Audi MQB Gearbox Replacement Guide

Description:

Here we take DQ200-MQB Gearbox as an example, replace its ECU and finish the settings.

Tools Requirement:

X-431 Pad V and X-431 G3

Software Requirement:

Audi V28.70 and above, IMMO PROGRAM V10.02 and above.

A Brief Introduction:

There are two kinds of gearbox ECU replacements, and the customer can choose one of them according to the actual situation.

- The data of the customer's original vehicle gearbox ECU is readable. Data is not damaged, and the gearbox can be cloned. In this situation, we just need to back up the original gearbox EEPROM and FLASH, and then restore them into the gearbox ECU for replacement.
- The data of the customer's original vehicle gearbox ECU is unreadable or the data is damaged. In this situation, we need to back up the EEPROM of the ECU for replacement, and then manually input the original CS code or get the original CS code from the original key.

Operation Steps:

Situation 1: the customer's original vehicle gearbox data is readable and the data is not damaged, the gearbox can be cloned.

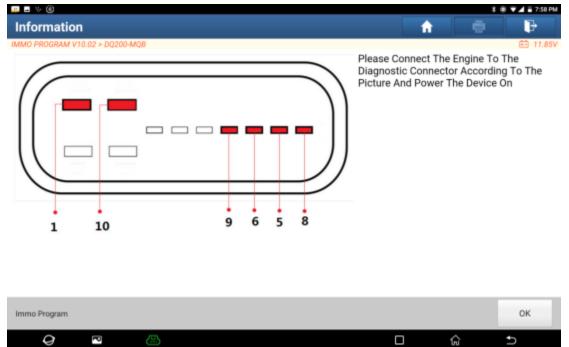
1. Enter [Service Function], find [IMMO PROGRAM], then [Anti-Theft Key Matching Adaptor].

III II IV (B)			* *	8 🐨 🖌 🖬 7:53 PM
Show Menu		t de la companya de l	•	₽
IMMO PROGRAM V10.02 > Anti-Theft Key Matching Adaptor				11.85V
EEPROM	Engine			
Gearbox	Key			
SCM (Single Chip Microcomputer)				
Immo Program				
Q 🔤 🚳			ົດ	•

2. Select [Gearbox], and then select Gearbox type according to the specific model, here we choose [DQ200-MQB] to enter the function menu. As shown in the below figure:

	\$ 🐵 🐨 ⊿ 🖬 7:53 PM
Show Menu	A 🖶 🕑
IMMO PROGRAM V10.02 > DQ200-MQB	🛱 11.85V
Connect	Backup EEPROM Data
Back Up FLASH Data	Restore EEPROM Data
Restore FLASH Data	Disconnect
View Wiring Diagram	
Immo Program	
Q 🖻 🙆	

 Click [View Writing Diagram], follow the connection diagram to connect the original car gearbox ECU with the anti-theft programmer(X-431 PROG3) and diagnostic equipment, click [OK], the connection diagram and physical diagram are as shown in the following figure:

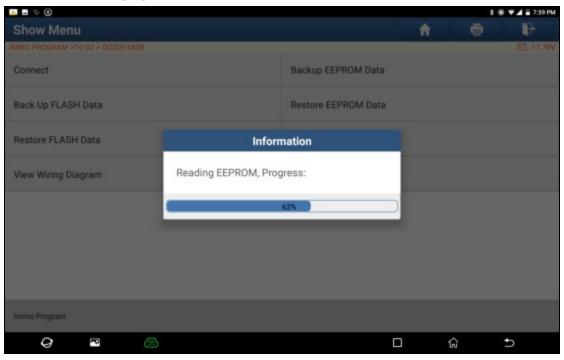




4. Click [Connect], click [OK] after reading the chip ID of the original car gearbox, as shown in the figure:

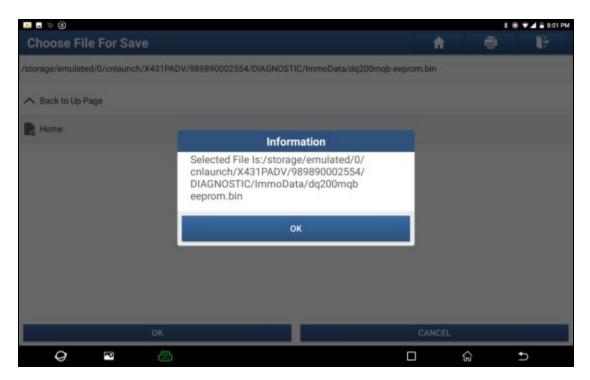
					*	● ▼▲ ■ 7:59 PM
Show Menu				f		F
IMMO PROGRAM V10.02 > D0200-M	ee.					🖴 11.70V
Connect			Backup EEPROM Dat	a		
Back Up FLASH Data			Restore EEPROM Da	ta		
Restore FLASH Data		Informa	ation			
View Wiring Diagram	Chip ID: 00000000	016A00172820	5001027FAF600			
		ок				
Immo Program						
Q 🖻	3				ŵ	Ð

5. Click [Backup EEPROM Data] in this menu interface, read the EEPROM data of the original car gearbox, enter the file name to be saved, click [OK], select the path where the file is to be stored, and click [OK] to save. As shown below:



)													8.6	€ ▼⊿ 🖬 8:01 PM
Show	Menu											ŧ			F
IMMO PROG	RAM VIO	12 > DQ2	BOM-00			A	nti-Ti	heft Func	tion						E3 11.80V
Connect				Р	lease I	nput T	he Sa	aved File N	lame:						
				dq2	00mqb <u>e</u>	eprom									
Back Up	FLASH D	ata													
Destaura	FLASH D				C	ANCEL			0	K					
Restore	FLASH D	ata		-				List	Ameet						
				W	/eldon			seldom		De	Leon				\$
q	w	2	е	r	4	t	5	y 6	u	7	i	0	9	р	G
	а	S	(d	f		g	h		j	k		I		•
+	z	:	х	(C	۷		b	n		m	!		?	+
?123	,														۵
Ģ	?	P	e	3									ŵ		⊽ 🖪

💷 🖬 👳 🛞			* 6	8 🐨 🖌 🖬 8:01 PM
Choose File For Save		î	•	₽
/storage/emulated/0/cnlaunch/X431PADV/989890002554/DIAGNOSTI	C/ImmoData/dq200mqb eeprom.	bin		
A Back to Up Page				
B Home				
ок	c	ANCEL		فسيست
0 🖻 🕀			G	Ð



📖 🖬 🐃 🛞					8 🖲 🕶 🛋 🖥 8:01 P
Choose File For Save			A		F
/storage/emulated/0/cnlaunch/X43	1PADV/989890002554/DIAGNOSTI	C/ImmoData/dq200mqb ee	prom.bin		
A Back to Up Page					
R Home					
	Inform	nation			
	Data Backup Succeede	bd			
	0	ĸ			
•	(CANCEL	_	_
Q 🖻	5		0	ଜ	÷

- 6. Click [Backup FLASH Data] to back up the FLASH data of the original vehicle gearbox, and the operation is the same as above.
- 7. Click [Disconnect] to disconnect the original vehicle gearbox, and then disconnect the original vehicle gearbox from the BENCH mode line.
- 8. Connect the gearbox ECU for replacement to the anti-theft programmer according to the steps 3 and 4.
- 9. After connecting the gearbox ECU for replacement, click [Restore EEPROM Data] on the function menu interface of DQ200-MQB, select the EEPROM data backed up in step 5, and click [OK] to write the EEPROM data of the original vehicle gearbox In the new gearbox, as shown in the figure:

🚚 🖬 👳 🛞		1	🛞 🛡 🖌 🖥 8:07 PM
Choose File	A	•	P
/storage/emulated/0/cnlaunch/X431PADV/989890002554/DIAGNOSTIC/ImmoDate	a/dq200mqb eeprom.bin		
A Back to Up Page			
Home			
📄 dq200mqb flash.bin			
dq200mqb eeprom.bin			
P dq200.bin			
P 24cD43.bin			
24c042.bin			
24c04.bin			
ОК	CANCEL		
9 •		ŵ	Ð

				\$ ® ♥⊿ ≣ 8:35 P
Choose File		ft		F
/storage/emulated/0/cnlaunch/X431F	ADV/989890002554/DIAGNOSTIC/ImmoData/dq200mqb eepro	m.bin		
A Back to Up Page				
R Home				
📄 dq200mqb flash.bin	Information			
📭 dq200mqb eeprom.bin	Data Successfully Restored!			
📄 dq200.bin	ОК			
24c043.bin				
24c042.bin				
24c04.bin				
ок		CANCEL		
Q 🖻 🖉]	ŵ	÷

10. Click [Restore FLASH Data] to write the FLASH data of the original vehicle gearbox backed up in step 6 into the gearbox ECU for replacement. The operation steps are the same as step 9, as shown in the following figure:

# = ÷ ®			\$ @ ¥ 🖌 🖬 8:13 PM
Choose File	î	•	F
/storage/emulated/0/cnlaunch/X431PADV/989890002554/DIAGNOSTIC/Im	nmoData/dq200mqb flash.bin		
A Back to Up Page			
Home			
dq200mqb flash.bin			
dq200mqb eeprom.bin			
📑 dq200.bin			
24c043.bin			
24c042.bin			
24c04.bin			
ок	CANCE	L.	
Q P (3)		ŵ	Ð

🚚 🖬 👳 🛞					\$ @ V = 8:12 P
Choose File			ft ft) F
/storage/emulated/0/cnlaunch/X431	PADV/989890002554/DI	AGNOSTIC/ImmoData/dq20)mqb flash.bin		
A Back to Up Page					
R Home					
🖪 dq200mqb flash.bin		Information			
dq200mqb eeprom.bin	Restoring		- 64		
📄 dq200.bin		34%			
P 24c043.bin	-				
24c042.bin					
📭 24c04.bin					
ок			CANCE	L	
Q 🖻 👶	3		0	ŵ	Ð

💴 = V 🛞				18 🔻	A 🗟 8:13 PM
Choose File			ft -		₽
/storage/emulated/0/cnlaunch/X43	IPADV/989890002554/DIAGNOSTIC/Imme	Data/dq200mqb flash.bin			
A Back to Up Page					
R Home					
📄 dq200mqb flash.bin	Information				
📄 dq200mqb eeprom.bin	Data Successfully Restored!				
📄 dq200.bin	ок				
24c043.bin					
24c042.bin					
24c04.bin					
0)			ANCEL		
0 2	3		ଜ	Ð	

Situation 2: The data of the customer's original vehicle gearbox ECU is unreadable or the data is damaged. In this situation, we need to back up the EEPROM of the ECU for replacement (we call it new gearbox ECU here), and then manually input the original CS code or get the original CS code from the original key.

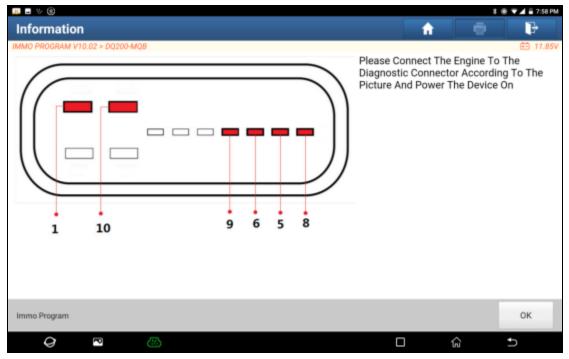
1. Enter "Service Function", find "IMMO PROGRAM", and choose [Anti-Theft Key Matching Adaptor].

		3 🛞 🛡 🖌 🖬 7:53 F
Show Menu		h 🖶 🕞
MMO PROGRAM V10.02 > Anti-Theft Key Matching Adaptor	-	E 11.85
EEPROM	Engine	
Gearbox	Кеу	
SCM (Single Chip Microcomputer)		
mmo Program		

2. Select [Gearbox], and then select Gearbox type according to the specific model, here we choose [DQ200-MQB] to enter the function menu. As shown in the below figure:

🚥 🖬 🔍 🛞	*	8 🔻 🛋 🖬 7:53 PM
Show Menu	÷ •	ŀ
IMMO PROGRAM V10.02 × DQ200-MQB		🛅 11.85V
Connect	Backup EEPROM Data	
Back Up FLASH Data	Restore EEPROM Data	
Restore FLASH Data	Disconnect	
View Wiring Diagram		
Immo Program		
9		Ð

3. Click [View Writing Diagram], then connect the new gearbox ECU with X-431 PRO G3, X-431 Pad V as the below image.



4. Then click [Connect], click [OK] after read out the ID of the new gearbox ECU chip.

📖 🖬 👳 🛞				8.6	8 🕶 🖬 7:59 PM
Show Menu			A		F
IMMO PROGRAM V10.02 > DQ200-MQ	18	1			E3 11.70V
Connect		Backup EEPROM Data			
Back Up FLASH Data		Restore EEPROM Data			
Restore FLASH Data		Information			
View Wiring Diagram	Chip ID: 0000000016A0	01728206001027FAF600			
		ок			
Immo Program					
0 8	8		о (2	5

5. Click [Backup EEPROM Data] in this menu, read the EEPROM data of the new gearbox, enter the file name to be saved, click [OK], select the path where the file is to be stored, and click [OK] to save, as shown in the figure below Show:

				* (B 🔻 🖬 7:59 PM
Show Menu			f		F
IMMO PROGRAM V10.02 > D0200-MQB					E 17.28V
Connect		Backup EEPROM Da	ta		
Back Up FLASH Data		Restore EEPROM Da	ta		
Restore FLASH Data					
View Wiring Diagram	Reading EEPRO	DM, Progress:			
		62%			
Immo Program					
Q 🖻	8		D	ŵ	Ð

🚚 🖬 🐃 🛞				_			_	_		8 🖤 🖌 🖬 8:01 PM
Show M	enu							ft -		F
IMMO PROGRA	M V10.02 > DQ2	00-MQ8		Anti-T	heft Funct	tion				E3 17.80V
Connect			Please	Input The S	aved File N	ame:				
			dq200mqb g	eprom						
Back Up FL	ASH Data									
Restore FL	ASH Data		C	ANCEL		ок				
RestorerE	AGH Data				Disco	(ineut				
			Weldon		seldom	De	Leon			\$
q '	W 2	е	r 4	t	у 6	u 7	i	°	p	Ø
а	S	d	f	g	h	j	k	I		0
+	z	x	с	v	b	n	m	!	?	+
?123	, I									۹
0	P	四					П	ŵ		

<u>"</u> = v (8)			8	® ♥⊿ = 8:01 PM
Choose File For Save		f		F
/storage/emulated/0/cnlaunch/X431PADV/989890002554/DIAGNOST	IC/ImmoData/dq200mqb eepro	m.bin		
A Back to Up Page				
Home				
ок		CANCEL		
Q 🖻 📇)	ŵ	ъ

📖 🖬 👳 🛞			*	8 V 4 = 8:01 P
Choose File For Sav		A		₽
/storage/emulated/0/cnlaunch	/X431PADV/989890002554/DIAGNOSTIC/ImmoData/dq200m	qb eeprom.bin		
A Back to Up Page				
Po Home	Information			
	Selected File Is:/storage/emulated/0/ cnlaunch/X431PADV/989890002554/ DIAGNOSTIC/ImmoData/dq200mqb eeprom.bin			
	ок			
	ок	CANCEL		
0 2	8		ଜ	5

💷 🖬 👳 🛞				*	© ▼⊿ = 8:01 PM
Choose File For Save			f		F
/storage/emulated/0/cnlaunch/X43	1PADV/989890002554/DIAGNOSTI	C/ImmoData/dq200mqb ee	prom.bin		
A Back to Up Page					
R Home					
	Inform	nation			
	Data Backup Succeede	ed			
	0	к			
0	K		CANCEL		
0 🖻	3			ŵ	5

6. Exit the [Special Function], enter the local diagnosis, enter the Volkswagen software, select [Special Function]>>[Anti-Theft Function], click [OK], enter the main menu of the anti-theft system, select [MQB Instrument], click [OK]. Select [Replacement Of Parts]>>[Transmission], click [OK], click [YES] to enter the gearbox replacement page, as shown in the figure:

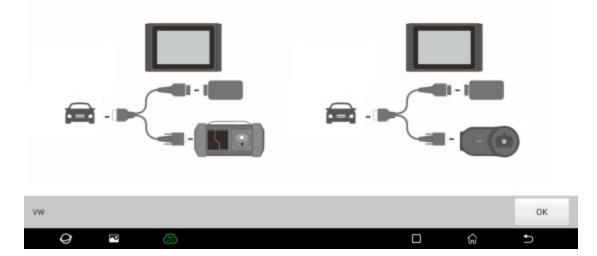


\mu 🖬 👳 🛞	🗣 🕏 🐨 🖬 8:57 PM
Show Menu	A - B
VW V28.70 > Menu	🖽 11.96V
Reset Service	Brake Pad Change 🥡
Throttle Learning	Steering Angle Learning
Diesel Engine Special Function	Battery Matching
Anti-Theft Function	Air Suspension Matching
Headlamp Adjustment	Dealership Code
Transport Mode	Airbag Reset
Enable/Disable Start-Stop	Electronic Water Pump Started
vw	
Q 🖻 📇	

💷 🖬 🤟 🛞		9 X B	🛡 🛋 🖥 8:57 PM
Show Menu	^		ŀ
VW V28.70 > Menu	(🗈 11.94V
2nd And 3rd Generation Immobilizer	4th Generation Immobilizer		(i)
5th Immobilizer	MQB Instrument		
Engine	Online IMMO Matching		
One-Button Key Learning			

vw						
Ģ)	P	(()		ŵ	5
🚚 🖬 👳 (8	8)				9 8	🐵 🔻 🖬 8:58 PM
Inform	natio	n		f		ŀ
VW V28.70	> Menu					🗈 11.94V

Please simultaneously connect the diagnostic connector and anti-theft programmer (please connect according to the left diagram if the name of anti-theft programmer is G3; and connect according to the right diagram if it is G1)



💷 🖬 🔟 🛞		• *	8) 🖤 🖌 🖥 8:58 PM
Show Menu	÷	•	ŀ
VW V28.70 > Menu			🖽 17.95V
Key Learning			
Replacement Of Parts			

W										
0	P	8					ŵ		Ð	
🛄 🖬 👳 🛞								•		a:58 PM
Show Men	าน					1		•		ŀ
VW V28.70 > Repla	acement Of Parts		1						E	3 11.95V
Instrument				Engine						
Transmission				Steering Co	lumn Lock					

vw					
0	P	3		ភ	Ð

					9 8	🐵 💎 🖌 🖥 8:58 PM
Show Menu				ft		F
VW V28.70 > Replacement Of	Parts					🖹 11.93V
Instrument			Engine			
Transmission			Stearing Column Look			
		Information				
	For T 1. Tra 2. Ant	Groups Of Anti-The he Replacement Of nsmission Engine ti-Theft Data Of The her To Continue?				
		NO	YES			
w						
Q P	8				ភ	Ð

th Generation Engli V28.70 > 5th Generation Engine	10 × 1		ft	E 1
ote: ere Users Can Input Or Modi ick [Edit1] To Edit The Anti-T ansmission ick [Edit2] To Edit The Anti-T rhicle	heft Data Of External	Immobilizer Data Of External Transmission	Anti-Theft Data O	f Target Vehicle
\$				
5				
S				
S Edit1	Edit2	Start Replacem		Return

7. Select [Edit1], click [NO], click [Obtain From EEPROM Data], select the new gearbox EEPROM data backed up in step 5, and click [OK], as shown in the figure:

					9 %	🖲 🔽 🖬 8:58 PM
5th Generation Engli	ne		ft			ŀ
VW V28.70 > 5th Generation Engine Note:						🖽 11.93V
Here Users Can Input Or Modif Click [Edit1] To Edit The Anti-Ti Transmission Click [Edit2] To Edit The Anti-Ti Vehicle	heft Data Of External Trans	bilizer Data Of External mission	Anti-The	t Data O	f Target	Vehicle
	1	nformation				
CS	Whether To Load	Data Of Replaced IMMO?				
	NO	YES				
Edit1						m
vw						
Q 🖻	8			ଜ		Ð

💷 = V 🛞		♥ \$ @ ♥⊿ = 8:58 P		
Show Menu	^		ŀ	
VW V28.70 > Transmission			🖽 11.93V	
Manual Input Data				
Obtain From EEPROM Data				

VW						
0	P	8		ଜ	Ð	

💴 🖬 🁳 🛞		9 3	🛞 🛡 🖌 🖥 8:59 PM
Choose File	ń	•	F
/storage/emulated/0/cnlaunch/X431PADV/989890002554/DIAGNOSTI	C/ImmoData/dq200mqb eeprom.bin		
A Back to Up Page			
Home			
📄 dq200mqb flash.bin			
📄 dq200mqb eeprom.bin			
📄 dq200.bin			
P 24c043.bin			
24c042.bin			
24c04.bin			
ок	CANCE	L	
<i>Q</i> ^R (5)		ŵ	Ð

8. Click [Edit2], if you have obtained the relevant data of the original vehicle gearbox from other equipment, select [Manual Input Data] and enter the 16-byte CS code of the original vehicle gearbox, as shown in the figure below: (Note: If there is no anti-theft data of the target vehicle, select [Original Vehicle Key Obtained], put the original vehicle key in the anti-theft programmer G3, and just follow the information prompts to complete, no need to enter any data to complete the replacement)

💴 🖬 👳 🛞		8.6	8 🐨 🖬 🖥 9:00 PM
Show Menu	A	•	₽
VW V28.70 > 5th Generation Transmission			🖽 11.93V
Original Vehicle Key Obtained			
Manual Input Data			



show Menu						ft -	ē	F
W V28 70 > 5th Generation Transmissio		Inf	ormation					EE 17.92
Original Vehicle Key Obtained		Please Input The 16-Digit CS Of The Target Vehicle Transmission:						
Manual Input Data)		_					
	C	ANCEL		ок				
	_	1	_		_	_		4
q w e	r 4	t	у	u 7	i	0	р	Ø
a s	d f	g	h	j	k	I		0
★ Z X	с	v	b	n	m	!	?	+
?123								9
Q P (ଜ		▽ 0

Note: Here Users Can Input Or Modify The Anti-Theft Data Click [Edit1] To Edit The Anti-Theft Data Of External Transmission Click [Edit2] To Edit The Anti-Theft Data Of The Target Vehicle	5th Generation Engine w v28.70 > 5th Generation Engine		n 🖶 🕞
Click [Edit1] To Edit The Anti-Theft Data Of External Transmission Initiation Click [Edit2] To Edit The Anti-Theft Data Of The Target Vehicle Anti-Theft Data Of Target Vehicle Click [Edit2] To Edit The Anti-Theft Data Of The Target Vehicle A0657E00355B9C92F1DFE08749E D5F8238AC05B470A81E3CF6A1E CS A0657E00355B9C92F1DFE08749E D5F8238AC05B470A81E3CF6A1E	Note:		
2B669 03D19	Here Users Can Input Or Modify The Anti-Theft Data Click [Edit1] To Edit The Anti-Theft Data Of External Transmission Click [Edit2] To Edit The Anti-Theft Data Of The Targe Vehicle	Transmission	Anti-Theft Data Of Target Vehicle
	s		

9. Click the [Start Replacement] button, and input the original car's VIN code, power level and CS code of the original car instrument according to the information prompts to complete the gearbox replacement, as shown in the figure:

🚚 🖬 👳 🛞				1	🖲 🔽 🖬 11:07 AM
5th Generation Engli	ne		ft ft		F
VW V28.70 > 5th Generation Engine					🖽 11.82V
Note:					
Here Users Can Input Or Modif Click [Edit1] To Edit The Anti-TI Transmission Click [Edit2] To Edit The Anti-TI Vehicle	heft Data Of External Tran	obilizer Data Of External smission	Anti-The	ft Data Of Targ	jet Vehicle
Venicae		Information			
CS	Replacement Su	Replacement Succeeded		3AC05B4704	A81E3CF6A1E8
		ок			
Edit1					etum
vw					
0	3			ŝ	Ð