

PCU COMMAND SUMMARY

x09 Version 1.01 - 1.xx

00	NUL	ignored in sio			64	40	@	GPS position, min		msg@_
01	SOH				65	41	A	absolute az	Addd@_	*
02	STX				66	42	B	absolute hdg hard	Bddd@_	*
03	ETX				67	43	C			
04	EOT				68	44	D	absolute hdg soft	Dddd@_	*
05	ENQ				69	45	E	absolute el	Eddd@_	*
06	ACK				70	46	F			
07	BEL				71	47	G			
08	BS				72	48	H	read R H	H	msg@_
09	HT				73	49	I	absolute CL	Iddd@_	*
10	LF				74	4A	J	absolute rel	Jddd@_	*
11	VT				75	4B	K			
12	FF				76	4C	L	echo msg=Lddd	Lddd@_	msg*_
13	OD	cmd terminator	_		77	4D	M			
14	OE	SO			78	4E	N	set parameters	Nddd@_	msg*_
15	OF	SI			79	4F	O	port e output	Ohhhh@_	*
16	10	DLE			80	50	P	read E A C	P	msg@_
17	11	DC1			81	51	Q			
18	12	DC2			82	52	R			
19	13	DC3			83	53	S	read S (sio)	S	msg@_
20	14	DC4			84	54	T			
21	15	NAK			85	55	U			
22	16	SYN			86	56	V	PCU version	V	msg@_
23	17	ETB			87	57	W			
24	18	CAN			88	58	X			
25	19	EM			89	59	Y			
26	1A	SUB			90	5A	Z	diag test start(res)	Znnnn@_	*
27	1B	ESC			91	5B	[			
28	1C	FS			92	5C	\			
29	1D	GS			93	5D	]			
30	1E	RS			94	5E	^	utility cmds	^ddd@_	*
31	1F	US	reserved for conscan pulse		95	5F	_			
32	20	sp			96	60	`			
33	21	!			97	61	a	incremental az	ai@_	*
34	22	"			98	62	b	incremental hdg	bi@_	*
35	23	#			99	63	c			
36	24	\$			100	64	d			
37	25	%			101	65	e	incremental el	ei@_	*
38	26	&	clear errors	&	102	66	f			
39	27	'			103	67	g	write pol	gddd@_	*
40	28	(			104	68	h	write pwm	hddd@_	*
41	29	)			105	69	i	differential CL	idd@_	*
42	2A	*	reserved for positive command response		106	6A	j	differential LV	jddd@_	*
43	2B	+	reset rc in sio	+	107	6B	k	differential AZ	kddd@_	*
44	2C	,			108	6C	l	lumped CL,LV,AZ		
45	2D	-			109	6D	m			
46	2E	.			110	6E	n	same as N		
47	2F	/			111	6F	o			
48	30	0			112	70	p	read EAC in hex	p	msg@_
49	31	1			113	71	q			
50	32	2	dec ltrm ‡	2	114	72	r			
51	33	3			115	73	s			
52	34	4	dec cltrm ‡	4	116	74	t			
53	35	5	clr trms ‡	5	117	75	u	read Pol & aux	u	msg@_
54	36	6	inc cltrm ‡	6	118	76	v	read references	v	msg@_
55	37	7	TAAC off	7	119	77	w	read QRSs	w	msg@_
56	38	8	inc ltrm ‡	8	120	78	x	read IVCs	x	msg@_
57	39	9	TAAC on	9	121	79	y	read TCs	y	msg@_
58	3A	:			122	7A	z			
59	3B	;			123	7B	{			
60	3C	<	Modem Com BDE		124	7C				
61	3D	=	GPS position, .0000 min	msg@_	125	7D	}			
62	3E	>	Modem Com ADE		126	7E	~			
63	3F	?	reserved for negative command response		127	7F	DEL			

UTILITIES (.94)		
0	std mode	^0000
C	Toggle DishScan	^0067
F	Slow Scan	^0070
G	Sat Reference	^0071
V	Cksum off	^0086
T	Test/Tilt mode	^0084
W	NV write	^0087
Z	Reset	^0090
2	Trim Up	^0002
4	Trim Left	^0004
5	Trim Clear	^0005
6	Trim Right	^0006
7	TAAC off	^0007
8	Trim Down	^0008
9	TAAC on	^0009
1nnn	CL DC torque	^1nnn
2nnn	LV DC torque	^2nnn
3nnn	AZ DC torque	^3nnn
Checksum for ^0086 = Alt+0172 (0xAC)		
n / N PARAMETERS (.78) or (.110)		
n / N	Parameter	Format
0	Stype	n0nnn N0nnn
1	CL Kp	n1nnn N1nnn
2	LV Kp	n2nnn N2nnn
3	AZ Kp	n3nnn N3nnn
4	CL trim	n4nnn N4nnn
5	LV trim	n5nnn N5nnn
6	HF trim	n6nnn N6nnn
7	DishScan	n7nnn N7nnn
8	Scan Rate	n8nnn N8nnn
9	Error Byte	n9nnn N9nnn
A/	System ID	nAnnn n:nnn NAnnn N:nnn
B/	Tim40S	nBnnn n:nnn NBnnn N:nnn

System	N0	N1	N2	N3	N7	Index
						1
						2
						3
4009	4	40	20	20	26	4
5009	5	50	40	20	21	5
6009	6	60	34	34	22	6
						7
						8
						9
						10
						11
						12
						13
						14
						15
						16

N7					
Phase	0	Drive	CL	AZ	EL
-45	0	Max	0	0	0
+0	64	1/2	16	4	1
+45	128	1/4	32	8	2
+90	192	1/8	48	12	3

‡ enabled only in test mode

© checksum

Software Part Numbers
130087

Application
xx09

Status word bit assignments

Bit	Word 1	Word2	Word 3
7	Spare	El Target	Spare
6	1	1	1
5	SlowScan	Az Target	Spare
4	Sat Ref	Sat Ref Active	Stabilization Limit
3	DishScan	Hdg Valid	Az Reference Error
2	Unwrap	Error Flag	Az Torque Limit Error
1	Data in 3	Init	Lv Torque Limit Error
0	TAAC on	Hi Elevation	Cl Torque Limit Error