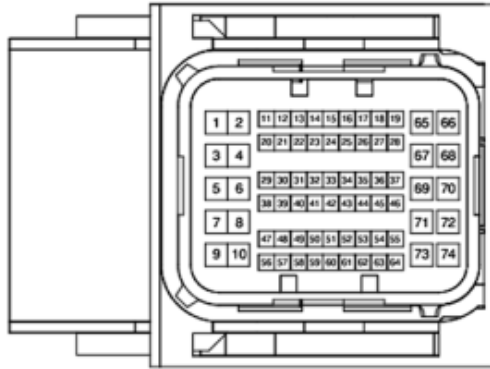




## TCM Connector



### TCM terminal function

[SBW]

Pin	Description	Pin	Description
1	Underdrive Clutch control solenoid valve	40	Back UP Comm. (TCM→Electronic shift lever)
2	Damper clutch control solenoid valve	43	CAN HIGH
3	27 Brake control solenoid valve	44	CCP CAN LOW
5	6 Clutch control solenoid valve	45	D position solenoid valve (ON/OFF)
7	Line pressure control solenoid valve	49	Parking switch ground
8	35R Clutch control solenoid valve	52	CAN LOW
9	4&OD Clutch control solenoid valve	53	CCP CAN HIGH
10	8LR Brake control solenoid valve	54	P position solenoid valve (ON/OFF)
12	Back UP Comm. (TCM→Electronic shift lever)	55	Reverse lamp relay
14	Parking switch signal "S2" (PWM)	56	Output speed sensor (power), 9V
15	Parking switch power (5V)	58	Input speed sensor (power), 9V
18	R position solenoid valve (ON/OFF)	65	Solenoid valve power 1 (UD, 27, 8LR, DC)
20	Paddle shift (Down)	66	Solenoid valve power 2 (4&OD, 35R, 6C, LP)
21	Paddle shift (Up)	67	Power (VB)
22	Parking switch signal "S1" (PWM)	68	Power (VB)
24	P/N relay	70	Solenoid valve power 3 (ON/OFF)
25	Oil temperature sensor (+)	71	Ground
26	Oil temperature sensor (-)	72	Solenoid valve power 4 (ON/OFF)
27	Back UP Comm. (TCM→Electronic shift lever)	73	Ground
31	Input speed sensor signal	74	Ground
32	Output speed sensor signal	-	-

[SBC]

Pin	Description	Pin	Description
1	Underdrive Clutch control solenoid valve	26	Oil temperature sensor (-)
2	Damper clutch control solenoid valve	31	Input speed sensor signal
3	27 Brake control solenoid valve	32	Output speed sensor signal
5	6 Clutch control solenoid valve	43	CAN HIGH
7	Line pressure control solenoid valve	44	CCP CAN LOW

8	35R Clutch control solenoid valve	49	Inhibitor switch ground
9	4&OD Clutch control solenoid valve	52	CAN LOW
10	8LR Brake control solenoid valve	53	CCP CAN HIGH
11	Manual mode switch "Select"	55	Reverse lamp relay
12	Manual mode switch "Up"	56	Output speed sensor (power), 9V
13	Manual mode switch "Down"	58	Input speed sensor (power), 9V
14	Inhibitor switch signal "S2"	65	Solenoid valve power 1 (UD, 27, 8LR, DC)
15	Inhibitor switch power (5V)	66	Solenoid valve power 2 (4&OD, 35R, 6C, LP)
18	SS-A solenoid valve (ON/OFF)	67	Power (VB)
20	Paddle shift (Down)	68	Power (VB)
21	Paddle shift (Up)	71	Ground
22	Parking switch sinal "S1" (PWM)	72	Solenoid valve power 4 (ON/OFF)
24	P/N relay	73	Ground
25	Oil temperature sensor (+)	74	Ground

### TCM terminal input / output signal

[SBW]

Pin	Description	Condition	Input/Output Value	
			Type	Level
1	Underdrive clutch control solenoid valve	-	Output	0V/Battery voltage level
				9V < Battery voltage level <16V
2	Damper clutch control solenoid valve	-	Output	0V/Battery voltage level
				9V < Battery voltage level <16V
3	27 Brake control solenoid valve	-	Output	0V/Battery voltage level
				9V < Battery voltage level <16V
5	6 Speed clutch control solenoid valve	-	Output	0V/Battery voltage level
				9V < Battery voltage level <16V
7	Line pressure control solenoid valve	-	Output	0V/Battery voltage level
				9V < Battery voltage level <16V
8	35R Clutch control solenoid valve	-	Output	0V/Battery voltage level
				9V < Battery voltage level <16V
9	4&OD Clutch control solenoid valve	-	Output	0V/Battery voltage level
				9V < Battery voltage level <16V
10	8LR Brake control solenoid valve	-	Output	0V/Battery voltage level
				9V < Battery voltage level <16V
14	Parking switch signal S2	High	Input	0V/4.5 - 5.5 V
		Low		4.5 < Battery voltage level < 5.5V
15	Parking switch power (5V)	High	Input	0V/4.5 - 5.5 V
		Low		4.5 < Battery voltage level < 5.5V
18	R position solenoid valve (ON/OFF)	-	Output	0V/Battery voltage level
				9V < Battery voltage level <16V
20	Paddle shift "Down"	Down ON	Input	0V/Battery voltage level
		Other ON		9V < Battery voltage level < 16V
21	Paddle shift "Up"	UP	Input	0V/Battery voltage level
		Other ON		9V < Battery voltage level < 16V
22	Parking switch signal S1	High	Input	0V / 4.5 - 5.5 V
		Low		4.5 < Battery voltage level < 5.5V

24	P/N relay	ON	Output	About 1V
		OFF		Battery voltage level
25	Oil temperature sensor (+)	-	Input	Maximum 5V voltage level
26	Oil temperature sensor (-)	-	Input	Minimum 0V voltage level
31	Input speed sensor signal	-	Pulse Input	Low : About 0.7V, High : 1.4V
				Maximum/ Minimum Frequency :
				9kHz/0Hz
32	Output speed sensor signal	-	Pulse Input	Low : About 0.7V, High : 1.4V
				Maximum/ Minimum Frequency :
				9kHz/0Hz
45	D position solenoid valve (ON/OFF)	-	Output	0V/Battery voltage level
				9V < Battery voltage level <16V
54	P position solenoid valve (ON/OFF)	-	Output	0V/Battery voltage level
				9V < Battery voltage level <16V
55	Reserve lamp relay	ON	Output	0V/Battery voltage level
		OFF		
56	Output speed sensor power	ON	Output	About 9V voltage level
		OFF		0V
58	Input speed sensor power	ON	Output	About 9V voltage level
		OFF		0V
65	Solenoid supply power 1	-	Power	Battery voltage level
	(UD/C, 27/B, 8LR/B, D/C)			9V < Battery voltage level <16V
66	Solenoid supply power 2	-	Power	Battery voltage level
	(4&OD/C, 35R/C, 6/C, L/P)			9V < Battery voltage level <16V
67	Battery power	ON	Power	0V/Battery voltage level
		OFF		9V < Battery voltage level <16V
68	Battery power	ON	Power	0V/Battery voltage level
		OFF		9V < Battery voltage level <16V
70	Solenoid supply power 3	-	Power	Battery voltage level
	(ON/OFF solenoid)			9V < Battery voltage level <16V
71	Ground	-	Ground	0V (GND level)
72	Solenoid supply power 4	-	Power	Battery voltage level
	(ON/OFF solenoid)			9V < Battery voltage level <16V
73	Ground	-	Ground	0V (GND level)
74	Ground	-	Ground	0V (GND level)

## [SBC]

Pin	Description	Condition	Input/Output Value	
			Type	Level
1	Underdrive clutch control solenoid valve	-	Output	0V/Battery voltage level
				9V < Battery voltage level <16V
2	Damper clutch control solenoid valve	-	Output	0V/Battery voltage level
				9V < Battery voltage level <16V
3	27 Brake control solenoid valve	-	Output	0V/Battery voltage level
				9V < Battery voltage level <16V
5	6 Speed clutch control solenoid valve	-	Output	0V/Battery voltage level
				9V < Battery voltage level <16V
7	Line pressure control solenoid valve	-	Output	0V/Battery voltage level

				9V < Battery voltage level <16V
8	35R Clutch control solenoid valve	-	Output	0V/Battery voltage level
				9V < Battery voltage level <16V
9	4&OD Clutch control solenoid valve	-	Output	0V/Battery voltage level
				9V < Battery voltage level <16V
10	8LR Brake control solenoid valve	-	Output	0V/Battery voltage level
				9V < Battery voltage level <16V
11	Manual mode "Select"	Select	Input	0V/Battery voltage level
		Other ON		9V < Battery voltage level < 16V
12	Manual mode "Up"	UP	Input	0V/Battery voltage level
		Other ON		9V < Battery voltage level < 16V
13	Manual mode "Down"	Down	Input	0V/Battery voltage level
		Other ON		9V < Battery voltage level < 16V
14	Inhibitor switch signal S2	High	Input	0V/4.5 - 5.5 V
		Low		4.5 < Battery voltage level < 5.5V
15	Inhibitor switch power (5V)	High	Input	0V/4.5 - 5.5 V
		Low		4.5 < Battery voltage level < 5.5V
20	Paddle shift "Down"	Down ON	Input	0V/Battery voltage level
		Other ON		9V < Battery voltage level < 16V
21	Paddle shift "Up"	UP	Input	0V/Battery voltage level
		Other ON		9V < Battery voltage level < 16V
22	Inhibitor switch signal S1	High	Input	0V / 4.5 - 5.5 V
		Low		4.5 < Battery voltage level < 5.5V
24	P/N relay	ON	Output	About 1V
		OFF		Battery voltage level
25	Oil temperature sensor (+)	-	Input	Maximum 5V voltage level
26	Oil temperature sensor (-)	-	Input	Minimum 0V voltage level
31	Input speed sensor signal	-	Pulse Input	Low : About 0.7V, High : 1.4V
				Maximum/ Minimum Frequency :
				9kHz/0Hz
32	Output speed sensor signal	-	Pulse Input	Low : About 0.7V, High : 1.4V
				Maximum/ Minimum Frequency :
				9kHz/0Hz
55	Reserve lamp relay	ON	Output	0V/Battery voltage level
		OFF		
56	Output speed sensor power	ON	Output	About 9V voltage level
		OFF		0V
58	Input speed sensor power	ON	Output	About 9V voltage level
		OFF		0V
65	Solenoid supply power 1 (UD/C, 27/B, 8LR/B, D/C)	-	Power	Battery voltage level
				9V < Battery voltage level <16V
66	Solenoid supply power 2 (4&OD/C, 35R/C, 6/C, L/P)	-	Power	Battery voltage level
				9V < Battery voltage level <16V
67	Battery power	ON	Power	0V/Battery voltage level
		OFF		9V < Battery voltage level <16V
68	Battery power	ON	Power	0V/Battery voltage level
		OFF		9V < Battery voltage level <16V
71	Ground	-	Ground	0V (GND level)

72	Solenoid supply power 4	-	Power	Battery voltage level
	(ON/OFF solenoid)			9V < Battery voltage level <16V
73	Ground	-	Ground	0V (GND level)
74	Ground	-	Ground	0V (GND level)