

Toyota H Immobilizer All Keys Lost solution (all markets)

I. Getting Started

Introduction

This Help relates to Tango software version <u>1.114</u> (April 2019) and up.

The function allows to solve all keys lost (AKL) situation on Toyota vehicles equipped with 128bit H immobilization system (Page1 39,59,3A,5A) regardless of market (EU/Asia/USA), by creating a master key on <u>LKP-04</u>, utilizing <u>SLK-06</u>, which further serves for diagnostic authorization for key addition, without need to replace or reset the immobilizer. During the process car data is not altered in any way.

System requirements:

- Tango programmer
- <u>SLK-06 Sniffer</u>
- LKP-04 transponder
- <u>Toyota maker</u>
- <u>SLK-06 maker</u>
- Internet connection
- Any metal key that fits and can turn on ignition switch of the vehicle

SLK -06

SLK-06 is battery powered. Note that a battery is not included with an emulator and has to be obtained locally. Three standard types of battery are compatible for our emulators: CR1616, CR1620, CR1632.

If battery is removed all data from the emulator will be lost. When power is restored the default data will be loaded into the transponder memory.

Thus the transponder can be cleaned to default state just by taking off the battery.

We did no test how long the battery lifetime in this application is, because of the main purpose of the SLK-6 is to get data in few minutes. The battery shouldn't drop much below 3V or emulator won't save data.



Autodetect:



Keylnfo Transponder: SLK-06 Data Frames: 0 SLK-06 not programmed. Default state after the battery replacement.

II. Operation Procedure

Due to the nature of Toyota H immobilization system a creative approach is needed in order to solve all keys lost situation, particularly for EU/Asia regions vehicles. The solution currently implemented in Tango can be summarized in three main steps, which are described below:

Obtaining data (Sniffing) Calculation (Calculate Data) Master Key Creation (Write Transponder)

Obtaining data (Sniffing)

- 1. Disconnect battery from car (1-3min)
- 2. Reconnect car battery
- 3. Insert battery in SLK-06 (LED will blink few times, then go off)
- 4. Hold SLK-06 next to the ignition lock (as if it is a key)
- 5. Insert blank key blade (without any transponder) into the ignition and switch ON

6. If steps from 1 to 5 are performed correctly the LED of SLK-06 will start blinking. Hold it in position until LED stops blinking and turns solid red. At this point part of data gathering is complete. **Don't remove** battery from SLK-06 !

- 7. Turn ignition switch **OFF** and remove key from it.
- 8. Perform again steps from 4 to 7 again. After this data gathering is complete.

When steps 1 to 8 are complete you can verify if data collection was performed successfully in Tango main software by using **Autodetect:**



SLK-06 is programmed. State after data obtaining procedure is completed.

Note that, during Autodetect Tango will turn **OFF** the SLK-06 LED, but this is not problem, collected data remains.

Calculation (Calculate Data)

- 1. Connect Tango and start Tango.exe
- 2. Select region Asia, then Toyota->Utility->SLK06 Sniffer
- 3. Insert SLK-06 in Tango coil
- 4. Press Run Online Calculation (this step requires Internet connection)

You will receive a message that our servers have received your request and will start calculating the data.

Online Service	X
Your request has been placed to the queue. The calculation may take a long time (upto 1 hour). Yo your request at any time clicking the Check Calculatio The calculation result will be hold at the online service request.	ou can check a status of n Result button. • until you set a next
	ОК

The process can take from **6 minutes up to several hours** (depends on several factors and servers ' load).

Once servers have received the data SLK-06 is no longer needed, you can remove its battery. Tango **doesn't** need to remain opened, you can close the software, disconnect Tango, or continue using it for some other work. If Tango remains opened and there is internet connection it will check once per minute for status of the calculation request.

5. You can check the status of your request by pressing Check Calculation Status

	SLK06 Sniffer Utility	
Calculate Data	Write Transponder	
Run Online Calculation	Write from Online Service	
Check Calculation Status	Write from File	
Play sound if finished Awaiting timer		

6. When calculation is complete you will be prompted to save a file.

	SLK06 Sniffer Utility	
Calculate Data	Write Transponder	
Run Online Calculation	Write from Online Service	
Check Calculation Status	Write from File	
Play sound if finished		
Calculation finished		

This step is optional and just allows proceeding with <u>Master Key Creation</u> at later point, or in case you want to run another calculation right away. Our servers store the data of the **last** queued calculation indefinitely.

Previous calculation is erased when a **new** calculation request is submitted.

If you place a **new** request, while a **previous** is still being calculated, you will receive a message informing you that this action will cancel the current calculation, with option to continue or cancel.

This will cancell	l the current calculation	n. Continue?
	(a	

Master Key Creation (Write Transponder)

- 1. Once Calculation process is complete, place a blank LKP-04 in Tango coil
- 2. Press Write from Online Service

	SLK06 Sniffer Utility	Specify Transponder Type
Calculate Data	Write Transponder	© LKP-04
Run Online Calculation	Write from Online Service	
Check Calculation Status	Write from File	
 Play sound if finished Calculation finished 		OK Cancel

2.1 If during <u>Calculation</u> phase you choose to save the file, it can be used via button Write from File 3.The LKP-04 transponder created becomes a master key for the vehicle you have obtained data from and can be further used to add more keys diagnostically by using any Toyota compatible diagnostic system(Techstream, etc...).

III. FAQ and Remarks

Q: Sniffer (SLK-06) doesn't blink?

A: Not inserted or low battery / Not placed correctly or next to ignition switch / Low or not connected vehicle battery or some other hardware issue with the vehicle. The sniffer itself can be tested in Tango. Place battery, start Tango and press Autodetect.

Q: During Obtaining data LED on SLK-06 blinks, but then it doesn't turn solid?

A: Data obtaining failure. At present moment roughly 50% of all vehicles equipped with H immobilizer ever produced can be done using our system. Unfortunately, they can't be categorized by vehicle model/year/region, or even part number.

Supported models can conditionally be named "First Generation H Immobilizer", regardless this also doesn't allow classification by year/model/part number/region. The bulk of vehicles equipped with 1st Gen are 2013-2014. Statistic on later vehicles is not exact as Toyota production information is not publicly disclosed. MCU used in 1st Gen H is marked 11910. H systems with MCUs marked 12xxx are not supported. In general access to the Immo takes a lot of work, so it is hardly worth it to take the car apart, just to see the MCU and based on that decide whether to proceed or not. Thus sniffer LED indication is faster and generally effortless.

Q: Error: Calculation error. Please make a new sniffing and try calculate again



A: Blank or no SLK-06 placed in Tango / Obtaining data steps were not performed.

Q: Error: Detected zero captured frame. Expected at least two frames.



A: During Obtaining data steps 1 to 8 were not performed.

Q: Error: Detected one captured frame. Expected at least two frames.





A: During Obtaining data step 8 was not performed.

Q: I have vehicle with H immo system, key Page120.

A: At present moment P1 20 are not support, only the main types P1 39,59,3A,5A.