

Transmission - Auto Shift Speed

The screenshot shows the 'Transmission' window with the 'Auto Shift Speed' tab selected. The window has a blue title bar and standard Windows window controls. Below the title bar are four tabs: 'Auto Shift Speed', 'Shift Properties', 'Auto TCC', and 'Torque Mngmnt'. The 'Auto Shift Speed' tab contains three columns of settings:

- Part Throttle Shift:** Includes buttons for 'Normal', 'Performance', 'Cruise', and 'Hot'.
- Full Throttle Shift Speed:** Includes buttons for 'Normal' and 'Hot'.
- Full Throttle Shift RPM:** Includes buttons for 'Normal' and 'Hot'.

All buttons are currently set to 'Normal'.

Shift Speed vs. TPS vs. Shift - Normal

Throttle Position (%)																	
	0	6	12	19	25	31	37	44	50	56	62	69	75	81	87	94	100
1 -> 2 Shift	9	9	11	12	15	18	22	27	31	33	36	37	39	40	41	42	42
2 -> 3 Shift	18	18	19	20	29	35	42	50	57	62	67	70	72	75	79	79	79
3 -> 4 Shift	26	26	28	30	44	54	64	74	83	92	235	235	235	235	235	235	235
2 -> 1 Shift	7	7	7	7	7	7	7	7	7	7	7	7	16	23	32	36	36
3 -> 2 Shift	16	16	16	16	16	18	22	25	29	34	41	50	58	69	73	75	75
4 -> 3 Shift	24	24	24	24	24	25	29	34	41	51	60	71	231	231	231	231	231

Shift Speed vs. TPS vs. Shift - Performance

Throttle Position (%)																	
	0	6	12	19	25	31	37	44	50	56	62	69	75	81	87	94	100
1 -> 2 Shift	11	11	14	18	20	23	26	29	32	33	34	36	37	39	40	41	41
2 -> 3 Shift	22	22	27	31	35	41	45	50	53	56	59	64	68	73	76	81	81
3 -> 4 Shift	33	33	37	44	50	56	62	66	70	76	235	235	235	235	235	235	235
2 -> 1 Shift	9	9	9	9	9	9	9	9	9	9	9	9	15	23	32	36	36
3 -> 2 Shift	20	20	20	21	22	25	29	35	41	45	50	53	56	59	64	75	75
4 -> 3 Shift	31	31	31	33	39	44	48	54	61	67	74	79	86	231	231	231	231

Shift Speed vs. TPS vs. Shift - Cruise

Throttle Position (%)																	
	0	6	12	19	25	31	37	44	50	56	62	69	75	81	87	94	100
1 -> 2 Shift	9	9	9	9	15	18	22	27	31	33	36	37	39	40	41	42	42
2 -> 3 Shift	17	17	18	19	21	22	24	29	34	39	44	49	54	59	64	69	74
3 -> 4 Shift	17	17	21	24	32	40	48	56	64	72	80	88	96	104	112	120	128
2 -> 1 Shift	7	7	7	7	7	7	7	7	7	7	7	7	16	23	32	36	36
3 -> 2 Shift	16	16	16	16	16	16	16	18	22	26	30	34	38	42	46	50	54
4 -> 3 Shift	16	16	16	16	16	18	24	30	36	42	48	54	60	66	72	78	84

Shift Speed vs. TPS vs. Shift - Transmission Hot

		Throttle Position (%)																	
		0	6	12	19	25	31	37	44	50	56	62	69	75	81	87	94	100	
1 -> 2 Shift		11	11	14	18	30	35	36	37	37	38	38	40	40	41	41	41	41	
2 -> 3 Shift		33	33	35	59	64	66	67	67	68	69	70	70	70	70	70	72	72	
3 -> 4 Shift		60	60	70	76	82	88	95	100	105	110	255	255	255	255	255	255	255	
2 -> 1 Shift		9	9	9	9	9	9	9	9	9	9	9	9	15	23	31	33	33	
3 -> 2 Shift		30	30	30	30	30	30	30	34	38	42	47	51	56	59	62	65	65	
4 -> 3 Shift		55	55	55	55	55	60	65	70	75	80	85	90	95	254	254	254	254	

WOT Shift Speed vs. Shift - Normal

	Speed
1 -> 2 Shift	41
2 -> 3 Shift	78
3 -> 4 Shift	256
2 -> 1 Shift	36
3 -> 2 Shift	73
4 -> 3 Shift	252

WOT Shift Speed vs. Shift - Transmission Hot

	Speed
1 -> 2 Shift	39
2 -> 3 Shift	69
3 -> 4 Shift	256
2 -> 1 Shift	33
3 -> 2 Shift	65
4 -> 3 Shift	252

WOT Shift RPM vs. Shift - Normal

	Engine Speed
1 -> 2 Shift	6100
2 -> 3 Shift	6100
3 -> 4 Shift	5700

WOT Shift RPM vs. Shift - Transmission Hot

	Engine Speed
1 -> 2 Shift	5850
2 -> 3 Shift	5500
3 -> 4 Shift	5700

Transmission - Shift Properties

Transmission

Auto Shift Speed

Shift Properties

Auto TCC

Torque Mngmnt

Force Motor Current

Positive

Shift Pressure

Normal

Performance

Max Pressure

90

Desired Shift Time

Normal

Performance

Force Motor Current vs. Commanded Line Pressure vs. Temp - Positive

Transmission Oil Temp (°F)		0	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	100
	-40	1094	1006	957	908	859	825	791	757	713	664	605	547	488	420	322	161	98	1245
	-18	1094	1006	957	908	859	825	791	757	713	664	605	547	488	420	322	161	98	1245
	3	1094	996	952	913	874	835	796	762	718	669	610	557	498	430	332	195	98	1245
	24	1094	991	952	908	864	830	796	757	713	669	610	557	493	430	337	205	98	1245
	46	1084	991	947	908	864	830	796	757	713	664	605	552	493	425	332	200	98	1245
	68	1064	977	938	898	854	820	786	747	703	654	601	542	483	415	317	181	98	1245
	89	1055	972	928	889	850	815	781	742	698	649	591	537	474	405	303	161	98	1245
	111	1025	967	923	884	845	811	776	737	698	649	591	532	469	400	293	146	98	1245
	132	1025	957	918	879	840	806	771	737	693	645	586	532	469	391	283	127	98	1245
	154	1016	952	913	874	835	806	771	732	688	645	586	527	469	391	278	107	98	1245
	176	1006	947	903	864	830	801	767	728	688	640	581	527	464	391	273	103	98	1245
	197	996	947	903	859	830	796	767	728	688	640	586	532	469	396	288	127	98	1245
	219	996	938	898	854	825	796	762	723	684	635	581	527	464	391	269	98	98	1245
	240	996	933	894	854	820	791	757	723	684	635	581	527	464	391	278	107	98	1245
	262	986	933	894	854	820	791	757	723	684	635	586	532	474	400	288	132	98	1245
	284	986	928	889	850	815	786	757	723	679	635	581	527	469	400	293	132	98	1245
	305	986	928	889	850	815	786	757	723	679	635	581	527	469	400	293	132	98	1245

Desired Shift Time vs. Torque - Normal
(ft. lb)

	0	40	80	120	160	200	240	280	320	360	400	440	480	520	560	600	640
1 -> 2 Shift Time	0.400	0.400	0.400	0.400	0.400	0.344	0.275	0.225	0.225	0.225	0.225	0.225	0.213	0.188	0.188	0.188	0.188
2 -> 3 Shift Time	0.200	0.200	0.200	0.200	0.200	0.200	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.125	0.125	0.125
3 -> 4 Shift Time	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Desired Shift Time vs. Torque - Performance
(ft. lb)

	0	40	80	120	160	200	240	280	320	360	400	440	480	520	560	600	640
1 -> 2 Shift Time	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2 -> 3 Shift Time	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3 -> 4 Shift Time	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Base Shift Pressure vs. Torque vs. Gear - Normal (ft. lb)

	0	20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	340	360	380	400	420	440	460	480	500	520	540	560	580	600	620	640
1 -> 2 Shift	3	6	9	12	15	18	20	23	25	26	28	31	34	36	39	42	45	48	50	53	56	59	62	64	67	70	73	76	78	81	84	87	90
2 -> 3 Shift	0	0	0	0	3	6	9	12	15	18	20	23	26	29	32	35	38	40	42	44	46	48	50	52	54	62	70	90	90	90	90	90	90
3 -> 4 Shift	0	3	6	8	11	14	17	20	22	25	28	31	34	36	39	42	45	48	50	53	56	59	62	64	67	70	73	76	78	81	84	87	90

Base Shift Pressure vs. Torque vs. Gear - Performance (ft. lb)

	0	20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	340	360	380	400	420	440	460	480	500	520	540	560	580	600	620	640
1 -> 2 Shift	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 -> 3 Shift	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 -> 4 Shift	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Transmission - Auto TCC

Transmission

Auto Shift Speed | Shift Properties | **Auto TCC** | Torque Mngmnt

Apply/Release Speed

Normal

Normal Release

Performance

Performance Release

TCC Apply/Release Speed vs. TPS vs. Gear - Normal
Throttle Position (%)

	0	6	12	19	25	31	37	44	50	56	62	69	75	81	87	94	100
2nd Apply	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255
3rd Apply	30	30	30	30	48	58	70	81	92	103	236	236	236	236	236	236	236
4th Apply	41	41	41	41	48	58	70	81	92	103	236	236	236	236	236	236	236
2nd Release	252	252	252	252	252	252	252	252	252	252	252	252	252	252	252	252	252
3rd Release	28	28	28	28	28	28	30	44	57	69	86	106	232	232	232	232	232
4th Release	39	39	39	39	39	39	42	52	63	78	92	106	233	233	233	233	233

TCC Release TPS vs. Speed - Normal
Vehicle Speed (mph)

	0	8	16	24	32	40	48	56	64	72	80	88	96	104	112	120	128
2nd Release	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
3rd Release	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
4th Release	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

TCC Apply/Release Speed vs. TPS vs. Gear - Normal
Throttle Position (%)

	0	6	12	19	25	31	37	44	50	56	62	69	75	81	87	94	100
2nd Apply	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255
3rd Apply	35	35	39	46	52	58	64	68	73	78	240	240	240	240	240	240	240
4th Apply	45	45	48	54	61	67	74	79	86	92	240	240	240	240	240	240	240
2nd Release	252	252	252	252	252	252	252	252	252	252	252	252	252	252	252	252	252
3rd Release	33	33	33	33	39	44	48	53	58	64	68	73	78	235	235	235	235
4th Release	43	43	43	43	47	54	61	67	74	79	86	92	235	235	235	235	235

TCC Release TPS vs. Speed - Normal
Vehicle Speed (mph)

	0	8	16	24	32	40	48	56	64	72	80	88	96	104	112	120	128
2nd Release	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
3rd Release	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
4th Release	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Transmission - Torque Management

Transmission

Auto Shift Speed | Shift Properties | Auto TCC | Torque Mngmnt

Abuse Mode
☒ Enabled ☐ Disabled

Torque Reduction
☒ Normal ☐ Performance

Torque Reduction
Reduction Duration

Trans Abuse Mode Torque Reduction vs. RPM

Engine Speed (rpm)

	0	400	800	1200	1600	2000	2400	2800	3200	3600	4000	4400	4800	5200	5600	6000	6400	6800
Torque Reduction	0	0	0	25	50	100	100	100	100	100	100	100	100	100	100	100	100	100

Trans Abuse Mode Torque Reduction Duration vs. Transmission Temp

Transmission Oil Temp (°F)

	-40	-18	3	24	46	68	89	111	132	154	176	197	219	240	262	284	305
Duration	1.2	1.2	1.2	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Duration	1.2	1.2	1.2	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8

Torque Reduction vs. Torque vs. Shift - Normal

(ft.lb)

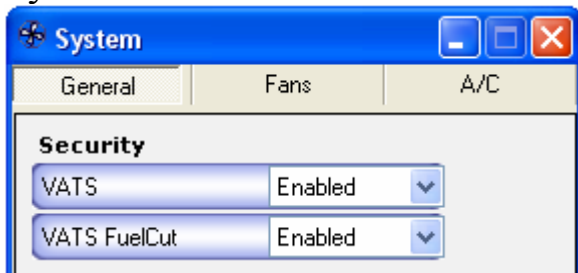
	0	40	80	120	160	200	240	280	320	360	400	440	480	520	560	600	640
1 -> 2 Shift	0	0	0	0	10	25	25	31	31	31	31	31	38	38	38	38	38
2 -> 3 Shift	0	13	13	19	19	25	25	31	31	31	31	31	31	31	31	31	31
3 -> 4 Shift	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Torque Reduction vs. Torque vs. Shift - Performance

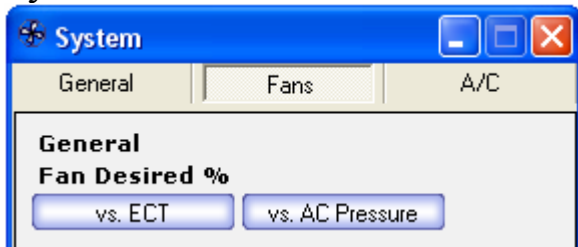
(ft.lb)

	0	40	80	120	160	200	240	280	320	360	400	440	480	520	560	600	640
1 -> 2 Shift	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 -> 3 Shift	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 -> 4 Shift	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

System – General



System - Fans



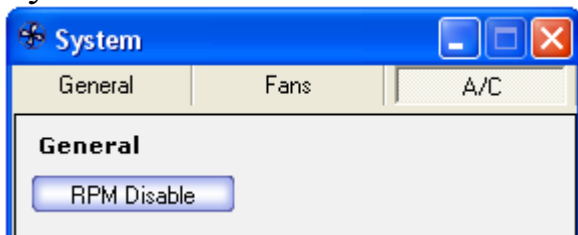
Fan Desired % vs. ECT
Engine Coolant Temp (°F)

	192	196	199	203	207	210	214	217	221	225	228	232	236	240	243	247	250
Fan Desired	0	0	0	0	0	7	8	15	22	29	39	56	73	91	99	99	99

Fan Desired % vs. AC Pressure
(psi)

	144	160	176	192	208	224	240	256	272	288	304	320	336	352	368	384	400
Fan Desired	0	6	6	6	6	13	18	18	18	25	32	32	32	32	36	36	36

System - A/C



A/C RPM Disable vs. Gear

	AC Disable	AC Re-Enable
In Gear	8000	7500
P/N	8000	7500

System - Speedometer

Speedometer

Speedometer Speed Limiter

VSS Pulses per
Mile 104928 ppm

VSS Trans Revs per
Mile 2623.2418 revs/l

Final Drive Ratio
Drive Sprocket Ratio 1.000 :1

Trans Revolutions/Mile 2637.5972 revs/l

System - Speed Limiter

Speedometer

Speedometer Speed Limiter

General

Speed Limiter Speed Limiter 2

Speed Limit - Fuel Cut

	Speed
Cutoff	106
Resume	105

Speed Limit 2

	Speed
Cutoff	27
Resume	22