KeyLøgic[®]

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User Manual v0.13 (PRELIM.)



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Included in Your Kit

Your KeyLogic ID Pro Reflasher includes the following:

	• ID Pro Main Reflasher Unit
	• SOIC 8-Leg PCB Board & Ribbon Wire (connects the main unit to the GoKlip Head or clips)
	 GoKlip Head 5250/SOIC8 Pomona Clip DIP8 Clip (for Sequoia Chip)
Y Y	 Grounding Micrograbber (use to ground pin on Sequoia and 1997 LS400)
TO THE PARTY OF TH	 Toyota/Lexus OBD2 Resync Tool Toyota/Lexus OBD2 Quick Reset Tool (TOY44D/TOY50 Key Programmer)
55	• USB Data Cable
	• Hard Carrying Case

Overview

These days, transponder keys can be programmed to cars fairly easily by plugging a key programmer into a standard diagnostic port. Some older vehicles with transponder systems, though, weren't built to add more keys when all keys had been lost. Sometimes programming a key with a diagnostic tool requires a code that is difficult to get. And sometimes traditional methods to program keys just won't work. In these cases, working with the electronics of the vehicle directly becomes necessary. Reflash/EEPROM work can be intimidating, but like so many other things in the locksmithing world, with the right tools and training, it can be a very easy thing. And lucrative.

In the past, reflashers for the automotive locksmithing industry have been difficult to use and expensive to get. Newer tools such as the Blue Penloader or EZ Flasher have done a great job of simplifying the process. Unfortunately, they have also removed powerful features of traditional EEPROM programmers and still remained out of reach for most locksmiths on a budget.

Now KeyLogic brings the power of EEPROM programmers to security professionals in a kit that is low cost and simple to use with detailed, step-by-step instructions and supportive photographs and videos.

Video Demonstrations

- ID Pro Overview: <u>https://www.youtube.com/watch?v=gP8UrwgvJHw</u>
- The New GoKlip: <u>https://www.youtube.com/watch?v=yCNRQ87_6a0</u>
- Reflashing Honda/Acura: <u>https://www.youtube.com/watch?v=NLwbmqsfCKs</u>
- Reflashing Toyota Prius: <u>https://www.youtube.com/watch?v=Y3DM-2WctqM</u>
- Using the ID Pro Software: <u>https://www.youtube.com/watch?v=-_lyGVevENc</u>

How to Use This Manual

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A lot of effort went into the creation of this user manual to be as helpful to the typical locksmith as possible. Simply look up your year/make/model in the **Applications** list on page 14 and you'll find the page number where all of the information you need is listed step-by-step. No more flipping around looking for the right info. We give you all of the info you need to get the job done.

Setting Up the ID Pro

Download the ID Pro Software

Using a Web browser such as Internet Explorer, Firefox, or Chrome, go to <u>http://keylogic.us/downloads</u> and download the latest version. Please also check this page periodically for updates.

Install the ID Pro Software

After downloading, launch the installation file and follow the directions on your screen.

This software will operate on any PC running Windows XP, Vista, 7, 8, or 8.1 operating system.



Connect the ID Pro to the PCB Board

Insert the included 8-pin PCB Board into the large, green socket connector of the ID Pro Main Reflasher Unit. Notice the engraved diagram that illustrates the PIN #1 location. Ensure the red cable of the board is closest to that corner of the connector. Once the 8 pins are inserted fully, lower the small handle on the ID Pro to hold the Main Reflasher Unit to the PCB Board.



Connect the Ribbon Cable

to the Clip

Most users would prefer to use the GoKlip for most jobs. Simply connect the blue and yellow clips together as shown below. The GoKlip has a mark near one of the pins that signifies PIN #1.



If you need to use the blue Pomona SOIC8 clip or the larger, white 3M DIP8 clip, connect the blue and yellow cables to each side of the clip you're using. Keep the release clip facing OUTWARD. Note that the BROWN wire is PIN #1.



Performing the Reflash

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1. Remove the Module from the Vehicle

Refer to the Steps on the page(s) mentioned in the Vehicle Applications list starting on page 14 for your ECU/immobilizer location.

2. Launch Your ID Pro Software & Select IC Type

Double-click on the ID Pro Programmer icon that was placed on your desktop during installation. Refer to the Steps on the page(s) mentioned in the Vehicle Applications list for your Search, Manufacturer, and Device information.



1. Click on the Select IC button



Enter the search term, select the manufacturer, and select the device type as shown in this user manual

ch Denice	Manufactory		Device	
ALL ALL ROUTELARISTICADA MCUSHU PLD-GALCPLD RANDRAM	NUAJIE NUMIN NYUKAI ICT INTEGRAL IST INTEGRAL IST NY-MS NY-MS NY-MS NY-MS	^	9016 (x14) 9016	
	RATO ROBH SAMEN SELINO SOL-THOMSON ST THC THC		930540 (#34) #30108 930540 (#14) #30008 930546 (#16) #300108 930546 (#16) #300108 930546 (#16) #300108 930546 (#16) #300108 930546 (#16) #300108 930546 (#16) #300108 930546 (#16) #300108 930546 (#16) #300108	

3. Locate Chip

Refer to the Steps on the page(s) mentioned in the Vehicle Applications list for assistance finding the chip you need to be working on. In most cases, you will be looking for a chip that has a label of "IC900" or "IC2" printed next to it,

although definitely not in all cases.

There are many chips that look the same and it is fairly easy to accidentally reflash the wrong chip. For this reason, we highly recommend saving the original dump (bin file) to your computer before overwriting.

Once you have located the correct chip, you must locate PIN #1 to determine which way you will clip on to the chip.

The chip will have some indication on it, usually in the form of a small dimple, close to one corner. The pin closest to that corner is PIN #1.

KeyLogic ID Pro Reflasher

4. Connect to the Chip

One of the most difficult parts of performing a reflash used to be just getting a good connection to the chip. Car makers routinely cover their boards and chips with a thick layer of clear varnish to protect electronics from static electricity. Unfortunately, that makes it extremely difficult to be consistently successful when attaching standard test clips used by most other reflashers. Now, with the included **GoKlip**, you can push



down on the chip instead of squeezing around it, and the sharpened, gold pins on the tool pierce right through the varnish for an easy, solid connection.

There may be times when the coating is so thick and tough that the GoKlip by itself isn't enough to get through. Here are a few methods you can use to assist. Use one or many methods in combination:

- Old-School: Use a sharp Xacto knife to scrape the coating directly from the legs of the chip. A pocket knife is good for this also, as long as it's sharp.
- Electrical Cleaner: Similar to carburetor cleaner, this will strip right through gunk, whether it's cleaning out a car lock or cleaning the crap on an electronics board. Be careful though, it is corrosive on paint. Spray it onto the chip and let it sit and do its magic for a few minutes. Try CRC 05018 Lectra-Motive Electric Parts Cleaner from your local auto parts store (Napa, O'Reilly)
- Paint Thinner: A little rubbing with a rag soaked in paint thinner will do the trick also.



5. Connect the Grounding Wire (When Needed)

Some modules (very rare) require the use of a grounding wire. We have provided a micro-grabber for this purpose. Simply connect the single, white grounding wire of the ribbon wire to the handle of the micro-grabber and then attach to your module as illustrated in the appropriate section of this manual.



6. Read & Save Original Dump

This is an optional step if you would like a backup of your customer's module's original state. We highly recommend it. Start by clicking the Read button to launch the Chip Read window.

After visually ensuring that you have a good connection between the clip and the chip, click the Read button. Click Cancel to close the window once complete. If the data was pulled from the chip successfully, you should see data from the dump (no longer all Fs).

Click the Save button to save the dump for use later if needed.







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7. Open the New Dump

Refer to the Steps on the page(s) mentioned in the Vehicle Applications list for assistance finding the file name of the dump you will be using.

Find and select the correct file, then click on the Open button.

8. Write the New Dump

Start by clicking the *Program* button to launch the *Chip Program* window. After visually ensuring that you have a good connection between the clip and the chip, click the *Program* button and look for a success message. Click *Cancel* to close the window once complete.





9. Reinstall & Register Keys

After reinstalling the reflashed module back into your customer's vehicle, the last step needed is the registration of the keys. Refer to the Steps on the page(s) mentioned in the Vehicle Applications list for the step-by-step instructions for your application.

KeyLogic ID Pro Reflasher

Helpful Tips & Tricks

Getting a Good Connection

When connecting clips to electronics, it is essential that you are aligned properly on top of the chip, with metal touching metal. We recommend having a flashlight handy, perhaps one that you can wear on your head to keep your hands free. In addition to having your work area well lit, do not be afraid to put your eyes as close to the chip as possible. If you are not actually SEEING the pins of the clip touching the pins of the chip, you are probably not going to be aligned properly.

Saving Your Dumps

We recommend organizing your dumps with VIN and year/make/model info somehow. Perhaps create a new folder each time you work on a new vehicle and name that folder something like "3H385632 2002 Lexus ES300" and then name your bin files something like "1.bin" and "2.bin" within that folder. You may not realize it now, but an organized collection of dumps can come in handy later.

Selecting IC Types

There are only a few IC Types that are used again and again for most users (ie. 93C56 (x16), 93C66 (x8), 93C66 (x16), 93C46 (x16)). Get used to selecting your IC Types with the drop-down arrow on the right side of the box. You'll make your life much easier.



Support

Please refer to this manual for help. We have filled it with as much detail as possible so you can work independently and get the job done easily. In the case where you need further support, please contact your distributor for assistance, or contact KeyLogic via email at <u>wolfcreeklocksmith@hotmail.com</u> or by calling (951) 699-4080.

Upgrades and Additions

We tried to load this product up with a huge number of features and vehicle support. Inevitably, though, more additions will be made over time. We have some great things in store, so please watch your distributor's Web site for information.

Corrections, Suggestions, and Contributions

If you can help us improve the products or documentation making it better and easier to use, we can even help to make it worth your while. Submit your corrections, suggestions, or contributions for this product and user manual to wolfcreeklocksmith@hotmail.com.

Vehicle Applications

Make	Model	Years	Function	Pg
Acura	NSX	1997-2004	Reflash (Virginize)	60
			Read Key Value ¹	62
	RL	1996-2004	Reflash (Virginize)	60
			Read Key Value ¹	62
Audi		2000-2005	PIN Read	75
Chrysler	Cirrus	1999-2000	Type 1 PIN Read	64
	Pacifica	2004-2008	Pacifica PIN Read	66
	Sebring	1998-2000	Type 1 PIN Read	64
	Convertible			
	Town &	2004-2007	Pacifica PIN Read	66
	Country			
Dodge	Caravan	2004-2007	Pacifica PIN Read	66
	Stratus 4-Dr	1999-2000	Type 1 PIN Read	64
	Hardtop			
Honda	Prelude	1997-2002	Reflash (Virginize)	60
			Read Key Value	62
Infiniti	All	2005-2008	PIN Read	69
		2009-2012	PIN Read	70
lsuzu	Axiom	2003-2005	PIN Read	68
	Rodeo	2003-2005	PIN Read	68
Jeep	Cherokee	1998-2001	Type 1 PIN Read	64
	Liberty			66
	Wrangler	1998-2000	Type 1 PIN Read	64
Lexus	ES300	1998-2001	Reflash (Virginize)	18
			Reflash (Ready-to-Start)	20
		2002 2002	Read Master Key Value	21
		2002-2003	Reflash (Virginize)	22
			Reflash (Ready-to-Start)	24
	56220	2004	Read Master Key Value	25
	ES330	2004	Reflash (Virginize)	45
	GS300	1998-	Reflash (Virginize)	18
		05/2000	Reliash (Ready-to-Start)	20
		2001-2003	Read Master Key Value	21
			Reliash (Virginize)	22
			Reliash (Ready-to-Start)	24
			Read Master Key Value	25

Make	Model	Years	Function	Pg
Lexus	GS400	1998-2000	Reflash (Virginize)	18
			Reflash (Ready-to-Start)	20
			Read Master Key Value ¹	21
	GS430	2001-2003	Reflash (Virginize)	22
			Reflash (Ready-to-Start)	24
			Read Master Key Value ¹	25
	GX470	2003-2004	Reflash (Virginize)	46
	IS300	2001-2003	Reflash (Virginize)	22
			Reflash (Ready-to-Start)	24
			Read Master Key Value ¹	25
	LS400	1997	Reflash (Virginize)	47
		1998-2000	Reflash (Virginize)	18
			Reflash (Ready-to-Start)	20
			Read Master Key Value ¹	21
	LS430	2001-2002	Reflash (Virginize)	50
		2003	Reflash (Virginize)	51
		2004	Reflash (Virginize)	52
	LX470 RX300	1998-2000	Reflash (Virginize)	18
			Reflash (Ready-to-Start)	20
			Read Master Key Value ¹	21
		2001-2002	Reflash (Virginize)	22
			Reflash (Ready-to-Start)	24
			Read Master Key Value ¹	25
		2003-2004	Reflash (Virginize)	53
		1999-2003	Reflash (Virginize)	18
			Reflash (Ready-to-Start)	20
			Read Master Key Value ¹	21
	RX330 (US)	2004	Reflash (Virginize)	54
	RX330 (Japan)	2004	Reflash (Virginize)	55
	SC300	1998-2000	Reflash (Virginize)	18
			Reflash (Ready-to-Start)	20
			Read Master Key Value ¹	21
	SC400	1998-2000	Reflash (Virginize)	18
			Reflash (Ready-to-Start)	20
			Read Master Key Value ¹	21
	SC430	2002-2003	Reflash (Virginize)	56
Nissan	All	2005-2008	PIN Read	69
		2009-2012	PIN Read	70
Plymouth	Breeze	1999-2000	Type 1 PIN Read	64

Make	Model	Years	Function	Pg
Toyota	Landcruiser	2001-2002	Reflash (Virginize)	22
			Reflash (Ready-to-Start)	24
			Read Master Key Value ¹	25
		2003-2004	Reflash (Virginize)	34
	MR2	2001-2003	Reflash (Virginize)	18
			Reflash (Ready-to-Start)	20
			Read Master Key Value ¹	21
	Prius	2001-2003	Reflash (Virginize)	35
		2004	Reflash (Virginize)	37
	RAV4	2001-2003	Reflash (Virginize)	38
	Sequoia	2001-2002	Reflash (Virginize)	22
			Reflash (Ready-to-Start)	24
			Read Master Key Value ¹	25
		2003-2007	Reflash (Virginize)	40
	Sienna	1998-2003	Reflash (Virginize)	18
			Reflash (Ready-to-Start)	20
			Read Master Key Value ¹	21
		2004	Reflash (Virginize)	43
	Solara	1998-2000	Reflash (Virginize)	18
			Reflash (Ready-to-Start)	20
			Read Master Key Value ¹	21
		1998	Reflash (Virginize)*	44
		(Delco ECU)		
		2001-2004	Reflash (Virginize)	22
		(TOY43AT4)	Reflash (Ready-to-Start)	24
			Read Master Key Value ¹	25
	Solara	2003-2004	Reflash (Virginize)	27
		(TOY44D)		
Volkswagen		2000-2005	PIN Read	75
	Cabriolet	2000-2002	PIN Read	75
	Eurovan	2000-2003	PIN Read	75

¹Available in optional pack

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*Available as an individual optional purchase

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Make	Model	Years	Function	Pg
Porsche	Boxster	1998-2001	PIN Read	75
Saab	93	2003-2009	Reflash (Virginize CIM)	73
Scion	tC	2005-2010	Reflash (Virginize)	58
Subaru	BRZ	2012-2014	Reflash (Virginize)	32
Toyota	4Runner	1998-2001	Reflash (Virginize)	18
			Reflash (Ready-to-Start)	20
			Read Master Key Value ¹	21
		2002	Reflash (Virginize)	22
			Reflash (Ready-to-Start)	24
			Read Master Key Value ¹	25
		2003-2004	Reflash (Virginize)	26
	Avalon	1998-2004	Reflash (Virginize)	18
			Reflash (Ready-to-Start)	20
			Read Master Key Value ¹	21
		1998-1999	Reflash (Virginize)	44
		(Delco ECU)		
	Camry (with transponder)	1998-2000	Reflash (Virginize)	18
			Reflash (Ready-to-Start)	20
			Read Master Key Value ¹	21
		1998	Reflash (Virginize)	44
		(Delco ECU)		
		2001-2003 (TOY43AT4)	Reflash (Virginize)	22
			Reflash (Ready-to-Start)	24
			Read Master Key Value ¹	25
		2001-2004	Reflash (Virginize)	27
		(TOY44D)		
	Camry (w/out	2002-2005	Reflash (fix after	57
	transponder)		accidental reflash)	
	Corolla	2005-2010	Reflash (Virginize)	28
	FJ Cruiser	2010-2012	Reflash (Virginize)	30
	FR-S	2012-2014	Reflash (Virginize)	32
	Highlander	2001-2003	Reflash (Virginize)	18
			Reflash (Ready-to-Start)	20
			Read Master Key Value ¹	21
	Landcruiser	1998-2000	Reflash (Virginize)	18
			Reflash (Ready-to-Start)	20
			Read Master Key Value ¹	21

Usage Instructions

Toyota / Lexus 16-Bit Reflash (Virginize)

Use this method when you want to program 4C keys (TOY43AT4, TOY40BT4 or TOY48BT4). The keys are less expensive, but this method requires a short registration process after reflashing is complete (instructions on page 87).

IMPORTANT NOTE: This method may not work on many models that were produced in EARLY 1998. If you encounter a 1998 model, please be prepared (with a correctly pre-cloned master key) to use the Ready-to-Start method instead (see page 20).

Steps

1	Remove ECU from vehicle and remove board from case	See ECU locations on page 19. See pictures of ECU on page 81.
2	Launch ID Pro Programmer software and Select IC type	Search: 93C56 Manufac.: MICROCHIP Device: 93C56 (x16) Select IC 93C56 (x16)
3	Clip onto chip and connect to ID Pro	Chip Label:IC900Chip Type:93C56Clip Type:GoKlip or Blue Pomona
4	Read original dump from ECU (verify not all FF's) and save to your computer (this is an optional step if you want a backup of your ECU's original state)	
5	Open the new dump	File Name: 16bit.bin
6	Write new dump to the ECU. Reinstall ECU into vehicle.	P
7	Register new keys to vehicle	See Procedure #1 on page 87

Toyota / Lexus 16-Bit Keys & ECU Locations

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ΤΟΥΟΤΑ	Years	Key Blank	ECU Location
4Runner	1998-2001	TOY43AT4	Behind Glove Box (see page 83)
Avalon	1998-2004	TOY43AT4	Behind Glove Box (see page 83)
Camry	1998-2000	TOY43AT4	Behind Glove Box (see page 83)
Highlander	2001-2003	TOY43AT4	Behind Glove Box (see page 83)
Landcruiser	1998-2000	TOY43AT4	Behind Glove Box (see page 83)
MR2	2001-2003	TOY57	Behind Driver's Seat on Firewall
RAV4	2002-2003	TOY43AT4	Behind Glove Box (see page 83)
Sienna	1998-2003	TOY43AT4	Behind Glove Box (see page 83)
Solara	1998-2000	TOY43AT4	Behind Glove Box (see page 83)

LEXUS	Years	Key Blank	ECU Location
ES300	1998-2001	TOY40BT4	Behind Glove Box (see page 83)
GS300	1998- 05/2000	TOY48BT4	Under Hood, Driver's Side (see page 84)
GS400	1998-2000	TOY48BT4	Under Hood, Driver's Side (see page 84)
LS400	1998-2000	TOY48BT4	Behind Glove Box (see page 83)
LX470	1998-2000	TOY40BT4	Behind Glove Box (see page 83)
RX300	1999-2003	TOY48BT4	Behind Glove Box (see page 83)
SC300	1998-2000	TOY40BT4	Below Glove Box, Under Carpet (see page 85)
SC400	1998-2000	TOY40BT4	Below Glove Box, Under Carpet (see page 85)

KeyLogic ID Pro Reflasher

Toyota / Lexus 16-Bit Reflash (Ready-to-Start)

Use this method if you would like to skip the registration process. After reflashing the ECU and reinstalling into the vehicle, a properly pre-cloned key will immediately start the car. The pre-coned key can be purchased ahead of time from your distributor or created yourself with most advanced cloners.

Steps

Remove ECU from vehicle and	See ECU locat	tions on page 19.
remove board from case	See pictures of	of ECU on page 81.
Launch ID Pro Programmer software and Select IC type	Search: Manufac.: Device: Select IC 93C	93C56 MICROCHIP 93C56 (x16)
Clip onto chip and connect to ID Pro	Chip Label: Chip Type: Clip Type:	IC900 93C56 GoKlip or Blue Pomona
Read original dump from ECU (verify not all FF's) and save to your computer (this is an optional step if you want a backup of your ECU's original state)		
Open the new dump	File Name:	readytostart16 .bin
Write new dump to the ECU. Reinstall ECU into vehicle.		P
A properly pre-cloned key will start the car (purchase from your distributor or create one with a cloner)	Master Key Value:	7E2F 40FC 6000 0000 00FC C57E 0000
	Remove ECU from vehicle and remove board from case Launch ID Pro Programmer software and Select IC type Clip onto chip and connect to ID Pro Clip onto chip and	Remove ECU from vehicle and remove board from caseSee ECU local See pictures of See pictures of See pictures of See pictures of Search: Manufac.: Device: Select IC Select IC 930Clip onto chip and connect to ID Pro Select IC Select IC Select IC (ip Type: Clip Type: Clip Type: Clip Type: Clip Type: Clip Type: Clip Type: Clip Type: Soriginal state)Chip Label: Chip Label: Chip Type: Clip Typ

Toyota / Lexus 16-Bit Read Master Key Value¹

This is an optional feature that can be purchased with Service Pack 1.

With this method, you can READ the value of your customer's lost key without writing anything to the ECU. Once you have the key value, you can create a working key with a cloner & cloning key. You could also provide the key value to your distributor and have a working key created and shipped to you.

IMPORTANT NOTE: Since this method does not involve actually changing your customer's ECU, any previously programmed keys will still start the vehicle. This would not be an appropriate method if your customer wants the lost keys to stop working.

Steps

1	Remove ECU from vehicle and remove board from case	See ECU locations on page 19. See pictures of ECU on page 81.
2	Launch ID Pro Programmer software and Select IC type	Search: 93C56 Manufac.: MICROCHIP Device: 93C56 (x16) Select IC 93C56 (x16) ▼
3	Clip onto chip and connect to ID Pro	Chip Label:IC900Chip Type:93C56Clip Type:GoKlip or Blue Pomona
4	Read original dump from ECU (verify not all FF's) and save to your computer. You may reinstall the ECU into vehicle.	
5	Launch ID Pro Calculator software and open the dump saved in the last step	
6	Write the value to a 4C cloning key (ie. TPX1) or contact your distributor with the key value to have one made for you	

Toyota / Lexus 32-Bit Reflash (Virginize)

Use this method when you want to program 4C keys (TOY43AT4, TOY40BT4 or TOY48BT4). The keys are less expensive, but this method requires a short registration process after reflashing is complete (instructions on page 87).

Steps

1	Remove ECU from vehicle and remove board from case	See ECU locations on page 23. See pictures of ECU on page 81.
2	Launch ID Pro Programmer software and Select IC type	Search: 93C56 Manufac.: MICROCHIP Device: 93C56 (x16) Select IC 93C56 (x16)
3	Clip onto chip and connect to ID Pro	Chip Label:IC900Chip Type:93C56Clip Type:GoKlip or Blue Pomona
4	Read original dump from ECU (verify not all FF's) and save to your computer (this is an optional step if you want a backup of your ECU's original state)	
5	Open the new dump	File Name: 32bit.bin
6	Write new dump to the ECU. Reinstall ECU into vehicle.	P
7	Register new keys to vehicle	See Procedure #1 on page 87

Toyota / Lexus 32-Bit Keys & ECU Locations

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ΤΟΥΟΤΑ	Years	Key Blank	ECU Location
4Runner	2002	TOY43AT4	Behind Glove Box (see page 83)
Camry	2001-2009	TOY43AT4	Behind Glove Box (see page 83)
Landcruiser	2001-2002	TOY43AT4	Behind Glove Box (see page 83)
Sequoia	2001-2002	TOY43AT4	Behind Glove Box (see page 83)
Solara	2001-2004	TOY43AT4	Behind Glove Box (see page 83)

LEXUS	Years	Key Blank	ECU Location
ES300	2002-2003	TOY48BT4	Behind Glove Box (see page 83)
GS300	2001-2003	TOY48BT4	Under Hood, Driver's Side
			(see page 84)
GS430	2001-2003	TOY48BT4	Under Hood, Driver's Side
			(see page 84)
IS300	2001-2003	TOY48BT4	Under Hood, Driver's Side
			(see page 84)
LX470	2001-2002	TOY480BT4	Behind Glove Box (see page 83)

Toyota / Lexus 32-Bit Reflash (Ready-to-Start)

Use this method if you would like to skip the registration process. After reflashing the ECU and reinstalling into the vehicle, a properly pre-cloned key will immediately start the car. The pre-coned key can be purchased ahead of time from your distributor or created yourself with many models of cloners.

Steps

1	Remove ECU from vehicle and	See ECU loca	tions on page 23.
	remove board from case	See pictures	of ECU on page 81.
2	Launch ID Pro Programmer software and Select IC type	Search: Manufac.: Device:	93C56 MICROCHIP 93C56 (x16) 56 (x16)
3	Clip onto chip and connect to ID Pro	Chip Label: Chip Type: Clip Type:	IC900 93C56 GoKlip or Blue Pomona
4	Read original dump from ECU (verify not all FF's) and save to your computer (this is an optional step if you want a backup of your ECU's original state)		
5	Open the new dump	File Name:	🗃 <mark>readytostart32</mark> .bin
6	Write new dump to the ECU. Reinstall ECU into vehicle.		P
7	A properly pre-cloned key will start the car (purchase from your distributor or create one with a cloner)	Master Key Value:	7E2F 40FC 6000 0000 00FC C57E 0000

Toyota / Lexus 32-Bit Read Master Key Value¹

This is an optional feature that can be purchased with Service Pack 1.

With this method, you can READ the value of your customer's lost key without writing anything to the ECU. Once you have the key value, you can create a working key with a cloner & cloning key. You can also provide the key value to your distributor and have a working key created and shipped to you.

IMPORTANT NOTE: Since this method does not involve actually changing your customer's ECU, any previously programmed keys will still start the vehicle. This would not be an appropriate method if your customer wants the lost keys to stop working.

Steps

1	Remove ECU from vehicle and remove board from case	See ECU locations on page 23. See pictures of ECU on page 81.
2	Launch ID Pro Programmer software and Select IC type	Search: 93C56 Manufac.: MICROCHIP Device: 93C56 (x16) Select IC 93C56 (x16)
3	Clip onto chip and connect to ID Pro	Chip Label:IC900Chip Type:93C56Clip Type:GoKlip or Blue Pomona
4	Read original dump from ECU (verify not all FF's) and save to your computer. You may reinstall the ECU into vehicle.	
5	Launch ID Pro Calculator software and open the dump saved in the last step	
6	Write the value to a 4C cloning key (ie. TPX1) or contact your distributor with the key value to have one made for you	

Toyota 4Runner 2003-2004 Reflash (Virginize)

NOTE: The easiest way to program keys to this vehicle in a lost keys situation is using the included OBD2 Quick Reset Tool (see page 90). When programming via OBD2 port is not possible, reflashing is the next best approach.

This method will program TOY44D keys to the vehicle when all other keys are lost.

Steps

1	Remove immobilizer (not the ECU) from vehicle and remove board from case	Immobilizer i the glove boy	s located behind < (see page 83).
2	Launch ID Pro Programmer software and Select IC type	Search: Manufac.: Device:	93C66 MICROCHIP 93C66 (x8)
3	Clip onto chip and connect to ID Pro	Chip Label: Chip Type: Clip Type:	IC2 93C66 GoKlip or Blue Pomona
4	Read original dump from immobilizer (verify not all FF's) and save to your computer (this is an optional step if you want a backup of your immobilizer's original state)	Ű	?
5	Open the new dump	File Name:	35090.bin
6	Write new dump to the immobilizer. Reinstall immobilizer into vehicle.		P
8	Register new keys to vehicle	See Procedur	re #2 on page 88

Toyota Camry 2001-2004 / Toyota Solara 2003-2004 Reflash (Virginize)

NOTE: The easiest way to program keys to this vehicle in a lost keys situation is using the included OBD2 Quick Reset Tool (see page 90). When programming via OBD2 port is not possible, reflashing is the next best approach.

This method will program TOY44D keys to the vehicle when all other keys are lost.

Steps

1	Remove immobilizer (not the ECU) from vehicle and remove board from case	Immobilizer is located behind the glove box (see page 83).
2	Launch ID Pro Programmer software and Select IC type	Search: 93C66 Manufac.: MICROCHIP Device: 93C66 (x8) Select IC 93C66 (x8)
3	Clip onto chip and connect to ID Pro	Chip Label:IC2Chip Type:93C66Clip Type:GoKlip orBlue Pomona
4	Read original dump from immobilizer (verify not all FF's) and save to your computer (this is an optional step if you want a backup of your immobilizer's original state)	
5	Open the new dump	File Name: aa010.bin
6	Write new dump to the immobilizer. Reinstall immobilizer into vehicle.	P
7	Register new keys to vehicle	See Procedure #3 on page 89

Toyota Corolla 2005-2010 Reflash (Virginize)

NOTE: The easiest way to program keys to this vehicle in a lost keys situation is using the included OBD2 Quick Reset Tool (see page 90). When programming via OBD2 port is not possible, reflashing is the next best approach.

This method will program TOY44D keys to the vehicle when all other keys are lost.

Steps

1	Remove immobilizer from vehicle and remove board from case (see pic on next page)	Immobilizer i behind the sp	s located below or beedometer.
2	Launch ID Pro Programmer software and Select IC type:	Search: Manufac.: Device:	93C66 MICROCHIP 93C66B or 93C66 (x16) 66 (x16)
3	Clip onto chip and connect to ID Pro	Chip Label: Chip Type: Clip Type:	IC2 93C66 GoKlip or Blue Pomona
4	Read original dump from immobilizer (verify not all FF's) and save to your computer (this is an optional step if you want a backup of your immobilizer's original state)	Ű	?
5	Open the new dump	File Name:	2 030.bin
6	Write new dump to the immobilizer. Reinstall immobilizer into vehicle.		P
7	Register new keys to vehicle	See Procedur	e #3 on page 89

02030 Module



Toyota FJ Cruiser 2010-2012 (Virginize)

This method will program TOY44G keys to the vehicle when all other keys are lost.

NOTE: The transponder ECU on some 2010 Toyota FJ Cruiser vehicles does not support key code erasure in the event that all master keys are lost. These ECUs also do not support the "reseed" function. If all registered master keys are lost, then **the ECU must be reflashed** or replaced. Specifically, all 2WD models produced before JTEZU4BF#AK010121 and all 4WD models produced before JTEBU4BF#AK088229.

Steps

1	Remove immobilizer from vehicle and remove board from case	Immobilizer is located above the glove box.
2	Launch ID Pro Programmer software and Select IC type	Search: 93C66 Manufac.: MICROCHIP Device: 93C66 (x8) Select IC 93C66 (x8)
3	Clip onto chip and connect to ID Pro	Chip Label:IC2Chip Type:93C66Clip Type:GoKlip or Blue Pomona
4	Read original dump from immobilizer (verify not all FF's) and save to your computer (this is an optional step if you want a backup of your immobilizer's original state)	
5	Open the new dump	File Name: fjvirgin.bin
6	Write new dump to the immobilizer. Reinstall immobilizer into vehicle.	P
7	Register new keys to vehicle	See Procedure #3 on page 89

FJ Cruiser ECU



Toyota FR-S / Subaru BRZ 2012-2014 Reflash (Virginize)

This method will program TOY44G keys to the vehicle when all other keys are lost.

NOTE: Why/when is this necessary?

Steps

1	Remove ECU from vehicle and remove board from case (see pic on next page)	ECU is located above the glove box.
2	Launch ID Pro Programmer software and Select IC type	Search: 93C46 Manufac.: MICROCHIP Device: 93C46 (x8) Select IC 93C66 (x8)
3	Clip onto chip and connect to ID Pro	Chip Label:IC2Chip Type:93C46Clip Type:GoKlip or Blue Pomona
4	Read original dump from ECU (verify not all FF's) and save to your computer (this is an optional step if you want a backup of your ECU's original state)	
5	Open the new dump	File Name: frswrz.bin
6	Write new dump to the ECU. Reinstall ECU into vehicle.	
7	Register new keys to vehicle	See Procedure #3 on page 89

FR-S/WRZ ECU



Toyota Landcruiser 2003-2004 Reflash (Virginize)

NOTE: The easiest way to program keys to this vehicle in a lost keys situation is using the included OBD2 Quick Reset Tool (see page 90). When programming via OBD2 port is not possible, reflashing is the next best approach.

This method will program TOY44D keys to the vehicle when all other keys are lost.

Steps

1	Remove immobilizer (not the ECU) from vehicle and remove board from case	Immobilizer is located behind the glove box (see page 83).
2	Launch ID Pro Programmer software and Select IC type	Search: 93C66 Manufac.: MICROCHIP Device: 93C66 (x8) Select IC 93C66 (x8)
3	Clip onto chip and connect to ID Pro	Chip Label:IC2Chip Type:93C66Clip Type:GoKlip or Blue Pomona
4	Read original dump from immobilizer (verify not all FF's) and save to your computer (this is an optional step if you want a backup of your immobilizer's original state)	
5	Open the new dump	File Name: 60220.bin
6	Write new dump to the immobilizer. Reinstall immobilizer into vehicle.	P
7	Register new keys to vehicle	See Procedure #2 on page 88

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Toyota Prius 2001-2003 Reflash (Virginize)

This method will program TOY43AT4 keys to the vehicle when all other keys are lost.

Steps

1	Remove immobilizer (not the ECU) from vehicle and remove board from case	Immobilizer is located under the dashboard, above the steering column. You must drop the column: use a 10mm bolt to release the bracket located in left corner behind roll bar. See pictures of ECU below.
2	Launch ID Pro Programmer software and Select IC type	Search: 93C66 Manufac.: MICROCHIP Device: 93C66 (x8) Select IC 93C66 (x8)
3	Ground pin	See pic on next page
4	Clip onto chip and connect to ID Pro	Chip Label:IC2Chip Type:93C66Clip Type:GoKlip or Blue Pomona
5	Read original dump from immobilizer (verify not all FF's) and save to your computer (this is an optional step if you want a backup of your immobilizer's original state)	
6	Open the new dump	File Name: 47010.bin
7	Write new dump to the immobilizer. Reinstall immobilizer into vehicle.	P
8	Register new keys to vehicle	See Procedure #3 on page 89

47010 Module





Toyota Prius 2004 Reflash (Virginize)

NOTE: The easiest way to program keys to this vehicle in a lost keys situation is using the included OBD2 Quick Reset Tool (see page 90). When programming via OBD2 port is not possible, reflashing is the next best approach.

This method will program TOY44D keys to the vehicle when all other keys are lost.

Steps

1	Remove immobilizer (not the ECU) from vehicle and remove board from case	Immobilizer is located above the center of the dash.
2	Launch ID Pro Programmer software and Select IC type	Search: 93C66 Manufac.: MICROCHIP Device: 93C66 (x8) Select IC 93C66 (x8)
3	Clip onto chip and connect to ID Pro	Chip Label:IC2Chip Type:93C66Clip Type:GoKlip or Blue Pomona
4	Read original dump from immobilizer (verify not all FF's) and save to your computer (this is an optional step if you want a backup of your immobilizer's original state)	
5	Open the new dump	File Name: 47020.bin
6	Write new dump to the immobilizer. Reinstall immobilizer into vehicle.	P
7	Register new keys to vehicle	See Procedure #? on page

Toyota RAV4 2001-2003 Reflash (Virginize)

This method will program TOY43AT4 keys to the vehicle when all other keys are lost.

Steps

1	Remove immobilizer (not the ECU) from vehicle and remove board from case (see pic on next page)	Immobilizer i Glove Box (se	s located Behind ee page 83)
2	Launch ID Pro Programmer software and Select IC type	Search: Manufac.: Device:	25C080 MICROCHIP 25C080
3	Clip onto chip and connect to ID Pro	Chip Label: Chip Type: Clip Type:	None 25C080 or 25080 GoKlip or Blue Pomona
4	Read original dump from immobilizer (verify not all FF's) and save to your computer (this is an optional step if you want a backup of your immobilizer's original state)	Ű	2
5	Open the new dump	File Name:	🗃 EarlyRAV4.bin
6	Write new dump to the immobilizer. Reinstall immobilizer into vehicle.		P
7	Register new keys to vehicle	See Procedur	e #1 on page 87

Early RAV4 Module



Toyota Sequoia 2003-2007 Reflash (Virginize)

This method will program TOY44D keys to the vehicle when all other keys are lost.

Steps

1	Remove immobilizer (not the ECU) from vehicle and remove board from	Immobilizer is located behind the instrument cluster. See
	case	pictures of ECU on page 41.
2	Launch ID Pro Programmer software and Select IC type	Search: 93C66 Manufac.: MICROCHIP Device: 93C66 (x8) Select IC 93C66 (x8)
3	Ground pin	See pic on page 42
4	Clip onto chip and connect to ID Pro	Chip Label:IC2Chip Type:93C66Clip Type:DIP8 (wide 3M white)Ground Pin:See page 42
5	Read original dump from ECU (verify not all FF's) and save to your computer (this is an optional step if you want a backup of your ECU's original state)	
6	Open the new dump	File Name: 34010.bin
7	Write new dump to the ECU. Reinstall ECU into vehicle.	P
8	Register new keys to vehicle	See Procedure #3 on page 89

Toyota Sequoia Immobilizer Location



34010 Module



THE REPORT OF THE PARTY OF THE 200-728939 GND this pin 222221 626334-<u>002</u> Pin 1 location

Toyota Sienna 2004 Reflash (Virginize)

NOTE: The easiest way to program keys to this vehicle in a lost keys situation is using the included OBD2 Quick Reset Tool (see page 90). When programming via OBD2 port is not possible, reflashing is the next best approach.

This method will program TOY44D keys to the vehicle when all other keys are lost.

Steps

1	Remove immobilizer (not the ECU) from vehicle and remove board from case	Immobilizer is located behind the glove box (see page 83).
2	Launch ID Pro Programmer software and Select IC type	Search: 93C66 Manufac.: MICROCHIP Device: 93C66 (x8) Select IC 93C66 (x8)
3	Clip onto chip and connect to ID Pro	Chip Label:IC2Chip Type:93C66Clip Type:GoKlip or Blue Pomona
4	Read original dump from immobilizer (verify not all FF's) and save to your computer (this is an optional step if you want a backup of your immobilizer's original state)	
5	Open the new dump	File Name: 08010.bin
6	Write new dump to the immobilizer. Reinstall immobilizer into vehicle.	P
7	Register new keys to vehicle	See Procedure #2 on page 88

Toyota with Delco ECU Reflash (Virginize)

This is an optional feature that can be purchased separately from your distributor.

Use this method when you run into a vehicle with an ECU made by DELCO. These were only used on a few models and only in the first year or so of production, after which vehicles began using ECUs made by Denso.

IMPORTANT NOTE: **This method requires an additional, optional adapter** that must be purchased from your distributor. You can also ship your Delco ECU to your distributor and have the unit reflashed as a service if you have not purchased the required accessory.

Toyota	
Avalon	1998-1999
Camry	1998
Solara	1998

MORE INFORMATION COMING SOON.

Lexus ES330 2004 Reflash (Virginize)

NOTE: The easiest way to program keys to this vehicle in a lost keys situation is using the included OBD2 Quick Reset Tool (see page 90). When programming via OBD2 port is not possible, reflashing is the next best approach.

This method will program TOY50 keys to the vehicle when all other keys are lost.

Steps

	•	
1	Remove immobilizer (not the ECU) from vehicle and remove board from case	Immobilizer is located behind the glove box (see page 83).
2	Launch ID Pro Programmer software and Select IC type	Search: 93C66 Manufac.: MICROCHIP Device: 93C66 (x8) Select IC 93C66 (x8)
3	Clip onto chip and connect to ID Pro	Chip Label:IC2Chip Type:93C66Clip Type:GoKlip or Blue Pomona
4	Read original dump from immobilizer (verify not all FF's) and save to your computer (this is an optional step if you want a backup of your immobilizer's original state)	
5	Open the new dump	File Name: 33110.bin
6	Write new dump to the immobilizer. Reinstall immobilizer into vehicle.	P
7	Register new keys to vehicle	See Procedure #3 on page 89

Lexus GX470 2003-2004 Reflash (Virginize)

NOTE: The easiest way to program keys to this vehicle in a lost keys situation is using the included OBD2 Quick Reset Tool (see page 90). When programming via OBD2 port is not possible, reflashing is the next best approach.

This method will program TOY50 keys to the vehicle when all other keys are lost.

Steps

1	Remove immobilizer (not the ECU) from vehicle and remove board from case	Immobilizer is located behind the instrument cluster.
2	Launch ID Pro Programmer software and Select IC type	Search: 93C66 Manufac.: MICROCHIP Device: 93C66 (x8) Select IC 93C66 (x8)
3	Clip onto chip and connect to ID Pro	Chip Label:IC2Chip Type:93C66Clip Type:GoKlip or Blue Pomona
4	Read original dump from immobilizer (verify not all FF's) and save to your computer (this is an optional step if you want a backup of your immobilizer's original state)	
5	Open the new dump	File Name: 60330.bin
6	Write new dump to the immobilizer. Reinstall immobilizer into vehicle.	P
7	Register new keys to vehicle	See Procedure #2 on page 88

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Lexus LS400 1997 Reflash (Virginize)

This method will program TOY40BT4 keys to the vehicle when all other keys are lost.

Steps



50020 Module



LS400 1997 Post-Programming Procedures

To register keys into the new/virginized immobilizer:

- 1. Ensure there is no key in the ignition.
- 2. While sitting in driver's seat, close all vehicle doors but do not lock them.
- 3. Insert a TOY40BT4 key into the ignition switch.
- 4. Turn key ON and OFF.

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- 5. Remove key from ignition.
- 6. Open and then close the driver's door to close programming mode.

To add additional master keys into system:

- 1. Ensure there is no key in the ignition.
- 2. While sitting in driver's seat, close all vehicle doors but do not lock them.
- 3. Insert a working MASTER key into the ignition switch and turn to the ON position 5 times.
- 4. Open and shut the driver's door 6 times.
- 5. Remove key from ignition.
- 6. Insert the new TOY40BT4 key into the ignition and turn to the ON position. Leave in this position for a few minutes until the security light goes out.
- 7. Remove key from ignition.
- 8. Open and then close the driver's door to close programming mode.

Lexus LS430 2001-2002 Reflash (Virginize)

NOTE: The easiest way to program keys to this vehicle in a lost keys situation is using the included OBD2 Quick Reset Tool (see page 90). When programming via OBD2 port is not possible, reflashing is the next best approach.

This method will program TOY50 keys to the vehicle when all other keys are lost.

Steps

1	Remove immobilizer (not the ECU) from vehicle and remove board from case	Immobilizer is located above the navigation system.
2	Launch ID Pro Programmer software and Select IC type	Search: 93C66 Manufac.: MICROCHIP Device: 93C66 (x8) Select IC 93C66 (x8)
3	Clip onto chip and connect to ID Pro	Chip Label:IC2Chip Type:93C66Clip Type:GoKlip or Blue Pomona
4	Read original dump from immobilizer (verify not all FF's) and save to your computer (this is an optional step if you want a backup of your immobilizer's original state)	
5	Open the new dump	File Name: 50030.bin
6	Write new dump to the immobilizer. Reinstall immobilizer into vehicle.	P
7	Register new keys to vehicle	See Procedure #2 on page 88

Lexus LS430 2003 Reflash (Virginize)

NOTE: The easiest way to program keys to this vehicle in a lost keys situation is using the included OBD2 Quick Reset Tool (see page 90). When programming via OBD2 port is not possible, reflashing is the next best approach.

This method will program TOY50 keys to the vehicle when all other keys are lost.

Steps

	•	
1	Remove immobilizer (not the ECU) from vehicle and remove board from case	Immobilizer is located above the navigation system.
2	Launch ID Pro Programmer software and Select IC type	Search: 93C66 Manufac.: MICROCHIP Device: 93C66 (x8) Select IC 93C66 (x8)
3	Clip onto chip and connect to ID Pro	Chip Label:IC2Chip Type:93C66Clip Type:GoKlip or Blue Pomona
4	Read original dump from immobilizer (verify not all FF's) and save to your computer (this is an optional step if you want a backup of your immobilizer's original state)	
5	Open the new dump	File Name: 50031.bin
6	Write new dump to the immobilizer. Reinstall immobilizer into vehicle.	P
7	Register new keys to vehicle	See Procedure #2 on page 88

Lexus LS430 2004 Reflash (Virginize)

NOTE: The easiest way to program keys to this vehicle in a lost keys situation is using the included OBD2 Quick Reset Tool (see page 90). When programming via OBD2 port is not possible, reflashing is the next best approach.

This method will program TOY50 keys to the vehicle when all other keys are lost.

Steps

1	Remove immobilizer (not the ECU) from vehicle and remove board from case	Immobilizer is located above navigation system.	
2	Launch ID Pro Programmer software and Select IC type	Search: 93C66 Manufac.: MICROCHIP Device: 93C66 (x8) Select IC 93C66 (x8)	
3	Clip onto chip and connect to ID Pro	Chip Label:IC2Chip Type:93C66Clip Type:GoKlip or Blue Pomona	
4	Read original dump from immobilizer (verify not all FF's) and save to your computer (this is an optional step if you want a backup of your immobilizer's original state)		
5	Open the new dump	File Name: 50050.bin	
6	Write new dump to the immobilizer. Reinstall immobilizer into vehicle.	P	
7	Register new keys to vehicle	See Procedure #3 on page 89	

NOTE: The easiest way to program keys to this vehicle in a lost keys situation is using the included OBD2 Quick Reset Tool (see page 90). When programming via OBD2 port is not possible, reflashing is the next best approach.

This method will program TOY50 keys to the vehicle when all other keys are lost.

Steps

1	Remove immobilizer (not the ECU) from vehicle and remove board from case	Immobilizer is located behind the instrument cluster.
2	Launch ID Pro Programmer software and Select IC type	Search: 93C66 Manufac.: MICROCHIP Device: 93C66 (x8) Select IC 93C66 (x8)
3	Clip onto chip and connect to ID Pro	Chip Label:IC2Chip Type:93C66Clip Type:GoKlip orBlue Pomona
4	Read original dump from immobilizer (verify not all FF's) and save to your computer (this is an optional step if you want a backup of your immobilizer's original state)	
5	Open the new dump	File Name: 60230.bin
6	Write new dump to the immobilizer. Reinstall immobilizer into vehicle.	
7	Register new keys to vehicle	See Procedure #2 on page 88

Lexus RX330 2004 (US) Reflash (Virginize)

NOTE: The easiest way to program keys to this vehicle in a lost keys situation is using the included OBD2 Quick Reset Tool (see page 90). When programming via OBD2 port is not possible, reflashing is the next best approach.

This method applies to models with a VIN beginning with "2" and will program TOY50 keys to the vehicle when all other keys are lost.

Steps

1	Remove immobilizer (not the ECU) from vehicle and remove board from case	Immobilizer is located above the center of the dash.	
2	Launch ID Pro Programmer software and Select IC type	Search: 93C66 Manufac.: MICROCHIP Device: 93C66 (x8) Select IC 93C66 (x8)	
3	Clip onto chip and connect to ID Pro	Chip Label:IC2Chip Type:93C66Clip Type:GoKlip or Blue Pomona	
4	Read original dump from immobilizer (verify not all FF's) and save to your computer (this is an optional step if you want a backup of your immobilizer's original state)		
5	Open the new dump	File Name: 0e010.bin	
6	Write new dump to the immobilizer. Reinstall immobilizer into vehicle.	P	
7	Register new keys to vehicle	See Procedure #3 on page 89	

NOTE: The easiest way to program keys to this vehicle in a lost keys situation is using the included OBD2 Quick Reset Tool (see page 90). When programming via OBD2 port is not possible, reflashing is the next best approach.

This method applies to models with a VIN beginning with "J" and will program TOY50 keys to the vehicle when all other keys are lost.

Steps

	1	
1	Remove immobilizer (not the ECU) from vehicle and remove board from case	Immobilizer is located above the center of the dash.
2	Launch ID Pro Programmer software and Select IC type	Search: 93C66 Manufac.: MICROCHIP Device: 93C66 (x8) Select IC 93C66 (x8)
3	Clip onto chip and connect to ID Pro	Chip Label:IC2Chip Type:93C66Clip Type:GoKlip or Blue Pomona
4	Read original dump from immobilizer (verify not all FF's) and save to your computer (this is an optional step if you want a backup of your immobilizer's original state)	
5	Open the new dump	File Name: 48020.bin
6	Write new dump to the immobilizer. Reinstall immobilizer into vehicle.	P
7	Register new keys to vehicle	See Procedure #3 on page 89

Lexus SC430 2002-2003 Reflash (Virginize)

NOTE: The easiest way to program keys to this vehicle in a lost keys situation is using the included OBD2 Quick Reset Tool (see page 90). When programming via OBD2 port is not possible, reflashing is the next best approach.

This method will program TOY50 keys to the vehicle when all other keys are lost.

Steps

1	Remove immobilizer (not the ECU) from vehicle and remove board from case	Immobilizer is located behind the instrument cluster.
2	Launch ID Pro Programmer software and Select IC type	Search: 93C66 Manufac.: MICROCHIP Device: 93C66 (x8) Select IC 93C66 (x8)
3	Clip onto chip and connect to ID Pro	Chip Label:IC2Chip Type:93C66Clip Type:GoKlip or Blue Pomona
4	Read original dump from immobilizer (verify not all FF's) and save to your computer (this is an optional step if you want a backup of your immobilizer's original state)	
5	Open the new dump	File Name: 24020.bin
6	Write new dump to the immobilizer. Reinstall immobilizer into vehicle.	(P)
7	Register new keys to vehicle	See Procedure #2 on page 88

Toyota/Lexus 16-Bit Non-Transponder ECU Reflash

This method will get the ECU back to its original state if you accidentally reflash it before realizing that the vehicle you're working on does not have a transponder system.

IMPORTANT NOTE: For use on DENSO ECUs only!

Toyota	
4Runner	1998-2002
Camry (TOY43AT4)	1998-2006
Highlander	2001-2003
RAV4	2001-2003
Solara (4-Cyl)	2002-2003

Steps

1	Remove ECU from vehicle and remove board from case	Immobilizer is located behind the instrument cluster.
2	Launch ID Pro Programmer software and Select IC type	Search: 93C56 Manufac.: MICROCHIP Device: 93C56 (x16) Select IC 93C56 (x16) ▼
3	Clip onto chip and connect to ID Pro	Chip Label:IC900Chip Type:93C56Clip Type:GoKlip or Blue Pomona
4	Read original dump from ECU (verify not all FF's) and save to your computer (this is an optional step if you want a backup of your ECU's original state)	
5	Open the new dump	File Name: nontrans.bin
6	Write new dump to the ECU. Reinstall ECU into vehicle. DO NOT INSTALL THE CENTER PLUG.	P
7	Metal key should start the vehicle	

Scion tC 2005-2010 Reflash (Virginize)

NOTE: The easiest way to program keys to this vehicle in a lost keys situation is using the included OBD2 Quick Reset Tool (see page 90). When programming via OBD2 port is not possible, reflashing is the next best approach.

This method will program TOY44D keys to the vehicle when all other keys are lost.

Steps

1	Remove ECU from vehicle and remove board from case (see pic on next page)	ECU is located below or behind the speedometer.	
2	Launch ID Pro Programmer software and Select IC type	Search: 93C66 Manufac.: MICROCHIP Device: 93C66B or 93C66 (x16)	
3	Clip onto chip and connect to ID Pro	Chip Label:IC2Chip Type:93C66Clip Type:GoKlip or Blue Pomona	
4	Read original dump from ECU (verify not all FF's) and save to your computer (this is an optional step if you want a backup of your ECU's original state)		
5	Open the new dump	File Name: 21010.bin	
6	Write new dump to the ECU. Reinstall ECU into vehicle.	P	
7	Register new keys to vehicle	See Procedure #3 on page 89	

21010 Module



Honda/Acura Reflash (Virginize)

Use this method when you want to program HD106 keys. This method requires a short programming process after reflashing is complete with a transponder key programming machine such as the MVP Pro of TCode Pro.

IMPORTANT NOTE: This method requires that you have one pre-cloned Red and one Black key (see values below). You can create these keys yourself if you have a cloner or purchase them ahead of time from your distributor.

Honda		Acura	
Prelude 1997-2002		NSX	1997-2004
		RL	1996-2004
Ste	ps		
1	Remove immobilizer from vehicle and remove board from case (see picture on page 61)	Immobilizer is attached to the steering column (see picture on page 61).	
2	Launch ID Pro Programmer software and Select IC type	Search: Manufac.: Device: Select IC 930	93C46 MICROCHIP 93C46 (x16)
3	Clip onto chip and connect to ID Pro	Chip Type: Clip Type:	93C46 or L46AR GoKlip or Blue Pomona
4	Read original dump from immobilizer (verify not all FF's) and save to your computer (this is an optional step if you want a backup of your immobilizer's original state)		
5	Open the new dump	File Name:	🗃 honflash.bin
6	Write new dump to the immobilizer. Reinstall immobilizer into vehicle.		P
7	Program pre-cloned key(s) in using your transponder programming machine (ie. MVP, TCode, etc.)	Red Key Valu 89E9 1ECC 9 Black Key Va 8971 8F20 A	ue: 721 FEO3 alue: 574 FEO3





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Honda/Acura Read Key Values¹

This is an optional feature that can be purchased with Service Pack 1.

With this method, you can READ the value of your customer's lost keys without writing anything to the ECU. Once you have the key values, you can create a working key with a cloner & cloning key. You can also provide the key value to your distributor and have a working key created and shipped to you.

IMPORTANT NOTE: Since this method does not involve actually changing your customer's ECU, any previously programmed keys will still start the vehicle. This would not be an appropriate method if your customer wants the old keys to stop working.

Honda		Acura	
Prelude	1997-2002	NSX	1997-2004
		RL	1996-2004

Steps

1	Remove immobilizer from vehicle and remove board from case	Immobilizer is attached to the steering column (see picture on page 61).
2	Launch ID Pro Programmer software and Select IC type	Search: 93C46 Manufac.: MICROCHIP Device: 93C46 (x16) Select IC 93C46 (x16)
3	Clip onto chip and connect to ID Pro	Chip Type:93C46 or L46ARClip Type:GoKlip or Blue Pomona
4	Read original dump from immobilizer (verify not all FF's) and save to your computer. You may reinstall the immobilizer into vehicle.	

6	Launch ID Pro Calculator software and open the dump saved in the last	
	step	
8	Write the value to a HD106-T5	
	cioning key or contact your	
	distributor with the key value to	
	have one made for you	

Chrysler Type 1 PIN Read

With this method, you can read the 4-digit PIN any Type 1 SKIM module of a Chrysler vehicle. Once you have the PIN, you can create a working key with a key programmer such as the MVP Pro or TCode Pro.

Chrysler		Jeep	
Cirrus	1999-2000	Cherokee	1998-2001
Sebring	1998-2000	Wrangler	1998-2000
Convertible			
		-	
Dodge		Plymouth	
Stratus 4-Dr	1999-2000	Breeze	1998-2000
Hardtop			
		-	

Steps

1	Remove immobilizer from vehicle and gain access to the SKIM chip. (see pics on page 65)	Immobilizer is located on steering column at ignition switch
2	Launch ID Pro Programmer software and Select IC type	Search: 24C02B Manufac.: MICROCHIP Device: 24LC02B
3	Clip onto chip and connect to ID Pro	Chip Label: Chip Type: 24C02B Clip Type: GoKlip or Blue Pomona
4	Read original dump from immobilizer (verify not all FF's) and save to your computer. You may reinstall the immobilizer into vehicle.	
5	Launch ID Pro PIN Calculator software, select your make and	Select the make and type. Then choose the

C

PinCalculator

Exit

type, and then select the BIN file

	you saved in step #4 above to retrieve your PIN.	Make: Type:	Chrysler/Dodge/Jeep 24C02B
6	Use your MVP Pro, TCode Pro or other programming machine to make a working key		

Type 1 SKIM Module

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Chrysler Pacifica System PIN Read

With this method, you can read the 4-digit PIN any SKREEM module of a Chrysler Pacifica System vehicles. Once you have the PIN, you can create a working key with a key programmer such as the MVP Pro or TCode Pro.

NOTE: To access the SKREEM chip, you will either need to desolder 2 pins holding the board to the plastic cover or purchase the SKIM Popper tool made by AETools. We recommend buying the SKIM Popper tool to make these jobs painless.

Chrysler		Doc	Dodge		
Pacifica 2004-2008		Car	avan	2004-2007	
То	wn &	2004-2007			
Co	ountry		Jee	р	
			Libe	erty	2005-2007
Step)S				
1	Remove	immobilizer from vehicle	e In	nmobilizer	is located on
	and gain	access to the SKIM chip.	st	eering col	umn at ignition
	(see pics	on page 65)	sv	vitch	-
2	Launch I	D Pro Programmer	Se	arch:	95040 or 95080
	software	and Select IC type	Μ	anufac.:	ROHM
			D	evice:	BR95040 or
					BR95080@SOIC8
			- F	Select IC-	
				BR95	5040 @SOIC8
3	Clin onto	chin and connect to	Cł	nin Lahel·	
5	ID Pro	chip and connect to	Cł	nip Type:	95040 or
	long				95080
	MAR		CI	ip Type:	GoKlip or
					Blue Pomona
	_ 000				
4	Read orig	ginal dump from			
	immobili	zer (verify not all FF's)			
	and save	to your computer.			K H
	You may	reinstall the immobilizer	•		
	into vehi	cle.			

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- 5 Launch ID Pro PIN Calculator software, select your make and type, and then select the BIN file you saved in step #4 above to retrieve your PIN.
- 6 Use your MVP Pro, TCode Pro or other programming machine to make a working key



KeyLogic ID Pro Reflasher

Pacifica System SKREEM Module



Isuzu PIN Read

With this method, you can read the 4-digit PIN from the ECU. Once you have the key values, you can create a working HON58RT6 key with a key programmer such as the MVP Pro or TCode Pro.

lsuzu	
Axiom	2003-2005
Rodeo	2003-2005

Steps

1	Remove immobilizer from vehicle and remove board from case	Immobilizer is below the steering column.
2	Launch ID Pro Programmer software and Select IC type	Search: 93C56 Manufac.: MICROCHIP Device: 93C56 (x16) Select IC 93C56 (x16)
3	Clip onto chip and connect to ID Pro	Chip Label:IC2Chip Type:93C46Clip Type:GoKlip or Blue Pomona
4	Read original dump from ECU (verify not all FF's) and save to your computer. You may reinstall the ECU into vehicle.	
5	Launch ID Pro PIN Calculator software, select your make and type, and then select the BIN file you saved in step #4 above to retrieve your PIN.	Pin Calculator PinCalculator Select the make and type. Then choose the Select the make and the make and the make and the Select the make and the make a
6	Use your MVP Pro, TCode Pro or other programming machine to make a working key	

With this method, you can read the 5-digit PIN from the BCM, eliminating the need for a BCM conversion. Once you have the PIN, you can create a working key with a key programmer such as the MVP Pro or TCode Pro.

NOTE: This method may also work on some early 2009 models.

Steps



Nissan 2009-2012 PIN Read

With this method, you can read the 5-digit PIN from the BCM, eliminating the need for a BCM conversion. Once you have the PIN, you can create a working key with a key programmer such as the MVP Pro or TCode Pro.

NOTE: Some early 2009 models may still be on the 2005-2008 system. If using this method on your 2009 model does not work, please try the Nissan 2005-2008 PIN Read method on page 69.

Steps

1	Remove BCM from vehicle and remove board from case (see pic on page 71)	Immobilizer is below the steering column.
2	Launch ID Pro Programmer software and Select IC type	Search: 93C56 Manufac.: MICROCHIP Device: 93C56 (x16) Select IC 93C56 (x16)
3	Clip onto chip and connect to ID Pro	Chip Label:IC2Chip Type:93C46Clip Type:GoKlip or Blue Pomona
4	Read original dump from ECU (verify not all FF's) and save to your computer. You may reinstall the ECU into vehicle.	
5	Launch ID Pro PIN Calculator software, select your make and type, and then select the BIN file you saved in step #4 above to retrieve your PIN.	Pin Calculator PinCalculator Select the make and type. Then choose the Select Make PinCalculator Exit Discalculator Nissan/Infiniti
6	Use your MVP Pro, TCode Pro or other programming machine to make a working key	

A Typical BCM Module

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Nissan / Infiniti BCM Locations

INFINITI	Years	BCM Location
FX35 / FX45	2004-2006	
G20	2000-2002	PIN = 5523
G35	2003-2006	Next to Fuse Panel
130 / 135	2000-2004	PIN = 5523
M45	2006-2008	Driver's Side Kick Panel
QX4	2001-2004	PIN = 5523

NISSAN	Years	BCM Location
350Z	2003-2004	Next to Fuse Panel
	2005-2007	
	2009	Driver side adjacent to fuse block
370Z	2009-2012	Passenger-side under dashboard
Altima	2001-2004	PIN = 5523
	2005-2006	
Armada	2004-2006	
	2009-2012	Driver's side under steering column. Remove lower knee protector to access.

NISSAN	Years	BCM Location	
Cube	2009-2012	Driver's side under instrument lower panel	
Frontier	2009-2012	Driver's side under steering column. Remove lower knee protector to access.	
GT-R	2009-2012	Passenger-side under dashboard	
Maxima	2000-2003	PIN = 5523	
	2004-2007		
	2009-2012	Under instrument panel attached to steering member	
Murano	2003-2006	Under Dash	
	2009-2012	Driver's side behind combination meter	
Pathfinder	2001-2004	PIN = 5523	
	2005-2007		
	2009-2012	Driver's side under steering column. Remove lower knee protector to access.	
Quest	2004-2007		
	2009-2012	Near parking brake pedal assembly	
Rogue	2009-2012	Passenger-side under dashboard near glove box	
Sentra	2000-2006	PIN = 5523	
	2007		
	2009-2012	Behind glove box	
Titan	2004-2007		
	2009-2012	Driver's side under steering column. Remove lower knee protector to access.	
Versa	2007		
	2009-2012	Behind glove box	
Xterra	2009-2012	Driver's side under steering column. Remove lower knee protector to access.	

Can you help with more detailed or current information? Please contact us at wolfcreeklocksmith@hotmail.com.

Saab 93 2003-2009 CIM Reflash (Virginize)

This method will virginize the CIM module, preparing for key programming by an MVP Pro, TCode Pro, GM dealer tool (Tech2) or other supporting programmer.

NOTE: You can see a good video demonstration of the CIM module removal on YouTube here: <u>https://www.youtube.com/watch?v=uhFfhYptL6U</u>

Steps

	•	
1	Remove CIM module from vehicle and remove cover from case	CIM module is located behind the steering wheel.
2	Launch ID Pro Programmer software and Select IC type	Search: 93C66 Manufac.: MICROCHIP Device: 93C66 (x8) Select IC 93C66 (x8)
3	Clip onto chip and connect to ID Pro	Chip Label:N/AChip Type:93C66Clip Type:GoKlip or Blue PomonaSee pic on next page
4	Read original dump from CIM (verify not all FF's) and save to your computer (this is an optional step if you want a backup of your CIM's original state)	
5	Open the new dump	File Name: saabcim.bin
6	Write new dump to the CIM and verify	
7	Reinstall CIM module into vehicle	
8	Register new keys to vehicle	See instructions on next page

Saab CIM Module



Key Registration Procedures

Using Advanced Diagnostics MVP Pro / TCode Pro

- 1. Insert key and turn to the ON position
- 2. In the Immobilizer section, select TYPE 5
- 3. Select LEARN KEY. This will register the key to the vehicle but the car will not start until the immobilizer is married to the ECU.
- With the key still turned to the ON position, plug the OBD2 Resync Tool into the vehicle's OBD2 port.

Need complete, accurate instructions here

VW Cabriolet / Eurovan / Porsche Boxter PIN Read

The VW is a particularly difficult vehicle to pull a PIN from via the OBD2 port. Using this method, you can read the 4-digit PIN from the ECU and then can create a working key with a key programmer such as the MVP Pro or TCode Pro.

Volkswagen		Porsc	he	
Cabriolet	2000-2002	Boxst	er	1998-2001
Eurovan	2000-2003			

Steps

1	Remove immobilizer from vehicle and open case to access board (see pic on next page)	Immobilizer is below the steering column.
2	Launch ID Pro Programmer software and Select IC type	Search: 24C04 Manufac.: MICROCHIP Device: 24C04 Select IC 24C04
3	Clip onto chip and connect to ID Pro	Chip Label:N/AChip Type:24C04Clip Type:GoKlip orBlue Pomona
4	Read original dump from ECU (verify not all FF's) and save to your computer. You may reinstall the ECU into vehicle.	
5	Launch ID Pro PIN Calculator software, select your make and type, and then select the BIN file you saved in step #4 above to retrieve your PIN.	Pin Calculator PinCalculator Select the make and type. Then choose the Select the make and type. PinCalculator PinCal
6	Use your MVP Pro, TCode Pro or other programming machine to make a working key	

Cabriolet Immobilizer



VW 2001-2005 / Audi 2000-2005 PIN Read

The VW is a particularly difficult vehicle to pull a PIN from via the OBD2 port. Using this method, you can read the 4-digit PIN from the ECU and then can create a working key with a key programmer such as the MVP Pro or TCode Pro.

Steps

1	Remove ECU from vehicle and open case to access board (see pics on following pages)	ECU is below the steering column.
2	Launch ID Pro Programmer software and Select IC type	Search: 24C04 Manufac.: MICROCHIP Device: 24C04 Select IC 24C04
3	Clip onto chip and connect to ID Pro	Chip Label:N/AChip Type:24C04Clip Type:GoKlip or Blue Pomona
4	Read original dump from ECU (verify not all FF's) and save to your computer. You may reinstall the ECU into vehicle.	
5	Launch ID Pro PIN Calculator software, select your make and type, and then select the BIN file you saved in step #4 above to retrieve your PIN.	PinCalculator PinCalculator Select the make and type. Then choose the select Make. PinCalculator Make: Audi/Porsche/VW Type:
6	Use your MVP Pro, TCode Pro or other programming machine to make a working key	

Typical VW ECU IMAGE PLEASE

VW Beetle 2000 ECU Location





Photos & Illustrations

ECUs

Some Typical Toyota/Lexus ECUs









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ECU Locations

Toyota/Lexus: Behind the Glove Box



Lexus: Under Hood









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Toyota/Lexus Post-Programming Procedures

Procedure #1

Toyota		Lexus	
4Runner	1998-2001	ES300	1998-2003
Avalon	1998-2003	GS300	1998-2003
Camry	1998-2000	GS400	1998-2000
Highlander	2001-2003	GS430	2001-2003
Landcruiser	1998-2000	IS300	2001-2003
MR2	2001-2003	LS400	1998-2000
RAV4	2002-2003	LX470	1998-2002
Sequoia	2001-2002	RX300	1999-2003
Sienna	1998-2003	SC300	1998-2000
Solara	1998-2004	SC400	1998-2000

To register keys into a new/virginized ECU:

- 1. Security light should be blinking, indicating that the ECU is in registration mode.
- 2. Insert a key into the ignition (do not turn). The security light should now be solid, indicating the key has been registered. Wait 15 seconds. Remove key from the ignition.
- 3. Repeat step #2 once more.
- 4. Insert a 3rd key into the ignition (do not turn). The security light should extinguish after a few seconds. Do not turn the key.
- 5. Remove the key from the ignition. If the security light is still illuminated, pump the brake pedal 5 times to exit registration mode. The first 2 keys are registered as MASTER keys, the last key becomes the VALET key.

Tip: If you would like to program only 1 key, cycle the key through the registration process 4 or 5 times.

Procedure #2

Toyota			Lexus		
4Runner	2003-2004	Ģ	GX470	2003-2004	
Camry V6	2003	L	.S430	2001-2003	
Landcruiser	2003-2004	L	.X470	2003-2004	
Sienna	2004	S	SC430	2002-2003	

To register keys into a new/virginized ECU:

- 1. Security light should be on, indicating that the immobilizer is in Auto Learn Mode.
- Insert a key into the ignition (do not turn). The security light should blink once and then remain solid, indicating the key has been registered. Remove key from the ignition.
- Repeat step #2 3 more times. Removing the 4th key closes auto learn mode. The first 3 keys are registered as MASTER keys, the last key becomes the VALET key.
- 4. Once Auto Learn Mode has been closed, the immobilizer must be resynchronized with the ECU before the car will start. Insert a MASTER key into the ignition switch and turn to the ON position (do not crank the vehicle!).
- 5. Insert the Toyota/Lexus OBD2 Resync Tool (shorts terminal 4 and 13) and start a timer for 30 minutes.
- 6. Once 30 minutes has passed, remove the Resync Tool.
- 7. Turn ignition switch off and remove key.
- 8. Reinsert key and confirm that the vehicle can now be started.

Note: Up to 4 keys may be registered.

Tip: If you would like to program less than 4 keys, Auto Learn Mode must be closed manually: turn ignition switch on and then off 5 times within 10 seconds, then remove the key from the ignition.

Troubleshooting:

- Security light blinking two long blinks followed by one short blink indicates that Auto Learn Mode failed.
- Security light blinking two short blinks followed by two long blinks indicates that a key that had already been registered was reregistered a second time.

Procedure #3

Toyota		Lexus	
Camry	2001-2004	ES330	2004
Corolla	2005-2010	LS430	2004
FJ Cruiser	2010-2012	RX330	2004
Prius	2001-2003		
Sequoia	2003+		
Solara	2003-2004	_	

To register keys into a new/virginized immobilizer:

- 1. Ensure there is no key in the ignition.
- 2. While sitting in driver's seat, close all vehicle doors but do not lock them.
- 3. Insert first master key into the ignition switch (do not turn) and wait 5 seconds.
- 4. Remove key and insert second master key into the ignition switch (do not turn) and wait 5 seconds.
- 5. Remove key and insert a valet key into the ignition (do not turn) and wait 5 seconds.
- 6. Remove key.
- 7. Once Auto Learn Mode has been closed, the immobilizer must be resynchronized with the ECU before the car will start. Insert a MASTER key into the ignition switch and turn to the ON position (do not crank the vehicle!).
- 8. Insert the Toyota/Lexus OBD2 Resync Tool (shorts terminal 4 and 13) and start a timer for 30 minutes.
- 9. Once 30 minutes has passed, remove the Resync Tool.
- 10. Turn ignition switch off and remove key.
- 11. Reinsert key and confirm that the vehicle can now be started.

Tip: If you would like to program less than 3 keys, Auto Learn Mode must be closed manually: turn ignition switch on and then off 5 times within 10 seconds, then remove the key from the ignition.

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Toyota / Lexus OBD2 Quick Reset Tool

4D Transponder Key Programming (TOY44D / TOY50)

- 1. Insert key and turn to the ON position.
- 2. Insert the programmer into the OBD2 port.
- After 6-8 seconds, a short beep will sound confirming that the device has power. After another 6-8 seconds, a series of short beeps will sound identifying the system (unimportant). After another 20 seconds, a long beep will sound.

indicating the vehicle has been placed into programming/learning mode. You may remove the programmer from the OBD2 port.

- 4. Turn the ignition OFF and remove the key.
- 5. Insert the first MASTER key (do not turn) for programming. The security light will illuminate once the key has been recognized. This first key will become a master key.
- 6. Repeat step 5 for the second MASTER and the VALET key. The second key will also become a master key and the third will become the valet key. After the valet key has been programmed, the programming mode will automatically close.
- If you would like to program just 1 or 2 keys, simply turn the ignition ON and OFF 5 times to close the programming mode.

TOYOTA Smart Keymaker

If you have any corrections, suggestions, or contributions for this user manual, please email them to us at <u>wolfcreeklocksmith@hotmail.com</u>.

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