Transmission Controller Data Stream Summary

Powertrain Control Solutions, LLC 6/30/2009

38400 Baud, 8-N-1

To initiate the data stream, transmit "D" (ASCII $44) to the controller.
The TCU will respond with 68-byte data stream

Byte	Name	Bytes	Divisor	Offset	Units	Notes
0	Speed 1	2	1	0	RPM	
2	Speed 2	2	1	0	RPM	
4	Speed 3	2	1	0	RPM	
6	Speed 4	2	1	0	RPM	
8	AD1	2	13094.4	0	V	
10	AD2	2	13094.4	0	V	
12	AD3	2	13094.4	0	V	
14	AD4	2	13094.4	0	V	
16	AD5	2	13094.4	0	V	
18	AD6	2	13094.4	0	V	
20	AD7	2	13094.4	0	V	
22	System Voltage	2	1190.4	0	V	
24	PWM1	1	2.55	0	%	
25	PWM2	1	2.55	0	%	
26	PWM3	1	2.55	0	%	
27	PWM4	1	2.55	0	%	
28	PWM5	1	2.55	0	%	
29	PWM6	1	2.55	0	%	
30	PWM7	1	2.55	0	%	
31	PWM8	1	2.55	0	%	
32	PWM9	1	2.55	0	%	
33	Digital Outputs	1	1	0	None	Bit 5:3 = Digital Out 3:1, 0=Off, 1=On
34	Desired Gear	1	1	0	None	0,1,2,3,4,5,6,7,8,255 = 1st,2nd,3rd,4th,5th,6th,R,N,P,E
35	Lever Position	1	1	0	None	0,1,2,3,4,5,6,7,8,255 = 1st,2nd,3rd,4th,5th,6th,R,N,P,E
36	Current Gear	1	1	0	None	0,1,2,3,4,5,6,7,8,255 = 1st,2nd,3rd,4th,5th,6th,R,N,P,E
37	Digital Input 1	1	1	0	None	Bit 7:0 = Digital In 8:1, 0=Off, 1=On
38	Digital Input 2	1	1	0	None	Bit 7:0 = Digital In 16:9, 0=Off, 1=On
39	Mode Status Flags	1	1	0	None	See Below
40	On Board Temperature	2	1	0		
42	TPS	1	2.55	0	%	
43	MAP	1	0.5	0	kPa	Absolute
44	Coolant Temp	1	1	-50	Deg C	
45	Fluid Temp 1	1	1	-50	Deg C	
46	Fluid Temp 2	1	1	-50	Deg C	
47	VSS	2	256	0	MPH	
49	VSS2	2	256	0	MPH	
51	RPM	2	1	0	RPM	
53	Turbine Spd	2	1	0	RPM	
55	TCC Lock Percentage	1	2.55	0	%	
56	Line Pressure	1	2.55	0	%	
57	Accumulator Pressure	1	2.55	0	%	
58	Drive Shaft RPM	2	1	0	RPM	
60	TCC Slip	1	See Note	See Note	%	0-255 = 100 to -100, where 0 = 100 and 255 = -100
61	VSS Slip	1	See Note	See Note	%	0-255 = 100 to -100, where 0 = 100 and 255 = -100
62	Trans Slip	1	See Note	See Note	%	0-255 = 100 to -100, where 0 = 100 and 255 = -100
63	Mode Status Flags 2	1	1	0	None	See Below
64	Measured Line Pressure	1	1	0	PSI	0-255 = 0-255psi
65	Measured Accumulator Pressure	1	1	0	PSI	0-255 = 0-255psi
66	Measured TCC Pressure	1	1	0	PSI	0-255 = 0-255psi
67	Checksum	1	1	0		

Bit	Mode Status Flags
0	1 = Full Throttle
1	1 = Manual Mode
2	0 = calibration1, 1 = calibration2
3	1 = Snow Mode/2nd gear start
4	1 = Cancel Overdrive
5	1 = Dyno Mode
6	1 = Cancel TCC lock up
7	1 = 4wd Low

Bit	Mode Status Flags 2
0	1 = Lockup TCC, 0 = TCC unlocked
1	1 = PWM lockup started
2	1 = Failure of AD detected
3	1 = Neutral or Park to drive , 0 = Neutral or Park to Reverse
4	1 = Upshift timer, 0 = downshift timer
5	1 = Disengage TCC all the time
6	1 = True Manual Mode engaged
7	1 = Simple Manual Mode engaged

See Checksum Calculation document for calculation.