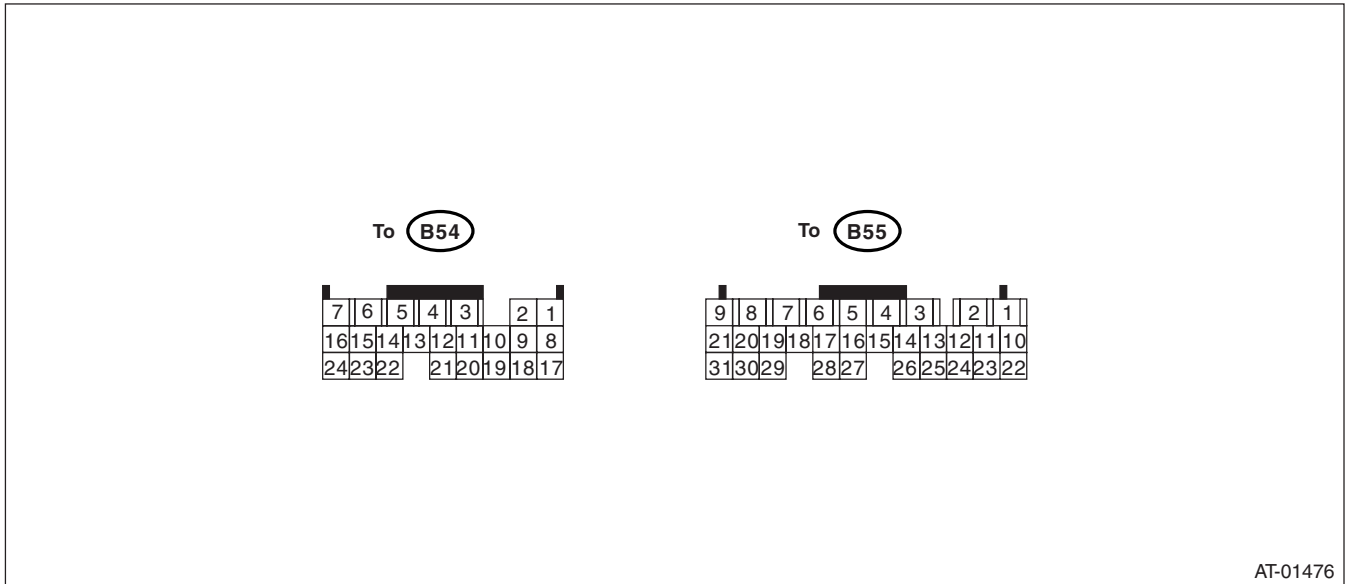


Transmission Control Module (TCM) I/O Signal

AUTOMATIC TRANSMISSION (DIAGNOSTICS)

5. Transmission Control Module (TCM) I/O Signal

A: ELECTRICAL SPECIFICATION



AT-01476

Check with ignition switch ON.						
Item	Connector No.	Terminal No.	Measuring conditions	Voltage (V)	Resistance to chassis ground (Ω)	
Back-up power supply	B55	27	Ignition switch OFF	10 — 13	—	
		28				
		29				
ACC power supply	B55	16	Ignition switch ACC	10 — 13	—	
Ignition power supply	B55	21	Ignition switch ON (with engine OFF)	10 — 13	—	
		31				
Inhibitor switch	"P" range switch	B54	5	Selector lever in "P" range	Less than 1	—
				Select lever in any other than "P" range	More than 8	
	"N" range switch	B54	22	Selector lever in "N" range	Less than 1	—
				Select lever in any other than "N" range	More than 8	
	"R" range switch	B54	14	Selector lever in "R" range	Less than 1	—
				Select lever in any other than "R" range	More than 8	
	"D" range switch	B54	4	Selector lever in "D" range	Less than 1	—
				Select lever in any other than "D" range	More than 8	
Accelerator pedal position sensor	B54	19	Throttle fully closed.	More than 0.2	—	
			Throttle fully open.	4.6 or less		
Accelerator pedal position sensor power supply	B54	10	Ignition switch ON (with engine OFF)	4.6 — 5.4	—	
ATF temperature sensor	B54	21	ATF temperature 20°C (68°F)	3.5 — 4.3	2.5 k — 7.0 k	
			ATF temperature 80°C (176°F)	1.0 — 2.2	300 — 800	
Rear vehicle speed sensor	B54	24	Vehicle speed at least 20 km/h (12 MPH)	More than 2 (AC range)	—	

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AUTOMATIC TRANSMISSION (DIAGNOSTICS)

Check with ignition switch ON.					
Item	Connector No.	Terminal No.	Measuring conditions	Voltage (V)	Resistance to chassis ground (Ω)
Front vehicle speed sensor	B54	6	Vehicle stopped	0	450 — 750
			Vehicle speed at least 20 km/h (12 MPH)	More than 1 (AC range)	
Torque converter turbine speed sensor	B54	7	Engine idling after warm-up ("D" range)	0	450 — 750
			Engine idling after warm-up ("N" range)	More than 1 (AC range)	
Engine speed signal	B54	13	Ignition switch ON (with engine OFF)	Less than 1	—
			Ignition switch ON (engine ON)	More than 5 (AC range)	
Line pressure linear solenoid	B54	20	Ignition switch ON (with engine OFF) Throttle fully closed in "R" range after warm-up.	3.7 — 7.5	4.0 — 8.0
			Ignition switch ON (with engine OFF) Throttle fully open in "R" range after warm-up.	1.4 — 4.9	
Lock-up duty solenoid	B55	5	When lock up occurs.	More than 10.5	2.0 — 6.0
			When lock up is released.	Less than 1	
Transfer duty solenoid	B55	4	"P" or "N" range	Less than 1	2.0 — 6.0
			1st gear	1.7 — 4.0	
2-4 brake duty solenoid	B55	6	"P" or "N" range	More than 10.5	2.0 — 6.0
			2nd or 4th gear	Less than 1	
High clutch duty solenoid	B55	8	3rd or 4th gear	Less than 1	2.0 — 6.0
			"P" or "N" range	More than 10.5	
Low clutch duty solenoid	B55	9	1st or 2nd gear	Less than 1	2.0 — 6.0
			"P" or "N" range	More than 10.5	
Low & reverse duty solenoid	B55	7	"P" or "N" range	More than 10.5	2.0 — 6.0
			Driving at 1st on manual mode (15 km/h (9.3 MPH) or more)	5 — 10	
Front vehicle speed sensor ground	B54	15	—	0	Less than 1
Rear vehicle speed sensor ground	B54	23	—	0	Less than 1
Torque converter turbine speed sensor ground	B54	16	—	0	Less than 1
System ground circuit	B54	17	—	0	Less than 1
	B55	2			
	B55	3			
	B54	8			
Sensor ground line 3	B55	19	—	0	Less than 1
Sensor ground line 4	B54	9	—	0	Less than 1
Range lock signal	B55	18	Vehicle speed in "D" range 0 km/h (0 MPH)	More than 10.5	7 — 18
			Vehicle speed in "D" range 20 km/h (12 MPH)	Less than 1	
Data link signal (Subaru Select Monitor)	B55	12	—	—	—

Transmission Control Module (TCM) I/O Signal

AUTOMATIC TRANSMISSION (DIAGNOSTICS)

Check with ignition switch ON.					
Item	Connector No.	Terminal No.	Measuring conditions	Voltage (V)	Resistance to chassis ground (Ω)
CAN communication signal (+)	B54	3	Ignition switch ON	Pulse signal	—
CAN communication signal (-)	B54	12	Ignition switch ON	Pulse signal	—
FWD switch	B55	17	Fuse removed	10.5 or more	—
			Fuse installed	1 or less	