

CAN traffic IDs and meanings on the 3rd generation Prius ( THSII ) in non-solicited mode ( as in these are on the CAN without putting request on the CAN ).												
Color codes = <b>Confirmed</b> , <b>Almost sure</b> , <b>Hunch</b> , <b>No idea</b> . (*) means I am using it in my onboard computer...												
ID	Desc.	f/s	Length	#0	#1	#2	#3	#4	#5	#6	#7	Comment
2		<<1	4									
20		78-79	3	----	----	----	----	----	----	----	----	Quite constant with occasional peeks
22	Sideway acceleration sensor	35	8	#0#1 : force value, 0x200 neutral, decreases with force pointing left, increases with right		----	----	----	----	----	----	Measured range : 0x150 - 0x200 - 0x2C0
23	Acceleration sensor	~22.5	7	#0#1 : force value, 0x200 neutral, decreases with force pointing forward, increases with acceleration		----	----	----	----	----	----	Measured range : 0x1B0 - 0x200 - 0x260
25	Steering	O/D (55-60)	8	#0#1 : Angle ( Left most = 0x1BC, Neutral = 0, Right most = 0xE48 )		----	----		Power assist ?	----	----	Range is likely to be Prius dependent
30	Brakes	O/D (170-190)	8	bit#7 : 0=presed 1=released ( 0x84 Not pressed / 0x04 Pressed )		----	----		Strength ( 0:out ~ 0x7F:pushed in )	----	----	
38	ICE	105	7	----	rpm?	----	----	----	----	----	----	
39	ICE	94-95	4	Engine Temp in Celsius		Throttle related (?)		----	----	----	----	
3A	Gas / Torque / EM Current ?	99-100	7	No Chg when ICE off		No Chg when ICE off	No Chg when ICE off	No Chg when ICE off	No Chg when ICE off	No Chg when ICE off	Jitter when ICE off	
3B	EM Current (*)	97	5	12 bit signed number ( + discharge ) unit is 0.1A		battery pack voltage, unit is 1V		----	----	----	----	Current drawn ?
3E	gear rotation ?	95	3	Value		----	----	----	----	----	----	minor vibrations ( 0x0x80 range )
60		<<1	7	----	----	----	----	----	----	----	----	
87		<<1	8	----	----	----	----	----	----	----	----	
B0		<<1	3	----	----	----	----	----	----	----	----	
B1	Front wheels	52-53	6	#0#1 : right side		#2#3 : left side		----	----	----	----	value is speed in km/h * 100
B3	Rear wheels	~56	6	#0#1 : right side		#2#3 : left side		----	----	----	----	
B4	Speed	31-32	8	----	----	----	----	----	#5#6 = Value		----	0x400 for every 10km/h, including signed value for backwards
C9	ABS?	<<1	5	----	----	----	----	----	----	----	----	
120	Drive Mode	50-51	8	----	----	----	----	MSB : cruise ON/OFF	0x13&0x14=D 0x10=P 0x11=R 0x12=N	0x04=Powered 0x00=Standby	0x50=D 0x51=B 0x4D=P 0x4E=R 0x4F=N MSB=CruiseON/off 0x49 0x4B = Standby	Possible to check if car is in Standby or Powered mode
230	counter ?!	12-13	7	----	----	----	Chgs with Brake... (0x4, 0x20, 0x24 )	----	----	----	----	most traffic when accel/decel
244	Gas Pedal / Speed	28	8	----	----	----	----	#4#5 Speed related ( ~0x150=10km/h ~0x300=20km/h ~0x700=50km/h ) ALSO, negative, when backing up !!!		Gas Pedal ( 0x00 ~ 0xC8 )	Speed related, but also gas pedal related ( changes when stopped and pedal pressed, but goes up with speed even if pedal does not change ) 0x5E when in rest...	Negative speed data for backup
262		33.8	4	0x00	0x01	0x00	0x69	----	----	----	----	no activity when electric only
348	ICE (*)	13.5-14	6			Throttle related ( requested rpm ? ) ~MPG=(KM/H*10000)/value		0 when no power by ICE.		----	----	
34F		<<1	5	----	----	----	----	----	----	----	----	
3C8	ICE rpm (*)	9.7	5			#2#3 : Target RPM ( unit is 32 rpm )		----	----	----	----	
3C9	related to release date ?	6.6	8	0x03	0xFF	0x21 ( chg with power )	0x02	0x75	0x02	0xFA	0x6A	
3CA	Speed (*)	~5.8	5	----	??	Value in km/h		----	----	----	----	
3CB	Battery (*)	~6	7	max current for the battery discharge in Amps.	max current for the battery charge in Amps.	16 bit = SOC Value, unit is 0.5%		Batt Temp Min. (C)	Batt Temp Max.	----	----	90, 98, 104, 110, 128, 150 ( +5 when going up )
3CD	Battery (*)	~6	5	fault code	fault code	16 bit pack voltage		----	----	----	----	
3CF	ICE	~5.5	5	----	----	Value1 ( 0x14 ~ 0x19 )	----	Value2 ( 0x0D ~ 0x13 )	----	----	----	When ICE was on, values decreased slightly, when ICE off, they increased...
423	const?	0.6-0.7	1	0x00	----	----	----	----	----	----	----	
4C1	const?	0.8	8	0x01	0x00	0x06	0x00	0x00	0x00	0x00	0x00	
4C3	const?	0.4	8	0x03	0x00	0x03	0x00	0x00	0x00	0x00	0x00	
4C6	const?	0.7	8	0x07	0x00	0x01	0x00	0x00	0x00	0x00	0x00	
4C7	const?	0.7-0.8	8	0x08	0x00	0x01	0x00	0x00	0x00	0x00	0x00	
4C8	const?	0.7-0.8	8	0x08	0x00	0x05	0x01	0x00	0x00	0x00	0x00	
4CE	const?	0.7	8	0x0F	0x00	0x01	0x01	0x00	0x00	0x00	0x00	
4D0	HECU -> Batt	0.6	8	0x10	0x00	0x02	0x01	----	----	----	----	
4D1	Batt -> HECU	0.6	8	0x11	0x00	0x01	0x00	0x00	0x00	0x00	0x00	
520	Fuel Injector	0.4-0.5	3	0xA4	#1#2 : Fuel Injector (?) ~MPG = MPH*1100/value )		----	----	----	----	----	no activity when EV
521	const?	2.1	2	0x23	0x00	----	----	----	----	----	----	no activity when EV
526	Timing	1.3-1.4	3	0x24	ignition degrees ( BTDC ? CAM? )		----	----	----	----	----	no activity when EV
527	const?	0.5-0.6	3	0x24	0x01	0xFF	----	----	----	----	----	
528	const?	1.3-1.4	4	0x25	0x00	0x00	0x00	----	----	----	----	

	( Interlock ) / EV MODE (*)		6	bit#7 pressed/depressed	---	---	bit#3	0x00=Normal Drive 0x40=EVMode 0x80=EVDenied Other=Cancelled	---	---	---
529		0.6									
52C	Engine coolant temp (*)	0.6	2	0x23	value in Celsius, unit is 0.5C	---	---	---	---	---	---
540	Shift lever	0.5	4	bit#7 transition	00=B 10=D 20=N 40=R 80=P	---	---	---	---	---	---
553	const?	0.7	7	0x58	0x49	0x00	0x08	0x00	0x00	0x00	---
554	const?	0.7	7	0x58	0x41	0x42	0x4C	0x41	0x45	0x4E	---
56D	EV ?	0.7	4	0x65	0x6B	0x00	0xFF	---	---	---	---
57F	Lights (*)	0.7	7	bit#7 transition	00=Off 10=Park 30=On 38=HighBeam	bit#3 instruments 1=dimmed 0=normal ( 0x18/0x10 )	---	---	---	---	---
591	const?	0.7~1.4	4	0x25	0x00	0x00	0x00	---	---	---	---
5A4	Gas Gauge (*)	0.2	2	---	value ( my recorded max is 0x28 )	---	---	---	---	---	---
5B2	const?	0.1	4	0x25	0x00	0x04	0x00	---	---	---	---
5B6	Doors (*)	0.6~0.7	3	bit#7 transition	---	00=Closed 04=Rear 40=Passenger 80=Driver open	---	---	---	---	---
5C8	Cruise	0.5	3	bit#7 transition	---	00=Off 10=On	---	---	---	---	---
5CC	const?	2.6	3	0x24	0x01	0xA5	---	---	---	---	---
5D4	const?	0.7	2	0x23	0x00	---	---	---	---	---	---
5EC	const?	1	7	0x28	0x00	0x00	0x00	0x00	0x1C	0x3D	---
5ED	const?	0.7	6	0x67	0x08	0x00	0xFF	0x00	0x00	---	---
5F8	const?	0.6~0.7	2	0x23	0x00	---	---	---	---	---	---
602	const?	<<1	2	0x03	0x00	---	---	---	---	---	---
C00				---	---	---	---	---	---	---	---

1161~1166 frames / second

**Solicited CAN messages ( still kind of experimental ) :**

Engine = 7E0, response is on 7E8. ( Get DTCs = 0213 B000 )

HV ECU = 7E2, response on 7EA. ( Get DTCs = 0213 B000 )

Cruise Control = 7E2, response on 7EA. ( Get DTCs = 0213 8000 )

HV Battery = 7E3, response on 7EB. ( Get DTCs = 0213 8000 )

The most significant 2 bits in the DTCs indicate error code type : 00=P 10=B 01=C 11=U

CAN access is not confirmed for T/M Control, ABS/VSC, EMPS, A/C, Immobiliser, SRS Airbag, Body, Gateway, Smartkey, power source control...

Values after the can id :

1st byte : how many value bytes follow ( some exceptions )

2nd byte : service indication

: 4 is clear DTCs

: 13 get DTCs ( with 0x80/0xB0 ... ?!! )

: 21 get data ( 3rd byte is specification of data C3/C4/CE/CF/ )

3rd byte : in the even of DTC response, number of DTCs ( each DTC is 2 byte )

: if 2nd byte is 21, data/block specification

sending 30 00 00 00 00 00 00 00 : send rest of data.

On 7E3 : 02 21 01 = MIL STATUS, 02 21 21 = Drive Mileage, 02 21 CE = Batt SOC, 02 21 CF = Delta SOC, 02 21 CF = Batt temperatures, 02 21 D0 = Battery module voltages and internal resistance calcs

On 7E2 : 02 21 C3 and 02 21 C4 has info on MG1/2 REV, MG1/2 Torque, MG1/2 Trq Exc Val, MG1/2 inverter temp, MG1/2 temp, "converter" temp (the DC/DC?), ICE speed and target ICE speed...

Clearing HV Battery DTCs :

Send: 0x7E3 : 01 04 00 00 00 00 00 00

Resp: 0x7EB : 01 44 00 00 00 00 00 00

Clearing HV ECU DTCs :

Send: 0x7E2 : 01 04 00 00 00 00 00 00

Resp: 0x7EA : 01 44 00 00 00 00 00 00

Check HV Battery DTCs :

Send: 7E3 : 02 13 80 00 00 00 00 00

Resp: 7EB : 04 53 01 30 00 00 00 00 <- Error code P3000

Check HV ECU DTCs :

Send: 7E2 : 02 13 B0 00 00 00 00 00

Resp: 7EA : 04 53 01 30 19 00 00 00 <- Error code P3019

Check Engine DTCs :

Send: 7E0 : 0213 B000 0000 0000

Check Cruise Control DTCs :

Send: 7E0 : 0213 8000 0000 0000

Resp: 7E8 : 04 53 01 A7 99 00 00 00 <- Error code B2799