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Autel reserves the right to make changes at any time without notice. While information of this manual has been carefully checked for accuracy, no guarantee is given for the completeness and accuracy of the contents, including but not limited to the product specifications, functions, and illustrations.

Autel will not be liable for any direct, special, incidental, indirect damages or any economic consequential damages (including lost profits).

IMPORTANT

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

For Services and Support:

http://pro.autel.com
www.autel.com

1-855-288-3587/1-855-AUTELUS (North America)
0086-755-8614 7779 (China)

support@autel.com

For details, please refer to the *Service and Support* section in this manual.

Safety Precautions and Warnings

To prevent personal injury or damage to vehicles and/or the scan tool, read this instruction manual first and observe the following safety precautions at a minimum whenever working on a vehicle:

- Always perform automotive testing in a safe environment.
- Wear safety eye protection that meets ANSI standards.
- Keep clothing, hair, hands, tools, test equipment, etc. away from all moving or hot engine parts.
- Operate the vehicle in a well-ventilated work area: Exhaust gases are poisonous.
- Put blocks in front of the drive wheels and never leave the vehicle unattended while running tests.
- Use extreme caution when working around the ignition coil, distributor cap, ignition wires and spark plugs. These components create hazardous voltages when the engine is running.
- Put the transmission in PARK (for automatic transmission) or NEUTRAL (for manual transmission) and make sure the parking brake is engaged.
- Keep a fire extinguisher suitable for gasoline/chemical/ electrical fires nearby.
- Don’t connect or disconnect any test equipment while the ignition is on or the engine is running.
- Keep the scan tool dry, clean, free from oil/water or grease. Use a mild detergent on a clean cloth to clean the outside of the scan tool, when necessary.

CONTENTS

1 USING THIS MANUAL 1

Conventions 1

2 USING THE SCAN TOOL 3

Tool Description 3

Specifications 4

Accessories Included 4

Navigation Characters 4

Keyboard 5

Power 5

System Setup 5

About 14

Vehicle Coverage 15

Product Troubleshooting 15

3 OBD II DIAGNOSTICS 17

Read Codes 18

Erase Codes 20

Live Data 21

View Freeze Frame Data 22

Retrieve I/M Readiness Status 23

View Vehicle Information 28

Exit the OBD II Test 29

4 READY TEST 30

General Information 30

Test Tool Application 30

LED and Tone Interpretation 32

5 COMPLIANCE INFORMATION 34

6 WARRANTY AND SERVICE 36

Limited One Year Warranty 36

Service and Support 37

1 Using This Manual

This manual contains device usage instructions.

Some illustrations shown in this manual may contain modules and optional equipment that are not included in your system. Contact your sales representative for availability of other modules and optional tools or accessories.

Conventions

The following conventions are used.

Bold Text

Bold text is used to highlight selectable items such as buttons and menu options.

Example:

- Tap **OK**.

Notes and Important Messages

Notes

A **NOTE** provides helpful information such as additional explanations, tips, and comments.

Example:

NOTE
New batteries reach full capacity after approximately 3 to 5 charging and discharging cycles.

Important

IMPORTANT indicates a situation which, if not avoided, may result in damage to the test equipment or vehicle.

Example:

IMPORTANT

Keep the cable away from heat, oil, sharp edges and moving parts. Replace damaged cables immediately.

Hyperlink

Hyperlinks or links that take you to other related articles, procedures, and illustrations are active in electronic documents. Blue italic text indicates a selectable hyperlink and blue underlined text indicates a website link or an email address link.

Illustrations

Illustrations used in this manual are samples, and the actual testing screen may vary for each vehicle being tested. Observe the menu titles and on-screen instructions to make correct option selection.

Procedures

An arrow icon indicates a procedure.

Example:

➢ **To use the camera:**

1. Tap the **Camera** button. The camera screen opens.
2. Focus the image to be captured in the view finder.
3. Tap the blue circle. The view finder now shows the captured picture and auto-saves the taken photo.

2 Using the Scan Tool

Tool Description

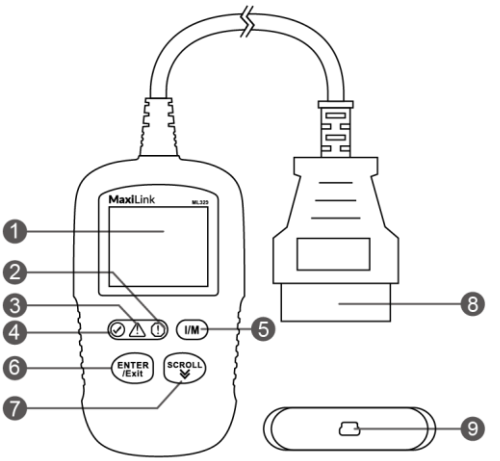


Figure 2-1 ***Product View***

1) **LCD DISPLAY** – displays menus and test results.
2) **RED LED** – indicates there is a problem in one or more of the vehicle's systems. The red LED also indicates DTCs are present. DTCs display on the scan tool's display. In this case, the MIL on the vehicle's instrument panel will light steady.
3) **YELLOW LED** – indicates there is a possible problem. A "Pending" DTC is present and/or some of the vehicle's emission monitors have not run their diagnostic testing.
4) **GREEN LED** – indicates that engine systems are running normally (The monitors on the vehicle are active and performing their diagnostic testing is in the allowed limit, and no DTCs are present).
5) **ONE-CLICK I/M READINESS KEY** – quick-checks State Emissions readiness and drive cycle verification.
6) **ENTER/Exit BUTTON** – confirms a selection (or an action) from a menu. Or returns to previous menu.
7) **SCROLL BUTTON** – scrolls through menu items.

8) **OBD II CONNECTOR** – connects the scan tool to the vehicle's Data Link Connector (DLC).
9) **USB PORT** – connects the scan tool to the Windoes PC for upgrading.

Specifications

Table 2-1 *Specifications*

Item	Description
Display	TFT color display (220x176 dpi)
Connectivity	USB mini 2.0 OBD II DB16
Operating Temp.	0℃ to 60 ℃ (32℉ to 140℉)
Storage Temp.	-20℃ to 70 ℃ (-1℉ to 158℉)
External Power	8.0 to 18.0V power provided via vehicle battery
Dimensions (LxWxH)	120.9 mm (4.76") x 68.4 mm (2.69") x 18.0 mm (0.71")
Weight	155.2 g (0.342 lb.)

Accessories Included

1) **User Manual** – instructions on tool operations.
2) **Quick Guide** – instructions on registering tool and updating software.
3) **USB Cable** – used to connect to Windows PC for updating the tool's software.

Navigation Characters

Characters used to help navigate the scan tool are:

1) **#** – identifies the control module number from which data is retrieved.
2) **Pd** – identifies a pending DTC when viewing DTCs.

Keyboard

No solvents such as alcohol are allowed to clean the keypad or display. Use a mild nonabrasive detergent and a soft cotton cloth. Do not soak the keypad as the keypad is not waterproof.

Power

The scan tool is powered via the vehicle Data Link Connector (DLC). Follow the steps below to turn on the scan tool:

1) Find DLC on vehicle.

- *A plastic DLC cover may be found for some vehicles and you need to remove it before attaching the OBD II cable.*

2) Plug the tool's OBD II cable to the vehicle's DLC.

System Setup

The scan tool allows you to make the following adjustments and settings:

1) **Language**: Selects the desired language.
2) **Configure Monitors**: Sets the monitors you want to test.
3) **Unit of Measure**: Sets the unit of measure to English or Metric.
4) **Key Beep Set**: Turns on/off key-press beep.
5) **Status Beep Set**: Turns on/off the I/M Readiness Status beep.
6) **Tool Self-test**: Checks if the LCD display, LED lamps and keyboard are working normally.
7) **Update Mode**: Accesses the Update Mode.

- *Tool operates with default settings until changed.*

To Enter the Setup Menu

When the scan tool is powered on, it displays a **Main Screen**.



Figure 2-2 ***Main Menu***

From the **Main Screen**: Use the **SCROLL** button to select **Setup**, and press the **ENTER/Exit** button. Follow the instructions to make adjustments and settings as described in the above setup options.

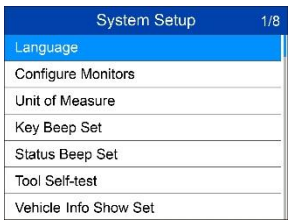


Figure 2-3 ***System Setup Screen***

Language Setup

- *English is the default language.*

1) From **System Setup** screen, use the **SCROLL** button to select **Language**, and press the **ENTER/Exit** button.
2) Use the **SCROLL** button to select the desired language and press the **ENTER/Exit** button to save your selection and return to previous screen.



Figure 2-4 ***Sample Language Screen***

Configure Monitors

From **System Setup** screen, use the **SCROLL** button to select **Configure Monitors**, and press the **ENTER/Exit** button.

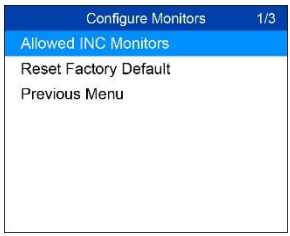


Figure 2-5 ***Sample Configure Monitors Screen***

On this menu, configure the monitors to pass diagnosis, and restore the default settings.

Allowed INC Monitors

From **Configure Monitors** screen, use the **SCROLL** button to select **Allowed INC Monitors**, and press the **ENTER/Exit** button.

Emissions tests vary depending on the geographic or regional area in which the vehicle is registered. To this, the scan tool provides a more flexible way to meet different standards by allowing the user to select 0, 1, 2, or 3 “not complete” monitors in test.

Reset Factory Default

From **Configure Monitors** screen, use the **SCROLL** button to select **Reset Factory Default**, and press the **ENTER/Exit** button.

It will restore the default configuration settings in the **Configure Monitors** menu, and delete any customized settings. In this case, the **Allowed INC Monitors** will be set to 1.

The tool will display a message for your confirmation. Use **SCROLL** button to select **Yes** to proceed or **No** to exit without change.

Unit of Measure

- *Metric is the default measurement unit.*

1) From **System Setup** screen, use the **SCROLL** button to select **Unit of Measure** and press the **ENTER/Exit** button.

2) From **Unit of Measure** screen, use the **SCROLL** button to select the desired unit of measurement.

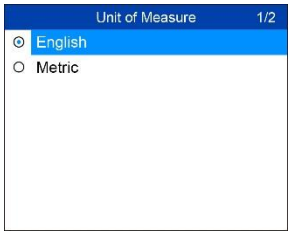


Figure 2-6 ***Sample Unit of Measure Screen***

3) Press the **ENTER/Exit** button to save your selection and return to previous menu.

Key Beep Set

This function allows you to turn on/off the built-in speaker for key pressing.

- *The default setting is Beep On.*

1) From **System Setup** screen, use the **SCROLL** button to select **Key Beep Set** and press the **ENTER/Exit** button.
2) From **Key Beep Set** menu, use the **SCROLL** button to select **Beep ON** or **Beep OFF** to turn on/off the beep.

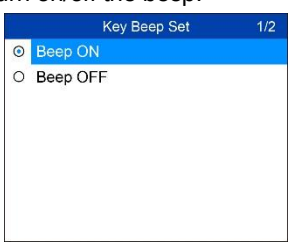


Figure 2-7 ***Sample Key Beep Set Screen***

3) Press the **ENTER/Exit** button to save your selection and return to previous menu.

Status Beep Set

- *The default setting is Beep On.*

This function allows you to turn on/off the built-in speaker as an indicator during diagnostic testing. Different audio tones correspond to different LED

lights. This function is invaluable when performing diagnostics alone, or while working in bright areas where LED illumination alone is not sufficient.

1) From **System Setup** screen, use the **SCROLL** button to select **Status Beep Set** and press the **ENTER/Exit** button.
2) From **Status Beep Set** menu, use the **SCROLL** button to select **Beep ON** or **Beep OFF** to turn on/off the beep.



Figure 2-8 *Sample Status Beep Set Screen*

3) Press the **ENTER/Exit** button to save your selection and return to previous menu.

Tool Self-test

This function checks if the display, LED lamps and keyboard are working properly.

Display Test

The **Display Test** function checks if the LCD display is working normally.

1) From **System Setup** screen, use the **SCROLL** button to select **Tool Self-test**, and press the **ENTER/Exit** button.
2) Select **Display Test** from **Tool Self-test** menu and press the **ENTER/Exit** button to start test.



Figure 2-9 *Sample Tool Self-test Screen*

3) When completed, press the **ENTER/Exit** button to exit.

Keyboard Test

The **Keyboard Test** function verifies if the keys are functioning properly.

1) Use the **SCROLL** button to select **Keyboard Test** from the **Tool Self-test** menu, and then press the **ENTER/Exit** button.
2) Press any key to start test. When you press a key, the key name should display on screen. If the key name does not display, the key is not functioning.

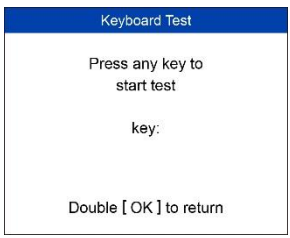


Figure 2-10 *Sample Keyboard Test Screen*

- *The **OK** button refers to **ENTER/Exit** button.*

3) Double press **ENTER/Exit** to return to previous menu.

LED Test

The **LED Test** function verifies if the I/M Readiness LED indicator lamps are functioning properly.

1) Use the **SCROLL** button to select **LED Test** from the **Tool Self-test** menu, and then press the **ENTER/Exit** button.
2) In the **LED Self-test** menu, use the **SCROLL** button to select one or more LED lamps to test. The LED should turn on or off according to the selected commands.



Figure 2-11 *Sample LED Self-test Screen*

3) When completed, select **Previous Menu** and press the **ENTER/Exit** button to exit.

Vehicle Info Show Set

- *The default setting is Set On.*

This function allows you to turn on/off the Vehicle Info display when entering the test vehicle through OBDII function.

1) From **System Setup** screen, use the **UP/DOWN** scroll button to select **Vehicle Info Show Set** and press the **OK** button.
2) From **Vehicle Info Show Set** menu, use the **UP/DOWN** scroll button to select **SHOW ON** or **SHOW OFF** to turn on/off the Vehicle Info screen.
3) Press the **OK** button to save your selection and return to previous menu.

Update Mode

This function allows you to update the scan tool software through a Windows-based computer.

To update your scan tool, you need the following items.

- MaxiLink ML329
- A Windows-based computer or laptop with USB ports
- The supplied USB cable

Register the Tool

The tool must be registered prior to updating it. Register the tool on our website: www.autel.com. Visit the site to download software update programs, research tools and retrieve warranty information.

NOTE
Prior to registration, please confirm your network is working properly.

1. Visit the website http://pro.autel.com.
2. If you already have an Autel account, Sign In with your account ID and password.
3. If you are a new member to Autel, click on the **Create Autel ID** button on the left side of the screen to create an ID.
4. Enter the required information in the input fields, and click the **Get Verification Code** button to get a verification code for email validation.
5. The online system will automatically send a verification code to the registered email address. Input the code in the Verification code field and complete other required fields. Read through Autel's Terms and

Conditions and click on **Agree**, and then click **Create Autel ID** at the bottom. A product registration screen will display.

6. The device's serial number and password is located in the *About* section of the Settings application on the tool.
7. Select your product model, enter the product serial number and password on the Product Registration screen, and click **Submit** to complete the registration procedure.

Update Procedure

Autel frequently releases software updates to download.

Connect the tool with a Windows-based computer using the included USB cable.

Follow the update procedure to update the software on the tool.

1. Download the **Maxi PC Suite** from *www.autel.com* > *Support & Updates* > *Firmware & Downloads* > *Update Client*, and install to your Windows-based computer.
2. Run the **Maxi PC Suite**. Wait for the Log In window to display.

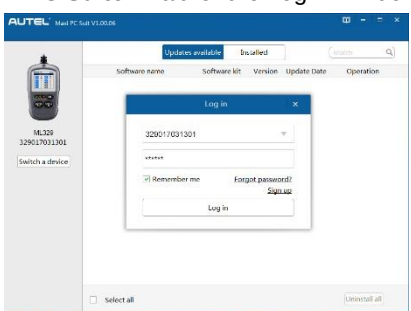


Figure 2-12 *Sample Log In Window*

3. Connect the scan tool to your computer with the provided USB cable.
4. From **System Setup** screen in scan tool, use the **SCROLL** button to select **Update Mode**, and press the **ENTER/Exit** button.
5. Enter your Autel ID and password and wait for the Update window to display. If you forget your password, click the [**Forget Password?**] link to our website and retrieve your password. Or click **Sign up** to create an Autel ID to continue.
6. Select tool and serial number, click **OK** to continue.
7. In the **Update** window, select the appropriate files to install.

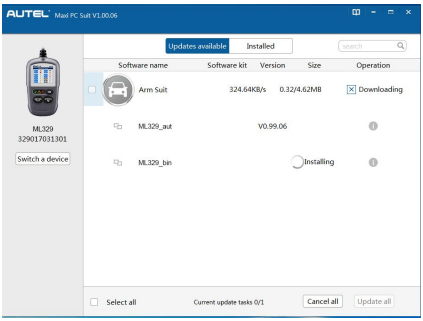


Figure 2-13 *Sample Update Window*

Generally, there are two ways to update programs:

Batch Update

1. Select the programs to update by checking the boxes next to those items. Then click the **Update All** button on the bottom right of screen. Click the **Clear All** button to deselect files.
2. Or, click on the **Select All** checkbox on the bottom left of screen and all updatable items will be selected. Click the **Update All** button on the right of the screen.
3. When the download is completed, the programs will be automatically installed. The new version will replace the old version.

Single Update

1. Locate the desired update and click the **Update** button in the same line.
2. The downloaded programs will automatically install. The update will replace the existing version of the software.

View or Delete Programs

To view the list of installed programs or to delete an installed program, please follow these steps:

1. Click on the **Installed** tag and the list of installed programs will display.
2. Select the program(s) that you would delete.
   - ✧ **Batch delete**: Check the boxes to the left of the program you want to uninstall. Then click the **Uninstall All** button on the right bottom of screen.

- ✧ **Single delete**: Click the **Uninstall** button adjacent to the program to delete.

3. A window will display for confirmation of the selected software to uninstall.

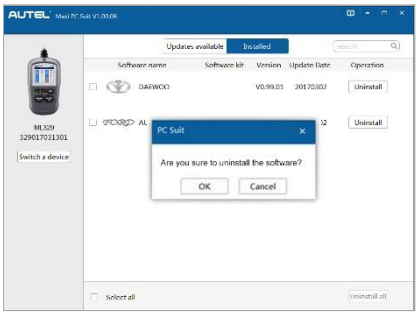


Figure 2-14 *Sample Delete Window*

- Click **OK** to delete the program(s) selected, or click **Cancel** to quit the action.
- The deleted program(s) will be added to the end of the program list on the Update page to install again if you wish.

In the search box on the top right corner of the screen, you can search the listed. This function works for both Update Available column and Installed column.

To Exit the Setup Menu

Use the **SCROLL** button to select **Previous Menu** from the **System Setup** screen, and press the **ENTER/Exit** button to return to **Main Screen**.

About

The **About** function displays important tool information including serial number and software version number.

1) From **Main Screen**, use the **SCROLL** button to select **About** and press the **ENTER/Exit** button; wait for the **About** screen to display.
2) View tool information on screen.

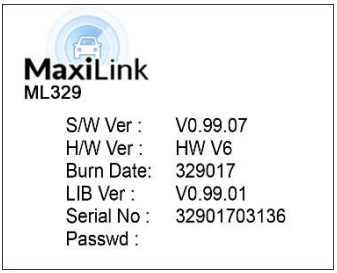


Figure 2-15 ***Sample About Screen***

Vehicle Coverage

The MaxiLink ML329 OBDII/EOBD Scanner is specially designed to work with all OBD II compliant vehicles, including those equipped with Control Area Network (CAN) protocol. The EPA requires all domestic, Asian and European vehicles, 1996 and newer (including light trucks), sold in the United States must be OBD II compliant.

A small number of 1994 and 1995 model year gasoline vehicles are OBD II compliant. To verify if a 1994 or 1995 vehicle is OBD II compliant, check the Vehicle Emissions Control Information (VECI) Label which is located under the hood or by the radiator of most vehicles. If the vehicle is OBD II compliant, the label will designate “OBD II Certified”. Additionally, Government regulations mandate that all OBD II compliant vehicles must have a “common” sixteen-pin Data Link Connector (DLC).

For your vehicle to be OBD II compliant it must have a 16-pin DLC (Data Link Connector) under the dash and the Vehicle Emission Control Information Label must state that the vehicle is OBD II compliant.

Product Troubleshooting

This section describes problems that may be encountered while using this tool.

Vehicle Linking Error

A communication error occurs if the scan tool fails to communicate with the vehicle’s ECU (Engine Control Unit). Perform the following steps to resolve error:

- ✓ Verify that the ignition is ON.

- ✓ Ensure the scan tool's OBD II connector is securely connected to the vehicle's DLC.
- ✓ Verify that the vehicle is OBD II compliant.
- ✓ Turn the ignition off and wait for about 10 seconds. Turn the ignition back to on and continue the testing.
- ✓ Verify the control module is not defective.

Operating Error

If the scan tool freezes, then an exception occurs or the vehicle's ECU (Engine Control Unit) is too slow to respond to requests. You need to do the following to reset the tool:

- ✓ Reset the scan tool.
- ✓ Turn the ignition off and wait for about 10 seconds. Turn the ignition back to on and continue the testing.

Scan Tool Doesn't Power Up

If the scan tool won't power up or operates incorrectly, do the following:

- ✓ Check if the scan tool's OBD II connector is securely connected to the vehicle's DLC;
- ✓ Check if the DLC pins are bent or broken. Clean the DLC pins if necessary.
- ✓ Check vehicle battery to make sure it is still good with at least 8.0 volts.

LED Lamps Not Working

If the LED lamps don't light during I/M Readiness testing, do the following:

- ✓ Make sure the OBD II cable is connected to the DLC securely.
- ✓ Verify the ignition key is in the Key On, Engine Running (KOER) position.
- ✓ Run the LED Test in the System Setup menu. If the tool fails this test, there is a problem with the LED lamp. Please contact Autel Tech Support or your local tool distributor.

3 OBD II Diagnostics

When more than one vehicle control module is detected by the scan tool, you will be prompted to select the module with retrievable data. The Power train Control Module [PCM] and Transmission Control Module [TCM] are the most commonly scanned modules.

CAUTION: *Don't connect or disconnect the scan tool while the ignition is on or the engine running.*

1) Turn the ignition off.
2) Locate the vehicle's 16-pin Data Link Connector (DLC).
3) Plug the tool into the vehicle's DLC.
4) Turn the ignition on. Engine can be off or running.
5) Use the **SCROLL** button to select **OBD II/EOBD** from the **Main Screen** in the scan tool.
6) Press the **ENTER/Exit** button to wait for the Menu to display. The tool will display OBDII protocols until it has detected the vehicle's communication protocol.

- If the scan tool fails to communicate with the vehicle's ECU (Engine Control Unit) more than three times, a "LINKING ERROR!" message displays on the display.
  - ✓ Verify the ignition is ON;
  - ✓ Check if the scan tool's OBD II cable is securely connected to the vehicle's DLC;
  - ✓ Verify that the vehicle is OBD II compliant;
  - ✓ Turn the ignition off and wait for about 10 seconds. Turn the ignition back on and repeat step 5.
  - *If the "LINKING ERROR" message continues to display, contact your local distributor or customer service for assistance.*

7) View a summary of system status (MIL status, DTC counts, Monitor status) on screen. Wait a moment or press any key for **Diagnostic Menu** to display.

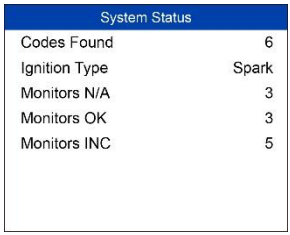


Figure 3-1 ***Sample System Status Screen***

- If more than one module is detected, you will be prompted to select a module to test.

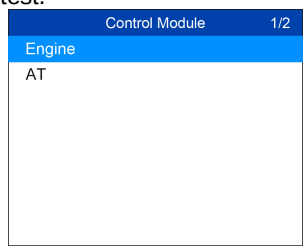


Figure 3-2 ***Sample Control Module Screen***

- Use the **SCROLL** button to select a module and press the **ENTER/Exit** button to confirm.

Read Codes

- *The Read Codes function can be performed with the key on, engine off (KOEO) or with the key on, engine running (KOER).*
- *Stored Codes are also known as "hard codes", which are fault codes, or trouble codes that have been stored in the vehicle computer memory because the faults have reoccurred for more than a specified amount of key-cycles. These codes will cause the control module to illuminate the malfunction indicator light (MIL) when emission-related faults occur.*
- *Pending Codes are also referred to as "maturing codes" or "continuous monitor codes". They indicate problems that the control module has detected during the current or last driving cycle but are not as yet considered serious. Pending Codes will not cause a malfunction indicator light (MIL). If the fault does not occur within a certain number of warm-up cycles, the code clears from memory.*
- *Permanent Codes are DTCs that are "confirmed" and are retained in the non-volatile memory of the vehicle's computer until the appropriate*

monitor for each DTC has determined that the malfunction is no longer present and is not causing the MIL. Permanent DTCs are stored in non-volatile memory and can not be erased by any diagnostics service or by disconnecting power to ECU.

1) Use **SCROLL** button to select **Read Codes** from **Diagnostic Menu** and press **ENTER/Exit** button.

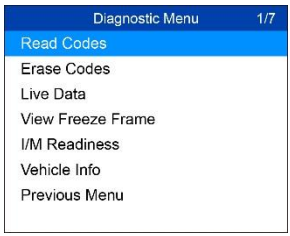


Figure 3-3 *Sample Diagnostic Menu*

2) Use the **SCROLL** button to select **Stored Codes** or **Pending Codes** from the **Read Codes** menu and press the **ENTER/Exit** button.
   - If no codes are found, a message will display "**No (pending) codes are stored in the module!**" Wait a moment or press any key to return to previous screen.

NOTE

Permanent Codes function is available only for vehicles supporting the CAN protocols.

3) View DTCs and their definitions on screen. Press **ENTER/Exit** button to return to previous screen.

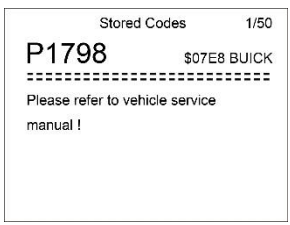


Figure 3-4 *Sample DTC Screen*

- The control module number, sequence of the DTCs, total number of codes detected and type of codes (Generic or Manufacturer specific, Stored or Pending codes) will be observed on the upper right hand corner of the display.

4) If more than one DTC is found, use the **SCROLL** button to review each code.
   - If retrieved DTCs contain any manufacturer specific or enhanced codes, the tool's AutoVIN technology will automatically display the definition of the code.
5) Select **Previous Menu** from the **Read Codes** screen, and press **ENTER/Exit** button to return to previous menu.

Erase Codes

NOTE

1. Erasing the Diagnostic Trouble Codes may allow the scan tool to delete not only the codes from the vehicle's on-board computer, but also "Freeze Frame" data and manufacturer-specific enhanced data. Further, the I/M Readiness Monitor Status for all vehicle monitors is reset to Not Ready or Not Complete status. Do not erase the codes before repairs or services have been performed.
2. Even if deleted, codes will again display if the underlining fault causing the code is not addressed.

- *This function is performed with key on, engine off (KOEO). Do not start the engine.*

1) Use the **SCROLL** button to select **Erase Codes** from **Diagnostics Menu** and press the **ENTER/Exit** button.
2) A warning message displays for your confirmation.

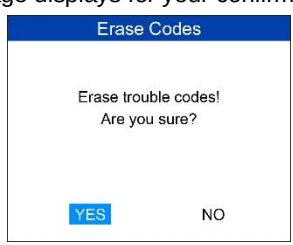


Figure 3-5 *Sample Erase Codes Screen*

   - If you do not want to proceed with erasing codes, use **SCROLL** button to select **NO** to exit. A message of "Command Cancelled!" displays. Wait a moment or press any key to return to **Diagnostic Menu**.
3) Press the **ENTER/Exit** button to confirm.

- If the codes are cleared successfully, an "**Erase Done!**" confirmation message displays.

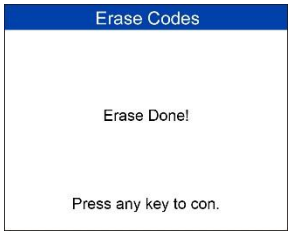


Figure 3-6 *Sample Erase Done Screen*

- If the codes are not cleared, then an "**Erase Failure. Turn Key on with Engine off!"** message displays.

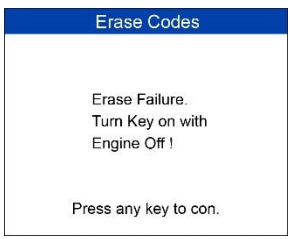


Figure 3-7 *Sample Erase Failure Screen*

Live Data

The function allows viewing of live or real time PID data of vehicle's computer module(s).

1) To view live data, use the **SCROLL** button to select **Live Data** from **Diagnostic Menu** and press the **ENTER/Exit** button.
2) Wait a few seconds while the scan tool validates the PID MAP.

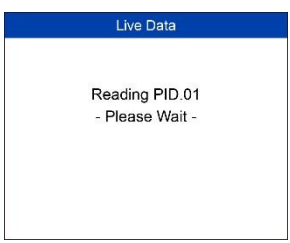


Figure 3-8 *Sample Live Data Reading Screen*

3) To view complete set of data, use **SCROLL** button to select **Complete Data Set** from **View Data** menu and press the **ENTER/Exit** button.

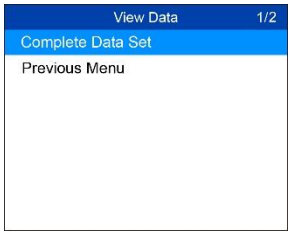


Figure 3-9 ***Sample View Data Screen***

4) View live PIDs on the screen. Use the **SCROLL** button for more PIDs if additional information is available on more than one page.

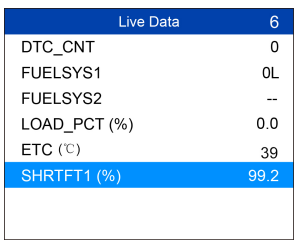


Figure 3-10 ***Sample Live Data Screen***

- The number “x” to the right of the screen indicates the sequence of the highlighted item.

5) Press the **ENTER/Exit** button to return to previous menu.

6) Select **Previous Menu** from the **Read Codes** screen, and press **ENTER/Exit** button to return to previous menu.

View Freeze Frame Data

Freeze Frame Data allows the technician to view the vehicle’s operating parameters at the moment a DTC (Diagnostic Trouble Code) is detected. For example, the parameters may include engine speed (RPM), engine coolant temperature (ECT), or vehicle speed sensor (VSS). This information will aid the technician by allowing the parameters to be duplicated for diagnostic and repair purposes.

1) To view freeze frame data, use the **SCROLL** button to select **View Freeze Frame** from **Diagnostic Menu** and press the **ENTER/Exit** button.

2) Wait while the scan tool validates the PID MAP.

3) If retrieved information displays on more than one screen, use the **SCROLL** button, as necessary, until all the data have shown up.

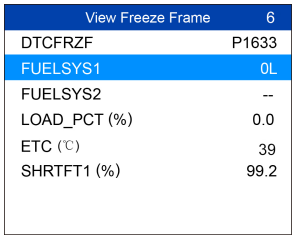


Figure 3-11 ***Sample View Freeze Frame Screen***

- If no freeze frame data is available, the message "**No freeze frame data stored!**" displays.

4) Press **ENTER/Exit** button to return to previous screen.

Retrieve I/M Readiness Status

I/M Readiness function is used to check the operations of the Emission System on OBD II compliant vehicles. It is an excellent function to use prior to having a vehicle inspected for state emission compliance.

CAUTION: *By clearing trouble codes you also clear the readiness status for the individual emission system readiness tests. In order to reset these monitors, the vehicle must be driven through a complete drive cycle with no trouble codes in memory. Amount of time needed for reset vary by vehicle.*

Some latest vehicle models may support two types of **I/M Readiness** tests:

A. **Since DTCs Cleared** – indicates status of monitors since the DTCs are erased.

B. **This Drive Cycle** – indicates status of monitors since the beginning of the current drive cycle.

An I/M Readiness Status result of "NO" does not necessarily indicate that the vehicle being tested will fail the state I/M inspection. For some states, one or more such monitors may be allowed to be "Not Ready" to pass the emission inspection.

There are two ways to retrieve I/M readiness status.

Retrieve I/M Readiness Status with One-Click I/M Readiness Key

Press the **One-Click I/M Readiness Key,** to retrieve I/M readiness status. The screen will display as below. The LEDs colors and the audio tones indicate readiness status.

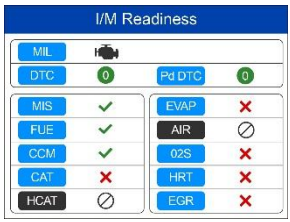


Figure 3-12 ***Sample I/M Readiness Screen***

✔ **OK** – indicates that a particular monitor being checked has completed its diagnostic testing.

✘ **INC** – indicates that a particular monitor being checked has not completed its diagnostic testing.

⊘ **N/A** – the monitor is not supported on the vehicle.

The green, yellow and red LEDs provide a quick way to help you determine if a vehicle is ready for an Emission Test.

The LED and audio tone are interpreted as below:

LED Interpretation

1) **GREEN LED** – indicates that engine systems are “OK” and operating normally (the number of Monitors supported by the vehicle that have run and performed their self-diagnostic testing is in the allowed limit. MIL is off.).There are neither stored nor pending DTCs. The vehicle is ready for an Emission Test, and there is a good possibility that it can be certified.
2) **YELLOW LED** – with MIL off, there may be three possible conditions to cause the yellow LED to light.
   - ✧ If a “Stored” Diagnostic Trouble Code is causing the yellow LED to light, it is still possible that the vehicle will be allowed to be tested for emissions and certified.
   - ✧ If a “Pending” Diagnostic Trouble Code is causing the yellow LED to light, it is still possible that the vehicle will be allowed to be tested for emissions and certified.

- ✧ The Yellow LED will also light if the monitors do not complete their tests. Each state's emissions standards differ on the number of tested monitors needed to meet vehicle emissions compliance.

NOTE

Confer with your automotive technician about the status results of each monitor to determine if the vehicle is ready for your state's emissions test.

3) **RED LED** – indicates there is a problem with one or more of the vehicle's system. The test of a vehicle resulting in a lit red LED lighting is not ready for an Emissions Test. The red LED is also an indication that there are DTCs present. The MIL on the vehicle's instrument panel will light steady. The problem that is causing the red LED to light must be repaired before an Emissions Test can be performed. It is also suggested that the vehicle be inspected/repaired before driving the vehicle further.

   If the red LED lights, there is a definite problem present in the system(s). In this case, you have the following options:

   - ✧ Repair the vehicle yourself. If you are going to perform the repairs yourself, proceed by reading the vehicle service manual and following all its procedures and recommendations.
   - ✧ Take the vehicle to a professional to have it serviced. The problem(s) causing the red LED to light must be repaired before the vehicle undergoes Emissions Testing.

Audio Tone Interpretation

The audio tone is configured according to the I/M Readiness Status.

Table 3-1 *Audio Tone Interpretation*

LED Light	Audio Tone	Beep Interval
Green	Two long beeps	5 seconds
Yellow	short, long, short beep	5 seconds
Red	Four short beeps	5 seconds

After you have read the information, press **ENTER/Exit** to exit. The other buttons are disabled to prevent misoperation.

Retrieve I/M Readiness Status in Typical Way

1) Use the **SCROLL** button to select **I/M Readiness** from **Diagnostic Menu** and press **ENTER/Exit** button.
2) Wait while the scan tool validates the PID MAP.
3) If the vehicle supports both types of tests, then both types will be displayed on the screen for selection.

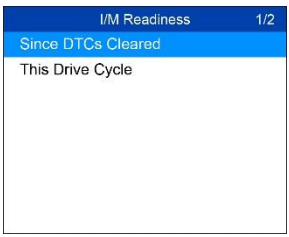


Figure 3-13 ***Sample I/M Readiness Menu Screen***

4) Use the **SCROLL** button to view the status of the MIL light (**ON** or **OFF**) and the following monitors.

For spark ignition engines:

- MIS – Misfire Monitor
- FUEL – Fuel System Monitor
- CCM – Comprehensive Component Monitor
- EGR – EGR System Monitor
- O2S – O2 Sensors Monitor
- CAT – Catalyst Monitor
- EVAP – Evaporative System Monitor
- HTR – O2 Sensor Heater Monitor
- AIR – Secondary Air Monitor
- HCAT – Heated Catalyst Monitor

For compression ignition engines:

- MIS – Misfire Monitor
- FUEL – Fuel System Monitor
- CCM – Comprehensive Component Monitor
- EGR – EGR System Monitor
- HCCAT – NMHC Catalyst Monitor
- NCAT – NOx Aftertreatment Monitor

- BP – Boost Pressure System Monitor
- EGS – Exhaust Gas Sensor Monitor
- PM – PM Filter Monitor

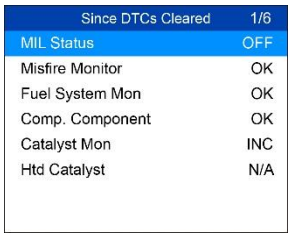


Figure 3-14 ***Sample Since DTCs Cleared Screen***

5) If the vehicle supports readiness test of **This Drive Cycle**, a screen of the following displays.

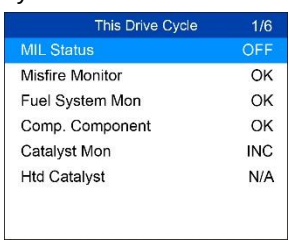


Figure 3-15 ***Sample This Drive Cycle Screen***

6) The LEDs and audio tones corresponding to different monitor status will be activated as below.

Table 3-2 ***LED and Audio Tone Interpretation***

LED Light	Audio Tone	Beep Interval
Green	Two long beeps	2 minutes
Yellow	short, long, short beep	2 minutes
Red	Four short beeps	2 minutes

7) Use the **SCROLL** button for more PIDs if additional information is available on more than one page.

8) Press the **ENTER/Exit** button to return to **Diagnostic Menu**.

View Vehicle Information

This function enables retrieval of Vehicle Identification No. (VIN), Calibration ID No. (CINs), Calibration Verification No. (CVNs) and In-use Performance Tracking on 2000 and newer vehicles that support Mode 9.

1) Use **SCROLL** button to select **Vehicle Info.** from the **Diagnostic Menu** and press **ENTER/Exit** button.
2) A message displays to remind you "Turn key on with engine off!" Wait a moment or press any key to continue.

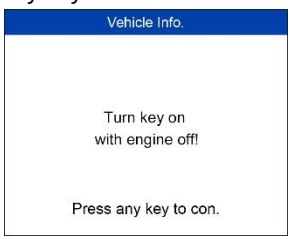


Figure 3-16 ***Sample Vehicle Info. Screen***

3) Wait while the scan tool reads vehicle information.

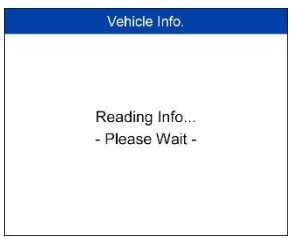


Figure 3-17 ***Sample Reading Info. Screen***

- If the vehicle does not support this mode, a message displays that the mode is not supported.

4) From **Vehicle Info.** menu, use the **SCROLL** button to select an available item to view and press the **ENTER/Exit** button.

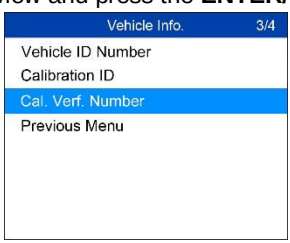


Figure 3-18 ***Sample Vehicle Info. Selection Screen***

5) View retrieved vehicle information on screen.

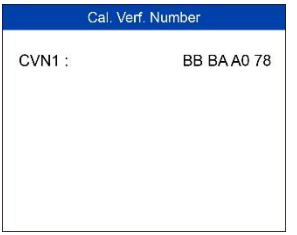


Figure 3-19 ***Sample Cal. Verf. Number Screen***

6) Select **Previous Menu** from the **Vehicle Info.** screen, and press **ENTER/Exit** button to return to the previous menu.

Exit the OBD II Test

1) To exit OBD II test, use **SCROLL** button to select **Previous Menu** from **Diagnostic Menu** and press **ENTER/Exit** button.
2) A message displays for your confirmation. Press **ENTER/Exit** button to exit.

4 Ready Test

This function can be used as a convenient readiness test tool by automotive technicians to determine if the tested vehicle is ready for an emission test. By visual and audible indication, you will learn a vehicle's emissions readiness.

General Information

Repairs to the emissions-control systems of a 1996 or newer vehicle cause the vehicle's computer (ECU) memory to be cleared. The vehicle must go through a drive cycle to allow the ECU to perform a series of tests to ensure that the repair was successful, and before a state mandated emission test can be conducted. But how will you know when it is ready?

With this scan tool, you don't have to drive around endlessly, continuously coming back to the repair shop for retest to check if all required tests by the ECU are completed. And you could also do a quick check of the vehicle to determine if it is ready to receive an emission test without the hassle of connecting your vehicle to the analyzer or having to use a complicated scan tool.

In the following cases, this function is especially useful.

- You bought a used car and the check engine light had been cleared to mask potential problems.
- You disconnected the battery for tune-ups and other engine repairs, dead battery replacement, car radio installation and car alarm installation.
- You used a scan tool to clear the DTCs.
- Your car has been sent for repairs.

Test Tool Application

This function displays which vehicle monitors have run, if they have been completed and the results of the testing. Results display on one screen providing an at-a-glance profile of the vehicle.

.

- Use the **SCROLL** button to select **Ready Test** from **Main Screen**, and press the **ENTER/Exit** button.



Figure 4-1 *Main Menu*

As Post-Repair Diagnostic Tool

This function can be used (after the vehicle has done any emission-related repairs) to confirm that the repair has been performed successfully.

After repairs, some drive cycles are required to reset the monitoring systems. Drive cycles vary by vehicle and by monitor.

Use the following procedures to check if the repair has been done correctly:

1) Connect the scan tool to the vehicle's DLC and erase the DTC(s) from the vehicle's computer memory.
2) After the erase procedure is performed, status of most monitors will be changed. Leave the scan tool connected to the vehicle, and select **Ready Test** from **Main Screen**.
3) Continue to drive the vehicle until the scan tool notifies you that the drive cycle has been completed.
4) If the GREEN LED lights and the tool emits two long beeps, your vehicle is ready and the repair work is confirmed.
5) If the RED LED lights, your vehicle is not ready and if you have performed repairs, they have failed to correct the emissions issue.

As Pre-Check Diagnostic Tool

Prior to having a vehicle inspected for state emissions compliance, use this function to check the readiness status.

1) While the scan tool connected to the vehicle, select **Ready Test** from **Main Screen**. Drive the car till the scan tool notifies you safely with color

LEDs and audible tone if your vehicle is ready to conduct state emission test.

2) If the GREEN LED lights and two long beeps are heard, your vehicle is ready and it should pass emissions testing.

3) If the RED LED lights, your vehicle is not ready and must be repaired before an emission test can be performed.

IMPORTANT

If you are driving the vehicle to perform a drive cycle ALONE, set the Status Beep On. The beep signifies that the monitors have run and the diagnostics testing completed. NEVER drive and operate the scan tool at the same time!

This function displays the real time data of emission-related monitoring systems readiness status. Once the scan tool has finished other operations, for example, clearing trouble codes, the I/M Readiness Monitor Status program resets status of all the monitors to "INC" condition. The vehicle must be driven through a complete drive cycle to set the monitors to Ready status. Times for reset vary by vehicle. Please refer to your vehicle's service manual for drive cycle information.

NOTE

When using this function, only the **ENTER/Exit** button is available. The other buttons are disabled to prevent misoperation.

LED and Tone Interpretation

Select **Ready Test** from the **Main Screen** and the screen displays as depicted below, including applicable monitors status, MIL state, ignition type, DTCs (stored one and pending).

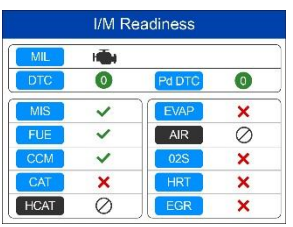


Figure 4-2 *Sample I/M Readiness Screen*

If the scan tool is idle, the result will immediately display. If it is busy, it will wait till the current procedure finished. After viewing the status, press **ENTER/Exit** button to exit.

✔ **OK**– indicates that a particular monitor being checked has completed its diagnostic testing.

✘ **INC** – indicates that a particular monitor being checked has not completed its diagnostic testing.

⊘ **N/A** – the monitor is not supported on the vehicle.

The LED and audio tone indications are interpreted as below:

LED Interpretation

The green and red LEDs provide an easy way to check if emission-related monitoring systems have completed their self-diagnostic testing.

1) **GREEN LED** – your vehicle is **Ready**. Indicates that engine systems are “OK” and operating normally (the number of Monitors supported by the vehicle that have run and performed their self-diagnostic testing is in the allowed limit).
2) **RED LED** – your vehicle is **Not Ready**. Indicates that the number of Monitors supported by the vehicle that have run and performed their self-diagnostic testing is out of the allowed limit.

Audio Tone Interpretation

The audio tone can be configured according to the I/M Readiness Status.

Table 4-1 *Audio Tone Interpretation*

LED Light	Audio Tone	Beep Interval
Green	Two long beeps	2 minutes
Red	No beep	

5 Compliance Information

FCC COMPLIANCE

This device complies with 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 interferences; 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 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 to the original retail purchaser of this Autel device that should this product or any part thereof during normal usage and under normal conditions be proven defective in material or workmanship that results in product failure within 1 year period from the date of purchase, 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.

IMPORTANT

All contents of the product may be deleted during the process of repair. You should create a back-up copy of any contents of your product before delivering the product for warranty service.

Service and Support

If you have any questions regarding the product, please contact one of our offices or your local distributor.

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- **Email:** ussupport@autel.com
- **Address:** 175 Central Avenue, Suite 200, Farmingdale, New York, USA. 11735

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