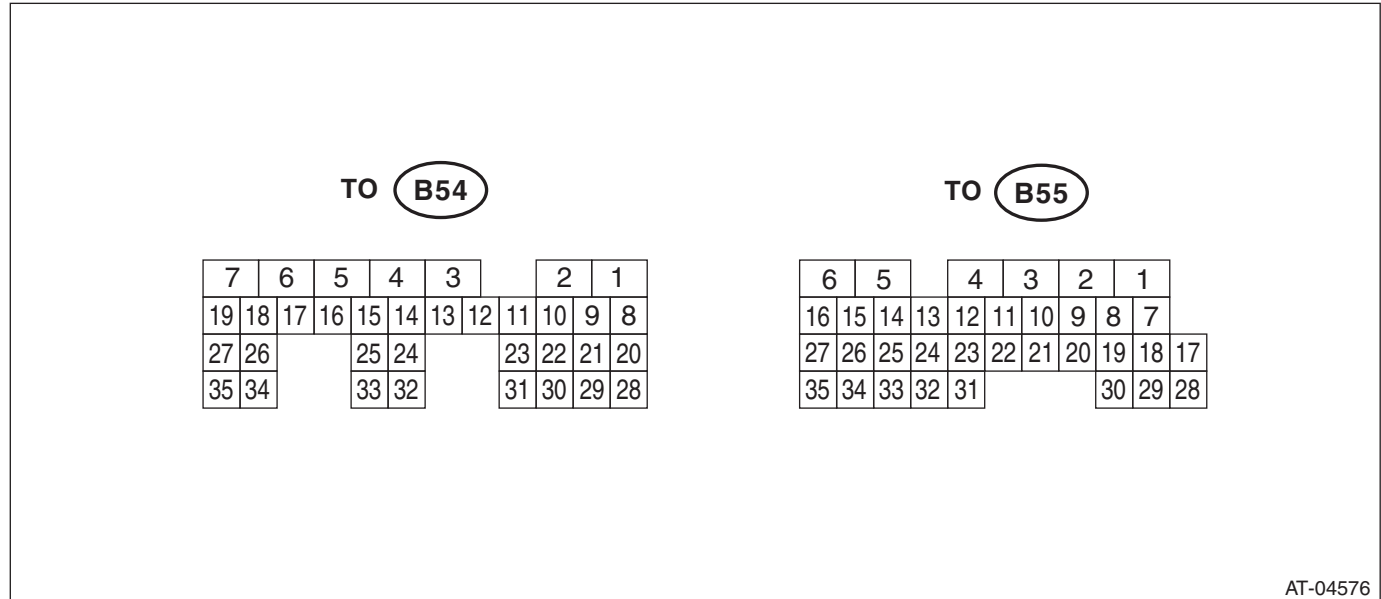


Transmission Control Module (TCM) I/O Signal

AUTOMATIC TRANSMISSION (DIAGNOSTICS)

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

A: ELECTRICAL SPECIFICATION



AT-04576

Check with ignition switch ON.						
Contents		Measured terminal (Connector & Terminal No.)		Measuring condition	Voltage (V)	Resistance (Ω)
		Positive terminal	Ground terminal			
Backup power supply		(B54) No. 25	Chassis ground	Ignition switch (engine OFF)	10 — 13	—
		(B54) No. 26				
		(B54) No. 27				
Ignition power supply		(B54) No. 1	Chassis ground	Ignition switch ON	10 — 13	—
		(B54) No. 2				
Inhibitor switch	“P” Range Switch	(B55) No. 14	Chassis ground	Select lever in “P” range	Less than 1	—
				Select lever in a range other than “P”.	8 or more	
	“R” range switch	(B55) No. 13	Chassis ground	Select lever in the “R” range	Less than 1	—
				Select lever a range other than “R”.	8 or more	
	“N” range switch	(B55) No. 11	Chassis ground	Select lever in the “N” range	Less than 1	—
				Select lever in a range other than “N”.	8 or more	
	“D” range switch	(B55) No. 10	Chassis ground	Select lever in the “D” range	Less than 1	—
				Select lever in a range other than “D”.	8 or more	
ATF temperature sensor		(B55) No. 23	(B55) No. 12	ATF temperature 20°C (68°F)	3.5 — 4.3	2.5 k — 7 k
				ATF temperature 80°C (176°F)	1.0 — 2.2	300 — 800

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Check with ignition switch ON.					
Contents	Measured terminal (Connector & Terminal No.)		Measuring condition	Voltage (V)	Resistance (Ω)
	Positive terminal	Ground terminal			
ATF temperature sensor ground	(B55) No. 12	Chassis ground	—	0	Less than 1
Rear vehicle speed sensor	(B55) No. 26	(B55) No. 15	Vehicle stopped	0	—
			Vehicle speed at least 20 km/h (12 MPH)	2 or more (AC range)	
Rear vehicle speed sensor ground	(B55) No. 15	Chassis ground	—	0	Less than 1
Front vehicle speed sensor	(B55) No. 27	(B55) No. 16	Vehicle stopped	0	450 — 650
			Vehicle speed at least 20 km/h (12 MPH)	1 or more (AC range)	
Front vehicle speed sensor ground	(B55) No. 16	Chassis ground	—	—	—
Torque converter turbine speed sensor	(B55) No. 1	(B55) No. 2	Engine idling after warm-up ("D" range)	0	450 — 650
			Engine idling after warm-up ("N" range)	1 or more (AC range)	
Torque converter turbine speed sensor ground	(B55) No. 2	Chassis ground	—	—	—
Line pressure linear solenoid	(B55) No. 4	(B55) No. 3	Ignition switch ON, throttle fully closed in "R" range after engine warm-up.	3.7 — 7.7	4.0 — 6.0
			Ignition switch ON, throttle fully open in "R" range after engine warm-up.	1.1 — 5.1	
Line pressure linear solenoid ground	(B55) No. 3	Chassis ground	—	Less than 1	Less than 1
Lock-up duty solenoid	(B55) No. 6	Chassis ground	When lock up occurs.	10.5 or more	2.0 — 4.5
			When lock up is released.	Less than 1	
Transfer duty solenoid	(B55) No. 5	Chassis ground	With fuse installed to FWD switch	Less than 1	2.0 — 4.5
			With fuse removed from FWD switch (1st gear)	2.0 — 3.0	
2-4 brake duty solenoid	(B54) No. 4	Chassis ground	P or N range	5.0 or more	2.0 — 4.5
			2nd or 4th gear	Less than 1	
High clutch duty solenoid	(B54) No. 6	Chassis ground	3rd or 4th gear	Less than 1	2.0 — 4.5
			"P" or "N" range	5.0 or more	
Low clutch duty solenoid	(B54) No. 7	Chassis ground	1st or 2nd gear	Less than 1	2.0 — 4.5
			"P" or "N" range	5.0 or more	
Low & reverse duty solenoid	(B54) No. 5	Chassis ground	Except "1" range	5.0 or more	2.0 — 4.5
			1st Range Signal	2.5 — 5.0	
FWD switch	(B54) No. 10	Chassis ground	Fuse removed	10.5 or more	—
			Fuse installed	Less than 1	
CAN communication signal (+)	(B55) No. 18	Chassis ground	Ignition switch ON	Pulse signal	—
CAN communication signal (—)	(B55) No. 17	Chassis ground		Pulse signal	

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AUTOMATIC TRANSMISSION (DIAGNOSTICS)

Check with ignition switch ON.					
Contents	Measured terminal (Connector & Terminal No.)		Measuring condition	Voltage (V)	Resistance (Ω)
	Positive terminal	Ground terminal			
System ground	(B54) No. 20	Chassis ground	—	0	Less than 1
	(B54) No. 21	Chassis ground			
	(B54) No. 22	Chassis ground			
	(B54) No. 23	Chassis ground			
Data link signal (Subaru Select Monitor)	(B54) No. 8	Chassis ground	—	—	—
SPORT shift switch	(B54) No. 17	Chassis ground	Ignition switch ON When SPORT shift mode switch is ON	Less than 1	—
			Ignition switch ON When SPORT shift mode switch is OFF	8 or more	—
SPORT shift DOWN switch	(B54) No. 18	Chassis ground	Ignition switch ON When SPORT shift up switch is ON	Less than 1	—
			Ignition switch ON When SPORT shift mode switch is OFF	8 or more	—
SPORT shift UP switch	(B54) No. 19	Chassis ground	Ignition switch ON When SPORT shift down switch is ON	Less than 1	—
			Ignition switch ON When SPORT shift mode switch is OFF	8 or more	—