AUTOMATIC TRANSAXLE OUTLINE [GW6A-EL, GW6AX-EL]
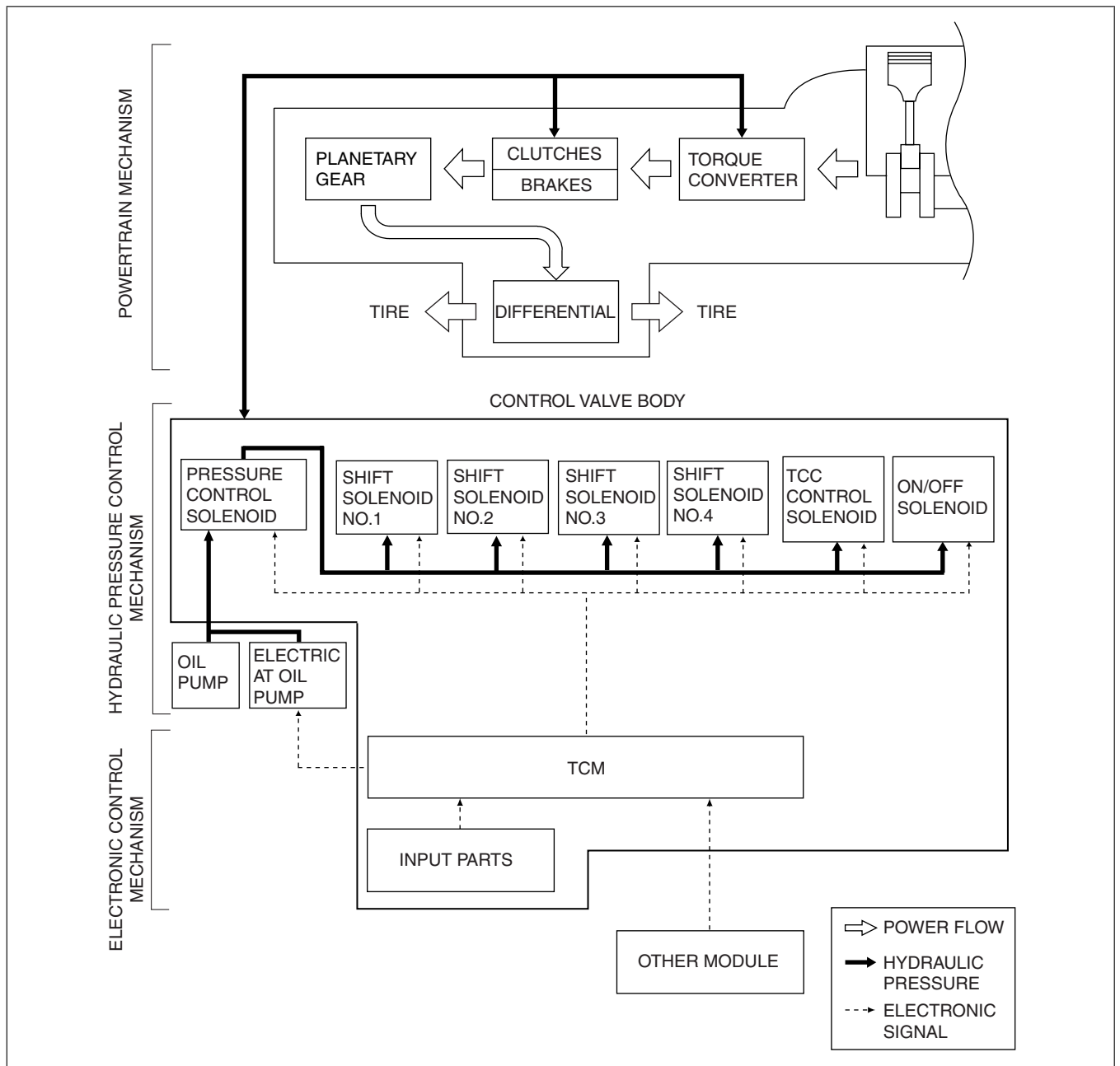
Outline

Contribution to low fuel economy	• Wide TCC range • Clutch/brake resistance reduction
Realized direct feel and quick shifting	• Oil passage resistance reduction and improved clutch/brake response by optimizing clutch rigidity • Improved solenoid valve response
Smooth and powerful start-up	• Torque converter characteristics when accelerating and optimized range
Smooth shifting	• Control valve body integrated with TCM adopted • Direct linear solenoid valve has been adopted to improve shift accuracy

Construction
Cross-sectional view
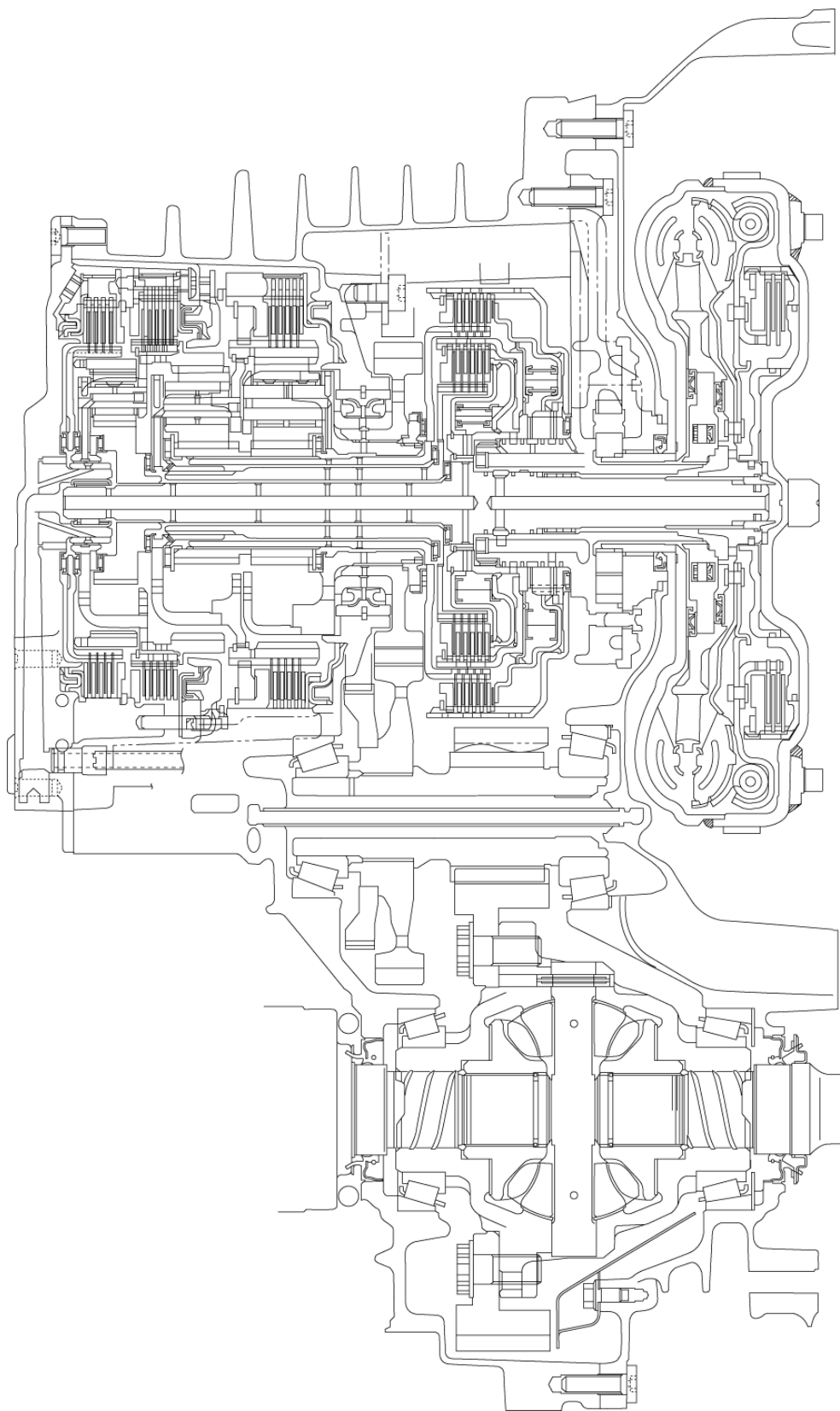
ac5jjn00001299

- The electronic control automatic transaxle consists of three systems which are divided into the powertrain with a torque converter, the hydraulic control mechanism, and the electronic control mechanism.

POWERTRAIN MECHANISM

HYDRAULIC PRESSURE CONTROL MECHANISM

ELECTRONIC CONTROL MECHANISM

PLANETARY GEAR

CLUTCHES
BRAKES

TORQUE CONVERTER

TIRE

DIFFERENTIAL

TIRE

CONTROL VALVE BODY

PRESSURE CONTROL SOLENOID

SHIFT SOLENOID NO.1

SHIFT SOLENOID NO.2

SHIFT SOLENOID NO.3

SHIFT SOLENOID NO.4

TCC CONTROL SOLENOID

ON/OFF SOLENOID

OIL PUMP

ELECTRIC AT OIL PUMP

TCM

INPUT PARTS

OTHER MODULE

POWER FLOW

HYDRAULIC PRESSURE

ELECTRONIC SIGNAL

am3zzn00003423

Operation
Automatic transaxle operation chart

Position	Mode	Gear position	Gear ratio	TCC	Low clutch	High clutch	Low and reverse brake	2-6 brake	R-3-5 brake	One-way clutch	Shift solenoid No.1	Shift solenoid No.2	Shift solenoid No.3	Shift solenoid No.4	TCC control solenoid	ON/OFF solenoid
P	-	-	-				×				CLOSE	CLOSE	CLOSE	OPEN	CLOSE	OFF
R	-	Reverse	3.990				×		×		CLOSE	CLOSE	OPEN	OPEN	CLOSE	OFF
N		-	-				×				CLOSE	CLOSE	CLOSE	OPEN	CLOSE	OFF
D/M	NORMAL	1GR	3.487	×	×		×			⊗	OPEN	CLOSE	CLOSE	OPEN	OPEN	OFF
		2GR	1.992	×	×			×			OPEN	OPEN	CLOSE	CLOSE	OPEN	ON
		3GR	1.449	×	×				×		OPEN	CLOSE	OPEN	CLOSE	OPEN	ON
		4GR	1.000	×	×	×					OPEN	CLOSE	CLOSE	OPEN	OPEN	ON
		5GR	0.707	×		×			×		CLOSE	CLOSE	OPEN	OPEN	OPEN	ON
		6GR	0.600	×		×		×			CLOSE	OPEN	CLOSE	OPEN	OPEN	ON

× : Operating

⊗ : Transmits torque only during driving operation

OPEN: Engages the line pressure to the clutch pressure
CLOSE: Drains the clutch pressure
ON: Engages the output port and the supply port
OFF: Engages the output port and the drain port (Drains the output port)

ac5wzn00001723