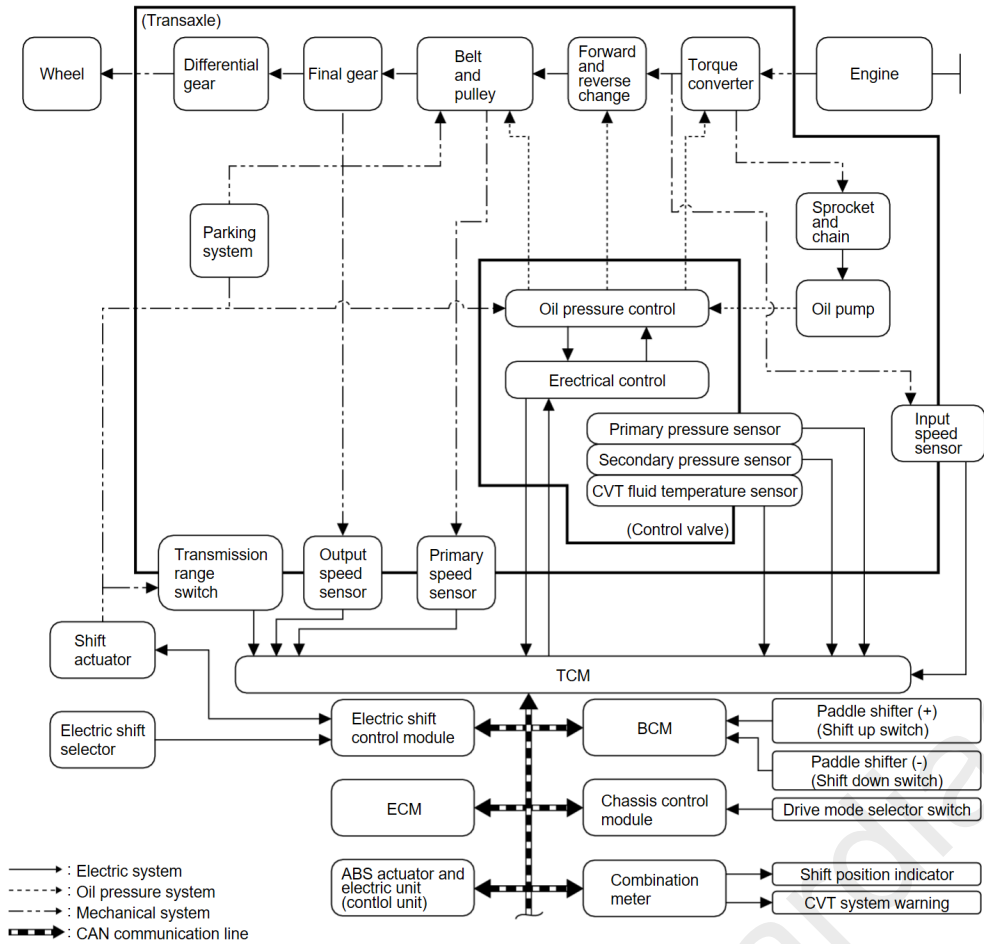


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System Description

SYSTEM DIAGRAM

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Component	Function
ECM	Mainly transmits the following signal to TCM via CAN communication. • Engine and CVT integrated control signal note General term for the communication (torque-down permission, torque down request, etc.) exchanged between the ECM and TCM. • Engine speed signal • Engine coolant temperature signal

Component	Function
	• Accelerator pedal position signal • Closed throttle position signal Mainly receives the following signals from TCM via CAN communication. • Malfunction indicator light signal
TCM	TCM 
BCM	Mainly transmits the following signal to TCM via CAN communication • Stop light switch signal • Paddle shifter shift up signal • Paddle shifter shift down signal
ABS actuator and electronic unit (control unit)	Mainly transmits the following signal to TCM via CAN communication • Vehicle speed signal • ABS operation signal • TCS operation signal • ASC operation signal • Decel G sensor signal
Combination meter	Mainly receives the following signals from TCM via CAN communication. • Shift position signal • CVT warning message signal
Malfunction indicator light (MIL)	Malfunction Indicator Light (MIL) Malfunction Indicator Lamp (MIL)  (FULL TFT METER) or Malfunction Indicator Light (MIL) Malfunction Indicator Lamp (MIL)  (7 INCH INFORMATION DISPLAY)

Component		Function
Shift position indicator		Shift position indicator Shift Position Indicator 
Drive mode select switch		Drive Mode Select Switch System Description 
Transmission range switch		Transmission Range Switch Transmission Range Switch 
Input speed sensor		Input Speed Sensor 
Output speed sensor		Output Speed Sensor Output Speed Sensor 
CVT unit connector		—
Primary speed sensor		Primary Speed Sensor Primary Speed Sensor 
Control valve	CVT fluid temperature sensor*	CVT Fluid Temperature Sensor CVT Fluid Temperature Sensor 
	Primary pressure sensor*	Primary Pressure Sensor Primary Pressure Sensor 
	Secondary pressure sensor*	Secondary Pressure Sensor Secondary Pressure Sensor 
	Line pressure solenoid valve*	Line Pressure Solenoid Valve Line Pressure Solenoid Valve 
	Primary pressure solenoid valve*	Primary Pressure Solenoid Valve 
	Secondary pressure solenoid valve*	Secondary Pressure Solenoid Valve 
	Torque converter clutch solenoid valve*	Torque Converter Clutch Solenoid Valve 
	Select solenoid valve*	Select Solenoid Valve 
Paddle shifter		Paddle Shifter 
Shift actuator		Shift Actuator 
Electric shift selector		Electric Shift Selector Electric Shift Selector 

Component	Function
Electric shift control module	Mainly transmits the following signal to TCM via CAN communication • Electric shift selector signal

These components are included in control valve assembly.

MAIN CONTROL CONTENTS OF TCM

Controls	Reference
Line pressure control	System Description ➡
Shift control	System Description ➡
Select control	System Description System Description ➡
Lock-up control	System Description ➡
Drive Mode Selector	System Description ➡
Fail-safe	Fail-safe Fail-safe ➡
Self-diagnosis function	M.U.T.-III SE Function CONSULT Function ➡
Communication function with M.U.T.-III SE	M.U.T.-III SE Function CONSULT Function ➡

For electric shift system, refer to [System Description](#) ➡.

LIST OF CONTROL ITEMS AND INPUT/OUTPUT

Control Item		Shift control	Line pressure control	Select control	Lock-up control	Fail-safe function*
Input	Engine torque signal (CAN communication)	x	x	x	x	x
	Engine speed signal (CAN communication)	x	x	x	x	x
	Accelerator pedal position signal (CAN communication)	x	x	x	x	
	Closed throttle position signal (CAN communication)	x	x		x	
	Stop light switch signal (CAN communication)	x	x	x	x	
	Primary pressure sensor					x
	Secondary pressure sensor	x	x			x
	CVT fluid temperature sensor	x	x	x	x	x
	Primary speed sensor	x	x	x	x	x
	Output speed sensor	x	x		x	x
	Input speed sensor	x	x	x	x	x
	Transmission range switch	x	x	x	x	x
	Electric shift selector signal (CAN communication)	x	x		x	
	Paddle shifter shift up/down signal (CAN communication)	x				

Control Item		Shift control	Line pressure control	Select control	Lock-up control	Fail-safe function*
Output	Line pressure solenoid valve	x	x	x		x
	Primary pressure solenoid valve	x	x			x
	Torque converter clutch solenoid valve				x	x
	Secondary pressure solenoid valve	x	x			x
	Select solenoid valve	x		x		x
	Shift position indicator (CAN communication)			x		

*: If these input/output signals show errors, TCM activates the fail-safe function.