

Pulsar LX200 extension

2008.11.19.

Get parameter:

#:YGx#        reply:aaaa,bbbb#

Parameter setting

#:YSxaaaa,bbbb# reply '1' if OK

where x=

RA,DEC

'A'	guiding speed	1-9	
'B'	center speed	1-9999,1-9999	
'C'	find speed	1-9999,1-9999	
'D'	slew speed	1-9999,1-9999	
'E'	goto speed	1-9999,1-9999	
'H'	hemisphere	0/1	0=North/South
'M'	mount type (German/Fork)	1/2	
'N'	meridian (E/W)	0/1 *	East=0/West=1
'Q'	polecross	0/1 *	No/Yes
'W'	swap tube	0/1 *	No/Yes
'X'	Home position	12:23:45+222:33:44*	alt/az
	set: actual position		
'P'	PEC corr	0/1,0/1	off/on
'R'	refract corr	0/1,0/1	off/on
'S'	speed rate sel	0,0-6,0	
	STOP	0,0	
	SID	1,0	
	LUN	2,0	
	SOL	3,0	
	USER1	4,0	
	USER2	5,0	
	USER2	6,0	
'b'	backlash	0-9,0-59 min,sec	
'p'	ramp	1-10	
'e'	mot.res	100-1000,100-1000	
'm'	maingear	100-6000,100-6000	
'n'	rotation	0/1,0/1	Right=0/Left=1
'r'	reduction	100-6000,100-6000	
't'	track current	0-2000, 0-2000	
's'	stop current	0-2000, 0-2000	
'g'	goto current	0-2000, 0-2000	

Read only params in „R” special versions (there is no slew speed settings and ramp setting in the hand controller menu):

'#:YGh#'	IsHomeSet	1# / 0#
'#:YGi#'	IsSlewing	1# / 0#
'#:YGj#'	IsMountParking	1# / 0#
'#:YGk#'	IsMountParked	1# / 0#
'#:YV#'	Version	'PULSAR Vx.xxx,2008.10.10#'
'#:YH#'	Goto Home	1# / 0#
'#:YL#'	Unpark	1# / 0#
'#:YW#'	Swap Tube	1# / 0#

'#:YPR#'	PEC start recording
'#:YPD#'	PEC table download //Download from PC
'#:YPU#'	PEC table upload //Upload from PC
'#:YPC#'	PEC synchronize
'#:YPL#'	PEC load //resets the status before recording
'#:YPT#'	PEC stop recording
'#:YPG#'	PEC read counter (e.g..123#) counter range 0-300
'#:YPS#'	PEC saving recorded data to EEPROM

PEC record:

#:YPR#	
#:YPG#	returns the value of the counter, stops when ready.
Or stops with #:YPT#	
#:YPT#	
#:YPS#	saves table in EEPROM

reply

„S“

```

300*(RA_PEC_DATA+DEC_PEC_DATA)
+1*(LEFT_ENC_POS,RIGHT_ENC_POS)
+9*(DUMMY+DUMMY)
(summa 2480 bytes)

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+sent data checksum:      1 byte  „O”
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#:YPL#'          „1”      -loads new PEC table
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## PEC Download:

reply

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„S” + (int)PEC_SIZE -2480
```

„o” get 40 bytes

„o” get 40 bytes,

5 PEC records , 40 bytes

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„o” get 40 bytes

„#” ready

PEC Data types:

PEC\_RECORD RA\_PEC\_DATA,DEC\_PEC\_DATA  
RA\_PEC\_DATA,DEC\_PEC\_DATA= single float type (4 byte),PEC correction in radian

RA\_ENC\_POS =float type (4 byte)

DUMMY =float type (4 byte)

In PEC\_RECORD[301] is the PEC encoder position