
FUEL SYSTEM

VARIABLE VENTURI TYPE CARBURETOR

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1. SPECIFICATIONS

GENERAL SPECIFICATIONS – 1991 MODEL

Vehicle model	Engine	Trans- mission	Carburetor				Cold mixture heater	
			Type	Identification No.	Choke type	Fuel cut solenoid		
EC	Colt Lancer/ (C51V, C51A, C52A, C61A, C62A)	4G13	M/T	A	31A 1	Automatic (Wax type)	X	–
		4G15	M/T	A	51A 1	Automatic (Wax type)	X	–
			A/T	A	51B 1	Automatic (Wax type)	X	–
	Lancer station wagon	4G15	M/T	A	51A 1	Automatic (Wax type)	X	–
			A/T	A	51B 1	Automatic (Wax type)	X	–
	Australia	Lancer (C62A)	4G15	M/T	A	53G 1	Automatic (Wax type)	X
A/T				A	53H 1	Automatic (Wax type)	X	–
EXP	Colt/ Lancer (C51A, C52A, C61A, C62A)	4G13	M/T	B	32B 1	Manual	X	–
				A	32F 1	Automatic (Wax type)	X	–
				A	34F 1	Automatic (Wax type)	X	–
			A/T	B	32C 1	Manual	X	–
				A	32D 1	Automatic (Wax type)	X	–
				A	35D 1	Automatic (Wax type)	X	–
		4G15	M/T	B	52C 1	Manual	X	–
				A	52A 1	Automatic (Wax type)	X	–
				A	51A 1	Automatic (Wax type)	X	–
			A/T	B	52D 1	Manual	X	–
				A	52B 1	Automatic (Wax type)	X	–
				A	51B 1	Automatic (Wax type)	X	–

Vehicle model	Engine	Trans- mission	Carburetor				Cold mixture heater			
			Type	Identification No.	Choke type	Fuel cut solenoid				
EXP	Lancer station wagon	4G13	M/T	B	32B 1	Manual	X	–		
				A	32F 1	Automatic (Wax type)	X	–		
				A	34F 1	Automatic (Wax type)	X	–		
		4G15	M/T	B	52C 1	Manual	X	–		
				A	52A 1	Automatic (Wax type)	X	–		
				A	51A 1	Automatic (Wax type)	X	–		
		A/T	B	52D 1	Manual	X	–			
			A	52B 1	Automatic (Wax type)	X	–			
			A	51B 1	Automatic (Wax type)	X	–			
GCC	Colt/ Lancer (C51A, C52A, C61A, C62A)	4G13	M/T	A	34F 1	Automatic (Wax type)	X	–		
				4G15	M/T	A	51A 1	Automatic (Wax type)	X	–
						A/T	A	51B 1	Automatic (Wax type)	X
	Lancer station wagon	4G15	M/T	A	51A 1	Automatic (Wax type)	X	–		
				A/T	A	51B 1	Automatic (Wax type)	X	–	

NOTE

M/T: Manual Transmission

A/T: Automatic Transmission

X: Applicable

–: Not Applicable

GCC: Gulf Cooperation Council

GENERAL SPECIFICATIONS – 1992 MODELS

Vehicle model	Engine	Trans- mission	Carburetor				Cold mixture heater	
			Type	Identification No.	Choke type	Fuel cut solenoid		
EXP	Colt/ Lancer (CA1A, CA2A, CB1A, CB2A)	4G13	M/T	A	32H 1	Automatic (Wax type)	X	–
				A	12F 1	Automatic (Wax type)	X	–
		A/T	A	32J 1	Automatic (Wax type)	X	–	
			A	12G 1	Automatic (Wax type)	X	–	
	4G15	M/T	A	62A 1	Automatic (Wax type)	X	–	
			A	82J 1	Automatic (Wax type)	X	–	
		A/T	A	62B 1	Automatic (Wax type)	X	–	
			A	82K 1	Automatic (Wax type)	X	–	
GCC	Colt/ Lancer (CA1A, CA2A, CB1A, CB2A)	4G13	M/T	A	34H 1	Automatic (Wax type)	X	–
		4G15	M/T	A	64A 1	Automatic (Wax type)	X	–
			A/T	A	64B 1	Automatic (Wax type)	X	–

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GENERAL SPECIFICATIONS – 1993 MODELS

Vehicle model	Engine	Trans- mission	Carburetor				Cold mixture heater	
			Type	Identification No.	Choke type	Fuel cut solenoid		
EC	Colt/ Lancer (C61A, C62A)	4G13	M/T	A	31A 1	Automatic (Wax type)	X	–
		4G15	M/T	A	51A 1	Automatic (Wax type)	X	–
			A/T	A	51B 1	Automatic (Wax type)	X	–
Australia	Colt/ Lancer (C62A, CA2A, CB2A)	4G15	M/T	A	63C 1	Automatic (Wax type)	X	–
			A/T	A	63D 1	Automatic (Wax type)	X	–

Vehicle model	Engine	Transmission	Carburetor				Cold mixture heater	
			Type	Identification No.	Choke type	Fuel cut solenoid		
EXP	Colt/ Lancer (C62A)	4G15	M/T	A	62A 1	Automatic (Wax type)	X	-
				A	82J 1	Automatic (Wax type)	X	-
			A/T	A	62B 1	Automatic (Wax type)	X	-
				A	82K 1	Automatic (Wax type)	X	-
	Lancer station wagon (CB1W, CB2W)	4G13	M/T	A	32H 1	Automatic (Wax type)	X	-
				A	12F 1	Automatic (Wax type)	X	-
			A/T	A	32J 1	Automatic (Wax type)	X	-
				A	12G 1	Automatic (Wax type)	X	-
		4G15	M/T	A	62A 1	Automatic (Wax type)	X	-
				A	82J 1	Automatic (Wax type)	X	-
			A/T	A	62B 1	Automatic (Wax type)	X	-
				A	82K 1	Automatic (Wax type)	X	-
GCC	Colt/ Lancer (CA1A, CA2A, CB1A, CB2A)	4G13	M/T	A	34H 1	Automatic (Wax type)	X	-
		4G15	M/T	A	64A 1	Automatic (Wax type)	X	-
	A/T			A	64B 1	Automatic (Wax type)	X	-
	Lancer station wagon (CB1W)	4G13	M/T	A	34H 1	Automatic (Wax type)	X	-

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GENERAL SPECIFICATIONS – 1994 MODELS

Vehicle model	Engine	Transmission	Carburetor				Cold mixture heater	
			Type	Identification No.	Choke type	Fuel cut solenoid		
EXP	Colt/ Lancer (CA1A, CA2A, CB1A, CB2A)	4G13	M/T	A	32H 1	Automatic (Wax type)	X	-
				A	12F 1	Automatic (Wax type)	X	-

VARIABLE VENTURI CARB – Specifications

13B-1-2c

Vehicle model	Engine	Transmission	Carburetor				Cold mixture heater		
			Type	Identification No.	Choke type	Fuel cut solenoid			
EXP	Colt/ Lancer (CA1A, CA2A, CB1A, CB2A)	4G13	A/T	A	32J 1	Automatic (Wax type)	X	–	
				A	12G 1	Automatic (Wax type)	X	–	
			M/T	A	27D 1	Automatic (Wax type)	X	–	
				A	22C 1	Automatic (Wax type)	X	–	
		4G15	M/T	A	62A 1	Automatic (Wax type)	X	–	
				A	82J 1	Automatic (Wax type)	X	–	
				A/T	A	62B 1	Automatic (Wax type)	X	–
					A	82K 1	Automatic (Wax type)	X	–
			M/T	A	67G 1	Automatic (Wax type)	X	–	
				A	62K 1	Automatic (Wax type)	X	–	
			A/T	A	82A 1	Automatic (Wax type)	X	–	
	Lancer station wagon (CB1W, CB2W)	4G13	M/T		A	32H 1	Automatic (Wax type)	X	–
					A	12F 1	Automatic (Wax type)	X	–
				A/T	A	32J 1	Automatic (Wax type)	X	–
					A	12G 1	Automatic (Wax type)	X	–
			M/T	A	22C 1	Automatic (Wax type)	X	–	
		4G15	M/T		A	62A 1	Automatic (Wax type)	X	–
					A	82J 1	Automatic (Wax type)	X	–
			A/T	A	62B 1	Automatic (Wax type)	X	–	
				A	82K 1	Automatic (Wax type)	X	–	
			M/T	A	62K 1	Automatic (Wax type)	X	–	
	A/T		A	82A 1	Automatic (Wax type)	X	–		

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GENERAL SPECIFICATIONS – 1995 MODELS

Vehicle model	Engine	Transmission	Carburetor				Cold mixture heater		
			Type	Identification No.	Choke type	Fuel cut solenoid			
Australia	Colt/ Lancer (C62A, CA2A, CB2A)	4G15	M/T	A	63C 1	Automatic (Wax type)	X	–	
			A/T	A	63D 1	Automatic (Wax type)	X	–	
EXP	Colt/ Lancer (CA1A, CA2A, CB1A, CB2A)	4G13	M/T	A	32H 1	Automatic (Wax type)	X	–	
				A	12F 1	Automatic (Wax type)	X	–	
			A/T	A	32J 1	Automatic (Wax type)	X	–	
				A	12G 1	Automatic (Wax type)	X	–	
				A	27D 1	Automatic (Wax type)	X	–	
			M/T	A	22C 1	Automatic (Wax type)	X	–	
				A	38H 1	Automatic (Wax type)	X	–	
				A	38K 1	Automatic (Wax type)	X	–	
				4G15	M/T	A	62A 1	Automatic (Wax type)	X
		A			82J 1	Automatic (Wax type)	X	–	
		A/T			A	62B 1	Automatic (Wax type)	X	–
		M/T	A	82K 1	Automatic (Wax type)	X	–		
			A	67G 1	Automatic (Wax type)	X	–		
			A	62K 1	Automatic (Wax type)	X	–		
			A	68A 1	Automatic (Wax type)	X	–		
			A	68B 1	Automatic (Wax type)	X	–		
			A/T	A	82A 1	Automatic (Wax type)	X	–	
				A	68E 1	Automatic (Wax type)	X	–	
A	68F 1	Automatic (Wax type)		X	–				

NOTE

M/T: Manual Transmission
A/T: Automatic Transmission
X: Applicable
–: Not Applicable

VARIABLE VENTURI CARB – Specifications

13B-1-2e

Vehicle model	Engine	Trans- mission	Carburetor				Cold mixture heater	
			Type	Identification No.	Choke type	Fuel cut solenoid		
EXP	Lancer station wagon (CB1W, CB2W)	4G13	M/T	A	32H 1	Automatic (Wax type)	X	–
				A	12F 1	Automatic (Wax type)	X	–
			A/T	A	32J 1	Automatic (Wax type)	X	–
				A	12G 1	Automatic (Wax type)	X	–
			M/T	A	22C 1	Automatic (Wax type)	X	–
				A	38H 1	Automatic (Wax type)	X	–
		A		38K 1	Automatic (Wax type)	X	–	
		A/T	A	28A 1	Automatic (Wax type)	X	–	
			4G15	M/T	A	62A 1	Automatic (Wax type)	X
		A			82J 1	Automatic (Wax type)	X	–
		A/T		A	62B 1	Automatic (Wax type)	X	–
				A	82K 1	Automatic (Wax type)	X	–
		M/T		A	62K 1	Automatic (Wax type)	X	–
				A	68A 1	Automatic (Wax type)	X	–
			A	68B 1	Automatic (Wax type)	X	–	
		A/T	A	82A 1	Automatic (Wax type)	X	–	
			A	68E 1	Automatic (Wax type)	X	–	
			A	68F 1	Automatic (Wax type)	X	–	
GCC	Colt/ Lancer (CA1A, CA2A, CB1A, CB2A)	4G13	M/T	A	34H 1	Automatic (Wax type)	X	–
				A	27D 1	Automatic (Wax type)	X	–
		4G15	M/T	A	64A 1	Automatic (Wax type)	X	–
				A/T	A	64B 1	Automatic (Wax type)	X

NOTE

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GCC: Gulf Cooperation Council

Vehicle model	Engine	Transmission	Carburetor				Cold mixture heater
			Type	Identification No.	Choke type	Fuel cut solenoid	
GCC	Lancer station wagon (CB1W, CB2W)	M/T	A	34H 1	Automatic (Wax type)	X	–
			A	35J 1	Automatic (Wax type)	X	–
		A	27D 1	Automatic (Wax type)	X	–	
	4G15	M/T	A	64A 1	Automatic (Wax type)	X	–
		A/T	A	64B 1	Automatic (Wax type)	X	–

GENERAL SPECIFICATIONS – 1996 MODELS

Vehicle model	Engine	Transmission	Carburetor				Cold mixture heater	
			Type	Identification No.	Choke type	Fuel cut solenoid		
Australia	Colt/Lancer (CA2A, CB2A)	M/T	A	83B 1	Automatic (Wax type)	X	–	
			A	83C 1	Automatic (Wax type)	X	–	
GCC	Colt/Lancer (CA1A, CA2A, CB1A, CB2A)	M/T	A	34H 1	Automatic (Wax type)	X	–	
			A	35J 1	Automatic (Wax type)	X	–	
		4G15	M/T	A	64A 1	Automatic (Wax type)	X	–
			A/T	A	64B 1	Automatic (Wax type)	X	–
	Lancer station wagon (CB1W, CB2W)	4G13	M/T	A	34H 1	Automatic (Wax type)	X	–
			4G15	M/T	A	64A 1	Automatic (Wax type)	X
A/T	A	64B 1		Automatic (Wax type)	X	–		

NOTE

M/T: Manual Transmission

A/T: Automatic Transmission

X: Applicable

–: Not Applicable

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CARBURETOR SPECIFICATIONS

Carburetor identification No.	Throttle bore mm (in.)	Main jet mm (in.)	Dash pot	Throttle position sensor
12F 1	42 (1.654)	3 (0.118)	–	–
12G 1	42 (1.654)	3 (0.118)	Conventional type	–
22C 1	42 (1.654)	3 (0.118)	–	–
27D 1	42 (1.654)	3 (0.118)	–	–
28A 1	42 (1.654)	3 (0.118)	Conventional type	–
31A 1	42 (1.654)	3 (0.118)	Conventional type	–
32B 1	42 (1.654)	3 (0.118)	–	–
32C 1	42 (1.654)	3 (0.118)	Conventional type	–
32D 1	42 (1.654)	3 (0.118)	Conventional type	–
32F 1	42 (1.654)	3 (0.118)	–	–
32H 1	42 (1.654)	3 (0.118)	–	–
32J 1	42 (1.654)	3 (0.118)	Conventional type	–
34F 1	42 (1.654)	3 (0.118)	–	–
34H 1	42 (1.654)	3 (0.118)	–	–
35D 1	42 (1.654)	3 (0.118)	Conventional type	–
35J 1	42 (1.654)	3 (0.118)	Conventional type	–
38H 1	42 (1.654)	3 (0.118)	–	–
38K 1	42 (1.654)	3 (0.118)	–	–
51A 1	42 (1.654)	3 (0.118)	–	–
51B 1	42 (1.654)	3 (0.118)	Conventional type	–
52A 1	42 (1.654)	3 (0.118)	–	–
52B 1	42 (1.654)	3 (0.118)	Conventional type	–
52C 1	42 (1.654)	3 (0.118)	–	–
52D 1	42 (1.654)	3 (0.118)	Conventional type	–
53G 1	42 (1.654)	3 (0.118)	–	–
52H 1	42 (1.654)	3 (0.118)	Conventional type	–

13B-1-3a**VARIABLE VENTURI CARB – Specifications**

Carburetor identification No.	Throttle bore mm (in.)	Main jet mm (in.)	Dash pot	Throttle position sensor
62A 1	42 (1.654)	3 (0.118)	–	–
62B 1	42 (1.654)	3 (0.118)	Conventional type	–
62K 1	42 (1.654)	3 (0.118)	–	–
63C 1	42 (1.654)	3 (0.118)	–	–
63D 1	42 (1.654)	3 (0.118)	Conventional type	–
64A 1	42 (1.654)	3 (0.118)	–	–
64B 1	42 (1.654)	3 (0.118)	Conventional type	–
67G 1	42 (1.654)	3 (0.118)	–	–
68A 1	42 (1.654)	3 (0.118)	–	–
68B 1	42 (1.654)	3 (0.118)	–	–
68E 1	42 (1.654)	3 (0.118)	Conventional type	–
68F 1	42 (1.654)	3 (0.118)	Conventional type	–
82A 1	42 (1.654)	3 (0.118)	Conventional type	–
83B 1	42 (1.654)	3 (0.118)	–	–
83C 1	42 (1.654)	3 (0.118)	Conventional type	–

NOTE

–: Not Applicable

Intentionally blank

SERVICE SPECIFICATIONS

CARBURETOR

Carburetor identification No.	Main jet adjusting screw initial set value mm (in.)	Mixture adjusting screw initial set value mm (in.)	Float level adjustment	
			Needle valve to float lever clearance mm (in.)	Float to air horn clearance mm (in.)
12F 1	—*	—*	1.0 (0.039)	4.3 (0.169)
12G 1	—*	—*	1.0 (0.039)	4.3 (0.169)
22C 1	3.0 – 4.4 (0.118 – 0.173)	7.8 – 9.2 (0.307 – 0.362)	1.0 (0.039)	4.3 (0.169)
27D 1	3.0 – 4.4 (0.118 – 0.173)	7.8 – 9.2 (0.307 – 0.362)	1.0 (0.039)	4.3 (0.169)
28A 1	3.0 – 4.4 (0.118 – 0.173)	7.8 – 9.2 (0.307 – 0.362)	1.0 (0.039)	4.3 (0.169)
31A 1	2.8 – 4.2 (0.110 – 0.165)	4.3 – 5.7 (0.169 – 0.224)	1.0 (0.039)	4.3 (0.169)
32B 1	3.4 – 4.8 (0.134 – 0.189)	8.0 – 9.4 (0.315 – 0.370)	1.0 (0.039)	4.3 (0.169)
32C 1	3.4 – 4.8 (0.134 – 0.189)	8.0 – 9.4 (0.315 – 0.370)	1.0 (0.039)	4.3 (0.169)
32D 1	2.8 – 4.2 (0.110 – 0.165)	8.3 – 9.7 (0.327 – 0.382)	1.0 (0.039)	4.3 (0.169)
32F 1	2.8 – 4.2 (0.110 – 0.165)	8.3 – 9.7 (0.327 – 0.382)	1.0 (0.039)	4.3 (0.169)
32H 1	2.8 – 4.2 (0.110 – 0.165)	8.3 – 9.7 (0.327 – 0.382)	1.0 (0.039)	4.3 (0.169)
32J 1	2.8 – 4.2 (0.110 – 0.165)	8.3 – 9.7 (0.327 – 0.382)	1.0 (0.039)	4.3 (0.169)
34F 1	2.8 – 4.2 (0.110 – 0.165)	8.3 – 9.7 (0.327 – 0.382)	1.0 (0.039)	4.3 (0.169)
34H 1	2.8 – 4.2 (0.110 – 0.165)	4.3 – 5.7 (0.169 – 0.224)	1.0 (0.039)	4.3 (0.169)
35D 1	2.8 – 4.2 (0.110 – 0.165)	8.3 – 9.7 (0.327 – 0.382)	1.0 (0.039)	4.3 (0.169)
35J 1	3.0 – 4.4 (0.118 – 0.173)	3.5 – 5.2 (0.138 – 0.205)	1.0 (0.039)	4.3 (0.169)
38H 1	3.0 – 4.4 (0.118 – 0.173)	7.8 – 9.2 (0.307 – 0.362)	1.0 (0.039)	4.3 (0.169)
38K 1	3.0 – 4.4 (0.118 – 0.173)	7.8 – 9.2 (0.307 – 0.362)	1.0 (0.039)	4.3 (0.169)
51A 1	3.6 – 5.0 (0.142 – 0.197)	4.1 – 5.5 (0.161 – 0.217)	1.0 (0.039)	4.3 (0.169)
51B 1	3.6 – 5.0 (0.142 – 0.197)	4.1 – 5.5 (0.161 – 0.217)	1.0 (0.039)	4.3 (0.169)
52A 1	3.6 – 5.0 (0.142 – 0.197)	8.1 – 9.5 (0.319 – 0.374)	1.0 (0.039)	4.3 (0.169)

VARIABLE VENTURI CARB – Specifications

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Carburetor identification No.	Main jet adjusting screw initial set value mm (in.)	Mixture adjusting screw initial set value mm (in.)	Float level adjustment	
			Needle valve to float lever clearance mm (in.)	Float to air horn clearance mm (in.)
52B 1	3.6 – 5.0 (0.142 – 0.197)	8.1 – 9.5 (0.319 – 0.374)	1.0 (0.039)	4.3 (0.169)
52C 1	3.3 – 4.7 (0.130 – 0.185)	7.9 – 9.3 (0.311 – 0.366)	1.0 (0.039)	4.3 (0.169)
52D 1	3.3 – 4.7 (0.130 – 0.185)	7.9 – 9.3 (0.311 – 0.366)	1.0 (0.039)	4.3 (0.169)
53G 1	3.0 – 4.4 (0.118 – 0.173)	4.0 – 5.4 (0.157 – 0.213)	1.0 (0.039)	4.3 (0.169)
53H 1	3.0 – 4.4 (0.118 – 0.173)	4.0 – 5.4 (0.157 – 0.213)	1.0 (0.039)	4.3 (0.169)
62A 1	3.6 – 5.0 (0.142 – 0.197)	8.1 – 9.5 (0.319 – 0.374)	1.0 (0.039)	4.3 (0.169)
62B 1	3.6 – 5.0 (0.142 – 0.197)	8.1 – 9.5 (0.319 – 0.374)	1.0 (0.039)	4.3 (0.169)
62K 1	3.2 – 4.6 (0.126 – 0.181)	7.8 – 9.2 (0.307 – 0.362)	1.0 (0.039)	4.3 (0.169)
63C 1	2.8 – 4.2 (0.110 – 0.165)	4.0 – 5.4 (0.157 – 0.213)	1.0 (0.039)	4.3 (0.169)
63D 1	2.8 – 4.2 (0.110 – 0.165)	4.0 – 5.4 (0.157 – 0.213)	1.0 (0.039)	4.3 (0.169)
64A 1	3.6 – 5.0 (0.142 – 0.197)	4.1 – 5.5 (0.161 – 0.217)	1.0 (0.039)	4.3 (0.169)
64B 1	3.6 – 5.0 (0.142 – 0.197)	4.1 – 5.5 (0.161 – 0.217)	1.0 (0.039)	4.3 (0.169)
67G 1	3.2 – 4.6 (0.126 – 0.181)	7.8 – 9.2 (0.307 – 0.362)	1.0 (0.039)	4.3 (0.169)
68A 1	3.2 – 4.6 (0.126 – 0.181)	7.8 – 9.2 (0.307 – 0.362)	1.0 (0.039)	4.3 (0.169)
68B 1	3.2 – 4.6 (0.126 – 0.181)	7.8 – 9.2 (0.307 – 0.362)	1.0 (0.039)	4.3 (0.169)
68E 1	3.2 – 4.6 (0.126 – 0.181)	7.8 – 9.2 (0.307 – 0.362)	1.0 (0.039)	4.3 (0.169)
68F 1	3.2 – 4.6 (0.126 – 0.181)	7.8 – 9.2 (0.307 – 0.362)	1.0 (0.039)	4.3 (0.169)
82A 1	3.2 – 4.6 (0.126 – 0.181)	7.8 – 9.2 (0.307 – 0.362)	1.0 (0.039)	4.3 (0.169)
82J 1	—*	—*	1.0 (0.039)	4.3 (0.169)
82K 1	—*	—*	1.0 (0.039)	4.3 (0.169)
83B 1	—*	—*	1.0 (0.039)	4.3 (0.169)
83C 1	—*	—*	1.0 (0.039)	4.3 (0.169)

NOTE

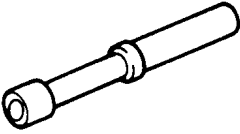
*: The main jet adjusting screw and the mixture adjusting screw should be adjusted to obtain proper idling speed and CO concentration by referring to the Service Adjustment Procedure in Group 11 "Engine" of the applicable vehicle model's Workshop Manual – chassis.

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TORQUE SPECIFICATIONS

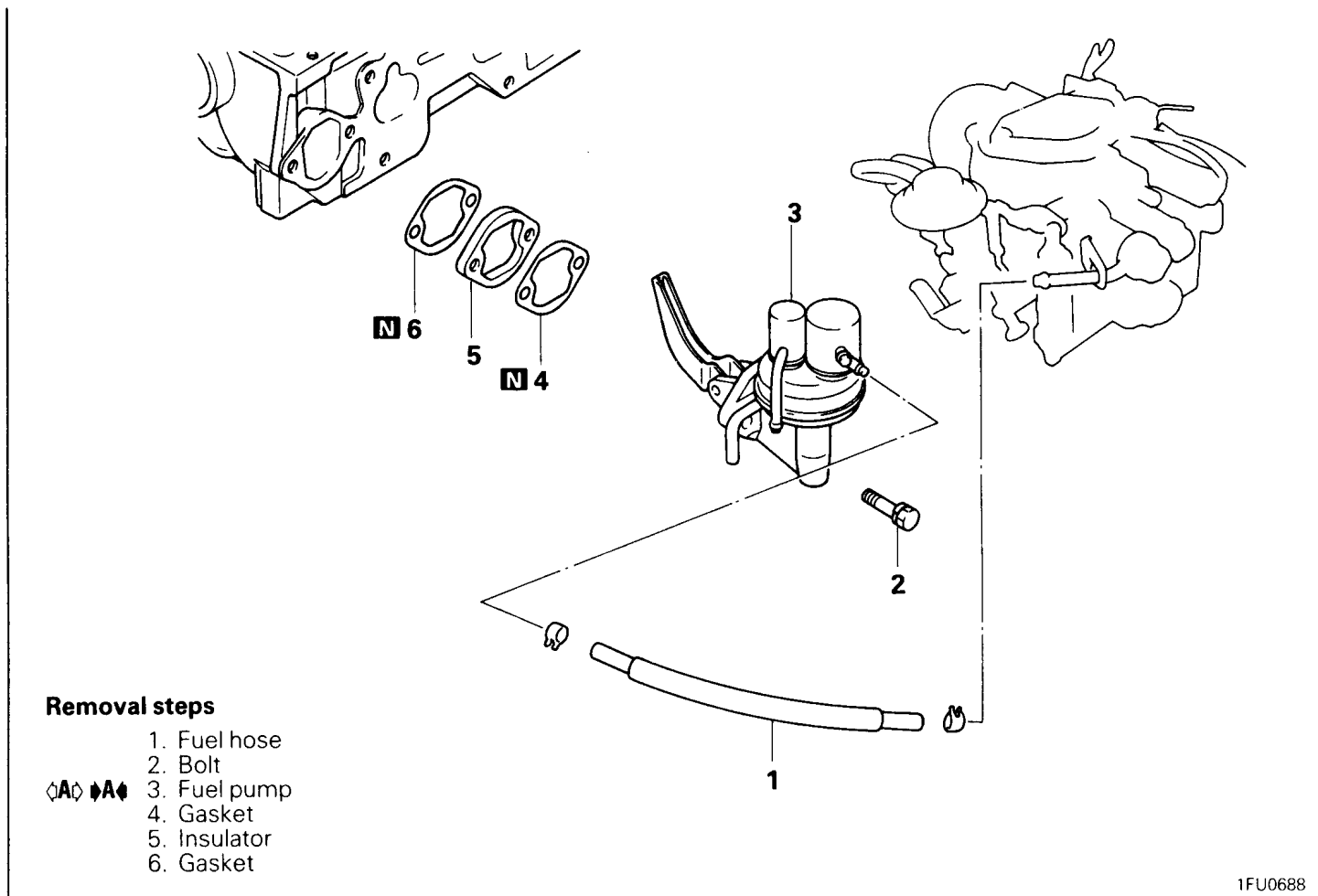
	Nm	Torque kgm	ft.lbs.
Carburetor mounting bolt	18	1.8	13
Stud	9	0.9	7

2. SPECIAL TOOLS

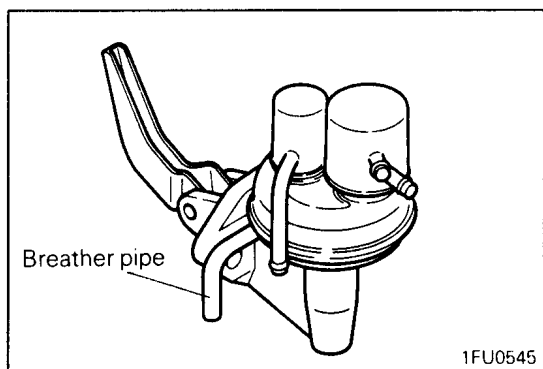
Tool	Number	Name	Use
	MD998299	MAS driver	Adjustment of idle mixture and removal and installation of MAS

3. FUEL PUMP

REMOVAL AND INSTALLATION



1FU0688



SERVICE POINTS OF REMOVAL

◀A▶ REMOVAL OF FUEL PUMP

- (1) Placing the piston in No. 2 cylinder at TDC on the compression stroke makes the fuel pump stroke lift the smallest, allowing easy removal of the pump.

INSPECTION

FUEL PUMP

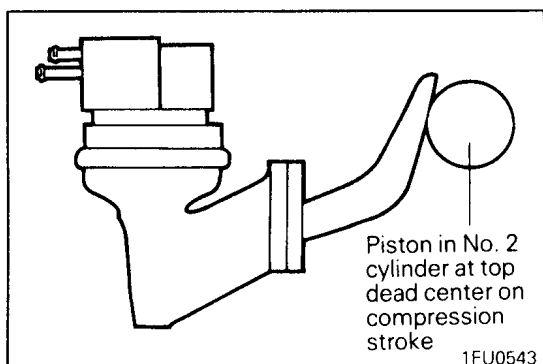
Check the following and replace if faulty. The fuel pump cannot be disassembled. Therefore, replace as an assembly if necessary.

- (1) Check the breather pipe and hole for oil or fuel leaks.
- (2) Check parts for damage and cracks.
- (3) Check the rocker arm for wear.

SERVICE POINTS OF INSTALLATION

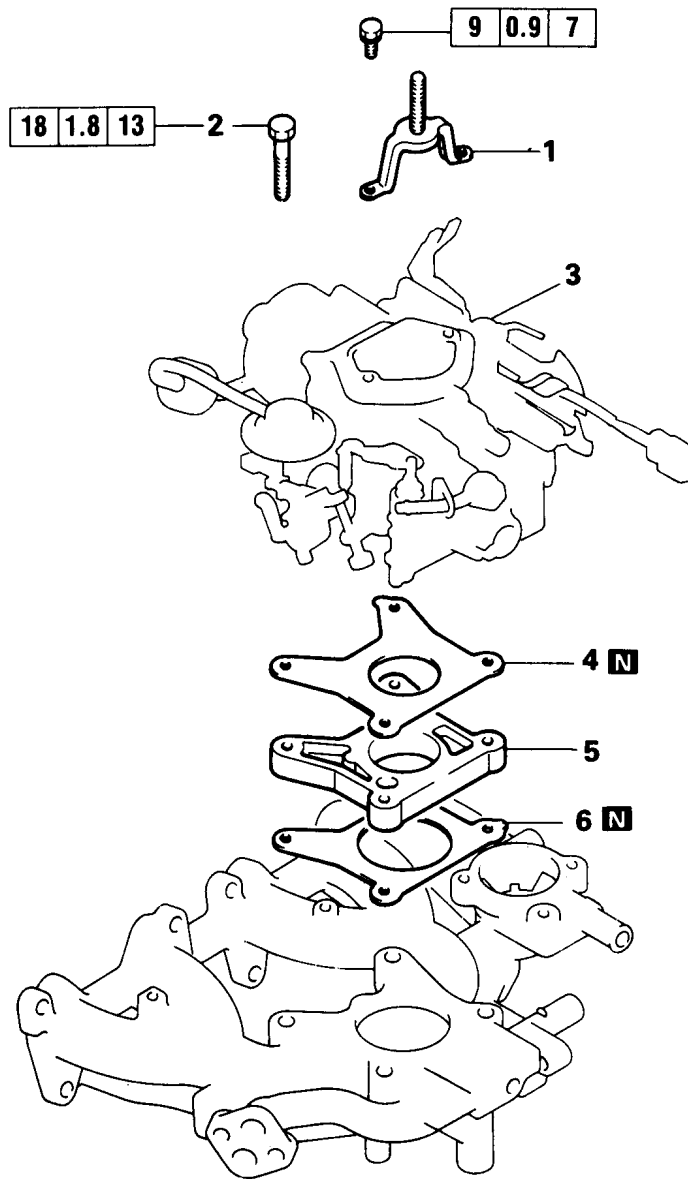
▶A▶ INSTALLATION OF FUEL PUMP

- (1) Bring the piston in No. 2 cylinder to TDC on the compression stroke. This provides the smallest lift of the eccentric cam, allowing easy installation of the fuel pump.



4. CARBURETOR ASSEMBLY

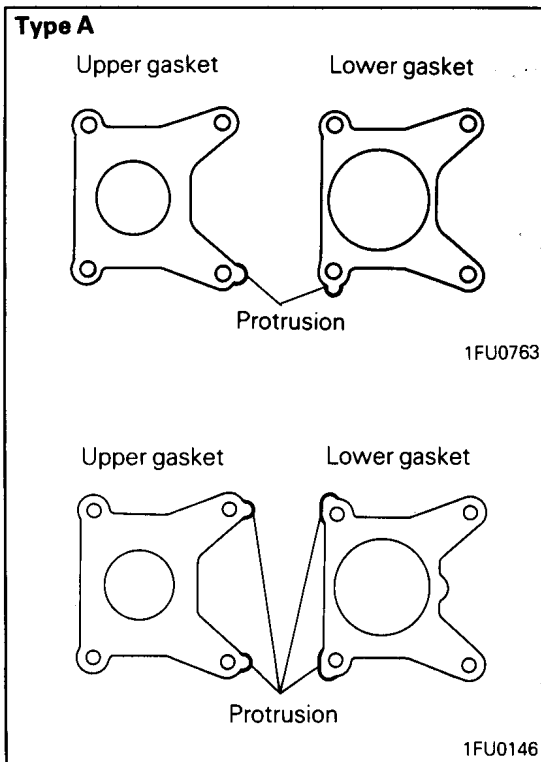
REMOVAL AND INSTALLATION – Types “A” and “B”



Removal steps

1. Stud
2. Bolt with spring washer
- ◆◆ 3. Carburetor
- ◆◆ 4. Upper gasket
- ◆◆ 5. Insulator
- ◆◆ 6. Lower gasket

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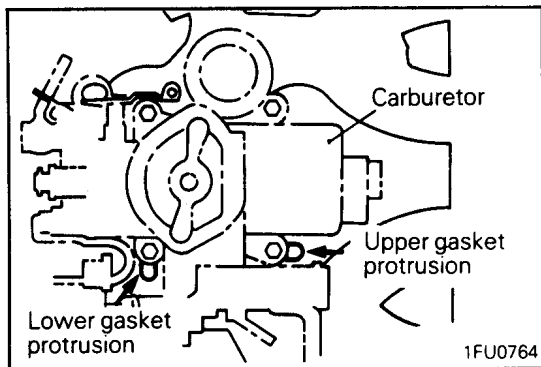


SERVICE POINT OF INSTALLATION

◆A◆ INSTALLATION OF LOWER GASKET / INSULATOR / UPPER GASKET / CARBURETOR

<Where the upper is of fiber type>

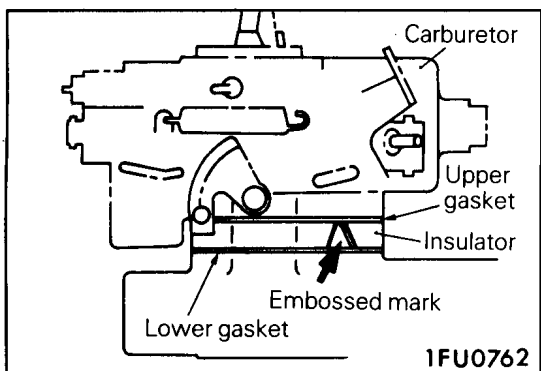
- (1) Upper and lower gaskets are identified by the protrusions shown in the figure.



- (2) Set the lower gasket on the intake manifold in such a way that the protrusion is located at the illustrated position.

NOTE

No direction of installation is specified for the type B gasket.



- (3) Set the insulator onto the intake manifold, with the embossed mark on the insulator facing in the direction shown in the figure.

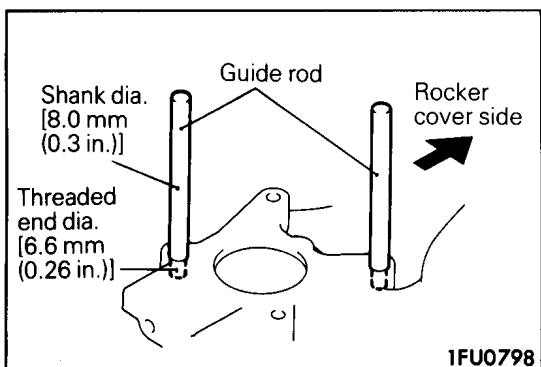
- (4) Install the upper gasket on the insulator so that the protrusion comes to the position shown in the illustration beside Step (2).

NOTE

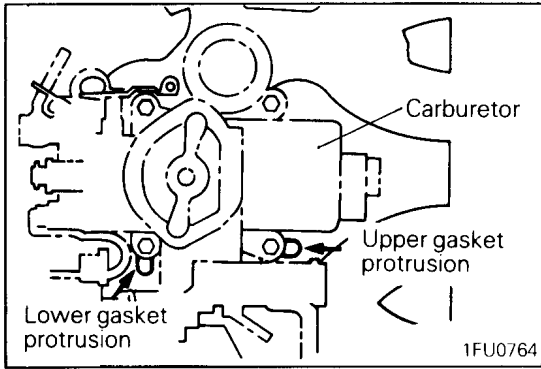
No direction of installation is specified for the type B gasket.

- (5) Install the carburetor and tighten four carburetor bolts to the specified torque.

<Where the upper gasket is of metal type>



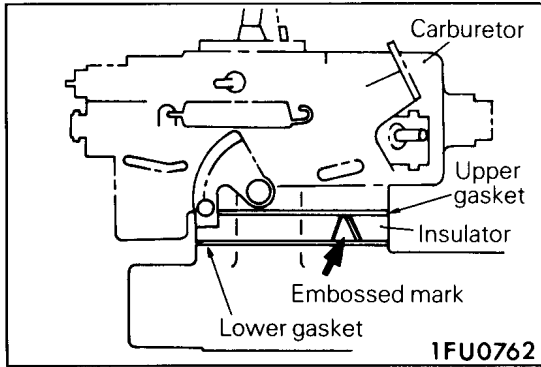
- (1) Using the threaded holes for mounting the carburetor on the intake manifold, stand two guide rods [threaded end dia.: 6.6 mm (0.26 in.), shank dia.: 8.0 mm (0.31 in.)]. Stand two guide rods diagonally as illustrated.



- (2) Set the lower gasket, insulator, upper gasket and the carburetor on the intake manifold along the guide rods. At this time, note that the lower gasket, insulator and upper gasket are so installed that their respective identification marks may face the directions shown in the illustration.

NOTE

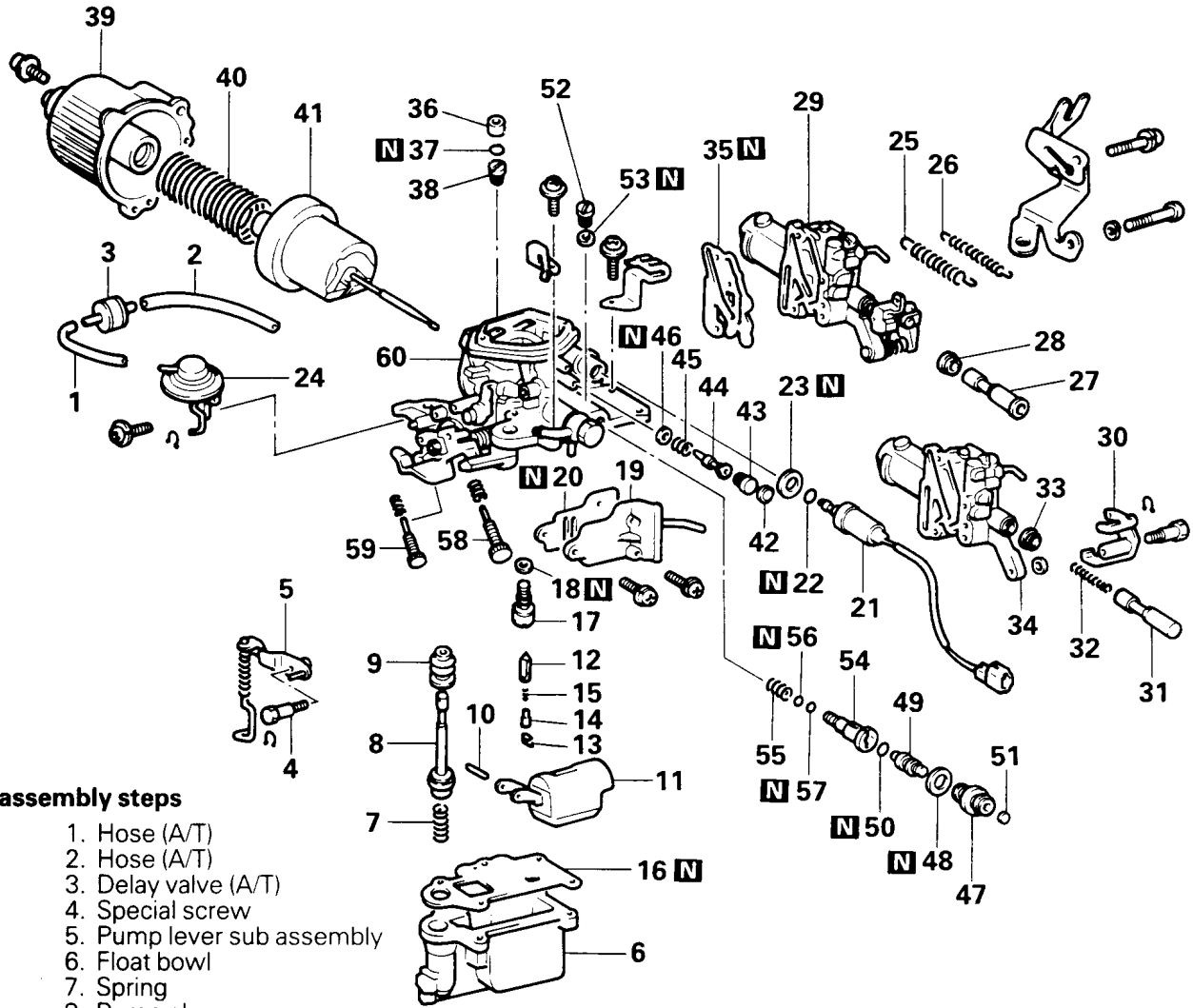
After setting, do not move the carburetor.



- (3) Insert the carburetor attaching bolts to the two vacant screw holes and tighten them finger-tight.
 (4) Remove the guide rods, insert the carburetor attaching bolts in their place and tighten finger-tight.
 (5) Tighten the four carburetor attaching bolts to specified torque.

5. CARBURETOR – Types “A” and “B”

DISASSEMBLY AND REASSEMBLY



Disassembly steps

- 1. Hose (A/T)
- 2. Hose (A/T)
- 3. Delay valve (A/T)
- 4. Special screw
- 5. Pump lever sub assembly
- ◇A◇ 6. Float bowl
- 7. Spring
- 8. Pump plunger
- 9. Boot
- ◆◆ 10. Pin
- ◆◆ 11. Float
- 12. Needle valve
- 13. Hook
- 14. Push pin
- 15. Spring
- 16. Gasket
- 17. Needle valve seat
- 18. Gasket
- ◇B◇ 19. Adaptor
- 20. Gasket
- 21. Fuel cut solenoid valve
- 22. O-ring
- 23. Gasket
- 24. Dash pot (A/T)
- ◇C◇ ◆H◇ 25. Wax back spring (outer)
- ◇C◇ ◆H◇ 26. Wax back spring (inner)
- 27. Cold enrichment rod
- 28. Boot
- ◇E◇ ◆F◇ 29. Compensator
- ◇D◇ 30. Fast idle cam
- ◇D◇ ◆G◇ 31. Cold enrichment rod
- ◇D◇ 32. Spring
- ◇D◇ 33. Boot
- ◇E◇ ◆F◇ 34. Compensator

Type “A” carburetor
 Type “B” carburetor

- 35. Gasket
- ◇F◇ ◆E◇ 36. Plug plate
- ◆E◇ 37. O-ring
- ◆E◇ 38. Pin
- ◇G◇ 39. Suction chamber
- ◇G◇ 40. Suction spring
- ◇G◇ ◆D◇ 41. Suction piston
- ◇H◇ 42. Concealment plug (For Australia)
- ◆I◇ ◆C◇ 43. Mixture adjusting screw (MAS)
- ◆C◇ 44. Needle
- ◆C◇ 45. Spring
- ◆C◇ 46. Plate
- 47. Main jet plug
- 48. Gasket
- ◇J◇ ◆B◇ 49. Main jet adjusting screw
- 50. O-ring
- 51. Plug plate
- ◆K◇ 52. Pin
- ◆K◇ 53. Gasket
- ◆A◇ 54. Main jet
- 55. Spring
- 56. O-ring
- 57. O-ring
- 58. Speed adjusting screw (SAS)
- 59. Dash pot adjusting screw (A/T)
- 60. Carburetor body sub assembly

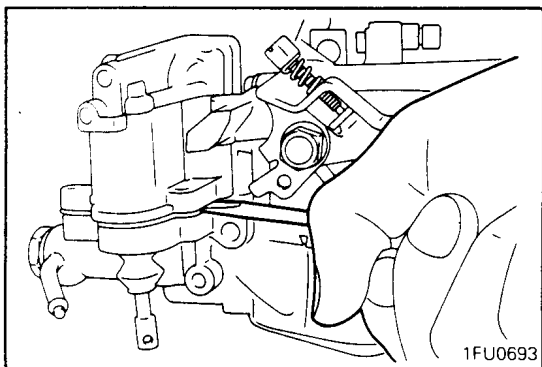
1FU0799

SERVICE POINTS OF DISASSEMBLY

The following parts must not be disassembled at the time of disassembly.

- (1) Throttle valve and throttle shaft.
- (2) Painted adjusting screw.
- (3) Carburetor body sub assembly.

When loosening a cross recessed head screw, use a Phillips screwdriver which is an exact fit, as the screw has been tightened securely.

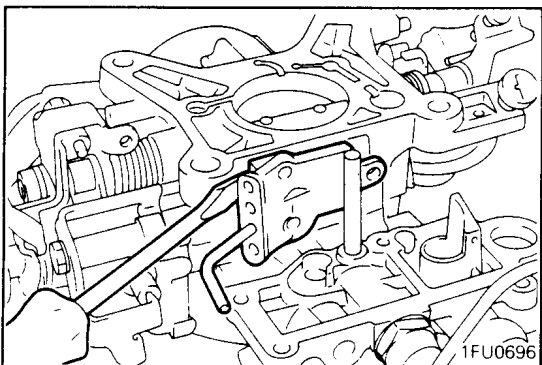


◁A▷ REMOVAL OF FLOAT BOWL

- (1) Do not attempt to remove the float bowl at one time as it is held firmly in position by the gasket. Insert a screwdriver blade between the carburetor body and the float bowl as illustrated and lightly pry it up and lift up gently.

NOTE

- (1) Do not apply excessive force.
- (2) The gasket cannot be removed unless the float has been removed. Do not attempt to remove the gasket simultaneously with the float bowl.

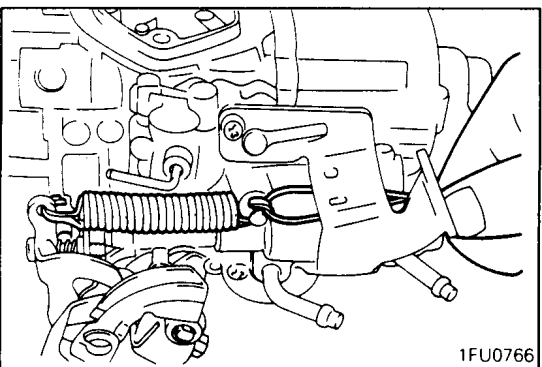


◁B▷ REMOVAL OF ADAPTOR

- (1) Do not attempt to remove the adaptor at one time as it is held firmly in position by the gasket. Insert a screwdriver blade between the carburetor body and the adaptor as illustrated and lightly pry it up and lift up gently.

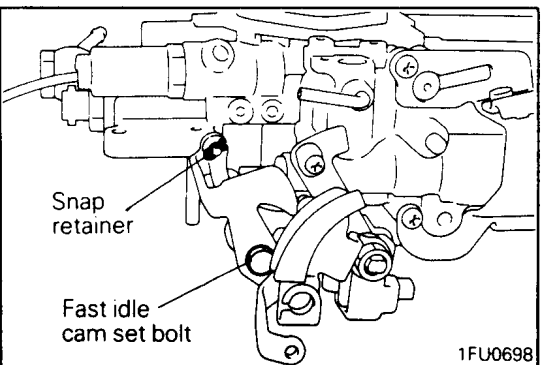
NOTE

Do not apply excessive force.



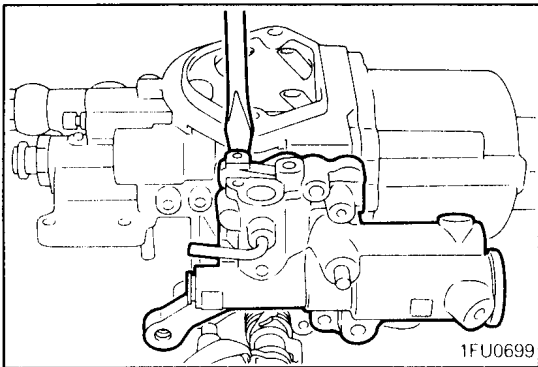
◁C▷ REMOVAL OF MAX BACK SPRING

- (1) Hook a metal wire to the wax back spring as illustrated and remove the spring.



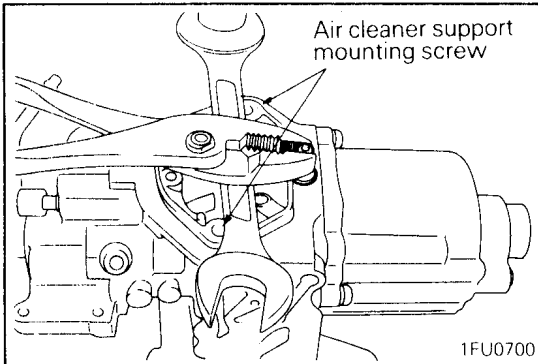
◁D▷ REMOVAL OF FAST IDLE CAM / COLD ENRICHMENT ROD / SPRING / BOOT

- (1) Remove the snap retainer shown in the illustration.
- (2) Remove the link from the snap retainer.
- (3) Loosen the fast idle cam set bolt to remove the cam from the cold enrichment rod.
- (4) Remove the cold enrichment rod, spring and boot.



◊E◊ **REMOVAL OF COMPENSATOR**

- (1) The gasket will have adhered in position. Don't apply undue force but remove it prying lightly with a screwdriver as illustrated.

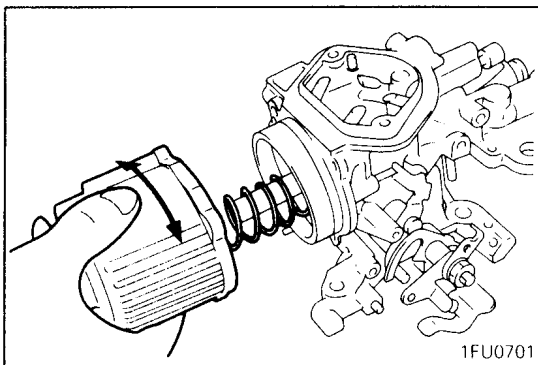


◊F◊ **REMOVAL OF PLUG PLATE**

- (1) Screw a bolt (thread diameter 4 mm, length 20 mm or more) into the plug plate and remove the plate using pliers and a wrench.

NOTE

Set the wrench across the air cleaner support mounting screw holes as illustrated.

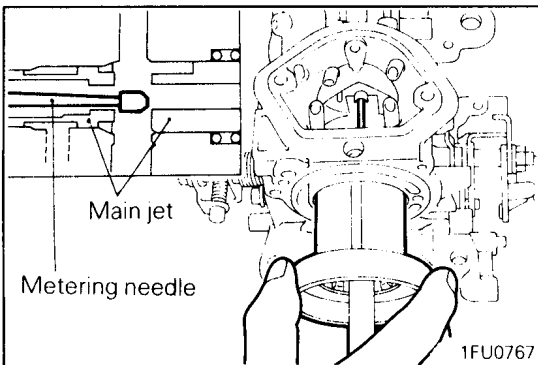


◊G◊ **REMOVAL OF SUCTION CHAMBER SUBASSEMBLY**

- (1) When removing the suction chamber from the carburetor body, do not pry or apply undue force. It can be easily removed by turning the suction chamber clockwise and counterclockwise.
- (2) Lifting up the metering needle a little with a finger to prevent it from interfering with the main jet, pull out the suction piston squarely.

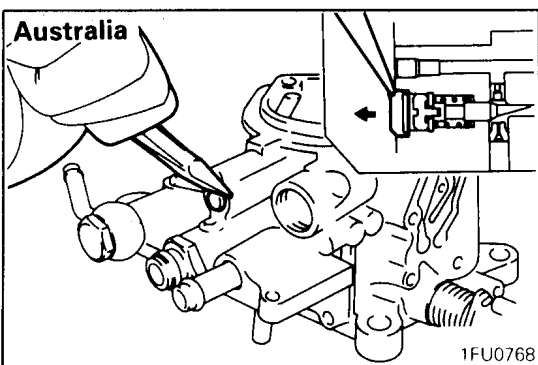
Caution

- A smooth sliding motion of the suction piston is important for carburetor performance. Do not change the combination of the suction piston and suction chamber. Do not damage the inside surface of the suction piston or suction chamber either.
- Once the metering needle is removed from the suction piston, the needle is likely to come loose. Do not, therefore, remove it from the suction piston.
- The metering needle is easily deformed. Handle carefully after removal.

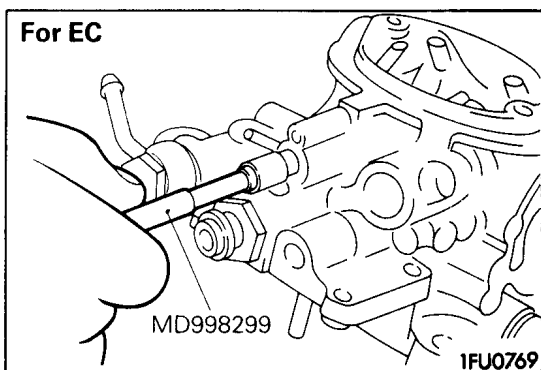


◊H◊ **REMOVAL OF CONCEALMENT PLUG**

- (1) Using a chisel, remove the concealment plug.

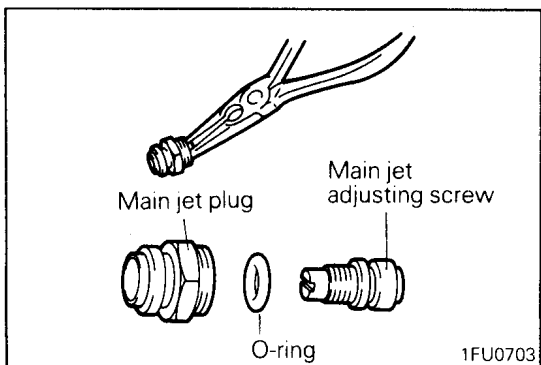


13B-5-4 VARIABLE VENTURI CARB – Carburetor-Types “A” and “B”



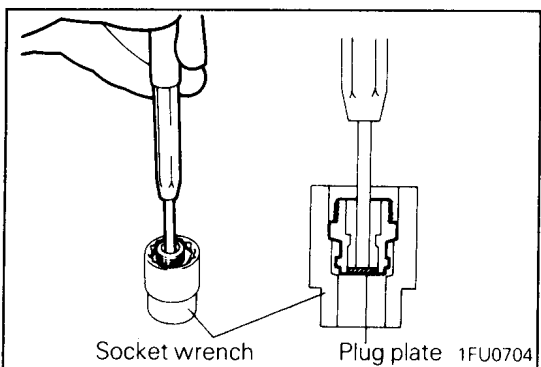
◊I◊ REMOVAL OF MIXTURE ADJUSTING SCREW (MAS)

- (1) Using the special tool (MAS Driver), remove the idle limiter cap and the MAS.

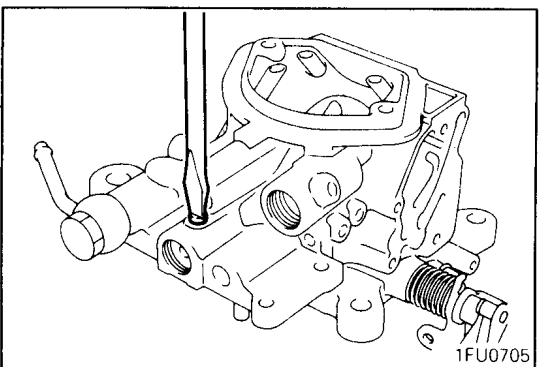


◊J◊ REMOVAL OF MAIN JET ADJUSTING SCREW

- (1) Holding the main jet adjusting screw with pliers, turn it counterclockwise to remove it from the main jet plug.



- (2) Using 5 φ pin punch, 21 mm socket wrench and hammer, remove the plug plate from the main jet plug.



◊K◊ REMOVAL OF PIN / GASKET

- (1) Using care not to allow paint fragments to fall into the carburetor, remove the yellow paint from around the pin.
- (2) Remove the pin and gasket while paying attention to the main jet jumping out of place.

NOTE

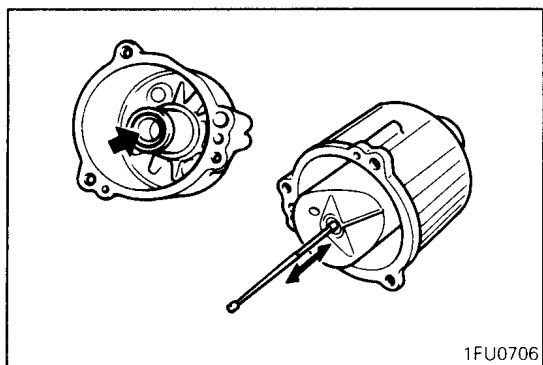
Gasket may have been adhered to by the yellow paint.

INSPECTION

GENERAL INSPECTION

Check the following and repair or replace parts if faulty.

- (1) Check fuel passages (jets) and air passages (jets or orifices) for clogging. If clogged, wash thoroughly with cleaning solvent or detergent and remove dirt by, compressed air. Do not use wire or other metal pieces.
- (2) Check diaphragms, O-rings and springs for damage and cracks.
- (3) Check that needle valve operates lightly. If the valve is hard to operate or is binding, repair or replace. If there is overflow, poor valve to seat contact is suspected. Check thoroughly.
- (4) Check the fuel inlet filter (located above the needle valve) for clogging and damage.
- (5) Check the float operation. Check float and lever for deformation and damage and replace if necessary.
- (6) Check operation of the throttle valve, enrichment rod and link. If they do not operate lightly, wash well and apply engine oil sparingly to their shaft.
- (7) Check the float bowl and carburetor body for damage and cracks.



INSPECTION OF LINEAR BALL BEARING

- (1) Insert the suction piston in the suction chamber and make sure that it moves smoothly.
- (2) If the suction piston does not move smoothly, apply lubricant to the linear ball bearing.

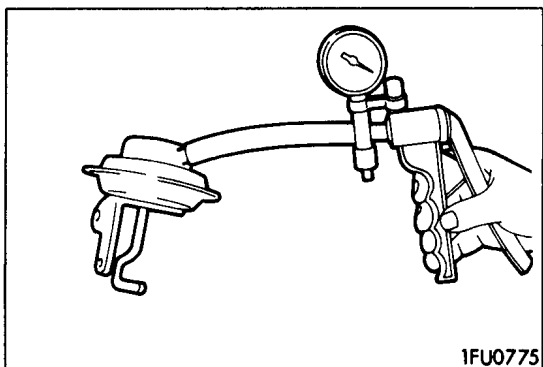
Specified lubricant:

3M 4way part No. 051135-08902 or equivalent.

- (3) If the suction piston still fails to move smoothly after lubrication, replace the suction piston, metering needle, suction chamber and spring as a set.

INSPECTION OF DASH POT (A/T)

- (1) Check the dash pot diaphragm for damage. Apply a negative pressure of 500 mmHg using a hand vacuum pump and check if the pressure is held. Also check that the dash pot rod is pulled up when the negative pressure is applied. If the pressure is not held, the diaphragm is damaged. Replace the dash pot.

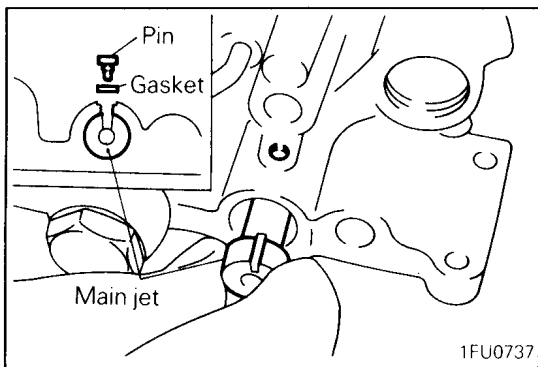


SERVICE POINTS OF DISASSEMBLY

Caution

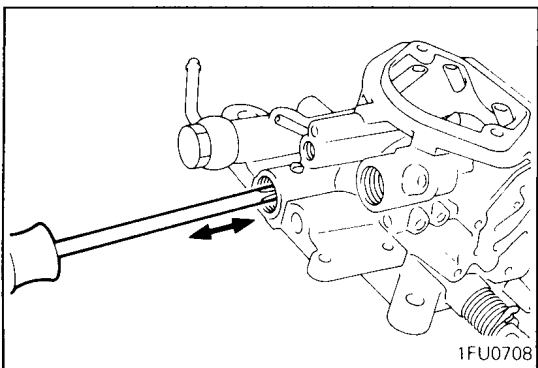
When washing and cleaning the parts, pay attention to the following.

- Do not damage the suction piston, suction chamber surface, carburetor body bore or main jet path by using a brush, etc.
- Do not attempt to wash the compensator. Do not allow dust to enter the bleed path.
- Do not bend or damage the main jet or metering needle.

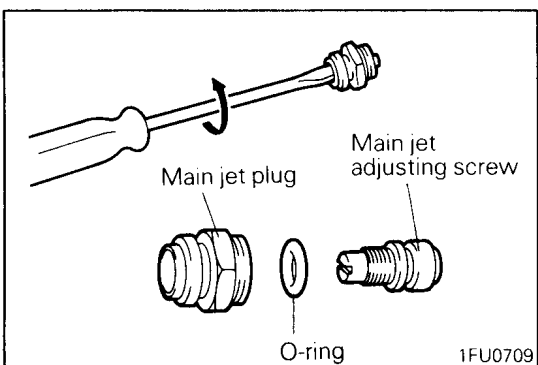


◆A◆ INSTALLATION OF MAIN JET

- (1) Install two O-rings onto the main jet and install them together with the spring into the carburetor body.
- (2) Pushing the main jet into the carburetor body using a Phillips screwdriver, align the main jet groove with the carburetor body pin hole and fit the pin with the gasket.

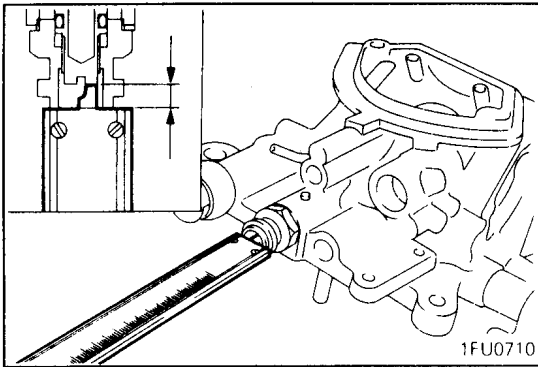


- (3) Press the main jet with a Phillips screwdriver to make sure that the main jet slides smoothly.



◆B◆ INSTALLATION OF MAIN JET ADJUSTING SCREW

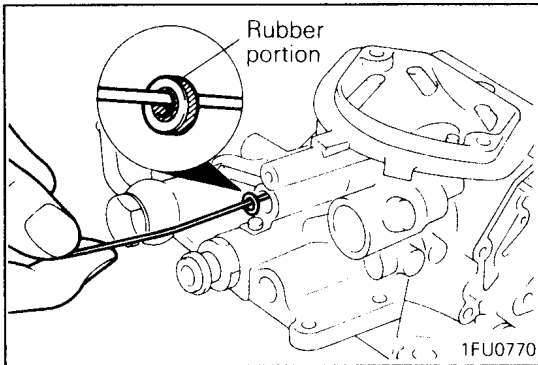
- (1) Tighten the main jet adjusting screw in the main jet plug with fingers.
- (2) Using a screwdriver, tighten the main jet adjusting screw plug, turning it counterclockwise. Do not damage the threads by overtightening the screw.



- (3) Install the main jet plug into the carburetor body through the gasket.
- (4) Make the initial setting of the main jet adjusting screw by using a slide caliper.

NOTE

Refer to the table in SERVICE SPECIFICATIONS for the set value.



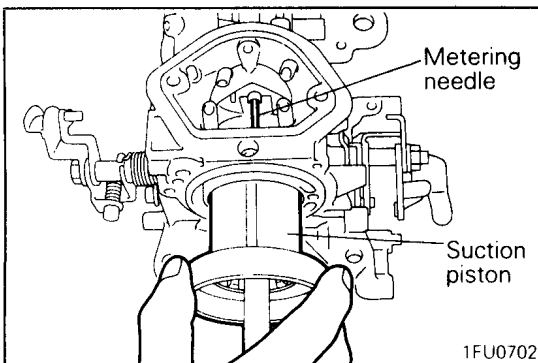
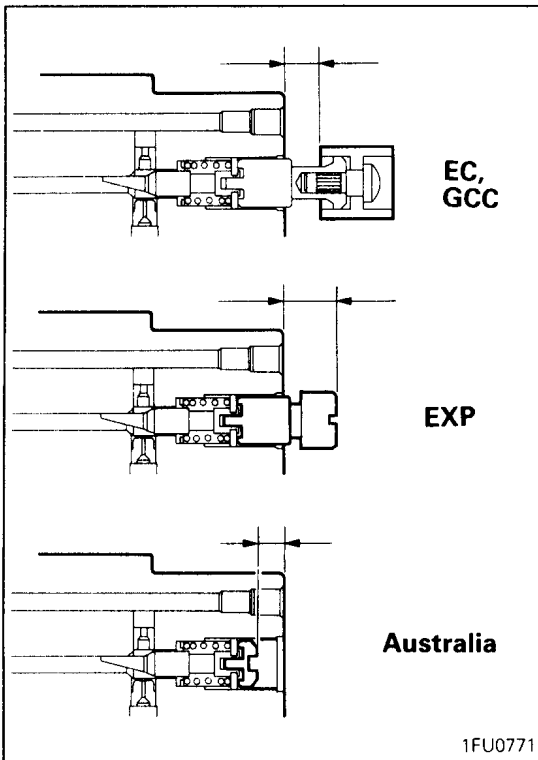
◆C◆ INSTALLATION OF MIXTURE ADJUSTING SCREW

- (1) While using a wire to guide the plate, install the plate with its rubber portion directed toward the innermost side. Then, install the spring, needle and mixture adjusting screw in that order.

- (2) Make the initial setting of the mixture adjusting screw by using a slide caliper.

NOTE

Refer to the table in SERVICE SPECIFICATIONS for the set value.



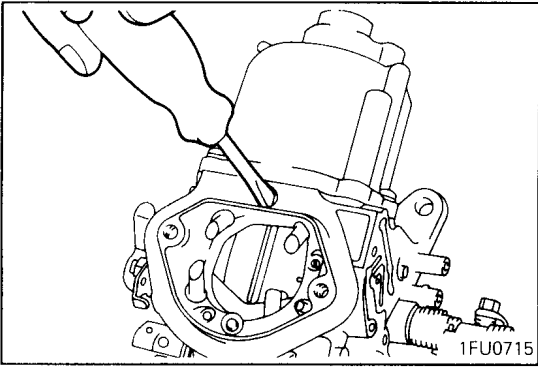
◆D◆ INSTALLATION OF SUCTION CHAMBER SUB-ASSEMBLY

- (1) Using care not to bend the metering needle, insert the suction piston into the carburetor body. Do not force the piston to turn or push it hard when inserting.

NOTE

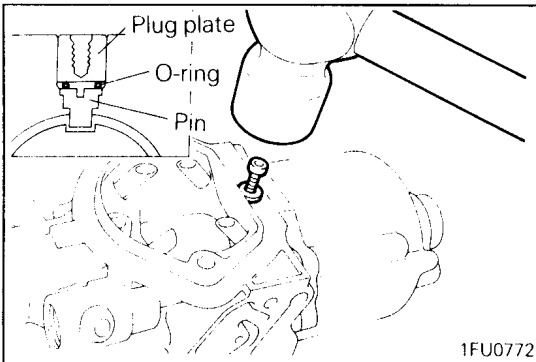
If the metering needle tip interferes with the main jet and is hard to insert, lift the needle up a little with your fingers.

13B-5-8 VARIABLE VENTURI CARB – Carburetor-Types “A” and “B”



◆E◆ INSTALLATION OF PIN / O-RING / PLUG PLATE

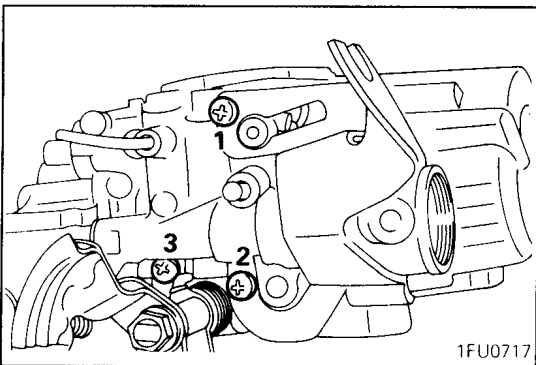
- (1) Align the suction piston groove with the carburetor body hole and, using a screwdriver, install the pin so that its protrusion is seated in the piston groove.
- (2) Make sure that the suction piston does not rotate.



- (3) Install the O-ring.
- (4) Tighten a 4 mm thread diameter bolt into the plug plate and strike until the plug plate is flush with the carburetor body surface.

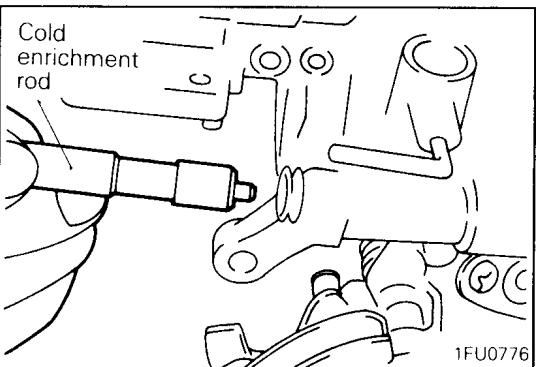
Caution

- Place wood block, etc. under the carburetor to isolate the carburetor link mechanism from the work bench so that the link mechanism will be protected from weight and shock.
- Make sure that O-ring is not caught between the plug plate and the carburetor body.



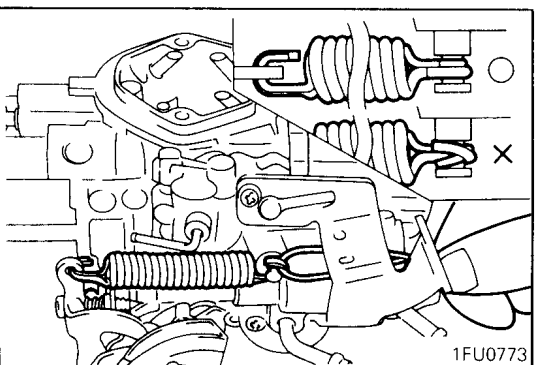
◆F◆ INSTALLATION OF COMPENSATOR

- (1) Tighten the three screws lightly and then tighten them firmly in the order shown in the figure.



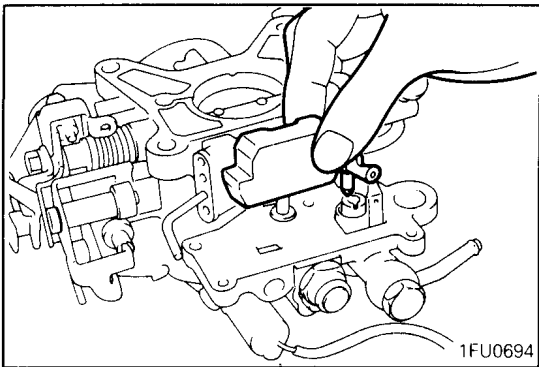
◆G◆ INSTALLATION OF COLD ENRICHMENT ROD

- (1) Install in correct direction.



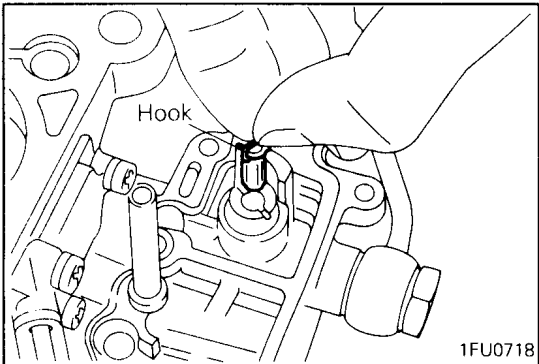
◆H◆ INSTALLATION OF WAX BACK SPRING

- (1) Hook the wax back spring (inner) to the wax back spring (outer).
- (2) Using a metal wire, fit the wax back spring correctly as illustrated.



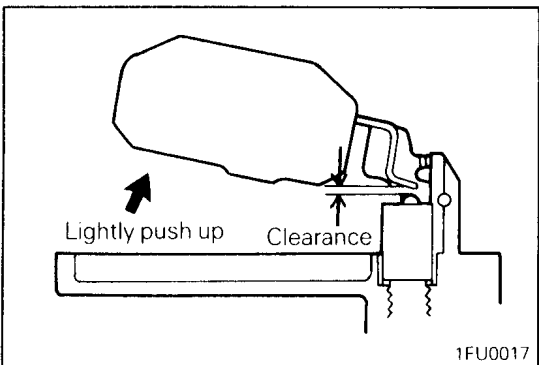
INSTALLATION OF FLOAT / PIN

- (1) When assembling these parts, make the float level adjustment.
- (2) For adjustment of the float level, see the following.



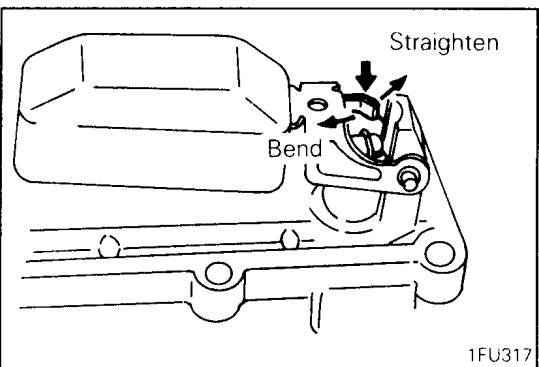
ADJUSTMENT OF FLOAT LEVEL

- (1) With the carburetor body turned upside down, remove the hook attached to the needle valve.
- (2) Attach the float and pin.



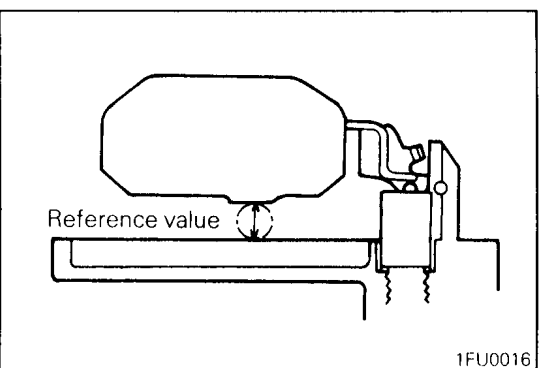
- (3) Lightly push up the float until it stops and measure the clearance between the needle valve and float lever.

Standard value: 1.0 mm (0.039 in.)



- (4) If the clearance is out of specification, adjust by bending or straightening the stopper indicated in illustration.

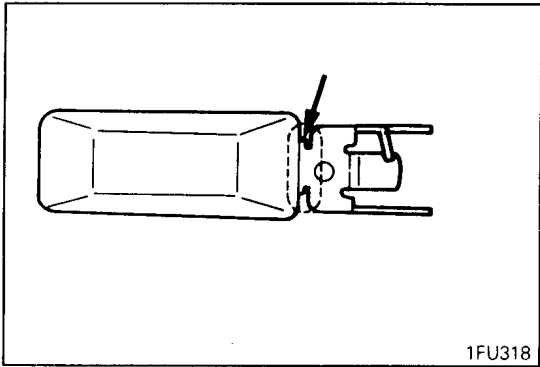
	Clearance
When stopper is bent	Greater
When stopper is straightened	Smaller



- (5) With the float at the position, to which it is lowered by its own weight, check for float to carburetor body clearance.

Standard value: 4.3 mm (0.169 in.)

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- (6) If the clearance is not up to the specified reference value, adjust by bending the portion indicated in illustration.
- (7) Remove the float and attach the hook to the needle valve.
- (8) Install the float, while hooking the float claw to the hook.