# RENAULT

### **Technical Note 6008A**

### XXXX

# SUMMARY OF ENGINE IMMOBILISER SYSTEMS

This note cancels and replaces Technical Note 3474A

77 11 329 022 MARCH 2009 Edition Anglaise

"The repair procedures given by the manufacturer in this document are based on the technical specifications current when it was prepared.

The procedures may be modified as a result of changes introduced by the manufacturer in the production of the various component units and accessories from which his vehicles are constructed."

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Summary of engine immobiliser systems and their main characteristics:

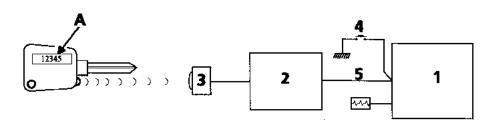
- Infrared remote control with fixed code for petrol engines,
- Infrared remote control with fixed code for diesel engines,
- Infrared remote control with rolling code for petrol engines,
- Infrared remote control with rolling code for diesel engines,
- KEY for petrol engines (without infrared remote control),
- KEY for diesel engines (without infrared remote control),
- KEY and infrared remote control with rolling code for petrol/diesel engines,
- Coded engine immobiliser (V2),
- Coded engine immobiliser (V3).

#### **REMINDER**

Follow the procedure given in Technical Note 3315E to obtain the troubleshooting and repair codes.

	INFRARED REMOTE CONTROL WITH FIXED CODE FOR PETROL ENGINES (7 keys)					
		et Generation te control with fixed code (V1)**	1 <sup>s</sup> t Generation infrared remote control with timed fixed code (V1T)			
VEHICLES	from	from note		note		
CLIO	07/94	2197	10/94	2238		
R 19	05/93	MR 293	10/94	2238		
R 21	01/92	MR 291	-	-		
LAGUNA	02/94	MR 307	09/94	2238		
SAFRANE	01/93	1923	10/94	2238		
SPECIAL NOTES		$\downarrow$	↓			
CODE CARD		yes	yes			
DIAGNOSTIC TOOL		no	no			
IDENTIFICATION		-	-			
MERA*		no	15 minutes			
RED WARNING LIGHT		no	no			
MANUAL CODE	Trip	Computer button	Trip Computer button			
PROGRAMMING		no	no			
RESYNCHRONISING REMOTE CONTROLS		no	no			
TROUBLESHOOTING		<b>↓</b>	<b>↓</b>			
PROCEDURE IN EVENT	The customer h	as the code card.	The custome	er has the code card.		
OF ENGINE IMMOBILISER SYSTEM FAILURE	instructions.	or entering the code is in the	The procedure for entering the code is in the instructions.			
(remote control, infrared receiver or decoder unit)	The customer c help.	an rectify the fault without	The customer can rectify the fault without help.			

- \* Automatic start after switching the ignition off.
- \*\* For infrared remote control engine immobilisers with fixed codes, only the timed decoder unit (V1T) is available as a spare part.



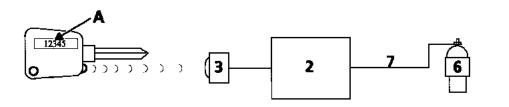
- 1 Injection computer
- 2 Decoder unit
- 3 Infrared receiver
- 4 Trip Computer button
- 5 Coded line

PRN8204

A Example of marking

	INFRARED REMOTE CONTROL ENGINE IMMOBILISER WITH FIXED CODE FOR DIESEL ENGINES (4 keys)					
	<u> </u>	t Generation e control with fixed code (V1)**	1 <sup>s</sup> t Generation infrared remote control with time fixed code (V1T)			
VEHICLES	from	note	from	note		
LAGUNA	07/94	2136	09/94	2238		
SAFRANE	05/93	1952	09/94	2238		
SPECIAL NOTES		<b>↓</b>		$\downarrow$		
CODE CARD		no	no			
DIAGNOSTIC TOOL		no	no			
IDENTIFICATION		-	-			
MERA*		no	15 minutes			
RED WARNING LIGHT		no	no			
MANUAL CODE		none	none			
PROGRAMMING		no	no			
RESYNCHRONISING REMOTE CONTROLS		no	no			
MARKING		5 digits	5 digits			
TROUBLESHOOTING		<b>↓</b>	<b>↓</b>			
PROCEDURE IN EVENT	No procedure.		No procedure.			
OF ENGINE IMMOBILISER SYSTEM FAILURE	Direct feed to ele	ectrical solenoid (+ 12 V).	Direct feed to electrical solenoid (+ 12 V).			
(remote control, infrared receiver or decoder unit)						

- \* Automatic start after switching the ignition off.
- \*\* For infrared remote control engine immobilisers with fixed codes, only the timed decoder unit (V1T) is available as a spare part.



- 2 Decoder unit
- 3 Infrared receiver
- 6 Electrical solenoid
- 7 + After ignition after infrared remote control
- A Example of marking

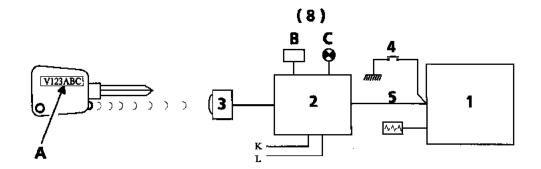
PRN8205



	INFRARE	INFRARED REMOTE CONTROL ENGINE IMMOBILISER WITH ROLLING CODE FOR PETROL ENGINES (7 keys)					PETROL ENGINES	
	infrared		t Generati ontrol with	ion n rolling code (V1')	2 <sup>nd</sup> Generation infrared remote control with rolling code (V2)			
VEHICLES	fitted	from	note	additional notes	fitted	from	note	additional notes
TWINGO	-	-	-	-	X (a)	01/95	2330	2377/2751
EXTRA	X (b)	04/95	2407	2914	X (b)	04/95	2407	2914
CLIO	X (a) or (b)	04/95	2376	2753 / 2914	X (b)	01/96	2497	2914
R 19	X (a)	03/95	MR 293	MR 293/2914	-	-	-	-
MEGANE	-	-	-	-	X (c)	11/95	MR 312	3315
LAGUNA	X (a)	01/95	2324	2914	X (b)	05/95	2324	2910/2914
SAFRANE	X (a)	02/95	2300	2379/2914	-	-	-	-
ESPACE (J63)	X (b)	04/95	2338	2463 /2914	-	-	-	-
TRAFIC	X (b)	10/95	2489	2914	-	-	-	-
SPECIAL NOTES			<b>↓</b>		↓			
CODE CARD			no		no			
DIAGNOSTIC TOOL			yes		yes (except TWINGO)			
IDENTIFICATION			N°39			(a)	N°39 / (b) N	°45
MERA*			10 min**		10 min**			
RED WARNING LIGHT	no (e:	xcept ESPA	ACE (J63)	and some CLIOs	yes			
MANUAL CODE	(a) Trip C		b) button cult finding t	entral door locking or ool	(a) Trip Computer / (b) button central door locking or fault finding tool / (c) central door locking			
PROGRAMMING			yes				yes	
RESYNCHRONISING REMOTE CONTROLS			yes				yes	
MARKING		7 characters: 1st = P, V or R			(b) 7 chai	racters: 1st racters: 1st racters: 1st	= P, V or R	
TROUBLESHOOTING			<b>↓</b>				↓	
PROCEDURE IN EVENT OF ENGINE IMMOBILISER SYSTEM FAILURE (remote control, infrared	The code		ntered by t	ne code card. he repair agent. Do code***.	The code	must be en	not have the stered by the of the code	repair agent. Do not
receiver or decoder unit).								

- \* Automatic start after switching the ignition off.
- \*\* 1 minute for the UK and Belgium.
- \*\*\* The procedure for the ESPACE (J63) is in the instructions. The code is entered by the repair agent and must be given to the customer.

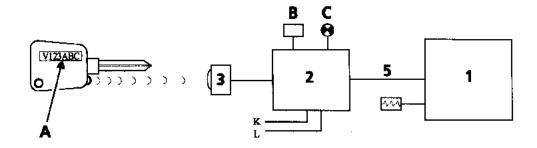
#### **V1' INFRARED REMOTE CONTROL**



PRN8206

- A Example of marking
- or P123ABC or R123ABC
- 1 Injection computer
- 2 Decoder unit
- 3 Infrared receiver
- 4 Trip Computer button (except ESPACE (J63))
- 5 Coded line
- 8 Only on ESPACE (J63) and some CLIOs
- **B** Electric door lock button (central door locking)
- C Red immobiliser warning light

#### **V2 INFRARED REMOTE CONTROL**



PRN8207

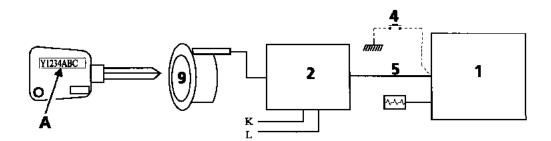
- A Example of marking
- or P123ABC or R123ABC or W123ABC or S12AB
- 1 Injection computer
- 2 Decoder unit
- 3 Infrared receiver
- 5 Coded line
- **B** Electric door lock button (central door locking)
- C Red immobiliser warning light



	KEY RECOGNITION ENGINE IMMOBILISER SYSTEM FOR PETROL ENGINES (WITHOUT INFRARED REMOTE CONTROL) (7 keys)					IGINES			
		1 <sup>s</sup> t Generation KEY recognition (V1)				2 <sup>nd</sup> Generation KEY recognition (V2)			
VEHICLES	fitted	from	note	additional notes	fitted	from	note	additional notes	
TWINGO	-	-	-	-	X (a) or (b)	01/95	2330	2751/3022	
CLIO	Х	04/95	2376	2753	X (d)	01/96	2497	-	
KANGOO	-	-	-	-	X (b)	10/97	MR 325	-	
MEGANE	-	-	-	-	X (d)	11/95	MR 312	-	
LAGUNA	Х	11/95	2517	-	X (d)	11/95	2517	-	
MASTER (XD0)	-	-	-	-	X (b)	10/97	MR 323	-	
SPECIAL NOTES			<b>↓</b>				<b>↓</b>		
CODE CARD			no				no		
DIAGNOSTIC TOOL			yes		yes				
IDENTIFICATION			N°38		(a) and (d) N°38 / (b) N°56				
MERA*			10 s		10 s				
RED WARNING LIGHT			no		yes				
MANUAL CODE	Т	rip Comput	er button c	or MS 511-01	button: (a) Trip Computer / (d) code or fault finding tool / (b) central door locking				
PROGRAMMING			yes		yes				
RESYNCHRONISING REMOTE CONTROLS			no		no				
MARKING		8 cha	aracters: 1	st = Y	8 cha	aracters: 1s	st = (a) and (	(d) Y / (b) E or A	
TROUBLESHOOTING			↓				1		
PROCEDURE IN EVENT OF ENGINE IMMOBILISER SYSTEM FAILURE (key head, antenna/ transponder ring or decoder unit).	The customer does not have the code card.  The procedure for entering the code is not in the instructions.  The code is entered by the repair agent and must be given to the customer.			(a) and (c) the instru door lock The code given to electric do (b) The prinstruction	I) The procedure for code or c	ept MEGAN by the repair er (except M tton). or entering th ntry by fault	tering the code is in E without electric agent and must be IEGANE without the code is not in the finding tool only).		

<sup>\*</sup> Automatic start after switching the ignition off.

V1 KEY

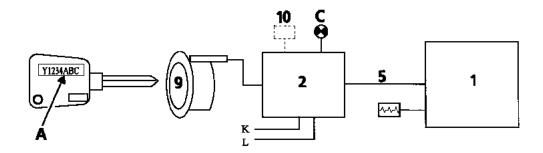


PRN8208

Example of marking

- Injection computer
- Decoder unit
- Trip Computer button (if fitted)
- Coded line
- Transponder ring

V2 KEY



PRN8209

- Example of marking Α
- Red immobiliser warning light

- 1 Injection computer2 Decoder unit
- 5 Coded line
- 9 Antenna/transponder ring10 Code button



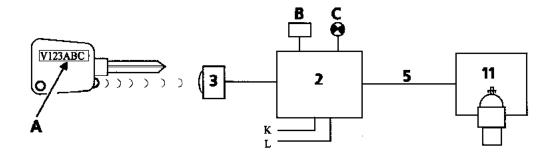
### INFRARED REMOTE CONTROL ENGINE IMMOBILISER SYSTEMS WITH ROLLING CODE OR KEY RECOGNITION FOR DIESEL ENGINES

		RECOGNITION FOR DIESEL ENGINES (4 or 7 keys according to coded solenoid valve shielding)							
	2 <sup>nd</sup> Ge	2 <sup>nd</sup> Generation infrared remote control with rolling code (V2)				2 <sup>nd</sup> Generation KEY recognition (V2)			
VEHICLES	fitted	from	note	additional notes	fitted	from	note	additional notes	
EXTRA	X (a)	01/96	2474	2507/2568/2914	-	-	-	-	
KANGOO	-	-	-	-	X (b)	10/97	MR 325	-	
CLIO	X (a)	12/96	2474	2507/2568/2914	X (d)	12/95	2474	2507/2547/2568	
MEGANE	X (b)	01/96	MR 312	2507/2547/2568	X (d)	01/96	MR 312	2507/2547/2568	
LAGUNA	X (a)	09/95	2474	2507/2568	X (d)	11/95	2474	2507/2568	
SAFRANE	X (a)	10/95	2474	2507/2568	-	-	-	-	
ESPACE (J63)	X (a)	09/95	2474	2507/2568	-	-	-	-	
TRAFIC	X (a)	01/96	2474	2507/2914	-	-	-	-	
MASTER (XD0)	-	-	-	-	X (b)	10/97	MR 323	-	
SPECIAL NOTES			<b>\</b>		<b>↓</b>				
CODE CARD			no		no				
DIAGNOSTIC TOOL			yes		yes				
IDENTIFICATION		(a)	N°39 / (b) N	l°45	(d) N°38 / (b) N°56				
MERA*			10 s**				10 s		
RED WARNING LIGHT			yes				yes		
MANUAL CODE	(a) elect	(a) electric door lock button or fault finding tool/ (b) central door locking				) (d) code button or fault finding tool/ (b) fault finding tool			
PROGRAMMING		yes					yes		
RESYNCHRONISING REMOTE CONTROLS		ye	es (with cod	e)	no				
MARKING		7 character 5 character	rs: 1st = P, \ rs: 1st = S	/ or R	1	8 character	rs: 1st = (d) `	Y/(b) E or A	

TROUBLESHOOTING	↓	<b>↓</b>
PROCEDURE IN EVENT OF ENGINE IMMOBILISER SYSTEM FAILURE  (remote control or key head, infrared receiver or antenna/ transponder ring or decoder unit)	The customer does not have the code card.  The procedure for entering the code is in the instructions.  The code must be entered by the repair agent. Do not inform the customer of the code.	The customer does not have the code card.  (d) The procedure for entering the code is in the instructions (except MEGANE without electric door lock button).  The code is entered by the repair agent and <b>must be given</b> to the customer (except MEGANE without electric door lock button).  (b) The procedure for entering the code is not in the instructions (code entry by fault finding tool only).  The code must be entered by the repair agent. Do not inform the customer of the code.

- \* Automatic start after switching the ignition off.
- \*\* 1 minute for the UK and Belgium.

#### Infrared remote control with rolling code



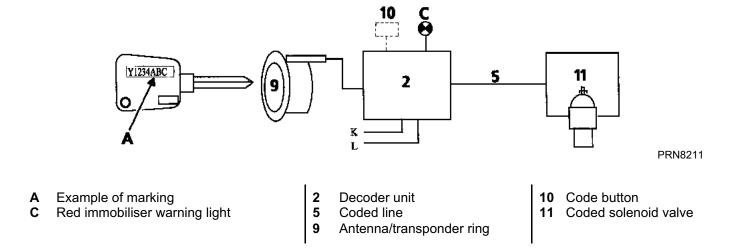
A Example of marking

or P123ABC or R123ABC or S12AB

- B Electric door lock button (central door locking)
- C Red immobiliser warning light
- 2 Decoder unit
- 3 Infrared receiver
- **5** Coded line
- 11 Coded solenoid valve

PRN8210

#### **KEY** recognition

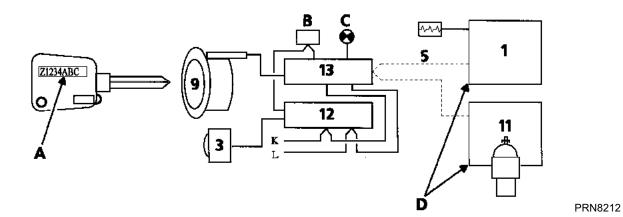




	INFRARED REMOTE CONTROL AND KEY ENGINE IMMOBILISER SYSTEMS WITH ROLLING CODE FOR PETROL/DIESEL ENGINES (7 keys)							
	2 <sup>nd</sup> Ge		EY box and	d infrared remote d (V2)	2 <sup>nd</sup> Generation single unit (dual-functional) (V2) or decoder unit			
VEHICLES	fitted	from	note	additional notes	fitted	from	note	additional notes
TWINGO	-	-	-	-	X (b)	12/99	3361	3429/3546/3560
CLIO II	-	-	-	-	X (b)	03/98	MR 337	3018/3248/3391/ 3532
KANGOO	-	-	-	-	X (b)	10/97	MR 325	3118/3391/3546/ 3560
LAGUNA	-	-	-	-	X (a)	01/97	-	2958
SAFRANE	Х	09/96	2624	2728	X (a)	01/97	-	2878/2958
ESPACE (JE0)	х	09/96	MR315	2754	X (a)	01/97	2754	3028/3057/3101/ 3441/3623
MASTER (XD0)	-	-	-	-	X (b)	10/97	MR 323	3118/3546/3560
SPECIAL NOTES			<b>\</b>		↓			
CODE CARD			no		no			
DIAGNOSTIC TOOL			yes		yes			
IDENTIFICATION	KEY decoder unit N°38/infrared remote control N°39				N°56			
MERA*			10 s		10 s			
RED WARNING LIGHT			yes		yes			
MANUAL CODE	Elect	tric door loc	k button or	fault finding tool	(a) electric door lock button or fault finding tool / (b) fault finding tool			
PROGRAMMING			yes		yes			
RESYNCHRONISING REMOTE CONTROLS	Infrared i	remote con	trol: yes (wi KEY: no	th code or short-cut)	In	frared remo	ote control: y KEY: no	ves (short-cut)
MARKING		8 ch	aracters: 1s	st = Z	8	3 character	s: 1st = (a) 2	Z / (b) E or A
TROUBLESHOOTING			$\downarrow$				$\downarrow$	
PROCEDURE IN EVENT OF	The custo	omer does i	not have the	e code card.	The custo	omer does	not have the	e code card.
ENGINE IMMOBILISER SYSTEM FAILURE		The procedure for entering the code is in the instructions.			(a) The procedure for entering the code is in the instructions.			ne code is in the
(key head, antenna/ transponder ring or decoder unit).			ntered by the o	ne repair agent. Do code.		is entered he custome		r agent and must be
		st vehicles		synchronising	. ,		or entering the ntry by XR2	ne code is not in the 5 only).
		), the secur ising code.	ny code is (	different from the	The code must be entered by the repair agent. Do not inform the customer of the code.			

<sup>\*</sup> Automatic start after switching the ignition off

#### Separate KEY/infrared remote control decoder units

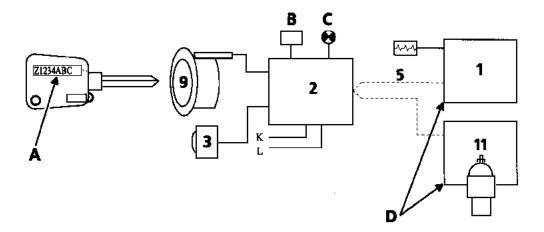


- A Example of marking
- B Electric door lock button (central door locking)
- **C** Red immobiliser warning light
- D Injection computer (1) or the coded solenoid valve (11).
- 1 Injection computer
- 3 Infrared receiver
- 5 Coded line
- 9 Antenna/transponder ring
- 11 Coded solenoid valve
- 12 Infrared remote control decoder
- 13 KEY decoder



PRN8213

Dual-function unit, single decoder unit, multi-timer unit\* or BII\*\*



- A Example of marking
- **B** Electric door lock button (central door locking)
- C Red immobiliser warning light
- **D** Injection computer (1) or the coded solenoid valve (11).
- 1 Injection computer
- 2 KEY/infrared remote control decoder unit
- 3 Infrared or radio frequency remote control receiver
- 5 Coded line
- 9 Antenna/transponder ring
- 11 Coded solenoid valve

- \* Multi-timer unit
- \*\* Intelligent connection unit

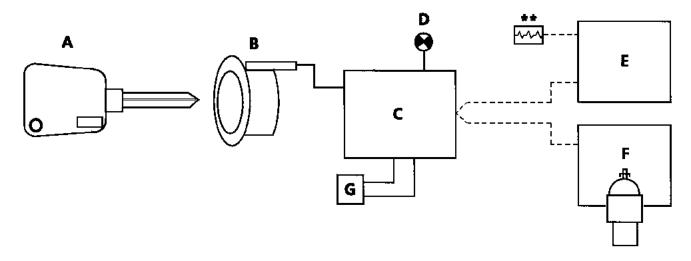
**NOTE:** On some Twingos, the remote control receiver is integrated in the antenna/transponder ring (**C**). It functions in the same way as the key recognition engine immobiliser system. See **Technical Note 3361A**.

	CODED IMMOBILISERS WITH KEY RECOGNITION SYSTEM (V2)						
VEHICLES	from	note	additional notes				
MEGANE	09/98	-	3080/3088/3089/3156/3228/3668				
AVANTIME	10/02	MR 350 / MR 352	-				
SPECIAL NOTES			<b>↓</b>				
CODE CARD			no				
DIAGNOSTIC TOOL			yes				
IDENTIFICATION		64					
MERA*	10 s						
RED WARNING LIGHT	yes						
MANUAL CODE		Diagnostic tool					
PROGRAMMING			yes				
RESYNCHRONISING REMOTE CONTROLS		Rem	note control: yes KEY: no				
MARKING			None				
TROUBLESHOOTING			↓				
PROCEDURE IN EVENT OF ENGINE IMMOBILISER SYSTEM FAILURE (key head, antenna/ transponder ring or decoder unit).	The security code no longer exists but has been replaced by a repair code allocated to the vehicle for life during manufacture.  This repair code is required in after-sales in order to:  add or replace a key,  de-register one or more keys,  replace a UCH or a decoder unit.						

<sup>\*</sup> Automatic start after switching the ignition off.

#### **WARNING**

A complete set (decoder unit or UCH and key heads) cannot all be replaced at the same time, as the parts are sold uncoded.



15357R

- A Engine immobiliser key with or without remote control
- **B** Immobiliser transponder ring
- C Decoder unit or UCH (according to equipment)
- **D** Red immobiliser warning light
- **E** Injection computer (petrol or direct diesel injection)
- F Diesel coded solenoid valve (without direct diesel injection)
- **G** Diagnostic socket
- \*\* This warning light is not operational on all vehicles (see Technical Notes) Wiring diagram).



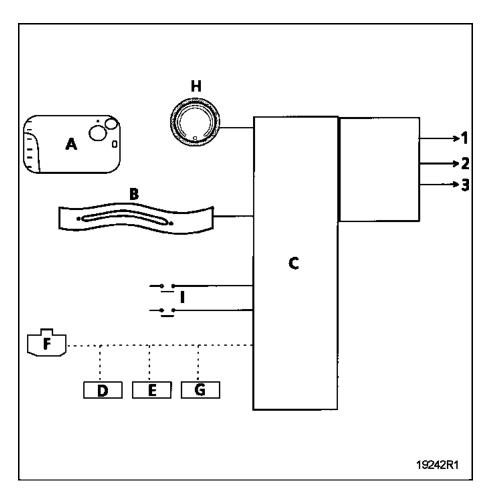
### CODED ENGINE IMMOBILISER SYSTEMS WITH KEY/CARD RECOGNITION SYSTEM (V3)

	STSTEW (V3)					
VEHICLES	from	note	additional notes			
LAGUNA II	01/00	MR 339 / MR 341	-			
TRAFIC II	06/01	Workshop Repair Manual 342 / 344	-			
CLIO II	06/01	Workshop Repair Manual 345/347/ 348	3561/3681			
TWINGO (vehicles equipped with a UCH)	01/02	-	3594			
KANGOO (multiplexed vehicles)	06/02	-	3629/3641/3643			
KANGOO (phase II)	02/02	-	3732 (Provisional Technical Note)			
MEGANE II	10/02	MR 364 / MR 366	-			
SCENIC II	06/03	MR 370 / MR 372	-			
VEL SATIS	02/02	MR 353 / MR 355	-			
ESPACE IV	10/02	Workshop Repair Manual 361 / Workshop Repair Manual 363	-			
MASTER (phase II)	06/03	-	-			
MASTER Propulsion (Mascott)	02/03	MR 356	-			
SPECIAL NOTES			↓			
CODE CARD			no			
DIAGNOSTIC TOOL			yes			
IDENTIFICATION			-			
MERA*			10 s			
RED WARNING LIGHT			yes			
MANUAL CODE		D	iagnostic tool			
PROGRAMMING			yes			
RESYNCHRONISING REMOTE CONTROLS			no			
MARKING	None					
TROUBLESHOOTING			↓			
PROCEDURE IN EVENT OF ENGINE IMMOBILISER SYSTEM FAILURE (card, card reader, electric steering column lock, UCH).	The security code no longer exists but has been replaced by a repair code allocated to the vehicle for life during manufacture.  This repair code is required in after-sales in order to:  adding or replacing RENAULT Cards or keys,  deallocating one or more RENAULT Cards or keys,  replace a UCH.					

<sup>\*</sup> Automatic start after switching the ignition off.

#### IMMOBILISER WITH KEY/CARD RECOGNITION SYSTEM (V3)

Example: LAGUNA II



- A RENAULT Card
- B RENAULT Card reader containing the engine immobiliser receiver
- **C** UCH and relay fuse box
- **D** Red immobiliser warning light (instrument panel)
- E Injection computer (petrol or diesel)
- F Electric steering column lock
- **G** Diagnostic socket
- **H** Engine start/stop button
- I Clutch pedal and gearbox neutral position sensor
- ---- Multiplex connection
- Wire connection
- 1 + accessories position (accessories feed)
- 2 + after ignition feed position
- 3 Starter motor supply

#### **SUMMARY OF TECHNICAL NOTES**

Number	Contents
1923	Infrared remote controlled engine immobiliser with alarm
1939	This note has been cancelled and replaced by Workshop Repair Manual <b>291</b> (Renault 21 discontinued)
1952	Infrared remote controlled engine immobiliser with alarm
2136	This note deals with special notes of Lagunas fitted with a coded solenoid valve
2171	This note has been cancelled and replaced by Workshop Repair Manual 293 (Renault 19 discontinued)
2197	This note contains information on special notes of the engine immobiliser system (unlocking of doors and starting authorisation controlled by infrared remote control)
2238	Engine immobiliser development, automatic start after 15 min
2300	This note contains information on special notes on the infrared remote controlled engine immobiliser with rolling code fitted on the Safrane
2320	This note has been cancelled and replaced by Workshop Repair Manual 293 (Renault 19 discontinued)
2324	This Technical Note contains information on the infrared remote control engine immobiliser system 1 <sup>st</sup> and 2 <sup>nd</sup> generations on the Laguna
2330	This note contains information on Twingo engine immobiliser systems  - Infrared remote controlled engine immobiliser system  - Coded KEY immobiliser system
2338	This note contains information on special notes on the infrared remote controlled engine immobiliser with rolling code which is being fitted to the Espace range
2376	The infrared remote controlled system with rolling code and the coded KEY engine immobiliser system are both fully explained in this note
2377	This note contains the fault finding charts for the infrared remote controlled engine immobiliser system with rolling code and the coded KEY recognition system fitted on the Twingo range
2378	This note has been cancelled and replaced by Workshop Repair Manual 293 (Renault 19 discontinued)
2379	This note contains the fault finding charts for the infrared remote controlled engine immobiliser system with rolling code fitted on the Safrane range
2407	This note contains information on the infrared remote control engine immobiliser system 1 <sup>st</sup> and 2 <sup>nd</sup> generations, plus fault finding
2463	This note completes Technical Note <b>2338A</b> dated March 1995. It contains the fault finding charts used for Espace owner customer complaints about engine starting faults, confirmed by the red engine immobiliser warning light located on the courtesy light console.
2474	This note contains information on the 2 <sup>nd</sup> generation Bosch pump diesel engine immobiliser systems  – Infrared remote controlled engine immobiliser system  – Coded KEY immobiliser system
2489	Infrared remote control engine immobiliser rolling code 1st generation for the Trafic

#### **SUMMARY OF TECHNICAL NOTES**

Number	Contents
2497	This note contains information on the Bosch and Lucas petrol and diesel pump engine immobiliser systems for petrol and diesel engines
2507	This note is an erratum for note <b>2474</b> and Workshop Repair Manual <b>312</b>
2517	This note deals with coded KEY immobiliser systems  – 1 <sup>st</sup> generation  – 2 <sup>nd</sup> generation
2547	This note deals with special notes on diesel Lucas injection pumps fitted with a coded solenoid valve
2568	Methods of replacing electronics casing and coded solenoid valve assemblies fitted to the Bosch and Lucas injection pumps
2624	This note contains special notes on 2 <sup>nd</sup> generation coded KEY immobiliser systems for Safrane phase II
2725	This note has been cancelled and replaced by note 2958A
2728	This Technical Note is a rectification of note 2624A
2751	Bottom of the range Twingos can now be fitted with a new control bar with 12 indicator lights.
2754	This note deals with coded KEY and infrared remote control engine immobiliser systems fitted on the new Espace (JE0X)
2784	This note has been cancelled and replaced by note 2914A
2878	Development of single decoder unit: Safranes are being fitted with new decoder units which can operate with either infrared transmitters or remote control
2910	In order to improve this function, all vehicles with Valéo remote control for door locking are now to be fitted with an infrared transmitter with continuous transmission.
2914	This note contains information on the development of decoder units on 1 <sup>st</sup> and 2 <sup>nd</sup> generation infrared remote controlled engine immobiliser systems with rolling code (V1' and V2)
2958	General methods for coded KEY and infrared remote control engine immobiliser systems and relevant fault finding procedures
2965	Modification of multi-timer unit on the Clio II

#### **SUMMARY OF TECHNICAL NOTES**

Number	Contents
3018	Engine immobiliser fault finding erratum note
3028	Special notes on the BII unit (Espace JE0)
3089	Radio frequency remote control for Méganes sold in Japan
3156	CODED KEY engine immobiliser: the security code no longer exists but has been replaced by a repair code allocated to the vehicle for life during manufacture
3228	Radio frequency remote control and automatic door locking on Méganes
3248	Radio frequency remote control on the Clio II
3315	New procedure for issuing engine immobiliser and radio codes
3361	Phase II Twingos will from now on be fitted with an electric central door locking when driving system and new dual-function key heads
3391	From now on, the Kangoo and Clio II will be fitted with a system for locking doors when driving. The engine immobiliser and radio frequency remote control functions stay the same
3429	Twingo radio frequency receiver integrated in the starter ring
3441	Special notes of the phase I' Espace (JE0X)
3532	Fault finding of the multi-timer unit (Clio)
3546	Fault finding engine immobiliser (Twingo/Kangoo/Master/Mascott)
3560	Fault finding of the multi-timer unit (Clio) and decoder unit (Twingo/Kangoo/Master): programming procedures
3561	Run a fault finding test on the UCH (Clio)
3594	Run a fault finding test on the UCH (Twingo)
3623	Special notes on fault finding (Espace JE0)
3629	Special notes for multiplex vehicles (Kangoo)
3641	Fault finding on multiplex vehicles: engine immobiliser (Kangoo)
3643	Fault finding on multiplex vehicles: connection unit (Kangoo)
3668	Fault finding configurations and UCH programming (Megane)
3681	Special notes on Clio V6 phase II
3732	Electrical special notes on Kangoo phase II (provisional note)

Workshop Repair Manuals	Vehicle
291	Renault 21 discontinued
293	Renault 19 discontinued
307	Laguna
312	Mégane
315	Espace
323	Master
325	Kangoo
337	Clio II
339-341	Laguna II
342-344	Trafic II
345	Clio II phase II
348	Clio II fitted with L7X engine
350-352	Avantime
353-355	Vel Satis
356	Mascott
361-363	Espace IV
364-366	Mégane II
370-372	Scenic II