
GROUP 23

AUTOMATIC TRANSMISSION

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GENERAL INFORMATION

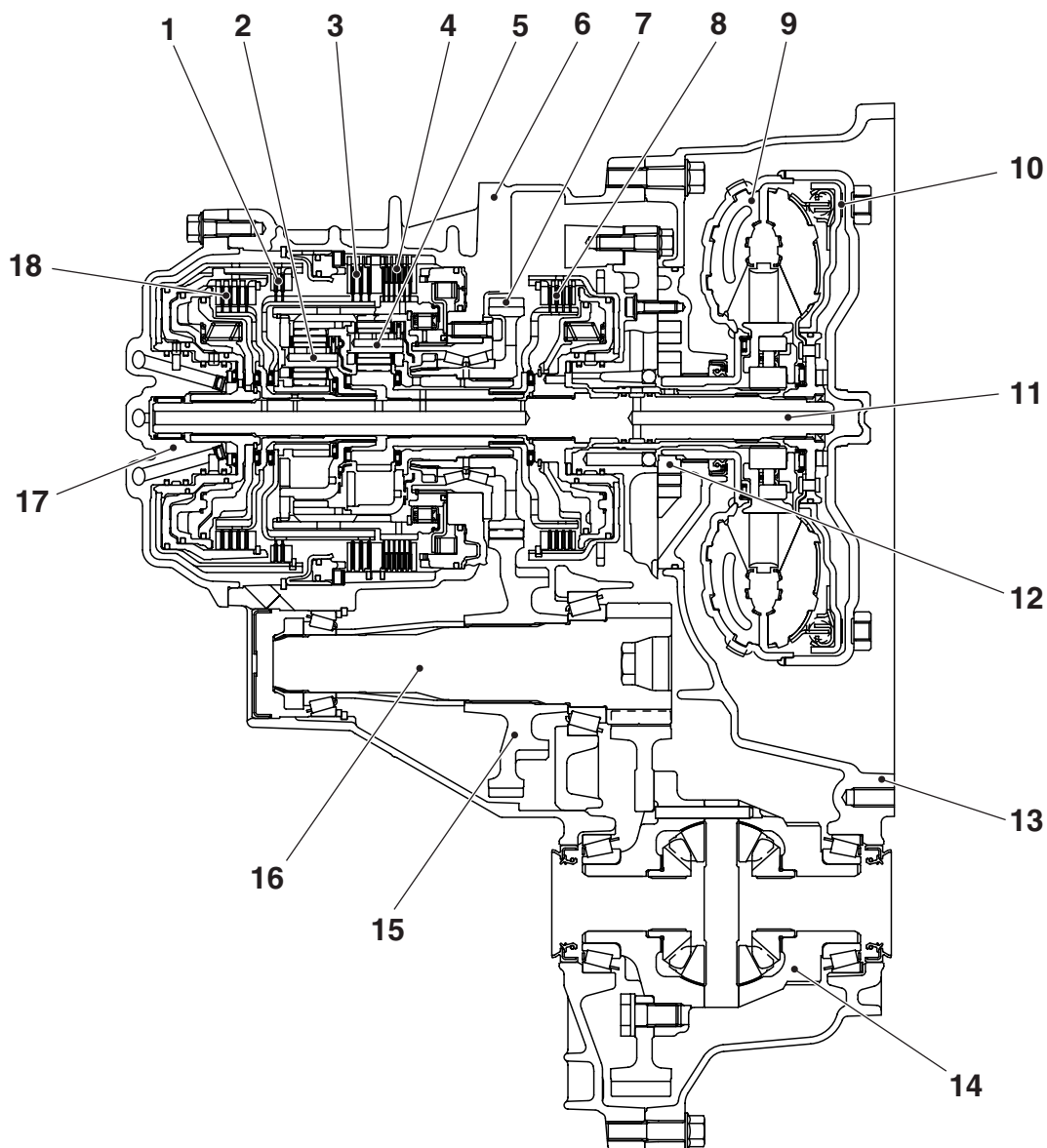
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The F4A4B type automatic transmission has been adopted. This transmission is basically the same as the F4A4B type used for LANCER.

SPECIFICATIONS

Item		Specification
Transmission model		F4A4B-4-L2Z
Torque converter	Type	3-element, 1-stage, 2-phase type
	Lock-up	Provided
	Stall torque ratio	2.0
Transmission type		4 forward speeds, 1 reverse speed, fully automatic
Transmission gear ratio	1st	2.842
	2nd	1.573
	3rd	1.000
	4th	0.688
	Reverse	2.214
Final reduction ratio		4.212
Clutch		Multi-disc type (3 sets)
Brake		Multi-disc type (2 sets)
Manual control system		P-R-N-D (4 positions) + sport mode
Shift pattern control		Electronic control (INVECS-II)
Hydraulic control during shifting		Electronic control (Each clutch hydraulically independently controlled)
Lock-up clutch control		Electronic control
Transmission fluid	Specified lubricants	MITSUBISHI MOTORS Genuine ATF SPIII
	Quantity L	7.7

SECTIONAL VIEW



AC505263AB

- | | |
|---------------------------------|------------------------------|
| 1. Reverse clutch | 10. Damper clutch |
| 2. Overdrive planetary gear set | 11. Input shaft |
| 3. Second brake | 12. Oil pump |
| 4. Low-reverse brake | 13. Torque converter housing |
| 5. Output planetary gear set | 14. Differential |
| 6. Transmission case | 15. Transfer driven gear |
| 7. Transfer drive gear | 16. Output shaft |
| 8. Underdrive clutch | 17. Rear cover |
| 9. Torque converter | 18. Overdrive clutch |

ELECTRONIC CONTROL SYSTEM

CONTROL UNIT

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The engine-A/T-ECU uses a 140-pin connector. The terminals of this connector are arranged as shown below.

1	2					3	4					31	32					33	34					61	62					63	64					91	92					93	94	95	121	122					123	124					
5	6	7	8	9	10	11	12	13					35	36	37	38	39	40	41	42	43					65	66	67	68	69	70	71	72	73					96	97	98	99	100	101	102	103	104	125	126	127	128	129	130	131	132	133	
14	15	16	17	18				19	20					44	45	46	47	48	49				50	51					74	75	76	77	78	79	80	81	82					105	106	107	108	109	110	111	112	134	135	136	137	138	139	140	141
21	22	23	24	25				26	27					52	53	54	55	56				57	58					83	84	85	86	87				88	89					113	114	115	116	117	118	119	120	142	143	144			145	146	

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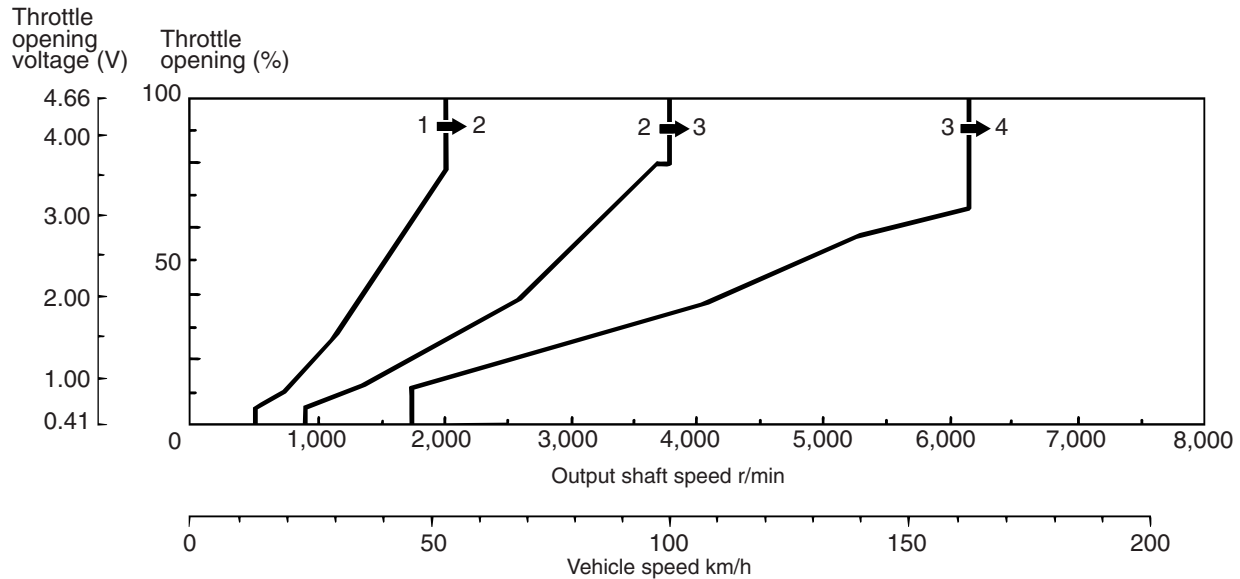
1 to 38.	Engine use	119.	A/T fluid temperature sensor
39.	Stop lamp switch	120.	—
40 to 63.	Engine use	121.	Shift indicator C
64.	Input shaft speed sensor	122.	—
65.	—	123.	Solenoid valve power supply
66.	Inhibitor switch P	124.	Solenoid valve power supply
67.	Inhibitor switch R	125.	Shift indicator B
68.	Downshift switch	126.	—
69 to 72.	Engine use	127.	A/T control relay
73.	Output shaft speed sensor	128.	LR solenoid valve
74.	Engine use	129.	—
75.	Inhibitor switch N	130.	DCC solenoid valve
76.	Inhibitor switch D	131.	Earth
77.	Upshift switch	132 to 133.	Engine use
78.	Engine use	134.	Shift indicator A
79.	Vehicle speed signal	135.	—
80.	Steering shift switch	136.	2ND solenoid valve
81 to 82.	—	137.	UD solenoid valve
83.	Engine use	138.	OD solenoid valve
84.	—	139 to 141.	Engine use
85.	Select switch	142.	Downshift buzzer
86 to 118.	Engine use	143 to 146.	Engine use

NOTE: — indicate vacant terminals.

SHIFT PATTERN CONTROL

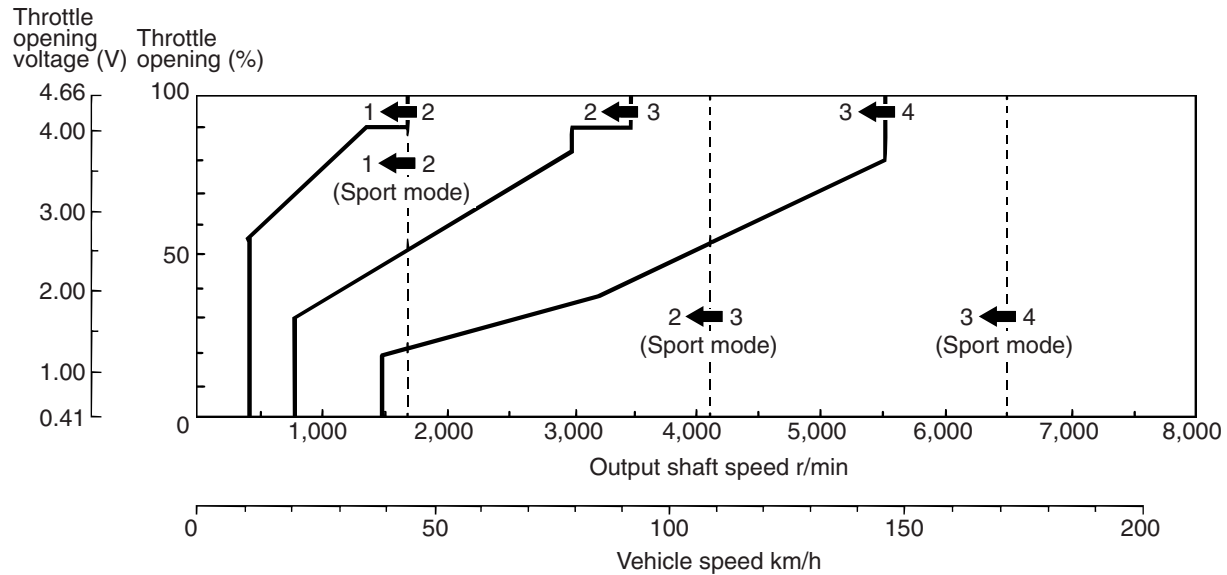
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UPSHIFT PATTERN



AC505148 AB

DOWNSHIFT PATTERN



AC505146 AB

DIAGNOSIS CLASSIFICATION TABLE

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Item		Diagnosis code No.	Data list		Actuator test
			Item No.	Display	
Throttle position sensor (TPS)		—	11	mV	—
A/T fluid temperature sensor	Open circuit	15	15	°C	—
	Short circuit	16			
Crank angle sensor	Open circuit	21	21	r/min	—
Input shaft speed sensor	Short circuit/open circuit	22	22	r/min	—
Output shaft speed sensor	Short circuit/open circuit	23	23	r/min	—
Stop lamp switch	Short circuit	26	26	ON/OFF	—
Inhibitor switch	Open circuit	27	61	P/R/N/D	—
	Short circuit	28			
Vehicle speed signal		—	29	km/h	—
LR solenoid valve	Short circuit/open circuit	31	31	%	01
UD solenoid valve	Short circuit/open circuit	32	32	%	02
2ND solenoid valve	Short circuit/open circuit	33	33	%	03
OD solenoid valve	Short circuit/open circuit	34	34	%	04
DCC solenoid valve	Short circuit/open circuit	36	36	%	06
INVECS-II control stop		—	40	ON/OFF	—
Gear shift incomplete	1st	41	—	—	—
	2nd	42	—	—	—
	3rd	43	—	—	—
	4th	44	—	—	—
	Reverse	46	—	—	—
Damper clutch system	System defect	52	52	r/min	—
A/T control relay	Earth short circuit/open circuit	54	54	V	12
N range lamp	Open circuit	56	—	—	—
Engine volumetric efficiency		—	57	%	—
Shift position		—	63	4th, 3rd, 2nd, 1st, REV, NP	—
A/C relay		—	65	ON/OFF	—
Auto-cruise engaged signal		—	66	ON/OFF	—
Select switch		—	67	ON/OFF	—
Shift switch (Up)		—	68	ON/OFF	—
Shift switch (Down)		—	69	ON/OFF	—

Item		Diagnosis code No.	Data list		Actuator test
			Item No.	Display	
Shift indicator	1st	—	—	—	07
	2nd	—	—	—	08
	3rd	—	—	—	09
	4th	—	—	—	10
INVECS-II cancel command		—	—	—	14

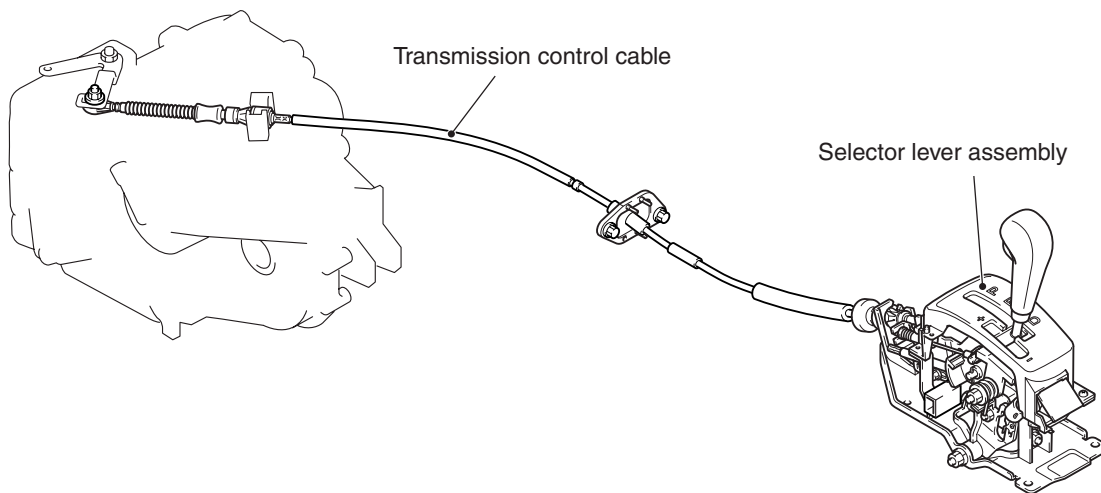
TRANSMISSION CONTROL

GENERAL INFORMATION

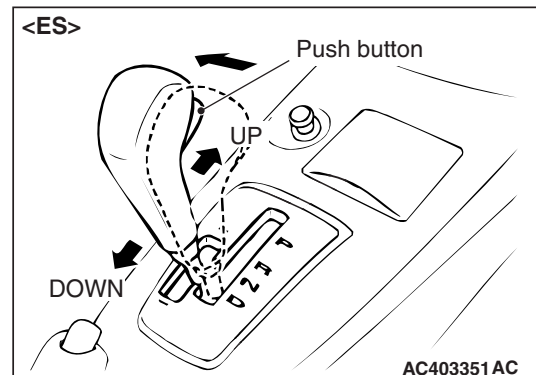
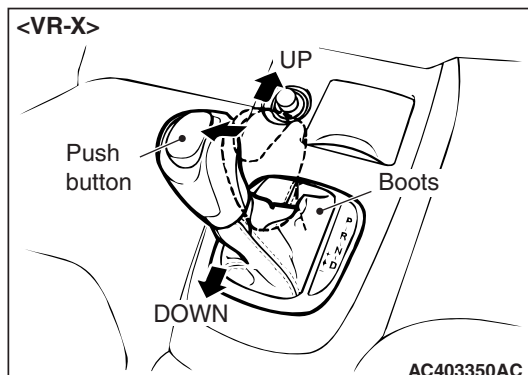
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Transmission control is basically the same as that of LANCER, but selector lever assembly with boot has been adopted to the vehicles with steering shift switch.

CONSTRUCTION DIAGRAM



AC403349AB



NOTES