

-Tool user's manual

Product Name:E-Tool

Model:EL-400D

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1. E-Tool Introduction



E-Tool is designed to diagnose and interacts with sensor through wireless (radio frequency). The functions of sensor include:

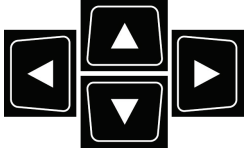
1. Retrieve data from sensor mounted on the wheels.
2. Verify the identity of sensor mounted on the wheels.

D-Sub is to connect with E-Cable.

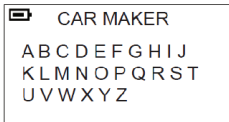
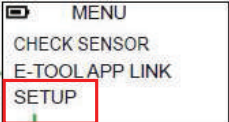
DC jack is to connect with adapter for charging.

Mini USB is to connect with PC for software update.

2. Tool keypad Instruction

	Power On/Off.		Enter key, press enter to select function or validate a parameter.
	Navigate through measured and parameters.		Esc key, press to return to the previous menu without parameter validation.

3. Setting

	Displays E-LEAD logo.
	Press  key on CAR MAKER to go to menu page.
	Choose SETUP and enter  key to select.

3-1. Language: Use the “Enter”  key to choose the language you prefer.

3-2. Temperature: Use the “Enter”  key to choose between Fahrenheit and Celsius.

3-3. Pressure: Use the “Enter”  key to choose between PSI, Bar and kPa.

3-4. Format: Use the “Enter”  key to choose ID format between decimal and Hexadecimal.

3-5. AUTO OFF: -Tool will automatically turn off if you stop using it for a period of time. You will disable this function by choosing Disable.

3-6. Buzzer: Use the “Enter” key to turn buzz on and off.

3-7. Bluetooth: Use the “Enter”  key to turn on and off Bluetooth.

3-8. Zone: Use the “Enter”  key to choose between European version and US version.

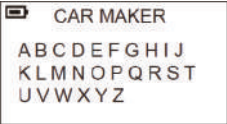
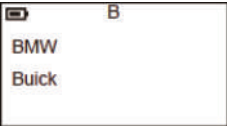
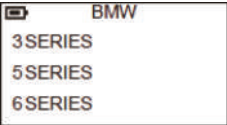
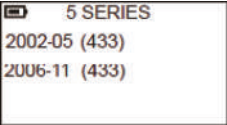
3-9. SN: SN is -Tool's serial number for software update.

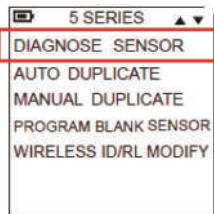
3-10 Checksum: It is for engineering check.

3-11 version: VERSION is -Tool's Firmware version..

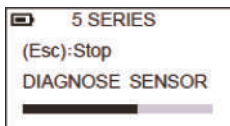
4. Diagnose Sensor Function

1. Press and hold the power key to power on the device and the device displays E-LEAD logo.

	Long press to turn on the device.
	Displays E-LEAD logo.
	Choose car maker by using arrow key to browse alphabets. Press enter key  to select.
	Use arrow key to browse automakers. Press enter  key to select.
	Use arrow key to browse models. Press enter  key to select.
	Use arrow key to browse year. Press enter  key to select.



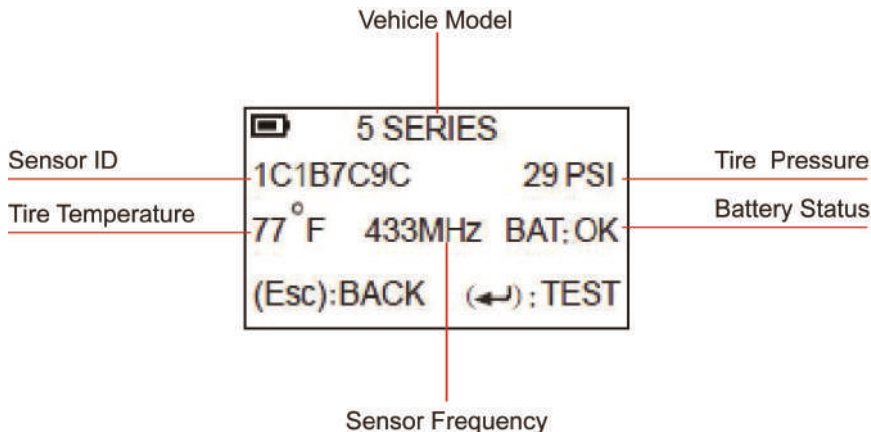
Use arrow key to select DIAGNOSE SENSOR and press enter  key to diagnose.



-Tool will activate the sensor. The sensor respond time may vary depending on sensor type and brand.

-Tool will beep after receiving sensor information.

The picture below is an example of diagnose result:

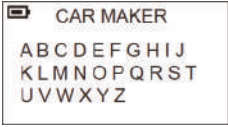
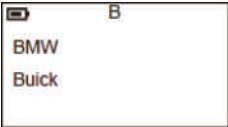
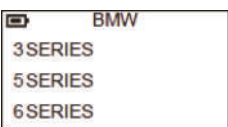
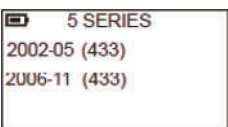
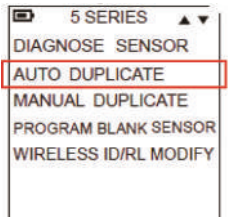
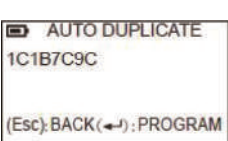


Notes

- Not all sensors transmit every piece of information shown.

5. Auto Duplicate Function

This function is designed for you to duplicate an O.E sensor's ID and program a new sensor.

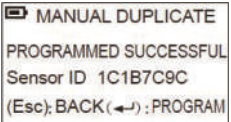
	Choose car maker by using arrow key to browse alphabets. Press enter  key to select.
	Use arrow key to browse automakers. Press enter  key to select.
	Use arrow key to browse models. Press enter  key to select.
	Use arrow key to browse year. Press enter  key to select.
	Use arrow key to select AUTO DUPLICATE and press enter  key to select.
	-Tool will display the O.E sensor ID, press the “Enter”  key to program -sensor. -Tool will beep after receiving sensor information. If you press ESC, -Tool will delete ID.
	Please connect -Tool with -sensor by E-Cable.

	E-Tool will program the sensor. You will hear 2 short beeps when programming successfully.
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6. Manual Duplicate Function

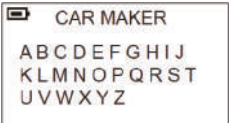
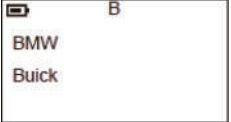
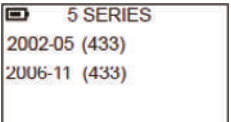
This function is designed to duplicate an O.E sensor's ID by keying in its ID. If E-Tool cannot detect sensor, you can put sensor's ID into it.

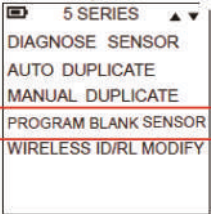
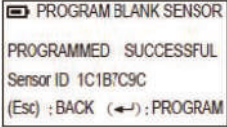
	Choose car maker by using arrow key to browse alphabets. Press enter key to select.
	Use arrow key to browse automakers. Press enter key to select.
	Use arrow key to browse models. Press enter key to select.
	Use arrow key to browse year. Press enter key to select.
	Use arrow key to select MANUAL DUPLICATE and press enter key to select.
	Use the arrow key to browse, Press the “Enter” key to enter the ID.

	Please connect  -Tool with  -sensor by E-Cable.
	 -Tool will program the sensor. You will hear 2 short beeps when programming successfully.

7. Program Blank Sensor Function

This design is to program a new ID to a new , once you cannot get ID from OE sensor.

	Choose car maker by using arrow key to browse alphabets. Press enter  key to select.
	Choose car maker by using arrow key to browse alphabets. Press enter  key to select.
	Use arrow key to browse models. Press enter  key to select.
	Use arrow key to browse year. Press enter  key to select.
	Please connect  -Tool with  -sensor by E-Cable.

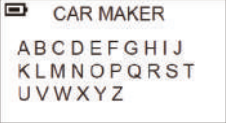
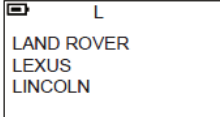
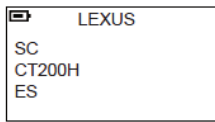
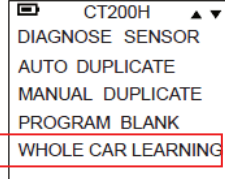
	Use arrow key to select PROGRAM BLANK SENSOR and press enter  key to select.
	After programming a blank sensor, the new ID will display.

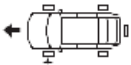
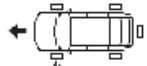
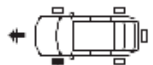
8. Whole Car Learning

This function is designed for getting all O.E. sensor' ID on the car at one go and then copying the ID to target sensors on the car at one go. Please note that the target sensors are required to have protocol inside.

8.1 Read All

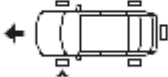
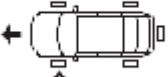
This design is to get all O.E. sensor's ID on the car at one go.

	Choose car maker by using arrow key to browse alphabets. Press enter  key to select.
	Choose car maker by using arrow key to browse alphabets. Press enter  key to select.
	Use arrow key to browse models. Press enter  key to select.
	Use arrow key to select WHOLE CAR LEARNING and press enter  key to select.

WHOLE CAR LEARNING READ ALL WRITE ALL Update to PC	Use arrow key to select READ ALL and press enter  key to select.
LEFT FRONT  (Esc):BACK(↶):TO SCAN LEFT FRONT  LEFT FRONT  ID:E21111A (▶):next	Please scan the sensor from left front, left rear, right rear, right front tire and spare tire in order.
 Current saved : 1 Left Space : 24 Please save to PC	After scanning sensors, -Tool will save the data. The maximum storage is 25 pcs of sensor's data. We suggest saving data to PC.

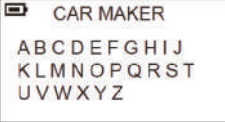
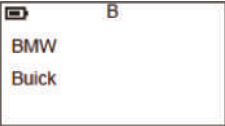
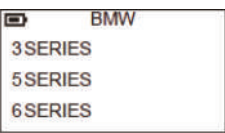
8.2. WRITE ALL

This function is designed for copying the ID to target sensors on the car at one go.

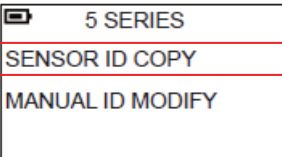
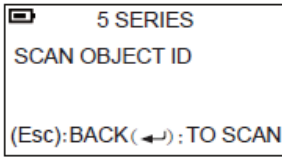
 Current saved : 1 Left Space : 24 Please save to PC	After showing the data storage status, press  to copy ID to target sensors on the car at one go.
 WHOLE CAR LEARNING READ ALL WRITE ALL Update to PC	Use arrow key to select WRITE ALL and press enter  key to select.
 DUPLICATE All? Enter=duplicate ESC=Cancel	Use arrow key to select Enter=duplicate and press enter  key to select.
 LEFT FRONT  ID:E2111A (←):MODIFY  LEFT FRONT   LEFT FRONT PROGRAM SUCCESSFUL ID:E2111A (▶):next	After changing the tires, put -Tool closely near left front, left rear, tire and press  key to copy the ID to target sensor.

9. Wireless ID/RL Modify

This function is to design for copying O.E sensor to target Sensor. Please note the target sensor is required to have the same protocol as O.E sensor.

	Choose car maker by using arrow key to browse alphabets. Press enter  key to select.
	Choose car maker by using arrow key to browse alphabets. Press enter  key to select.
	Use arrow key to browse models. Press enter  key to select.
	Use arrow key to select WIRELESS ID/RL MODIFY and press enter  key to select.

9.1 Sensor ID Copy Function

	Use arrow key to choose SENSOR ID COPY. Press enter  key to select.
	Scan O.E. sensor wirelessly.

 5 SERIES OBJ.ID : 11F64653 SCAN TARGET SENSOR TO (Esc):BACK (←):MODIFY	 -Tool will show OE sensor's ID then you can press  key to copy the ID to target sensor. Please place target sensor near  -Tool.
 5 SERIES ABCDEFGH MODIFIED TO 11F64653 PROGRAM SUCCESSFUL	You will hear 2 short beeps when it is done.

9.2 Manual ID Modify Function

 5 SERIES SENSOR ID COPY MANUAL ID MODIFY	Use arrow key to choose MANUAL ID MODIFY. Press enter  key to select.
 5 SERIES SCAN ORIGINAL ID (Esc):BACK (←):TO SCAN	Scan O.E. sensor wirelessly.
 5 SERIES ORG.ID : 11F64653 (Esc):BACK (←):KEY IN	 -Tool will show OE sensor's ID and press  to modify the ID.
 5 SERIES 2231B7BE 0 1 2 3 4 5 6 7 8 9 A B C D E F ←	Use arrow key to browse and press  to select.
 5 SERIES 11F64653 MODIFIED TO 2231B7BE PROGRAM SUCCESSFUL (Esc):BACK (←):KEY IN	Complete Modification.

Federal Communication Commission Interference

Statement

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 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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC RF Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.