

Copyright

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Disclaimer

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FCC Statement

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

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- a. This device may not cause harmful interference
- b. This device must accept any interference received, including interference that may cause undesired operation.

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 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.

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

 **Important:** Please read this manual carefully and understand the safety precautions before performing any operation to this product.

Safety Grades

Safety grade definitions in this manual are as followings:

| Symbol | Definition | Usage |
|---|------------|---|
|  | Danger | Indicates a hazardous situation which, if not avoided, will result in death or serious injury to the operator or to bystanders. |
|  | Warning | Indicates a hazardous situation which, if not avoided, could result in possible injury to the operator or to bystanders. |
|  | Caution | Indicates a hazardous situation which, if not avoided, could result in serious equipment damage or property losses. |

Safety Precautions

- Never collide, throw, or puncture the equipment, and avoid falling, extruding and bending it.
- Do not insert foreign objects into or place heavy objects on your device. Sensitive components inside might cause damage.
- Do not use the equipment in exceptionally cold or hot, dusty, damp or dry environments.
- In places using the equipment may cause interference or generate a potential risk, please turn it off.
- The equipment is a sealed unit. There are no end-user serviceable parts inside. All internal repairs must be done by an authorized repair facility or qualified technician. If there is any inquiry, please contact the dealer.
- Never place the equipment into apparatus with strong electromagnetic field.
- Do not disconnect power abruptly when the test equipment is being formatted or in process of uploading or downloading. Or else it may result in program error.



- Do not disconnect battery or any wiring cables in the vehicle when the ignition switch is on, as this could avoid damage to the sensors or the ECU
- Do not place any magnetic objects near the ECU. Disconnect the power supply to the ECU before performing any welding operations on the vehicle.
- Use extreme caution when performing any operations near the ECU or sensors. Ground yourself when you disassemble PROM, otherwise ECU and sensors can be damaged by static electricity.
- When reconnecting the ECU harness connector, make sure it is attached firmly, otherwise electronic elements, such as ICs inside the ECU, can be damaged.

Packing List

- Main unit
- Power adapter
- Main diagnostic cable
- The fourth-generation data acquisition cable
- The fourth-generation of EEPROM data acquisition cable (without dismantling dashboard)
- BENCH mode cable
- MCU converter V1
- MCU converter V2
- MCU cable with multiple leads
- EEPROM chip adaptor
- Benz infrared analog acquisition key
- MCU cable with multiple leads
- EEPROM converter
- User manual



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1 About this Manual



This manual introduces the basic information of THINKCAR PROG 2 and instruction on the product usage. THINKCAR PROG 2 is a powerful anti-theft solution and an ideal choice for professional repair shops and vehicle maintenance businesses. It supports vehicle key matching as well as engine and gearbox programming, featuring powerful multiple parts reprogramming with wide range of vehicle coverage.

1.1 Target Reader

This document is intended for vehicle owners or repair technicians to perform various diagnostic procedures using THINKCAR PROG 2; it assumes a basic knowledge of vehicles.

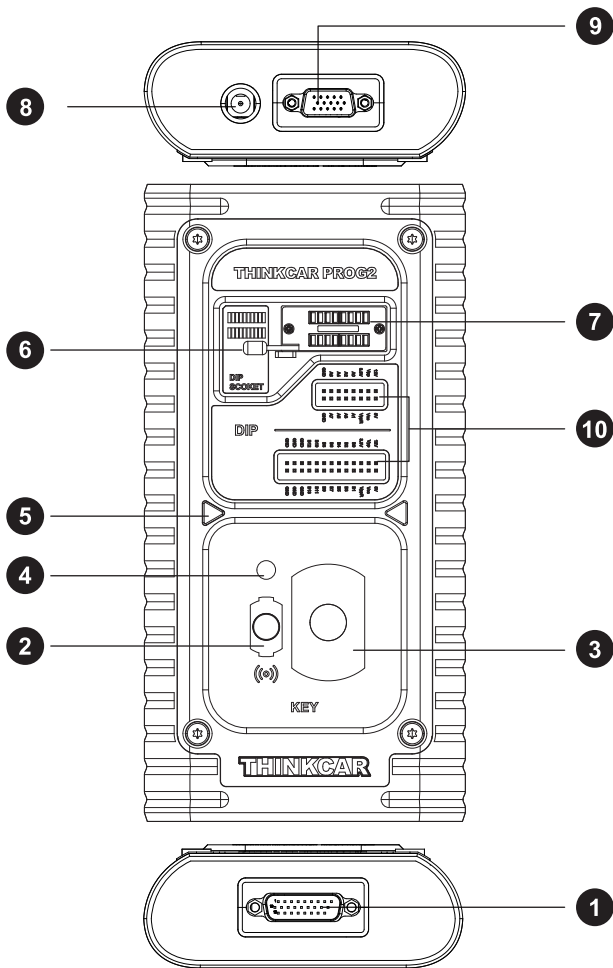
1.2 Symbols

Following symbols are used in this document:

| Symbol | Definition | Usage |
|---|------------|--|
|  | Note | Widely used for any supplementary information. |
|  | Tip | Refers to easily overlooked tricks that is necessary for a better user experience. |

2 About THINKCAR PROG 2

2.1 Product Overview



| No. | Part Name | Description |
|-----|---------------------------|--|
| 1 | DB26 diagnostic connector | To connect with all anti-theft cables. |
| 2 | Benz key slot | To place Benz car key. |
| 3 | Key slot | To place car key for RF deflection. |
| 4 | Key chip slot | To place key chip. |
| 5 | Power indicator | <ul style="list-style-type: none">• Red light indicates faults.• Orange light indicates functions normally. |
| 6 | Valve | To tighten loose EEPROM board. |
| 7 | EEPROM slot | To insert EEPROM board |
| 8 | Power port | To insert power plug |
| 9 | DB15 diagnostic connector | To connect with main diagnostic cable. |
| 10 | DIY slot | To insert vehicle DIY board. |

2.2 Power Source

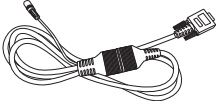
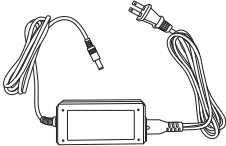
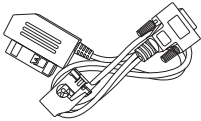
The product does not have an independent power supply, you can powered it up by the followings ways:

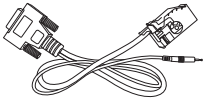
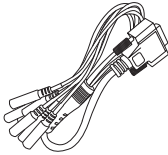
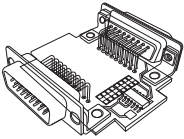
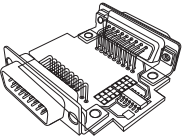
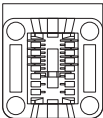
- Use the power adapter supplied by THINKCAR
- Connect the device through the vehicle's DLC

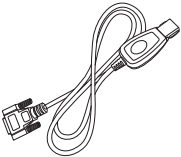

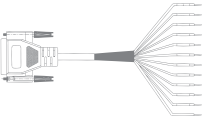
2.3 Technical specifications

| | |
|---------------------|----------------------|
| Input voltage | 12 V DC |
| Input current | 500 mA |
| Working temperature | 0 to 50 °C |
| Storage temperature | - 20 to 70 °C |
| Dimension | 218.4 x 110 x 42.5mm |

2.4 Accessories

| Photo | Accessory Name | Description |
|---|--|---|
|  | Main Diagnostic Cable | To connect vehicle DLC port, VCI and programmer for diagnose. |
|  | Power adapter | To provide power to the programmer. |
|  | INS Cable V2 The fourth-generation data acquisition cable | After removing the vehicle dashboard, connect programmer, vehicle dashboard, and the cable. |

| | | |
|---|---|---|
|  | <p>INS Cable V1 The fourth-generation of EEPROM data acquisition cable (without dismantling dashboard)</p> | <p>To connect the programmer and vehicle dashboard, and then place the probe(the yellow lead) to the designated area.</p> |
|  | <p>BC Cable V1 BENCH mode Cable</p> | <p>To connect the programmer and the engine to read engine or gearbox ECU (Connect engine ECU with the BENCH mode cable based on BENCH mode diagram).</p> |
|  | <p>MCU Converter V1</p> | <p>To connect the programmer with MCU (chip soldering is required in this procedure).</p> |
|  | <p>MCU Converter V2</p> | <p>To connect the programmer with MCU (chip soldering is required in this procedure).</p> |
|  | <p>XTA001 EEPROM chip adaptor</p> | <p>To place the EEPROM chip onto the adaptor, and then plug it into the programmer socket.</p> |

| | | |
|---|--|--|
|  | MN Key V1 Benz infrared analog acquisition key | To connect the programmer with the key lock, insert the key into the programmer for further key operations. |
|  | EEPROM converter | To solder the desired chip on the EEPROM converter, and then plug the board into the programmer (chip soldering is required) |
|  | MCU Cable V1 MCU cable with multiple leads | To connect the programmer and MCU. |

3 Diagnostics

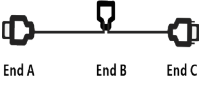

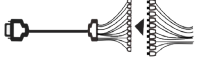
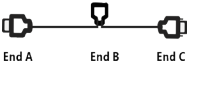
THINKCAR PROG 2 supports key programming, engine and gearbox replacement for various of vehicles. You can retrieve ECU information, read, erase, and write in for a range of chips as shown in the product options.

3.1 Common Operations

• 3.1.1 Establish Hardware Connection


You need to turn off the ignition and correctly locate the vehicle Data Link Connector (DLC) so as to perform hardware connection.

You can refer to the table below for hardware connection:

| User Scenario | Cable Image | End A | End B | End C |
|----------------------------|---|---|--|---|
| Key programming |  <p>End A End B End C</p> <p>Main diagnostic cable</p> | Connect with THINKCAR VCI connector for data transmission | Connect with vehicle's DLC | Connect with THINKCAR PROG 2 |
| Engine/gearbox programming |  <p>End A End B End C</p> <p>Power cable</p> | Connect power supply | N/A | Connect with end B of the main diagnostic cable |
| Engine/gearbox programming |  <p>End A End B</p> <p>MCU cable with mutiple leads</p> | Connect with THINKCAR PROG 2 | Connect with the engine or gearbox to be repaired/replaced | N/A |
| Engine/gearbox programming |  <p>End A End B End C</p> <p>Main diagnostic cable</p> | Connect with THINKCAR VCI connector for data transmission | Connect power supply cable | Connect with THINKCAR PROG 2 |

• 3.1.2 Establish Wireless Connection

You must make sure that your diagnostic tool is well connected with THINKCAR PROG 2 following steps below to check wireless connection:

 **Note:** It is strongly suggested to connect the diagnostic tool with the VCI connector using a USB cable for effective data transmission.

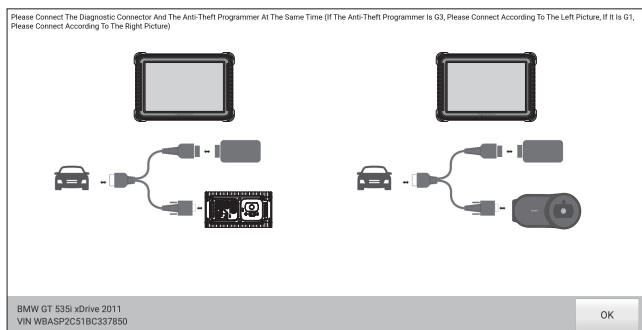
• 3.1.3 Perform Common Operations

You should enter the function interface before using the programmer.

1. Turn on the diagnostic tool, and open the application.
2. On the main diagnostic screen, enter anti-theft system either from **Local Diagnose** or **Reset**, tap **OK**.



3. You will see the connection diagram, tap **OK**.



4. According to your purpose, select any of the following options :

- Intelligent Mode
- IMMO
- EGS System
- Engine System

3.2 Diagnostic Operations

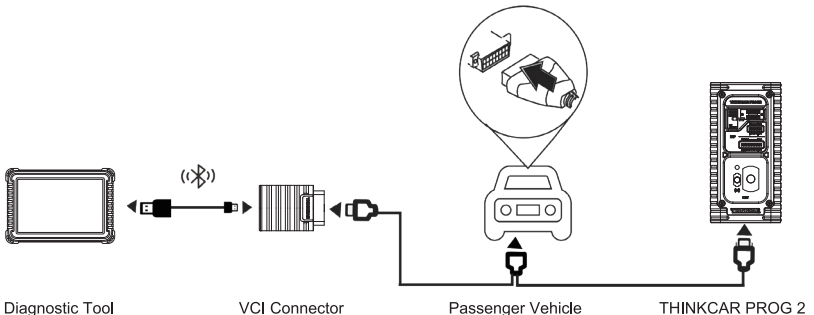
3.2.1 Key Programming

You can use anti-theft system to perform key chip programming functions. The product supports reading, retrieving and writing key information, as well as other key-related functions.

- **Connecting diagnostic system**

 **Note:**

Either USB cable or Bluetooth connection between your diagnostic tool and VCI connector is workable. Using a USB cable may effectively enhance your data transmission speed.



- **Operating on key programming**

You can use key programming function to backup old key data and write in data for new keys. Below procedure shows you how to perform key programming for BMW. It involves in backup current key data and new key generation.

Tips: Operation procedure varies with different car models. Please do it according to the actual situation.

1. Backup current key data.

- a. Tap **Intelligent Mode**.

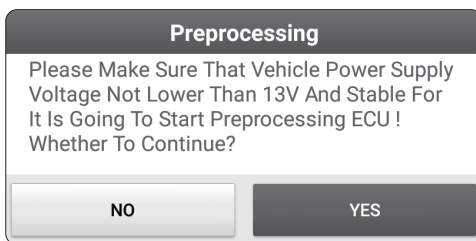
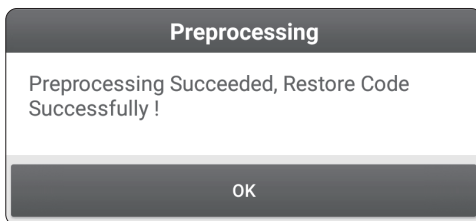
| | |
|--|---------------|
| Intelligent Mode | IMMO |
| EGS System | Engine System |
| | |
| BMW GT 535i xDrive 2011 VIN WBASP2C51BC337850 | |

- b. Choose CAS4/CAS4+IMMO

| | |
|--|-----------------|
| CAS1 IMMO | CAS2 IMMO |
| CAS3/CAS3+ IMMO | CAS4/CAS4+ IMMO |
| | |
| BMW GT 535i xDrive 2011 VIN WBASP2C51BC337850 | |

c. Select **Key Learning**.

| | |
|--|----------------------------------|
| ECU Information | Read ISN (Initial Serial Number) |
| Preprocessing | Key Learning |
| Replace Immobilizer Data | Mileage Reset |
| Key Status | MCU Operation |
| BMW GT S35i xDrive 2011 VIN WBASP2C51BC337850 | |

c. Tap **YES**.d. Tap **OK**.

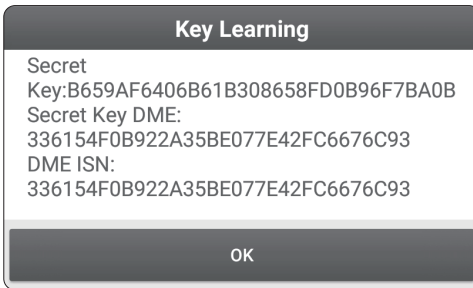
2. Generate a new key.
 - a. Select the desired blank key position.

| Key Position | Key ID | Key Status |
|--------------|----------|------------|
| Key 1 | 22EAE932 | Used |
| Key 2 | A281AA32 | Used |
| Key 3 | 168B4037 | Used |
| Key 4 | FFFFFFFF | Unused |
| Key 5 | FFFFFFFF | Unused |
| Key 6 | FFFFFFFF | Unused |
| Key 7 | FFFFFFFF | Unused |

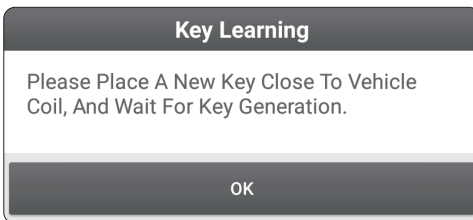
Key Generated By Ignition Switch Key Generated By Programmer

BMW GT 535i xDrive 2011
VIN WBASP2C51BC337850

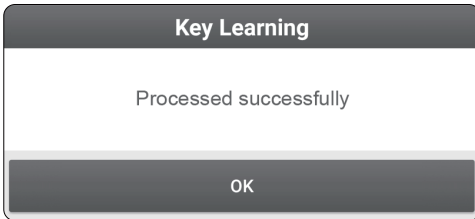
- b. Tap **OK**.



- c. Place the new key into the programmer key slot and tap **OK**.



d. Tap **OK**.



• 3.2.2 Gearbox Programming

You can use gearbox programming function to restore the old gearbox data or write in new data after a new gearbox is replaced.

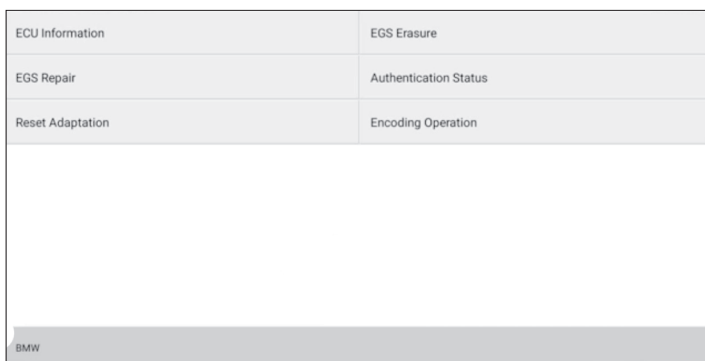
- Connecting diagnostic system for gearbox programming

 Note:

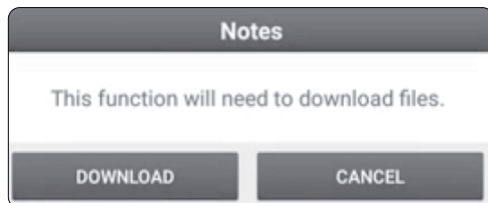
- Either USB cable or Bluetooth connection between your diagnostic tool and VCI connector is workable. Using a USB cable may effectively enhance your data transmission speed.
 - Gearbox connection needs to be made based on the actual chassis type. For information about how to connect the gearbox, please refer to the on-screen connection diagram.
-

2. Erasing gearbox data.

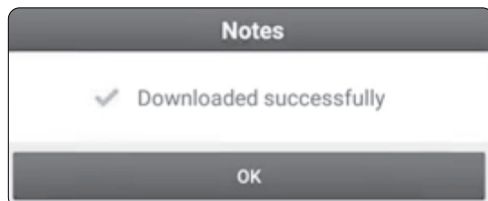
a. Select **EGS Erasure**.



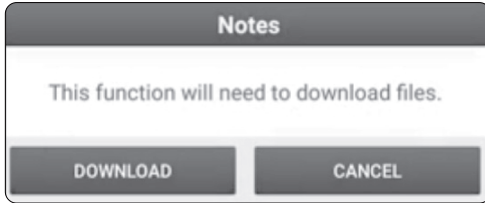
b. Tap **DOWNLOAD**.



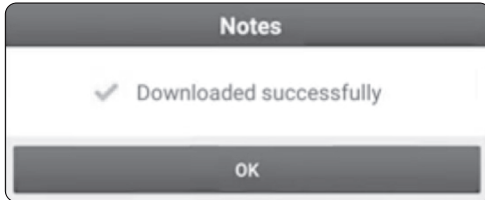
c. Tap **OK**.



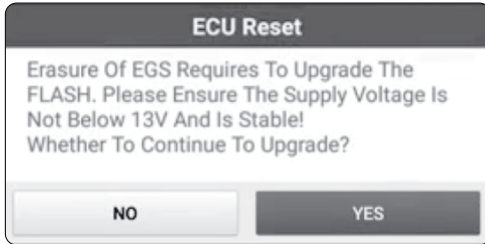
d. Tap **DOWNLOAD**.



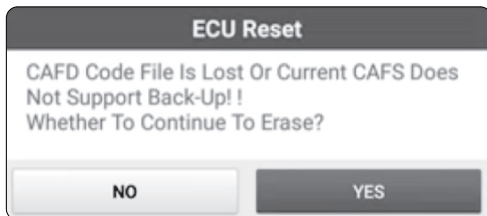
e. Tap **OK**.



f. Tap **YES**.



g. Tap **YES**.



h. Tap **OK**.



Warranty Terms

THINKCAR TECH provides 1-year free warranty for this tool from the date of delivery. This warranty applies only to users who purchase the products through authorized channels. THINKCAR TECH warrants damages due to product defects in materials or assembling. Damages to the equipment or components caused by abusing, unauthorized modification, using for non-designed purposes, operation in a manner not specified in the instructions, etc., are not covered by this warranty. The compensation for dashboard damage caused by the defect of this equipment is limited to repair or replacement. THINKCAR TECH does not bear any indirect and incidental losses. THINKCAR TECH will judge the nature of the equipment damage according to its prescribed inspection methods. No agents, employees, or business representatives of THINKCAR TECH are authorized to make any confirmation, notice, or promise related to THINKCAR TECH products warranty.

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