Alfa Romeo / Fiat / Honda

With the Alfa Romeo, Fiat & Honda Delphi immobiliser it is possible to add slave keys directly to the eeprom without affecting the tally to the engine ECU.

See below for key code location.

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0000007F	0	1	2	3	4	5	6	7	8	9	À	В	С	D	E	F	0123456789ABCDEF	-
00000000	06	20	01	20	00	00	AA	55	AA	55	AA	55	AA	55	AA	55	fi _ U _ U _ U _ U _ U	
00000010	AA	55	AA	55	05	FA	AA	55	СЗ	3C	AA	55	AA	55	СЗ	зc	<u>¬ण¬ण,·¬ण⊦<¬ण¬ण⊦<</u>	
00000020	AA	55	AA	55	AA	55	AA	55	AA	55	AA	55	68	30	00	30	-U-U-U-U-U-Uh0 0	
00000030	20	63	AA	55	AA	55	AA	55	AA	55	AA	55	AA	55	AA	55	c-V-V-V-V-V-V-V	
00000040	06	6D	41	8D	86	70	78	ЗD	86	70	14	85	00	00	00	00	´mAìå x=å 'à	
00000050	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00		
00000060	12	12	AA	55	AA	55	AA	55	AA	55	AA	55	AA	55	AA	55	``¬บ¬บ¬บ¬บ¬บ¬บ¬บ	
00000070	AA	55	AA	55	AA	55	AA	55	AA	55	AA	55	AA	55	FF	00	- บ - บ - บ - บ - บ - บ - บ	
00000080]																	
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C:\Research\	OId I	Files	\tem	p\Fia	at\93	346x	x.imn	n				Id	е				- 1	-

By replacing the original code with the code for a known key there is no need for any key programming. Simply edit the buffer, reprogram the eeprom and solder it back on the immobiliser board. Then program the new key to the relevant code. See below for the codes to enter into the eeprom, and the corresponding codes to program the key.

Key type = Megamos 13

Key code	=	Immo code =
RED. BLUE R BLUE	69 40 37 91 76 FC FE 03 69 30 BB F8 F6 61 FE 03 69 30 BB 34 16 FC FE 03	06 6D 41 8D 86 7C 78 3D 86 7C 14 85

Note

It is not possible to add a red key in this way as it affects the tally to the engine ECU. Red code applies only to matched eeprom files with 3 keys already programmed (e.g IAW 49F etc.)

Fiat / Alfa Files

ALFCO4RN.ECU	= ALFA BOSCH ENGINE ECU. 24C04 IN RUN (REMOVE IMMO OR PROG KEYS)
ALFEARLY.IMM	= ALFA EARLY YELLOW IMMO VIRGIN. 93C46 DIL THROUGH THE BOARD.
ALFDELPH.IMM	= ALFA DELPHI IMMO VIRGIN. 93C46 SOIC (SURFACE MOUNT)
ALF22718.IMM	= ALFA 60622718 YELLOW IMMO VIRGIN. 93C46 SOIC.
ALFGTVRN.ECU	= ALFA GTV MC68HC11E1 52 PIN IN RUN FILE.
FIABOSMK.ECU	= FIAT BOSCH ECU. 24C04 3 MASTER KEYS PROGRAMMED
FIABOSRN.ECU	= FIAT BOSCH ECU. 24C04 IN-RUN (REMOVE IMMO OR PROG KEYS)
FIABRAVO.ROF	= FIAT BRAVA / BRAVO 93C46 VIRGIN ROOF REMOTE REMOTE
FIADELMK.IMM	= FIAT DELPHI IMMO. 93C46 3 MASTER KEYS PROGRAMMED.
FIADELVG.IMM	= FIAT DELPHI IMMO. 93C46 VIRGIN FILE (PROG KEYS)
FIA4EFVG.IMM	= FIAT IAW 4EF ECU. 25080 VIRGIN FILE. (PROG 3 KEYS)
FIA49FMK.ECU	= FIAT IAW 49F ECU. 95040 3 MASTER KEYS PROGRAMMED.
FIA49FVG.ECU	= FIAT IAW 49F ECU. 95040 VIRGIN FILE (PROG 3 KEYS)
FIACPERN.ECU	= FIAT COUPE IAW 4WF. 68HC11E1 52 PIN IN RUN FILE. (REMOVE IMMO)
FIAULYRN.ECU	= FIAT ULYSSE IAW 8P22 68HC11A1 52 PIN IN RUN FILE.
FIAYELVG.IMM	= FIAT BOSCH YELLOW IMMO 93C46 VIRGIN FILE. (PROG KEYS)
FIA11111.BSI	= FIAT PUNTO BODY CONTROL UNIT. 93C66 FILE PIN 11111.

FIAT Immobiliser. (Marelli)

Temic 11 key.

The 28 pin device is read as an MC68HC05E6.

The key location varies from unit to unit. As a guide the key data consists of 3 bytes of information, repeated 2, 3, 4 or even 5 times.

Usually on line 010 and 040 towards the end (i.e. address 01E or 01F, 04E or 04F) you will find key data which is only repeated twice.

CHECK AND DOUBLE CHECK THAT THE KEY DATA IS NOT REPEATED ANY-WHERE ELSE !!

And the replace the original data with :-

F0 A5 71

Use the Temic 11 T5 masterchip or enter the following code with RW2,3 or 4 :-

A5 8E 7D 5F 00 00 00 0F A5 8E 7D 5F 00 00 00 0F

FIAT IAW 16F xx type ECU's

The 68 pin PLCC Device is read as an MC68HC11F1

Read the device and then edit line 120 with the following :-

FF FF FF FF FF FF 00 00 FF FF FF FF leave the rest of the line as it is.

This will put the ECU into a condition where it will run the car without the immobiliser connected, or, if you prefer, you can virginise the immobiliser and cycle 3 keys as per factory. If you choose to not use the immobiliser make sure that it cannot be re-connected, as this will re-immobilise the ECU.

2 Key Fiat System

Keys can now be added to the Fiat Punto body control unit in the same way as the earlier Fiat immobilisers.

The device is a 93LC66 and should be programmed as a 93C66x16.

The 1st key is located at address :- 0001-0004 repeated at 01A5—01A8 2nd key 0005-0008 repeated at 01A9—01AC

A genuine Fiat crypto 48 chip is needed (from scrap yard key etc.).

Read the key with T-Prog or RW4 and type the first 4 bytes in reverse order over one of the existing keys in both locations.

i.e.	CA 42 D6 06
Will become	06 D6 42 CA

UPA-USB Device Programmer v1.0 F:\backup\temp\Fiat\punto-contunit-93lc66-pincode-44
File Edit View Format Device Tools Help
U • 🚵 🖬 O O % 🖿 G 🗙 🖓 🚔 🖿 🖿 D D 💯 🗳 🍟
punto-contunit-93lc66-pincode-44812
000000: 02 08 3C 7A 43 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

Key 2

Citroen Relay / Peugeot Boxer

Works in a similar way to the 2 key Fiat system. Device is a 93C56 1st key is located at :- 0000—0003 repeated at 0080—0083 2nd key 0004—0007 repeated at 0084—0087 Reverse the bytes in the same way as the Fiat.

📒 UPA-USB	Device Pr	ogramme	v1.0 F:	\backup\	temp\CITR()EN\relay-9	3lc56-white.imm
File Edit Vi	ew Format	Device To	ols Help				
🛛 🗉 🗕 🖥	a 🔴	• * •		88			部 🛛 🖉 🖓 👘
/ / = =	•						
relay-93lc56-wł	nite						
000000: FC F, 000010: 00 0 000020: 76 3 000030: BA 0 000040: 00 0 000050: 00 0 000060: 00 0 000070: 00 0 000080: FC F, 000090: 00 0 000080: FC F, 000090: 00 0 000000: 31 3 0000E0: 40 4 0000F0: 00 0 000100:	A 33 39 2E 0 00 00 00 6 74 35 8E 0 05 69 26 0 00 00 00 0 00 00 00 0 00 00 00 0 00 00 00 0 00 00 00 4 30 30 33 2 30 33 30 7 2F 14 3B 0 00 00 00	64 7E 39 00 00 00 00 00 C5 3A AC 55 02 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 64 7E 39 00 00 00 00 9E B9 1F AC 55 02 30 33 31 32 31 30 00 00 00 00 00 00 00 00	00 00 00 00 00 00 8E 00 1D 81 C8 68 00 00 00 00 00 00 00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 38 DB 2F 0 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 94 DB 2F 1 00 00 00 35 36 39 3E 2F 46 00 00 00 01 01 AA	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	9. d~9. 51. Å: 1 i & ~ U. 0 9. d~9. 0 ÷ 1 1. 1 i & ~ U. 0 0 3 0 3 1 3 3 0 2 1 0 1 	80/ù. Èh àÙI0/ù. È 3656908 89>/F5×

Alfa Romeo. Immobiliser 606 22718 Adding keys.

93C46 device located next to the relay.

Typical Screen Dump.

The question marks represent the key code.

Replace your original code with :-

1E 21 AA 65 42

Then program key chip to match :-

Philips 33

0F 80 21 2C 42 AA 65 1E 21 BF 40 00 00 00 00 00

BMW EWS Reader	
This adapter is the single 52 pin socket with the BROWN device socket. Device is = MC68HC11EA9 Oscillator Khz speed needs to be set to 8000 Works on 046J and 047J devices. (EWS 2 and 3, 3+)	
📙 UPA-USB Device Programmer v1.0 Untited1 - Modified	
File Edit View Format Device Tools Help	
Untited1 000 k h G × % & ≧ h h h h # [] ♪ ♪ ≍ ◆ B B B B B B B B	
000000: 07 0A 03 0A 0A 04 3F FF 3F 0F 3F 03 3F 34 3F 33 ? ? ? ? ? ? ? ? ? 000010: 06 23 03 24 3F 01 02 14 21 FF FF FF FF FF FF FF FF FF #. \$? ! ; ; ; ; ; ; ; 000020: FF FF FF FF A 0A 01 4A FF #. \$? ! ; ; ; ; ; ; ; 000020: FF 88 38 03 65 02 02 01 FF 05 01 06 55 FF FF FF FF ; ; ! 8 . e ; ; U 000040: FF 55 05 F6 0A 05 5C 20 F3 6F 46 E7 8D AA 54 56 ; U . ö 6 o F c I 000050: 03 02 C8 8E DF 8C C6 FE 68 96 DE A6 55 81 8A 78 E I B I ÆÞ h I Þ ! U 000060: F7 16 94 C1 BF E9 02 04 19 1D 19 94 FF FF FF FF + . I A ¿ é I ; ; 000070: FF FF FF FF 12 58 65 87 F6 87 CF 58 03 04 E3 33 ; ; ; ; ; ; ; U 000080: DE 3E BE C1 21 6I E4 70 A3 D0 B7 D9 74 E8 F4 71 Þ > ¾ A I a ä p £ Đ · U t 000080: DE 3E BE C1 21 6I E4 70 A3 D0 B7 D9 74 E8 F4 71 Þ > ¾ A I a ä p £ Đ · U t 000080: D2 71 C1 C5 7C 73 04 80 20 4F FF FF FF FF FF FF b q Å ÆI s p H ; ; ; ; ; 000000: 52 71 05 70 04 85 B9 19 34 11 51 73 77 B8 78 82 52 dU	4 ? 3 y y y y y y y y y y y y a T V 1 { y y y y a 3 a 3 a 4th used key y y y y a 3 a 4 a 4 a 4 b 7 a 4 c 9 a 3 a 4 b 8 c 9 a 3 a 4 b 9 a 3 a 4 b 9 a 4 c 9 y y y y y y y y

The unused keys have the 12 bytes of revolving code still set as FF, whereas on the used keys the revolving code is in use and contains hex information. Locate the first unused key by looking for the first 12 bytes of FF, the 10 bytes preceding the 12 bytes of revolving code are the fixed code for the key. This should be programmed to a new blank transponder chip, which should then start the car.

Ford Coded access

It is now possible to turn many Ford ECU's from coded access back to timed access to eliminate the need for "In codes".

This works successfully on all late vehicles using the DPC or LP range of ECUs. Which includes Focus, Transit, Transit Connect etc. etc.

You have the option of virginising the ECU, or editing the original file to retain the pump tally on diesel vehicles. This means that you only have to program the keys to get the vehicle running.

Device is a 95040

Modify the File in the following way :-

Address 000C to 0057 should be all 00 00 00 etc.

Line 0060. 00 02 D3 E9 F4 FA FD 00 00 00 00 00 00 00 00 00 00 Line 0070. 00 01 22 20 F1 F8 00 0A 00 00 00 01 22 20 F1 F8 Line 0080. 00 01 22 20 F1 F8

Leave the rest of the file as it is.

Re-program the device and re solder it. You should now be able to program keys by the

UPA-USB Device Programmer v1.0 F:\backup\temp\FORD\dpc805-95040-TRANSIT-CODED-TIMED.ECU	
File Edit View Format Device Tools Help	
PPX+	
dpc805-95040-TRANSIT-CODED-TIMED	
000000: 11 BE 08 CF CF DF A8 23 88 09 28 75 00 00 00 00 . 14. 1 1 B . # . (u	All Devices 👻
	Select a device
	24C01
0000550 00 00 00 00 00 00 00 00 00 00 00	24C02 24C04
0000070 00 12 22 07 F 8 00 4.00 00 00 00 00 00 00 00 00 00 00 00 00	24C08
000080: 00 01 22 20 F1 F8 00 00 00 00 30 06 FF C5 FF FF " ñ e 0. ÿÆÿ ÿ 000090: FF	24C16
	24C256 24C32
00000C0: FF	240512
1000000: FF	25010
0000FC. FF	25C040
	25C080 25C128
000120. FF	250160
000140: 00 00 12 00 03 00 00 00 00 00 00 00 00 00 07	25C320
000160 34 40 08 13 DF 12 85 D2 00 00 32 8D 83 01 00 00 ; @ , B µ 0 1 2 1 1	25C640 7002MN010
	85072
	85C92
	93C06 93C14
	93C46 93C46 v16
	93056
	93057
	93C66 93C66 v16
Unset Over Innumerate Monitor M Programmer not Found 1001 Innumerate Innumerate	Filigrammer [Connections]
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Them.	2200

Jaguar XJ 6

1994—1997 with LNA type security module mounted in the boot, n/s near fuel filler cap

Device is a 93C46. Re-program with the file below, program a Megamos 13 transponder chip with the key data below, and the vehicle will start.

File is JAGLNAMK.IMM

Key Data = **FF 81 34 58 62 6C C6 65** Read with Genie, AD 90 etc. **89 B1 19 97 FD 07 D2 60** Read with RW 2 etc.

VW Audi Skoda Seat Instruments

Most of the VAG Instrument clusters on later cars contain the 4 digit PIN required for programming keys. This information is usually stored in an 8 pin SOIC eeprom mounted on the circuit board. The devices are usually clearly labelled (i.e. 93c66, 93c86, 24c02 etc.) so identifying the correct device is not difficult.

The following pages contain a number of screen shots showing the location of the PIN, and how it is calculated.

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00000100	5F	00	DC	08	FB	OF	00	00	7D	00	С7	08	17	10	CE	00	_ ■、ヘ、 } ╟、゙゙╫
00000110	20	03	7F	OF	58	lF	00	00	OD	01	35	07	FC	0E	FF	FF	L⊡`X, fi5´∽¢l
00000120	28	29	00	01	56	32	95	64	DЗ	96	FF	F4	FF	FF	FF	00	() fiV2òd≝û ſ
00000130	FF	58	80	DC	80	FD	80	FE	80	FF	OF	00	29	80	93	ΒF	XÇ∎ǰÇ∎Ç `)Çôı
00000140	FF	FF	OC	00	FF	80	FF	BF	FF	FF	FF	AA	7F	EC	00	ED	— С Ç л — — — Ф Ф
00000150	00	80	BF	FF	0A	ЗC	8C	DC	00	80	BF	FF	0A	ЗF	9F	FF	Çı <î∎ Çı 2f
00000160	00	80	BF	FF	OC	lE	8F	FF	00	80	BF	FF	OA	ЗF	9F	FF	Çт 🛛 👗 Çт 2.f
00000170	C5	Al	74	47	2E	44	49	49	4C	4C	00	64	14	32	0A	32	+ítG.DIILL d'2 2
00000180	28	28	14	14	05	14	00	FF	7C	В7	FF	FF	FF	FF	FF	FF	(('`,' Im
00000190	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	38	4C	30	39	8109
000001A0	31	30	41	20	41	42	56	44	4F	44	30	36	41	55	54	30	10A ABVDODO6AUTO
000001B0	30	30	39	32	39	30	04	61	2F	65	14	04	61	35	91	E8	009290_a/e'_a5æΦ
000001C0	04	61	31	1A	73	04	61	35	02	9A	FF	FF	FF	FF	FF	FF	_al~s_a5flÜ
000001D0	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FB	9E	√ B.
000001E0	DO	9A	EB	FB	9E	CA	6E	17	FB	9E	CE	E5	8C	FB	9E	CA	⊥Üδ√⊑≞n″√⊑⋕σî√⊑≞
000001F0	FD	65	44	44	22	00	00	96	71	04	Al	80	Al	80	00	14	²eDD″ ûq,íÇíÇ ' 🔽
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Early A3, A4, Skoda etc.

PIN of this vehicle is 0471. Take the 2 pairs of highlighted numbers above (71 04) and swap the pairs around.

Note the address label at the left hand side (000001F0) To arrive at the screen above you will need to scroll to the bottem of the screen dump.

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00000700	51	31	4E	31	2D	2D	FF	36	39	39	38	32	34	30	20	FF	Q1N1 6998240
00000710	36	39	39	38	33	36	36	20	38	4C	30	39	38	30	45	20	6998366 8L0980E
00000720	41	42	44	31	32	FF	41	55	5A	37	5A	30	59	31	35	33	ABD12 AUZ7ZOY153
00000730	36	36	38	34	41	55	5A	37	5A	30	59	31	35	33	36	36	6684AUZ7Z0Y15366
00000740	38	34	41	55	5A	37	5A	30	59	31	35	33	36	36	38	34	84AUZ7Z0Y1536684
00000750	33	EB	16	6D	26	07	F7	7D	26	4C	F5	DB	33	EA	B3	63	3 δຶm ຜ໌≈} & L J ∎ 3 Ω c
00000760	10	11	12	13	14	15	16	17	18	19	1A	1B	10	1D	1E	lF	* * 7 7 7 " " " " " " " "
00000770	CC	14	E9	92	D9	F8	08	82	D9	B3	0A	24	сс	15	4C	9C	ļ⊧'⊙Æ」°´é」 \$ļ″L£
00000780	10	11	12	13	14	15	16	17	18	19	1A	1B	10	1D	lE	lF	* * 7 7 7 " " " " " " " " " "
00000790	41	2A	в7	24	СЗ	BD	09	FF	41	2A	в7	24	СЗ	BD	09	FF	A*n\$ J´A*n\$ J´
000007A0	41	2A	в7	24	СЗ	BD	09	FF	44	44	44	06	06	06	00	00	A*π¢¦lí DDD´´´
000007В0	00	11	10	10	10	00	57	41	55	5A	5A	5A	38	4C	5A	31	···· WAUZZZ8LZ1
000007C0	41	30	30	36	35	30	39	58	59	59	59	59	59	59	59	59	A006509XYYYYYYY
000007D0	59	59	59	59	59	59	59	59	59	59	FF	00	FF	FF	FF	FF	YYYYYYYYY
000007E0	1E	14	FE	25	FE	25	FE	25	FF	43	08	15	0A	AF	7B	FF	.'∎%∎%∎% C′″ »{
000007F0	FF	FF	FF	FF	00	00	5A	02	08	00	01	ΕO	03	04	08	00	Zfl′ fiα ^L , ′
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14

Late Audi A3, A4 A6 etc

The PIN is repeated 3 time on most VAG immobilisers. With the screen dump above the number is FE 25. To arrive at the correct PIN you must swap the pairs around i.e. 25 FE and then convert from hexadecimal. The calculator included in Microsoft Windows is ideal for this. Simply start the calculator program, from the VIEW button select scientific, then highlight the HEX button, type in 25FE and highlight the DEC button. The converted PIN is 9726

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00000066	0	1	2	3	4	5	6	7	8	9	A	в	С	D	E	F	0123456789ABCDEF 📥
00000000	01	OA	00	1C	00	01	EE	00	00	00	00	00	00	00	00	00	fi fie
00000010	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	
00000020	29	4F	1B	1D	24	F9	19	F9	29	4F	14	AF	FF	FF	FF	FF) 0 ~ ~ \$ · ~ ·) 0 [?] »
00000030	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	
00000040	D6	BO	E4	E2	DB	06	E6	06	D6	BO	EΒ	50	FF	FF	FF	FF	π∰ΣΓ∎´μ´π∰δΡ
00000050	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	
00000060	08	06	02	09	04	07	09	08	06	02	09	04	07	09	08	06	í ní lí ní lí
00000070	02	09	04	07	09	FF	FF	FF	33	33	33	06	06	06	00	13	ní_íí 333ííí '
00000080	00	00	00	00	FF	FF	FF	14	28	FF	19	2A	OC	00	10	00	"(~*□ ~
00000090	36	4E	30	39	30	39	39	30	31	20	31	4A	30	39	32	30	6N0909901 1J0920
0A000000	39	30	31	42	20	20	41	34	56	31	36	39	56	57	5A	37	901B A4V169VWZ7
000000B0	5A	30	58	31	37	35	38	38	31	31	84	94	56	57	5A	37	Z0X1758811äöVWZ7
000000000	5A	30	58	31	37	35	38	38	31	31	84	94	56	57	5A	37	Z0X1758811äöVWZ7
000000D0	5A	30	58	31	37	35	38	38	31	31	84	94	FF	FF	FF	FF	Z0X1758811äö
000000E0	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	
000000F0	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	
C:\Research\	old I	Files	\tem	p\V/	N/\g	olf-ns	ec-S	3c8	6.dsł	n		Id	е				

Late Golf, Bora etc

With 93C86 eeprom carries the PIN at the end of the 14 digit immobiliser number. Again repeated 3 times but this time not a hex conversion. Simply read as is i.e. 84 94

🛸 Buffer	Editor														X	
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00000066	0 1 2	3	4	5	6	7	8	9	A	В	С	D	E	F	0123456789ABCDEF 🔺	
00000000	01 00 1	4 BF	00	00	CF	00	00	00	00	00	00	00	00	00	fi '₁ ≟ 🦳	
00000010	00 00 0	0 00	00	00	00	00	00	00	00	00	00	00	00	FF		
00000020	54 3A 5.	1 2F	53	A4	5F	94	54	ЗA	20	С5	FF	FF	FF	FF	T:Q/Sñ_öT: +	
00000030	FF FF F	F FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF		
00000040	AB C5 A	E DO	AC	5B	AO	6B	AB	С5	DF	ЗA	FF	FF	FF	FF	½∔« [⊥] ¼[ák½∔∎:	
00000050	FF FF F	F FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF		
00000060	FF FF F	F FF	OC	80	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	пç	
00000070	FF FF 51	E E4	4D	BF	E2	9A	8B	FF	5E	E4	$4\mathrm{D}$	BF	E2	9A	^ΣΜηΓÜΪ ^ΣΜηΓÜ	
00000080	8B FF 51	E E4	4D	BF	E2	9A	8B	FF	33	33	33	06	06	06	ї ^ΣΜηΓÜΪ 333΄΄	
00000090	1E 13 0.	1 00	03	00	10	10	10	00	14	FF	FF	01	FF	FF	_ fi L *** * fi	
000000A0	FF FF 5	6 57	5A	37	5A	30	41	33	39	30	34	38	30	30	VWZ7Z0A3904800	
000000B0	56 57 5/	A 37	5A	30	41	33	39	30	34	38	30	30	56	57	VWZ7Z0A3904800VW	
000000000	5A 37 5/	A 30	41	33	39	30	34	38	30	30	D2	lF	D2	lF	Ζ7Ζ0Α3904800π.π.	
000000D0	D2 1F 5	7 56	57	5A	5A	5A	33	42	5A	32	45	31	30	36	π. WVWZZZ3BZ2E106	
000000E0	37 31 3/	6 FF	58	58	58	58	58	58	58	58	58	58	58	58	716 XXXXXXXXXXXX	
000000 F 0	58 58 5	8 58	58	10	С9	15	C8	9D	71	CE	E8	F3	E8	F3	XXXXX″╔″╚¥q╫Ф≤Ф≤ 🖕	
C:\Research'	- \Old Files\te	mp\₩	w\p	ass-c	lash	93La	:86-8	3416	-HE>	< Id	е					

VW Passat, Audi A4 A6 etc

Another variation on the 93C86 program. This time the PIN is repeated 3 times at the end of the third 14 digit number. Once again reverse the pairs i.e. D2 1F becomes 1F D2 and the convert to decimal with the calculator. PIN = 8146

🔦 Buffer	Edit	ог															N 100 N 1
File Edit																	
۵ 🖪 🖻	ð	è	#	燲	ĥ	S 1	FF	00									
00000000	0	1	2	3	4	5	6	7	8	9	A	В	С	D	E	F	0123456789ABCDEF 📤
00000000	56	57	5A	36	5A	30	41	33	37	37	30	34	32	35	75	06	₩Z6Z0A3770425u
00000010	ЗА	66	88	C5	4A	DD	72	70	00	80	lE	00	24	15	00	00	:fê∔J∎rp Ç. \$ 📕
00000020	6E	41	03	5A	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	nALZ
00000030	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	
00000040	01	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	fi
00000050	00	00	02	00	00	00	00	00	04	00	01	01	01	00	00	01	fl , fififi fi
00000060	00	00	00	00	OF	80	00	00	00	00	00	00	00	00	00	00	`Ç
00000070	6C	05	6C	05	6C	05	6C	05	6C	05	6C	05	6C	05	6C	05	1,1,1,1,1,1,1,1,1
00000080	00	74	55	00	АЗ	00	64	00	00	00	00	00	00	00	00	00	tU ú d
00000090	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	
04000000	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	
000000B0	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	
000000000	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	
000000000	01	FF	FF	FF	02	00	2E	FF	FF	FF	FF	FF	FF	FF	FF	FF	fi fl.
000000E0	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	02	n
000000F0	00	95	00	07	00	00	00	00	E8	03	57	56	57	5A	5A	5A	ò 🔶 🗣 L W V W Z Z Z 🖵
C:\Research\	.0Id I	Files'	\tem	p\V\	w\cl	nass	golf	dasł	n 24a	:08-s	ilver	re Id	е				

Late Golf etc. 24C08

PIN not repeated 3 times. Swap the pairs i.e. 75 06 becomes 06 75, Then use calculator to convert from hex. PIN = 1653

🚸 Buffer	Edit	or															
File Edit																	
🗁 🔜 🛅 🥜 🏘 🗠 💫 FF 00																	
00000000	0	1	2	3	4	5	6	7	8	9	À	в	С	D	E	F	0123456789ABCDEF 📥
00000000	СВ	CD	8E	FD	8E	FD	8E	FD	57	73	57	73	57	73	28	51	<mark>〒</mark> =Å º Å º Å º WsWsWs (Q
00000010	56	57	41	33	33	30	32	39	35	33	00	00	00	00	01	36	VWA3302953 fi6
00000020	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	
00000030	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	ЗF	2
00000040	45	09	45	09	45	09	45	09	45	09	45	09	44	09	44	09	E´E´E´E´E´D´D´
00000050	40	01	AF	03	70	56	30	38	82	10	36	90	28	20	00	00	@fi» LpVO8é 6É (
00000060	85	05	00	00	OF	00	07	02	lE	80	19	2A	00	05	25	01	à, `´fl,Ç″≭_%fi
00000070	03	99	31	4A	30	39	32	30	39	30	35	45	20	52	42	38	LÖ1J0920905E RB8
00000080	04	7B	OF	04	66	СО	7C	04	26	00	81	86	38	ЗB	04	FF	.{`.f└ .& üå8;.
00000090	80	35	10	10	OF	04	19	03	5A	6A	78	8C	Al	во	BA	BE	Ç5 ^{~~} `, ~∟Zjxîí∰∥∃
04000000	78	04	64	26	61	05	32	4B	73	7C	82	00	5A	5A	A6	В4	x_d&a_2Ks∣é ZZª┥
000000B0	5B	10	40	80	01	0A	19	32	64	FE	00	00	00	00	00	00	[[*] 0Çfi ~2d∎
000000000	99	97	81	A9	OF	03	00	40	7E	07	D6	FE	18	FF	FF	FF	Öùü⊢`L 0~´π■~́
000000000	53	5C	2C	19	FA	04	84	84	00	80	BF	FF	02	35	9A	FF	۵~•,ää Ç _٦ fl5Ü
000000E0	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	
000000F0	00	00	00	00	80	BF	FF	00	00	FF	FF	12	11	11	02	96	Çı 🥍 flû 🚽
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16

VW Golf etc. 24C02

The PIN is repeated 3 times. Swap the 2 pairs i.e. 57 73 becomes 7357 and read as is, no conversion.

🦠 Buffer	Edit	or															
File Edit																	
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00000000	0	1	2	3	4	5	6	7	8	9	A	в	С	D	E	F	0123456789ABCDEF 📥
00000000	09	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	
00000010	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	
00000020	32	F3	во	AC	32	F3	CA	20	FF	FF	FF	FF	FF	FF	FF	FF	2≤∰ ₩2≤≞
00000030	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	
00000040	CD	OC	4F	53	CD	0C	35	DF	FF	FF	FF	FF	FF	FF	FF	FF	= 0 0 \$ = 0 5 •
00000050	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	
00000060	07	09	03	06	00	08	08	07	09	03	06	00	08	08	07	09	
00000070	03	06	00	08	08	FF	85	E6	86	E6	86	E6	86	E6	86	E6	ւ՛՛՝ ծրցրցիցի
00000080	86	E6	86	E6	86	E6	10	62	00	00	00	00	11	01	04	01	åµåµåµ`b fi_fi
00000090	00	64	22	22	22	28	80	00	6E	9C	6E	9C	00	13	80	00	d"""(Ç n£n£ [°] Ç
000000A0	DC	05	06	00	В2	03	BF	0E	BF	0E	04	07	01	00	00	00	■.´ ∰└┐♬┐♬.´fi
000000B0	DA	02	10	04	00	00	00	00	00	04	С2	01	0A	OF	OF	lE	гfl, дтfi``.
000000000	DA	02	03	06	FF	19	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	rfilí ~
000000000	ЗA	2D	06	01	F8	FE	00	00	00	01	A 9	Α5	2 A	ЗB	05	01	:- ́fi°∎ fi⊢Ñ*; fi
000000E0	36	39	39	33	38	35	32	43	36	39	39	35	36	33	31	00	6993852C6995631
000000F0	00	00	76	72	76	72	76	72	9E	04	С9	00	00	2E	A9	2B	vrvrvrE, F · - + 🚽
C:\Research\	.0Id I	Files	\tem	p\W	//\le	e-se	at-93	Bc66.	dsh			Id	е				

Seat Ibeza etc. 93C66

Repeated 3 times. Swap the pairs and read as is. i.e. 76 72 becomes 7276

VW / AUDI FILES

VWTDIVG.ECU = VW TDI ECU 24C04 VIRGIN FILE

All other files are for reference, and or recovery of corrupt program.

EARLY VW Immobiliser box.

Device = MC68HC05B6

PIN Number is located at address 091 & 092 (191 & 192, 193 &194 if using the developer board) then repeated at 093 & 094 i.e.

09 BD 09 BD

hex convert. = 2493

VW Valeo immobiliser.

Device = 24C04

PIN is located at :

66 & 67 112 & 113 1BE & 1BF

Reverse the pairs and hex convert.

Engine ECU 2001+ Audi, VW, etc. 24C04 device

Diesel engines from 2001 on with 24C04 device.

Read the chip and check for the 14 digit security number and VIN. If these are located in the right hand (ASCII) display, then the PIN will be located at 12E-12F and then repeated at 160-161. Reverse the pairs and hex convert.

Engine ECU 2001+ Audi, VW etc. 95040 device

Diesel engines from 2000 with 95040 device.

PIN is located at 32-33 and repeated below at 42-43. Reverse the pairs and hex convert

PEUGEOT CPH IMMOBILISER PIN NUMBERS.

DEVICE IS AN ST95040 or 93C66

THE PART NUMBER (PRINTED ON THE CPH LABEL) IS LOCATED AT ADDRESS 023. IF IT READS CORRECTLY THEN READ THE NUMBER AS IS. i.e 1B 0E 06 22 = RE6Y

IF THE PART NUMBER DOES NOT READ CORRECTLY, THEN THE HEX DUMP NEEDS TO SWAP BYTE. THIS MEANS THAT EACH 2 PAIRS OF NUMBERS NEED TO BE SWAPPED AROUND.

E.G.

01 41 03 02 C1 04 22 1D BECOMES:-41 01 02 03 04 C1 1D 22

READ PIN NUMBER AFTER BYTE SWAP - NOT BEFORE !!!!

THE PIN NUMBER IS LOCATED 3 TIMES AT ADDRESS :-

0DD - 0E0 15D - 160 1DD - 1E0

AFTER READING THE 4 BYTES FOR THE PIN CODE, USE THE TABLE BELOW TO DECODE THE PIN.

0=00	I=12
1=01	J=13
2=02	K=14
3=03	L=15
4=04	M=16
5=05	N=17
6=06	O=18
7=07	P=19
8=08	Q=1A
9=09	R=1B
A=0A	S=1C
B=0B	T=1D
C=0C	U=1E
D=0D	V=1F
E=0E	W=20
F=0F	X=21
G=10	Y=22
H=11	Z=23

ROVER FILES

ROV25RN.ECU	= ROVER 25 ECU 93C66 IN RUN FILE
ROVMEM19.ECU	= ROVER MEMS 1.9 93C46 IN RUN FILE (CUT PIN 13)
ROV220TD.ECU	= ROVER 220 TDI FBW 93C46 EDGE OF BOARD IN RUN FILE
ROV220TE.ECU	= ROVER 220 TDI FBW 93C46 MIDDLE OF BOARD IN RUN
ROV400RN.ECU	= ROVER 400 DIESEL ECU 93C46 IN RUN FILE
ROV825RN.ECU	= ROVER 825 V6 MEMS 2J 93C66 IN RUN FILE
ROVMEM16.ECU	= ROVER MEMS 1.6 PT No MNE10127 93C46 IN RUN CUT13
ROV	
ROVMETRN.ECU	= ROVER METRO MNE101270BA 93C46 IN RUN FILE
ROVMGFRN.ECU	= MGF VVC ECU 93C66 IN RUN FILE
ROVMGZRN.ECU	= MGZ ECU 93C66 IN RUN FILE
ROVMEM2J.ECU	= ROVER MINI DUEL PORT 93C66 IN RUN FILE

ROVER 600/800 + Honda . Valeo box

Device is MC68HC05B6

Address line 10 (110 if using developer board). Should be 10 bytes of information. 1st 5 are key No.1. the 2nd 5 bytes are key No. 2.

i.e. If 10 bytes = 0A 01 02 03 04 -- 05 06 07 08 09

To program the Phillips 33 key. Prefix the 1st 5 bytes with FF FF F5. i.e.

Key No 1 = FF FF F5 0A 01 02 03 04 FF FF F5 0A 01 02 03 04

WRW MRW			
COM5 3.11 T	ransmission test	nguage English	About.
Type C 11 Temic 1/32 C 12 Temic 1/40 C 13 Megamos C 33 Philips C 20 T5 C 40 Ph CRYPTO/GM	7E 3D 42 AC 10 00 43 26 7E 00 TIRIS format: 7E BC 42 35 08 00 00 0 00 00	TRANSPONDER TO WRITE C T5 C PCF7931 C TEMIC C TEXAS	
C 41 Ph CRYPTO/NISSAN C 42 Ph CRYPTO/VAG C 44 Ph CRYPTO			PCF7930/31/35
C 45 Ph CRYPTO/PG			PCF7936 HITAG2
C 48 Megamos CRYPTO	Add	to list	MEGAMOS CRYPTO
4C Texas C 4D Texas CRYPT0			T5
C 4E Texas CRYPT02 C 73 Philips	I U		TEXAS DST
Identify and read	Read type	Read result	Write
	Transponder li	ist	
(c)		•	
Model Type ID C	ode		Note
▶ magna T5 33 00 0	0 80 03 42 39 5F 36 A8 F	F FF FF 46 B9 00 00	enter hex code
	Change	<u>a</u>	Insert

To Add a key to a Toyota ECU or Immobiliser

Read the key to be added in a Genie, RW4 or similar. Note the first 5 bytes of the "TIRIS FORMAT" data.

Ν

Now place the bytes in the following order :- 3rd, 2nd, 5th, 4th.

E.g. 7E BC 42 35 08 will become

42 BC 08 35. This is the information that you will use to replace one of the existing keys with when you read the ECU or Immobiliser dump.

Toyota / Lexus 4C VVTI.

Some of the vvti ECU's split the key data into 2 pairs of bytes. Read the transponder in TIRIS format as with the previous example. The bytes are swapped in the same way. i.e 3rd, 2nd, 5th, 4th. So in the screen dump below the TIRIS read for the first master key (outlined in red) would be 7E 7A 79 63 01 xx xx xx xx . The first 2 bytes to enter in the ECU would be the 3rd, and then second i.e. 79 7A. These would be entered over the top of the first 2 bytes of the first master key.

The second pair of bytes are entered in the same way, but over the top of the existing bytes in the lower red box.

It is essential that the new key information is entered in the correct place. If you put the first 2 bytes over the top of key 1, and the second pair of bytes over the top of key 2 or 3 IT WILL NOT WORK!!



VAUXHALL / OPEL FILES

VAU012VG.ECU	= VAUXHALL 0281010012 ECU 24C04 VIRGIN FILE
VAUOMERN.ECU	= VAUXHALL OMEGA 0261203272 ECU 24C02 IN RUN FILE
VAUVECDE.ALM	= VAUXHALL VECTRA DELPHI ALARM 93C46 VIRGIN
VAUVECVG.GBX	= VAUXHALL VECTRA B/BOX ECU 24C02 VIRGIN



Vauxhall early immobiliser (up to 1999) PIN number follows chassis number in the text. It is always repeated twice.

VOLVO,

Early models with Renix ECU

These units can be put into a running condition without the immobiliser.

The 52 pin PLCC device should be read as an MC68HC11E9-old

Files are in the relevant folders.