LAUNCH CRT5011E

LAUNCH CRT5011E TPMS Relearn Tool and OBDII Code Reader User Manual

Model: CRT5011E | Brand: LAUNCH

1. Introduction

This user manual provides comprehensive instructions for the operation and maintenance of the LAUNCH CRT5011E TPMS Relearn Tool and OBDII Code Reader. This device is designed to assist automotive professionals and enthusiasts in diagnosing and managing Tire Pressure Monitoring Systems (TPMS) and performing essential On-Board Diagnostics (OBDII) functions. Please read this manual thoroughly before using the device to ensure correct operation and to prevent damage.

2. Product Overview

Figure 2.0.1: The LAUNCH CRT5011E TPMS Relearn Tool alongside its protective carrying case.

2.1 Key Features

- Integrated TPMS sensor activation, reading, learning, and programming capabilities.
- Full OBDII diagnostic functions: Read/Clear Codes, I/M Readiness, Data Stream, Freeze Frame, O2 Sensor Test, etc.

- Supports 3 TPMS relearn methods: OBD Relearn, Automatic Relearn, and Stationary Relearn.
- Activates 99% of TPMS sensors on the market (315MHz/433MHz).
- Programs LAUNCH LTR-01 sensors and other unencrypted sensors.
- Lifetime free software upgrades via PC.

2.2 Package Contents

Figure 2.2.1: The LAUNCH CRT5011E TPMS tool and its included accessories, such as the main unit, carrying case, power adapters, and connection cables.

The package typically includes the CRT5011E main unit, an OBDII diagnostic cable, a USB cable for updates, a power adapter, and a user manual. Please verify all components are present upon unboxing.

3. Setup

3.1 Initial Power-Up

1. Ensure the device is fully charged using the provided power adapter.
2. Press and hold the power button to turn on the device.
3. Follow on-screen prompts for initial language and time zone settings.

3.2 Software Update

Figure 3.2.1: Illustration of the software update process for the LAUNCH CRT5011E, involving downloading the update tool, registering, copying the package to a memory card, and inserting it into the device.

It is recommended to update the device software regularly to ensure access to the latest vehicle coverage and features. The update process involves:

1. Visit the official LAUNCH website to download the update tool.
2. Install the update tool on your PC and register your device.
3. Copy the downloaded update package to the device's memory card.
4. Insert the memory card into the CRT5011E and follow the on-screen instructions to start the update.

4. Operating Instructions

4.1 TPMS Functions Overview

Figure 4.1.1: The main menu displaying various TPMS functions available on the LAUNCH CRT5011E, including relearn, activation, diagnosis, programming, and reading ECU IDs.

The CRT5011E offers a comprehensive suite of TPMS functions to manage tire pressure sensors. These include activation, programming, relearning, and diagnostic capabilities.

4.2 TPMS Sensor Activation

Figure 4.2.1: The device being used to activate a TPMS sensor, displaying real-time data such as tire temperature, pressure, battery status, sensor frequency, and ID.

To activate a TPMS sensor:

1. Select the "Activate Sensor" option from the TPMS menu.
2. Follow the on-screen instructions to position the tool near the tire valve stem.
3. The tool will activate the sensor and display information such as sensor ID, tire pressure, temperature, and battery status.

4.3 TPMS Sensor Programming

Figure 4.3.1: The LAUNCH CRT5011E demonstrating various methods for programming TPMS sensors, including auto create, manual create, and copying ID by activation or OBD.

The CRT5011E can program LAUNCH LTR-01 sensors and other unencrypted sensors. Programming methods include:

- **Auto Create:** Generates a new sensor ID automatically.
- **Manual Create:** Allows manual input of a new sensor ID.
- **Copy ID by Activation:** Copies the ID from an existing activated sensor.
- **Copy by OBD:** Reads sensor IDs from the vehicle's ECU via the OBD port.

Select the desired programming method from the menu and follow the on-screen prompts. The device can program up to 8 LAUNCH LTR-01 sensors simultaneously.

4.4 TPMS Sensor Relearn

Figure 4.4.1: Visual representation of the three TPMS relearn methods supported by the LAUNCH CRT5011E: OBD Relearn, Automatic Relearn, and Stationary Relearn.

After replacing or programming TPMS sensors, they must be relearned to the vehicle's ECU. The CRT5011E supports three relearn procedures:

- **OBD Relearn:** Connects to the vehicle's OBD port to transfer new sensor IDs directly to the ECU.
- **Automatic Relearn:** For vehicles that can automatically learn new sensor IDs after a drive cycle.
- **Stationary Relearn:** Requires the vehicle to be in a specific "learn mode" and sensors to be triggered in a specific order.

Select the appropriate relearn method for your vehicle and follow the detailed on-screen instructions.

4.5 TPMS Diagnostics

Figure 4.5.1: The device displaying options to read and clear TPMS Diagnostic Trouble Codes (DTCs) and reset the TPMS warning light on the dashboard.

The diagnostic function allows you to read and clear TPMS-related Diagnostic Trouble Codes (DTCs) and reset the TPMS warning light. Connect the tool to the vehicle's OBDII port and navigate to the TPMS diagnostic menu.

4.6 OBDII Diagnostics

Figure 4.6.1: An overview of the full OBDII diagnostic functions available on the LAUNCH CRT5011E, including reading/erasing codes, I/M readiness, live data, and more.

The CRT5011E also functions as a full OBDII code reader for engine system diagnostics. Connect the device to the vehicle's OBDII port (usually located under the dashboard).

- **Read Codes:** Retrieves Diagnostic Trouble Codes (DTCs) from the vehicle's ECU.
- **Clear Codes:** Erases DTCs and turns off the Check Engine Light (MIL).
- **I/M Readiness:** Checks the status of emission-related monitoring systems.
- **Data Stream:** Displays real-time data from various sensors.
- **View Freeze Frame:** Shows a snapshot of operating conditions when an emission-related fault occurred.
- **O2 Sensor Test:** Retrieves O2 sensor monitoring test results.
- **On-Board Monitoring:** Retrieves results for on-board diagnostic monitoring tests of specific components/systems.

Navigate through the OBDII menu to select the desired diagnostic function.

5. Maintenance

- Keep the device clean and free from dust and moisture.
- Store the device in its protective case when not in use.
- Avoid dropping the device or exposing it to extreme temperatures.
- Regularly update the software to maintain optimal performance and vehicle compatibility.
- Charge the internal battery periodically, even if not in frequent use, to prolong its lifespan.

6. Troubleshooting

- **Device does not power on:** Ensure the battery is charged. Connect to a power source and try again.
- **Cannot connect to vehicle:** Verify the OBDII cable is securely connected to both the device and the vehicle's OBDII port. Ensure the vehicle's ignition is on.
- **Cannot activate/program sensor:** Ensure the sensor is within range and functional. Check the sensor frequency (315MHz/433MHz) matches the tool's capabilities. For programming, ensure it's a LAUNCH LTR-01 or unencrypted sensor.
- **Update failure:** Verify internet connection and ensure the update tool is correctly installed on your PC. Check for sufficient space on the memory card.
- **TPMS warning light remains on after relearn:** Ensure the relearn procedure was completed successfully according to the vehicle manufacturer's specifications. Some vehicles may require a short drive cycle.

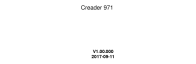
7. Specifications

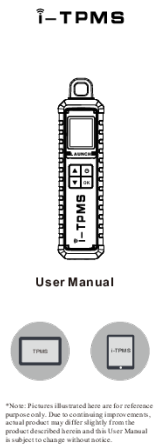
Brand	LAUNCH
Model Number	CRT5011E
Item Weight	2.7 pounds
Package Dimensions	12.2 x 9.75 x 3.2 inches
Batteries	1 Lithium Ion battery (included)
Operating System	ARM
TPMS Frequency Support	315MHz / 433MHz
OBDII Protocols	All OBDII compliant vehicles

8. Warranty and Support

For warranty information and technical support, please refer to the official LAUNCH website or contact their customer service directly. Product registration may be required for warranty claims and to access full support services. Lifetime free software upgrades are provided for this device.
Official LAUNCH Website: Visit the LAUNCH Store on Amazon

Related Documents - CRT5011E

	LAUNCH Creader 971 TPMS Activation and Diagnostic Tool User Manual Comprehensive user manual for the LAUNCH Creader 971, a TPMS activation and diagnostic tool. Covers product overview, specifications, features, operation, charging, registration, upgrade, and warranty information.
	LAUNCH LTR-03 RF-Sensor Quick Start Guide | Installation & Safety Get started with your LAUNCH LTR-03 RF-Sensor. This guide provides essential safety instructions, installation steps, technical specifications, and warranty information for the LAUNCH TPMS sensor.
	LAUNCH CRT511SV2 Smart TPMS Diagnostic System User Manual Comprehensive user manual for the LAUNCH CRT511SV2 Smart TPMS Diagnostic System, covering features, operations, safety precautions, and troubleshooting for automotive TPMS and OBD II diagnostics.

	[LAUNCH i-TPMS User Manual: Tire Pressure Monitoring System Service Tool Guide] Comprehensive user manual for the LAUNCH i-TPMS handheld tire pressure monitoring system service tool. Learn about safety precautions, components, technical specifications, operation, programming, relearning, and troubleshooting.
	[Launch i-TPMS User Manual: Modular Activation Programming Tool] User manual for the Launch i-TPMS, a modular activation programming tool for tire pressure monitoring systems. Covers safety precautions, components, technical parameters, working principle, initial use, getting started, job menu, TPMS operations (activation, programming, relearning), and troubleshooting.
	[LAUNCH CRP123E FAQs: Troubleshooting and Support] Frequently Asked Questions for the LAUNCH CRP123E automotive diagnostic tool, covering updates, registration, language support, features, package contents, troubleshooting, and more.