AR15.30-P-7100GH	Remove and installing the starter	8.4.97

ENGINE 112.942 in MODEL 163.154
ENGINE 112.970 in MODEL 163.157
ENGINE 113.942 in MODEL 163.172
ENGINE 113.981 in MODEL 163.174
ENGINE 113.965 in MODEL 163.175

1 Electric cable circuit 30
2 Electric cable circuit 50
3 Bolts
4 Nut
5 Shield of engine mount
6 Nut
7 Washer

M1 Starter
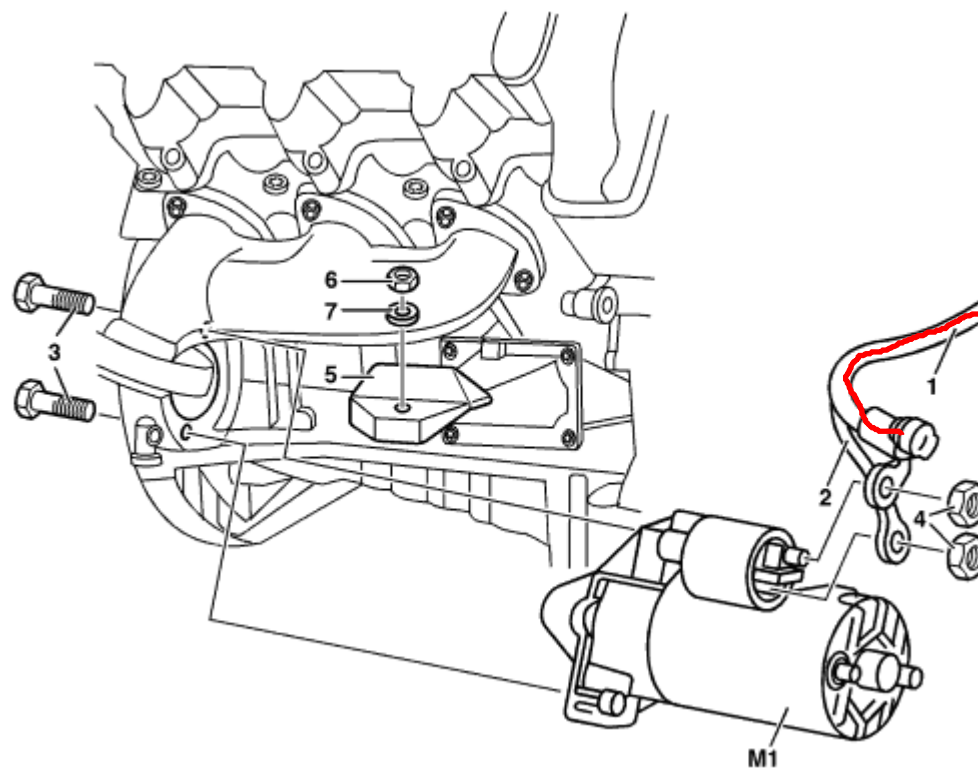
P15.30-0221-06

⤢ ⤡	Removing/installing		
⚠ **Danger!**	**Risk of explosion** caused by	No fire, sparks, open flames or	AS54.10-Z-0001-01A

	oxyhydrogen gas. **Risk of poisoning and caustic burns** caused by swallowing battery acid. **Risk of injury** through burns to skin and eyes from battery acid or when handling damaged lead-acid batteries	smoking. Wear acid-resistant gloves, clothing and safety glasses. Only pour battery acid into suitable and appropriately marked containers.	
ⓘ	Notes on self-locking nuts and bolts		AH00.00-N-0001-01A
1	Disconnect ground cable from battery	ⓘ Insulate ground line as a protection against unintentional contact of dismounted ground line with ground point of battery.	AR54.10-P-0003A
ⓘ	Notes on battery		AH54.10-P-0001-01A
2	Remove inner fender in right front fender		AR88.10-P-1300GH
3.1	Unscrew nut (6) at shield (5) of ~~left~~ right engine mount and take out shield	Engine 112	
		Nm	BA22.10-P-1004-01L
4	Dismount electrical line circuit 30 (1) and electrical line circuit 50 (2)	Nm Nut, terminal 30 connection	BA15.30-P-1001-01A
		Nm Nut of connection circuit 50	BA15.30-P-1002-01A
5	Remove bolts (3)	Nm	BA15.30-P-1003-01A
6	Take out starter (M1) to the side		
7.1	Check ring gear at flywheel for wear and damage	When replacing the starter on vehicles fitted with manual transmission	
		ⓘ Rotate engine at the crankshaft in direction of rotation.	
7.2	Check ring gear on the drive plate for wear and damage	When replacing the starter on vehicles fitted with automatic transmission	
		ⓘ Rotate engine at the crankshaft in direction of rotation.	

8	Install in reverse order		
9	Perform function check		
10	Render electrical system operational	See ↓	
		Perform basic programming	AR00.19-P-0200GH
11	Read out fault memory and erase	🅸 When the work is complete stored faults must be worked on in the diagnostic trouble code memories and erased.↓	
☞AD		Connect up STAR DIAGNOSIS, read out fault memory	AD00.00-P-2000-04A

Nm **Starter**

Number	Designation		Engines 112, 113.94/96/98
BA15.30-P-1001-01A	Nut for connection of circuit 30	Nm	14
BA15.30-P-1002-01A	Nut for connection of circuit 50	Nm	6
BA15.30-P-1003-01A	Bolt for starter on crankcase	Nm	42

Nm **Engine mounts, engine supports**

Number	Designation			Engines 112.942/970, 113.942/965/981
BA22.10-P-1004-01L	Bolt for front engine mount on engine support		Nm	65