



VLU-5 Utility Transmitter (VUT) User Guide

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FCC Information

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.

Document History

Version	Status	Date	Author	Description	Approval
0.1	Draft	12/21/2005	EB	Original Development	

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Section 1 About this Document

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1.1 Purpose

This document is designed to explain the purpose, functionality and the operation of the latest generation of the LoJack VUT, used to install the LoJack VLUs which are an integrated component of the LoJack Stolen Vehicle Recovery System.

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1.2 Organization

This document is designed as a reference source. It is not intended to replace or redefine current procedures. This document is broken down into the following major sections:

Section 1: **About this Document:** This material explains the conventions that have been used in the development of this document, any formatting conventions or word usage conventions that need to be understood for full comprehension of the content of the document.

Section 2: **VUT Overview:** This material explains the functional operation of the VUT, the display screen and the controls provided.

Glossary: Defines various names and terms used by LoJack as a whole. All of the terms defined in this section may not appear in this document, but are provided in the event that they may be used in future communications concerning this material.

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1.3 Typographical Conventions

Several type faces and text formats are used throughout this guide. Please refer to the following formatting in the text to help you identify special information.

Format:	Type of Information
<u>Emphasis</u>	Words and characters in <i>Times bold-italic</i> type are used to emphasize the following: • <u>Menu items</u> • <u>Screens names</u> • <u>Dialog boxes</u> • <u>References</u> • <u>Section titles</u> • <u>Heading titles</u> • <u>Names of reports</u> • <u>File names</u> • <u>Other manual titles</u> • <u>Particular words</u>
<u>New Term</u>	Words and characters in Arial bold type are used to introduce a new term.
<u>Type Command</u>	Words and characters in Century Schoolbook bold type indicate what you type on a command line from your keyboard.
<u>Echo</u>	Words and characters in Century Schoolbook type indicate the result or output of a command or the contents of a file.

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Section 2 Overview

2.1 Background:

VUT is an complete redesign of the Packet Decoder used in the stolen vehicle recovery system. The redesign effort was initiated for several reasons as follows:

- Enhanced performance would be incorporated into a redesign
- Easier operation would be achieved with a redesign
- New features would be incorporated into a redesign.

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2.2 Configuration:

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Figure 1 LoJack VUT

2.3 Functionality

The VUT can perform the following functions:

1. Receive commands via the serial interface and broadcast the command via RF.
2. Report data received via the RF interface across the serial interface.
3. Only respond to "Test" commands across the serial interface.
4. Only report test responses received via the RF interface via the serial interface.

2.4 Procedure



2.4.1 Preparation

1. Launch Win VUT Application See Figure 2
2. Select the proper Comm port for computer

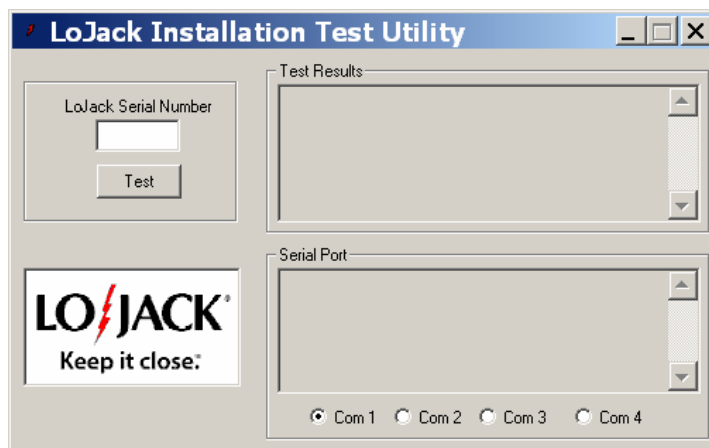


Figure 2 Installation Test Utility Initial Screen

3. Connect the interface to the serial port of the computer.

2.4.2 Testing:

1. Turn on power to VUT.
2. There should be an identification of the VUT displayed See Figure 3

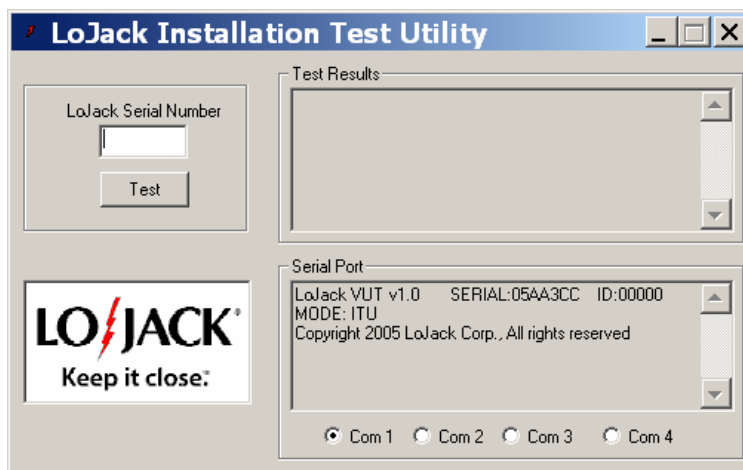


Figure 3 VUT Identification Screen

3. Type in Serial number of LJU5 under test for installation see Figure 4

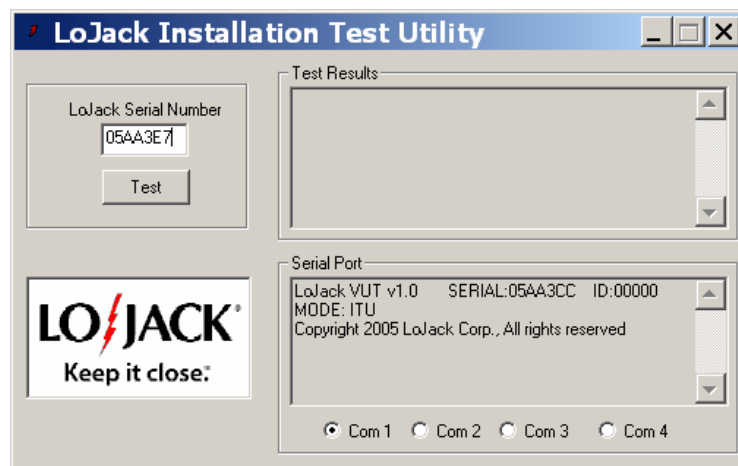


Figure 4 Serial Number of Unit Under Test Entered

4. Then Click test button or hit Return key
5. Should see the messages change and there should be 1 blink of the LED on the VUT to acknowledge transmission by the VUT.

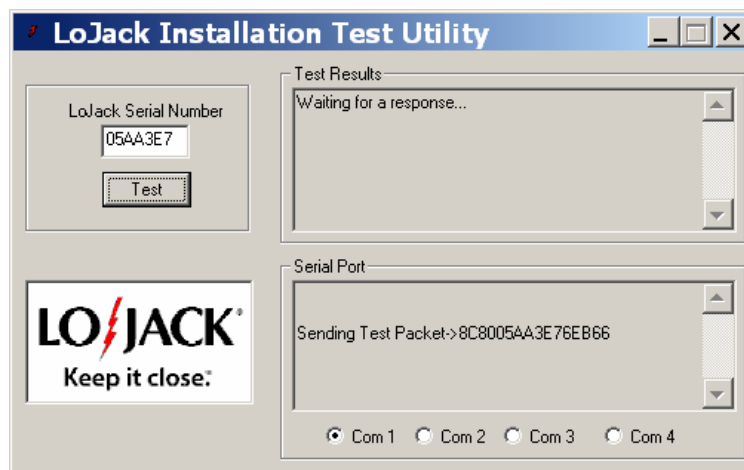


Figure 5 VUT Test Window

6. The Led on the VUT should then blink 2 more times to acknowledge the 2 responses from the LJU under test

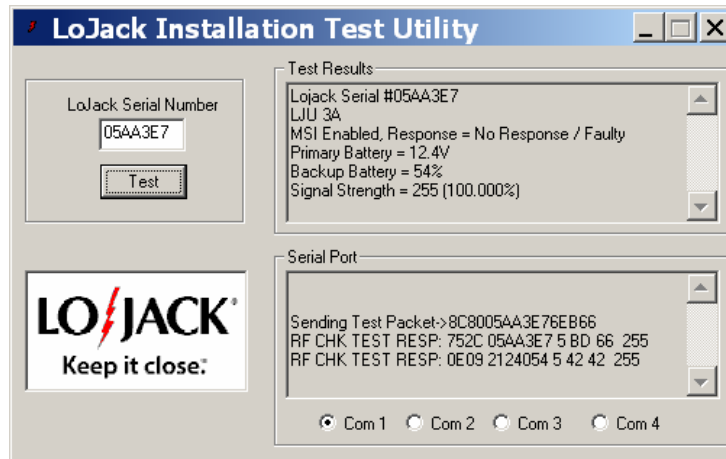


Figure 6 Test Complete Screen

7. Repeat test as necessary.

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1.0	Draft	03/16/2004		Initial Release