080_1.8	MICROCHIP	25xx640_TSSOP
ATMEL	AT25160_1.8	CATALYST	CAT25C01
ATMEL	AT25320_1.8	CATALYST	CAT25C02
ATMEL	AT25640_1.8	CATALYST	CAT25C04
ATMEL	AT25128_1.8	CATALYST	CAT25C08
ATMEL	AT25256_1.8	CATALYST	CAT25C16
ST	M95010	CATALYST	CAT25C32
ST	M95020	CATALYST	CAT25C64
ST	M95040	CATALYST	CAT25C128
ST	M95080	CATALYST	CAT25C256
ST	M95160	ST	M35080
ST	M95320	XICOR	X5043
ST	M95640	XICOR	X5045
ST	M95128	XICOR	X25043
ST	M95256	XICOR	X25045

Chip Type	Name	Chip Type	Name
ST	M95512	MICROCHIP	93C06
MICROCHIP	25xx040	NATIONAL	NM93C13
NATIONAL	NM93C14	NATIONAL	NM93CS06
NATIONAL	NM93C14TM8	NATIONAL	NM93CS46
MICROCHIP	93C46X	NATIONAL	NM93CS56
MICROCHIP	93C46A	NATIONAL	NM93CS66
MICROCHIP	93C46	FAIRCHILD	FM93CS46T
MICROCHIP	93C46AX	ST	M93C46
MICROCHIP	93C46BX_93C46CX	ST	M93C56
MICROCHIP	93C56A	ST	M93C66
MICROCHIP	93C56	ST	M93C76
MICROCHIP	93C66A	ST	M93C86
MICROCHIP	93C66	ST	M93S46
MICROCHIP	93C76A	ST	M93S56
MICROCHIP	93C76	ST	M93S66
MICROCHIP	93C86A	ATMEL	AT59C11
MICROCHIP	93C86	ATMEL	AT59C22
ATMEL	AT93C46A	ATMEL	AT59C13
ATMEL	AT93C46	OKI	MSM16911
ATMEL	AT93C46R	TMC	TMC93LC46
ATMEL	AT93C56	TMC	TMC93LC56
ATMEL	AT93C57	TMC	TMC93LC57
ATMEL	AT93C66	TMC	TMC93LC66

Chip Type	Name	Chip Type	Name
ATMEL	AT93C76	TMC	TMC93LC86
ATMEL	AT93C86	SONY	CXK1011
SONY	CXK1012	Seiko	S_24S45
SONY	CXK1013	TOSHIBA	TC89101
Seiko	S_24H30	TOSHIBA	TC89102
Seiko	S_24H30_SOP8	TOSHIBA	TC89121
Seiko	S_24H45	TOSHIBA	TC89122
Seiko	S_24H45_SOP8	Xicor	X24C44
Seiko	S_24S30		

9S12 Read/Write Supported Types

Chip Type	Name
FREESCALE	MC9S12DG128

3 Product Troubleshooting

This part describes problems that you may encounter while using the XP201.

Vehicle Linking Error

A communication error occurs if the XP201 fails to communicate with the diagnostic tools. Please do the following check-ups:

- ✓ Verify that the diagnostic tool authorization is approved.
- ✓ Verify that the server works properly.
- ✓ Verify that the power LED light of the XP201 illuminates solid green.

PC Communication Error

A communication error occurs if the XP201 fails to communicate with PC. Please do the following check-ups:

- ✓ Verify that the power LED light of the XP201 illuminates solid green.
- ✓ Check if there is any firewall software interfering with the connection port or if a wrong USB port is being used.
- ✓ Check if the green status light for USB communication is blinking.

If these issues have been addressed, verified, and you are still having trouble, please contact technical supports for assistance.

4 Update

Software Update

This part describes two ways to update the driver and the software of the XP201.

Update via MaxiSys Display Tablet

This function allows you to update the XP201 software via MaxiSys Display Tablet.

1. Connect the XP201 to MaxiSys Display Tablet via USB cable.
2. Verify the power LED light on the front panel illuminates solid green.
3. MaxiSys Display Tablet will automatically check the version information of the XP201.
4. Click the Update button on MaxiSys Display Tablet to update the software of the XP201 if there is any update available.

Update via PC

This function allows you to update the XP201 software via PC. Make sure the PC is connected to the Internet before using this function.

1. Connect the XP201 to a PC via USB cable.
2. Verify the power LED light on the front panel illuminates solid green.
3. Find and click Update Details from Windows Update Information.

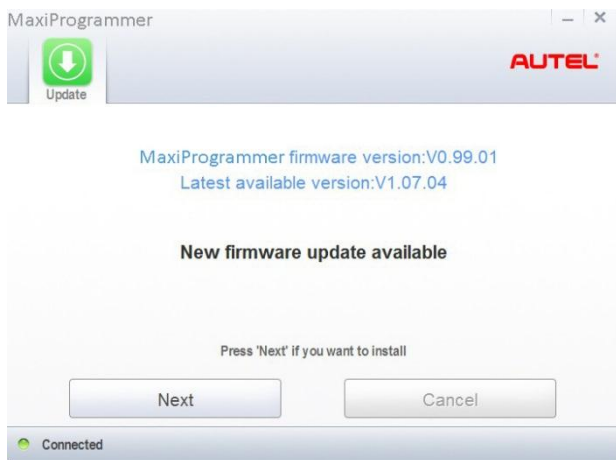


Figure 4-1 *Sample Firmware Update Screen*

4. The update agent will automatically check for available update online.
5. Press **Next** to install the newest firmware.
6. Press **Cancel** to exit.

5 Compliance Information

FCC COMPLIANCE

FCC ID: WQ8MXPRGXP201

This device complies with Part 15 of the FCC rules and Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

Cet appareil est conforme aux CNR exempts de licence d'Industrie Canada. Son fonctionnement est soumis aux deux conditions suivantes:

1. Ce dispositif ne peut causer des interférences; et
2. Ce dispositif doit accepter toute interférence, y compris les interférences qui peuvent causer un mauvais fonctionnement de l'appareil.

WARNING

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and

used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

RF WARNING STATEMENT

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

The term "IC" before the radio certification number only signifies that IC technical specifications were met.

RoHS COMPLIANCE

This device is declared to be in compliance with the European RoHS Directive 2011/65/EU.

CE COMPLIANCE

This product is declared to conform to the essential requirements of the following Directives and carries the CE mark accordingly:

EMC Directive 2014/30/EU

R&TTE Directive 1999/5/EC

Low Voltage Directive 2014/35/EU

6 Warranty and Service

Limited One Year Warranty

Autel Intelligent Technology Corp., Ltd. (the Company) warrants the original retail purchaser of this MaxiProgrammer 201 that should this product or any part thereof during normal usage and under normal conditions be proven defective in material or workmanship and results in product failure within 1 year period from the date of delivery, such defect(s) will be repaired, or replaced (with new or rebuilt parts) with Proof of Purchase, at the Company's option, without charge for parts or labor directly related to the defect(s).

The Company shall not be liable for any incidental or consequential damages arising from the use, misuse, or mounting of the device. Some states do not allow limitation on how long an implied warranty lasts, so the above limitations may not apply to you.

This warranty does not apply to:

- 1) Products subjected to abnormal use or conditions, accident, mishandling, neglect, unauthorized alteration, misuse, improper installation or repair or improper storage;
- 2) Products whose mechanical serial number or electronic serial number has been removed, altered or defaced;
- 3) Damage from exposure to excessive temperatures or extreme environmental conditions;
- 4) Damage resulting from connection to, or use of any accessory or other product not approved or authorized by the Company;
- 5) Defects in appearance, cosmetic, decorative or structural items such as framing and non-operative parts.
- 6) Products damaged from external causes such as fire, dirt, sand, battery leakage, blown fuse, theft or improper usage of any electrical source.

Service Information

If you have any questions, please contact your local distributor or visit our website at www.autel.com.

If it becomes necessary to return the tool for repair, please download and fill the Technical Support Form from www.auteltech.com, or contact your local distributor for more information.

Other Services

Accessories can be purchased from Autel authorized suppliers and your local distributors.