

ENE KB9022

on

LA-A342P ZIPS3

Contents

1	Introduction	1
1.1	Prologue	1
1.2	Keyboard Controller	1
2	Preparation	2
2.1	Partlist	2
2.2	Pinout	3
2.3	Cable Alignment	4
2.4	Remove Batteries	4
2.5	Download Pinout	5
3	Flashing	6
3.1	Set Mode	6
3.2	Select Motherboard	7
3.3	Read ID	8
3.4	Read KB9022	9
3.5	Write KB9022	10
4	Rewrite Information	12
5	Question and Answers	13
6	Files	14

1 Introduction

1.1 Disclaimer

USE THIS DOCUMENT AT YOUR OWN RISK

PLEASE BE AWARE THAT ANY INFORMATION YOU MAY FIND IN THIS DOCUMENT MAY BE INACCURATE, MISLEADING, DANGEROUS, ADDICTIVE, UNETHICAL OR ILLEGAL.

Some information in this document may create an unreasonable risk for readers who choose to use the information. The Author do not take any warranties about the completeness, reliability and accuracy of this information. Any action you take upon the information in this document is strictly at your won risk, and the Author will not be liable for any losses and damages in connection with the use of this document.

1.2 Prologue

This How-to will instruct you how to read and write the **ENE KB9022** keyboard controller on the **LA-A342P** motherboard.

This process will clear every information in the bios. If you don't know how to restore UUID / SERIAL do not do this!

1.3 Keyboard Controller

ENE's Keyboard Controller series is a highly integrated embedded controller (EC) with **128Kb** embedded flash for laptop platform. It appeals for low power consumption and best-in-class performance to satisfy customers' demand.

The system support functions include:

8051 MCU, LPC interface, PS/2 interface, Keyboard matrix encoder, PWM, A/D converter, D/A converter, Fan controller, SMBus interface, GPIO, PECE, one wire master, SPI and ENE Serial Bus.

ENE's Keyboard Controller Series includes:

KB901X, KB902X, KB903X, KB373X.

2 Preparation

2.1 Partlist

- SOFTWARE

Windows7 64Bit
SVOD3 1.0.3.6

- PROGRAMMER

SVODprogrammer ver 3

- CABLES

1x 0,5 mm Pitch 32 Pin AWM 20624 flex ribbon cable FFC

2.2 Pinout

You need **ENE_KSI7**, **ENE_KSI6**, **ENE_KSI4**, **ENE_KSI5** and **ENE_KSO3**. Ground can be obtained from any usb ports.

JKB1 PIN #02	→	KSI7
JKB1 PIN #03	→	KSI6
JKB1 PIN #05	→	KSI4
JKB1 PIN #06	→	KSI5
JKB1 PIN #18	→	KSO3
USB PORT	→	GND

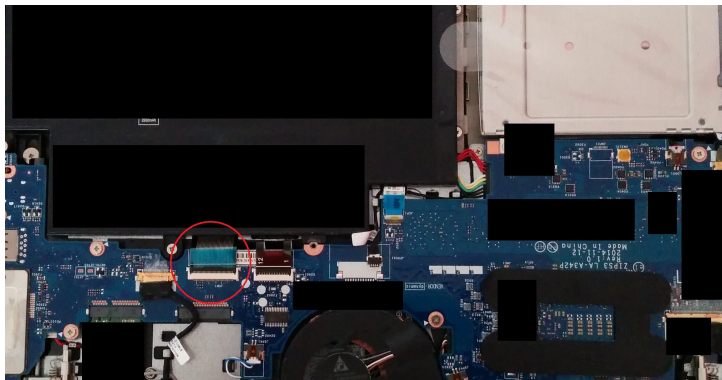


Figure 1: JKB keyboard connector

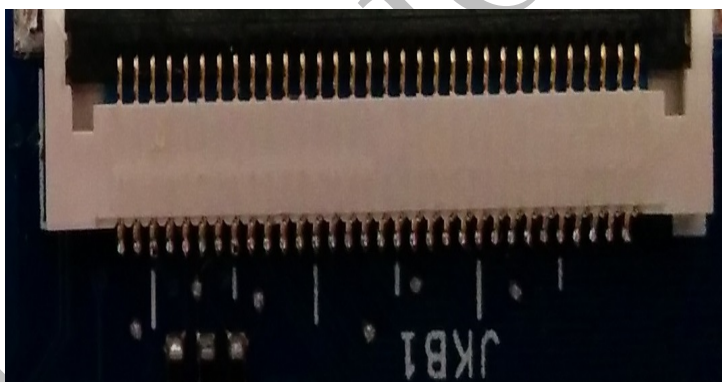


Figure 2: JKB1 32pin 0,5mm port closer look

2.3 Cable Alignment

A small problem is the original JKB1 connector on the motherboard itself. The edge on both sides is a bit wider than normal. You need to align the cable correct.

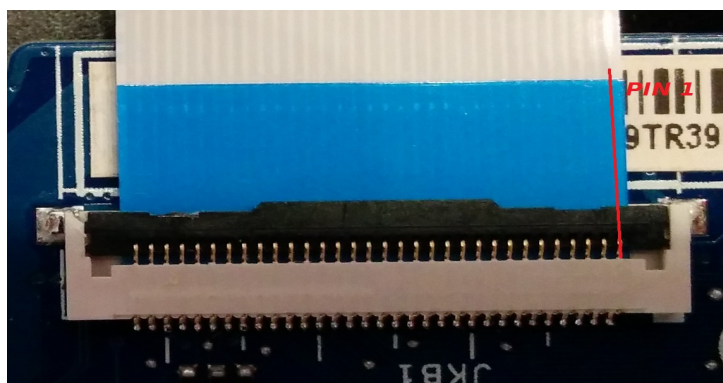


Figure 3: Center the cable and align pin 1!

2.4 Remove Batteries

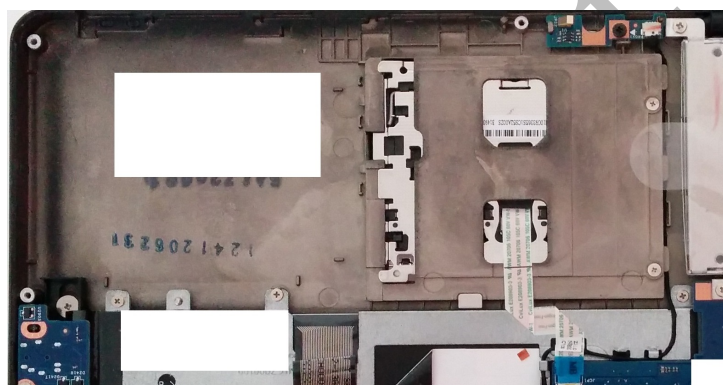


Figure 4: Main Battery.

Unscrew and remove the main battery.



Figure 5: CMOS Battery.

Unplug the CMOS battery.

2.5 Download Pinout

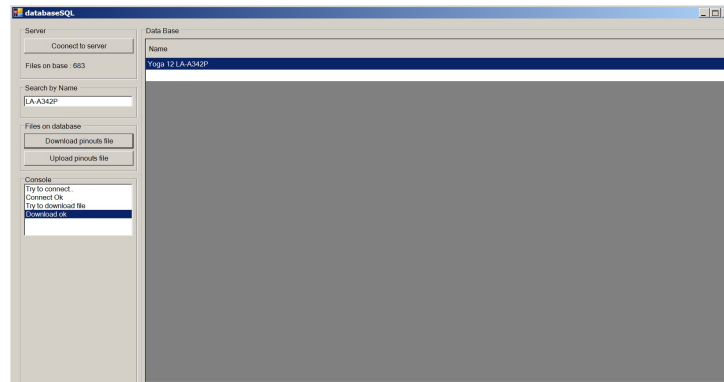


Figure 6: SVOD3 online database.

Open the SVDO3 Software and use the online database to download the LA-A342P motherboard pinout.

3 Flashing

I assume you have connected the cables correct. The **ac connector** and **usb ground** must be detached unless you will be asked to attached.

3.1 Set Mode

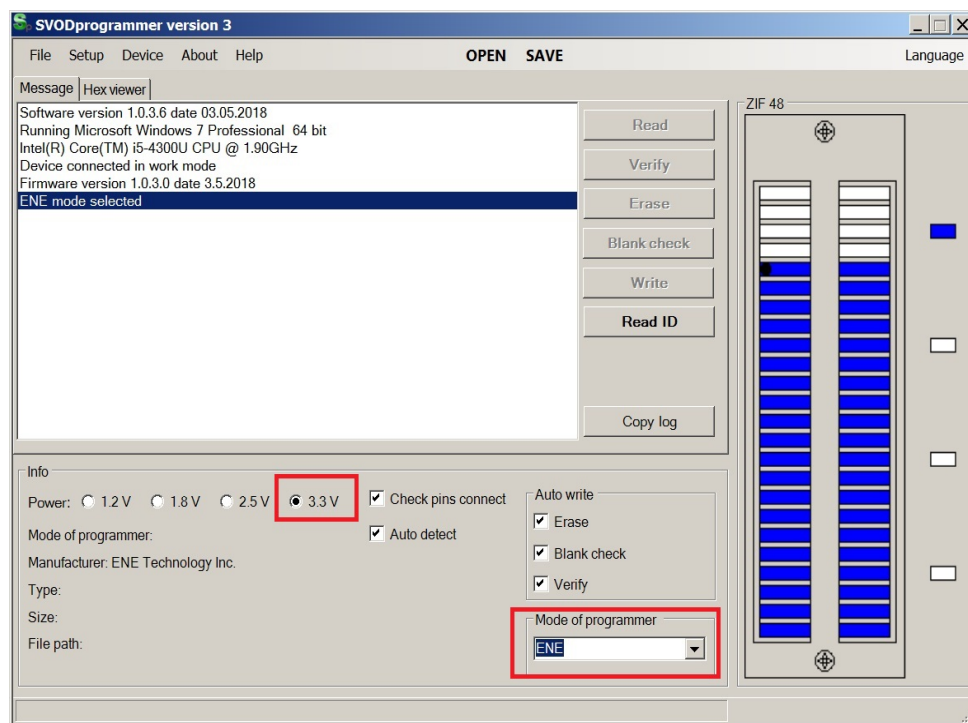


Figure 1: 3.3V and ENE Mode

Choose 3.3V and the ENE Mode.

3.2 Select Motherboard

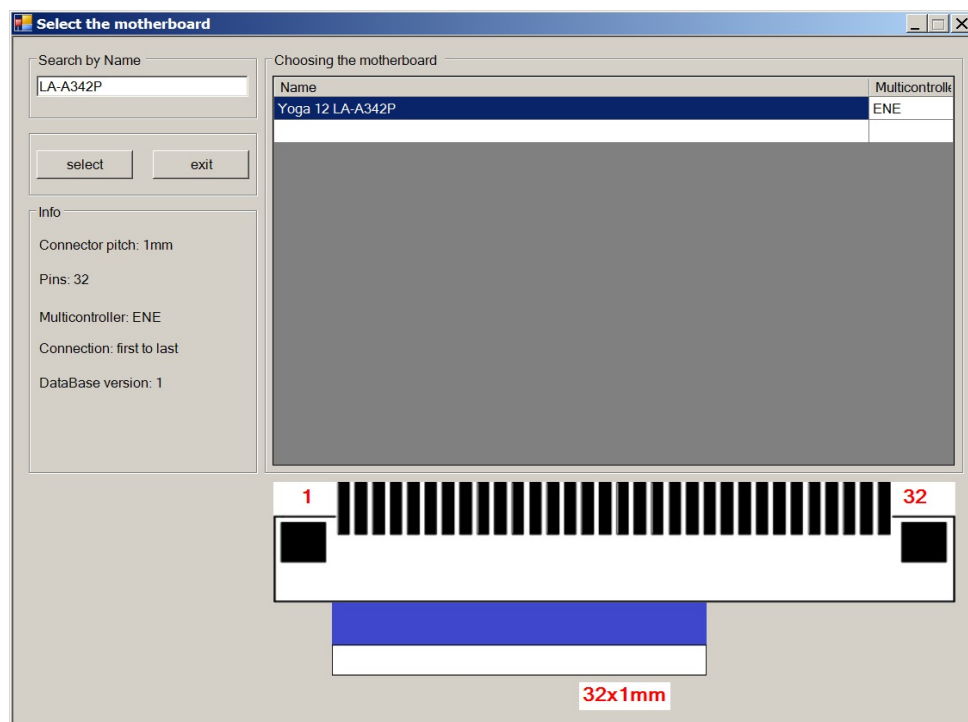


Figure 1: Select the motherboard

Choose your previously downloaded LA-A342P motherboard pinout.

Attention, against the info use the 32x0.5mm fpc cable!

3.3 Read ID

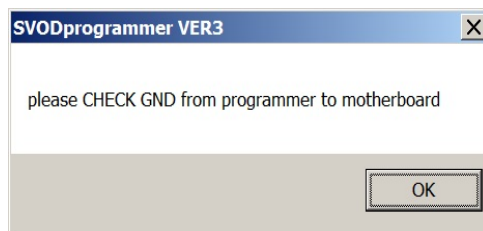


Figure 2: Check ground connection.

After selecting the motherboard pinout you will be asked to plug in the usb ground cable. If this is done you can also connect the ac power adapter cable.

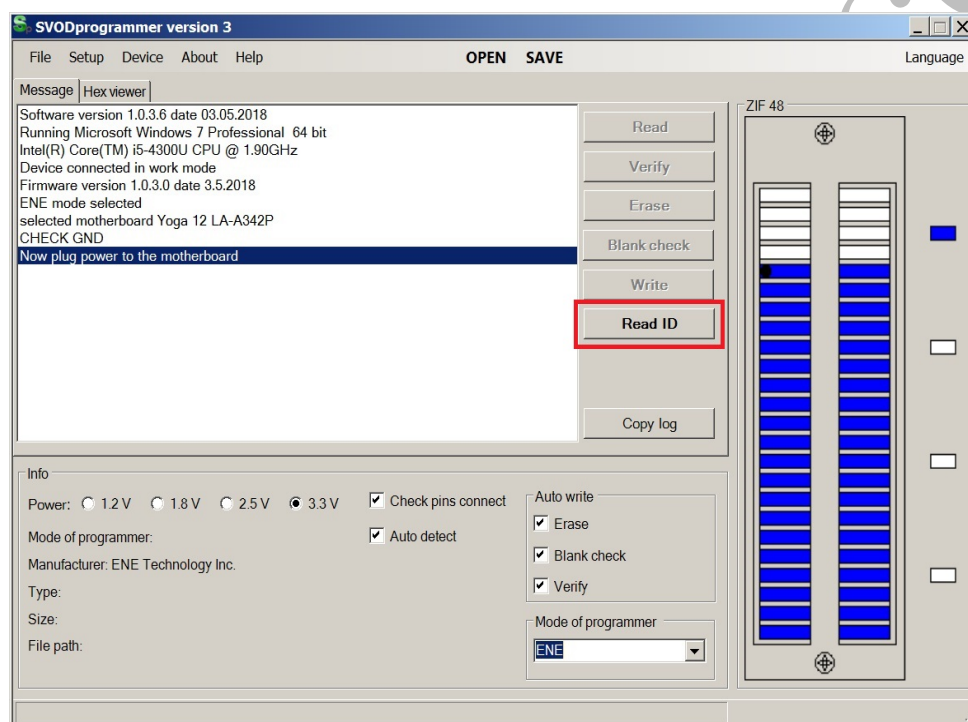


Figure 3: Read ID

Click the Read ID button.

3.4 Read KB9022

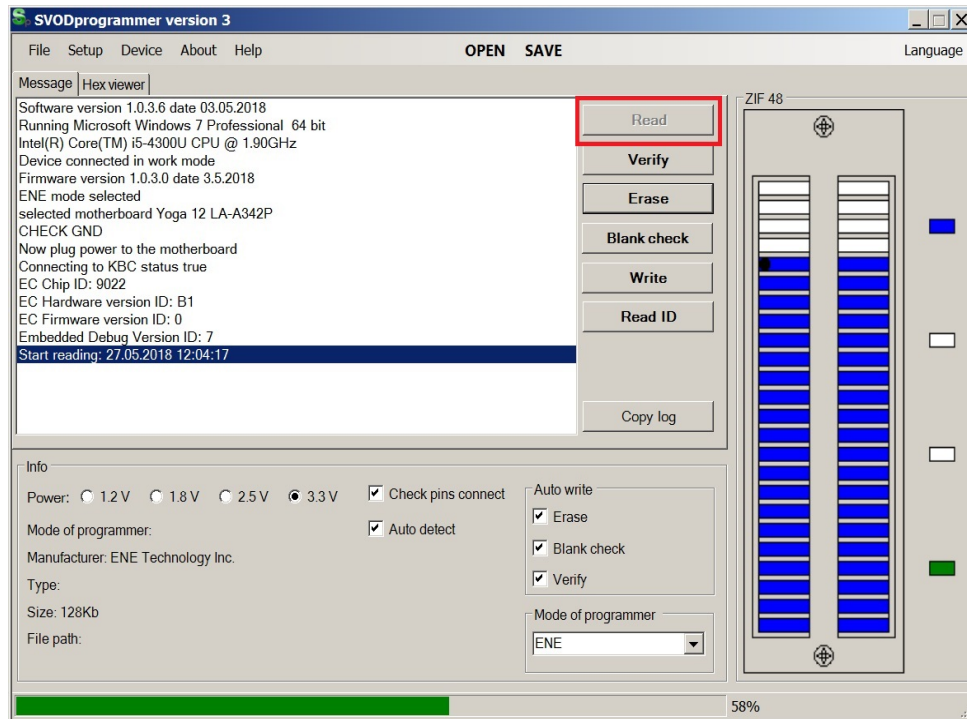


Figure 4: Click Read button

Make a backup of the actual content of the KB9022 and save it to a file.

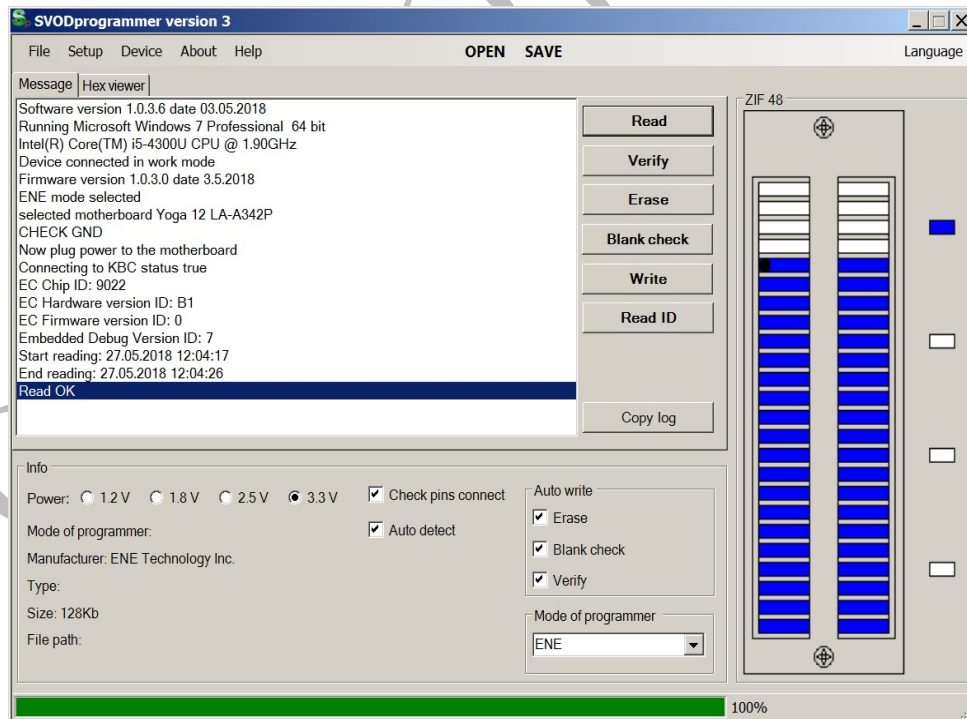


Figure 5: Read process finished...

3.5 Write KB9022

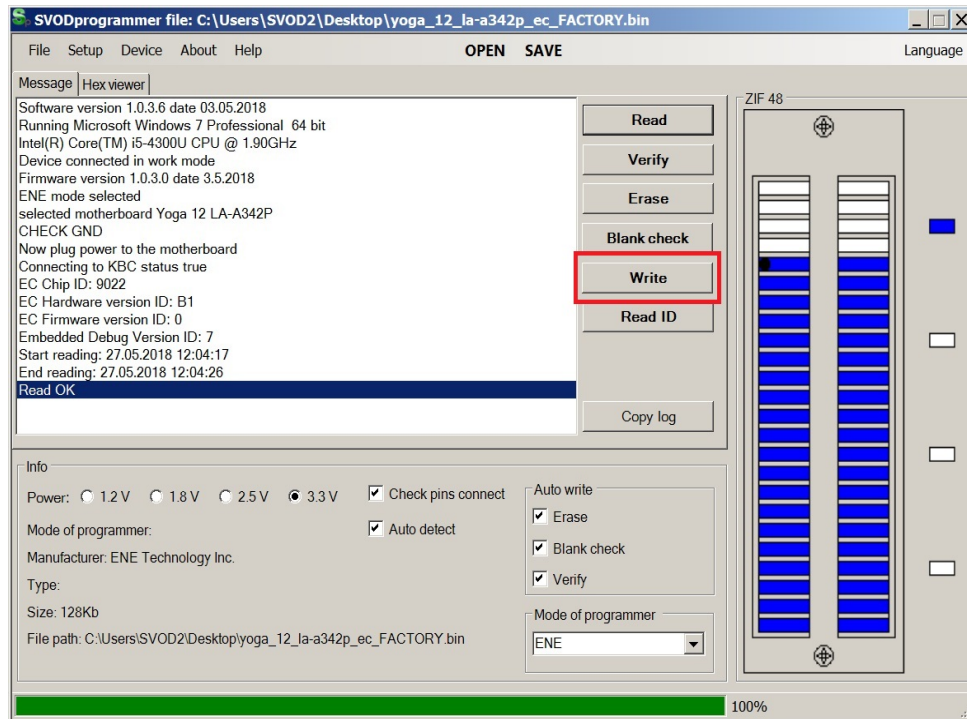


Figure 6: Click Write

- 1) Load la-a342p_yoga12_ene_kb9022_128Kb_factory.bin
- 2) Click Write

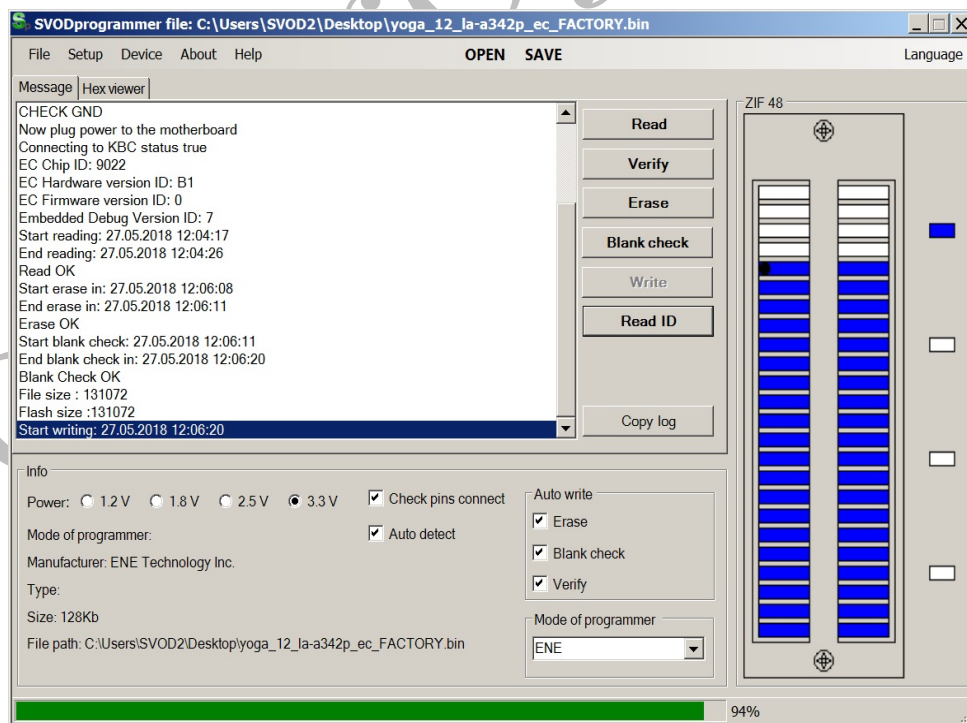


Figure 7: Flash process...

This step could take some time.

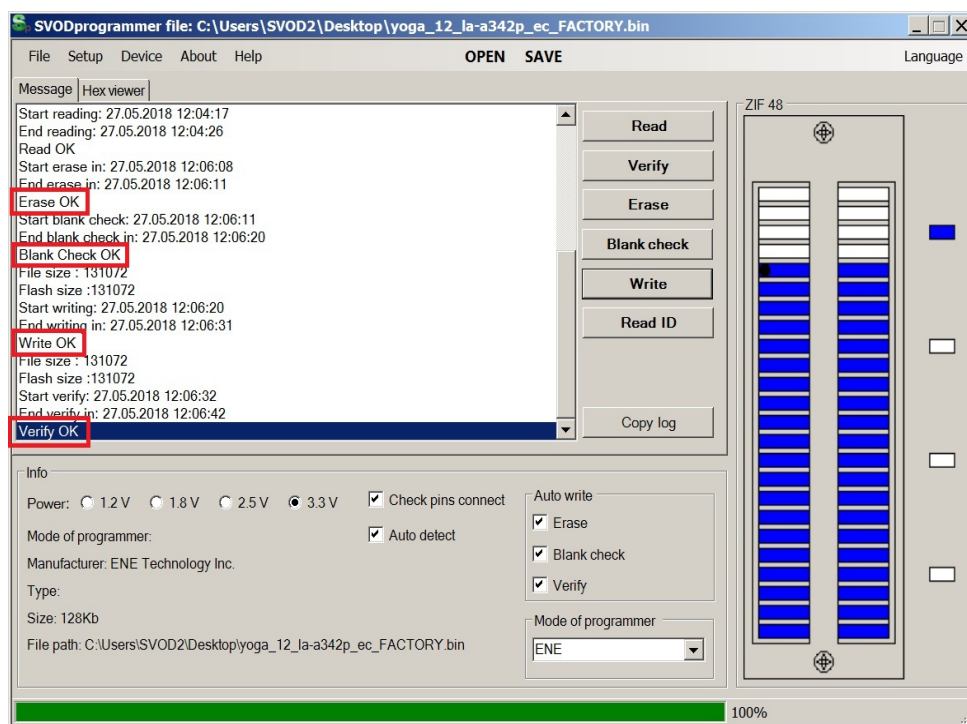


Figure 8: Successfull flashing with verification

4 Rewrite Information

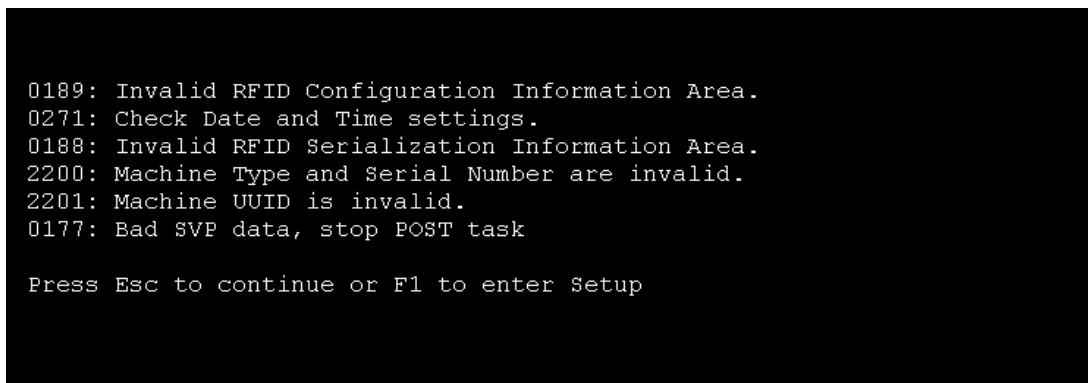


Figure 1: BIOS failure screen.

- How can i rewrite all the missing bios information?
 - 1) You can use the **Lenovo Hardware Maintenance Utility**
 - 2) You can use the **Lenovo Hardware Maintenance Disk**
 - 3) You can read the KB9022 again and edit the dump
- Do you know which steps could work?
 - 1) Initialize the EEPROM with the **Lenovo Hardware Maintenance Utility**
 - 2) Assign a UUID with the **Lenovo Hardware Maintenance Disk**
 - 3) Assign **B0** and **C0** with the **Lenovo Hardware Maintenance Utility**
 - 4) Set time and date correct
 - 4) Set a password and remove it afterwards
- Where ca i find **B0**

Open your backup and search for **SER#**. It is the first number, 21 digits.
- Where ca i find **C0**

Open your backup and search for **SER#**. It is the second number, 19 digits.
Add a **1** in front to get 20 digits!

5 Question and Answers

- Where can i get the pinout of the mainboard?

You can find the pinout and port label in the board schematics.

- Can i remove the password with this procedure?

Yes, works...

SVod-project.com

6 Files

Attachments:

ENE KB902 factory dump for LA-A342P: 

Svod-project.com