Analysis of PTK Servo programming protocol

While reading the servo 8 series of command are written at 115200 baud to read several parameters, at each sequence the servo reply with 9 byte containing the required parameters.
The sequence of inquiry seem fixed:
The sequence is made up by a fixed header of two bytes either for transmission and answer then followed by two byte for the length of the packet (0x00 0x0A) for transmission 0x00 0x09 for answer,
Then for transmission a byte for the command, 4 byte of payload and a checksum that is the sum module 256 of the byte of the packet excluding header
In the following table there is the enquiry in green and the answer in yellow

	175	250	0	10	56	0	0	0	0	66	175	250	0	9	3	32	7	208	3
			Packet										Packet		**overload**		**overload**		
N1	Header		length							CK	Header		length		**protection**		**time**		CK
	175	250	0	10	61	0	0	0	0	71	175	250	0	9	0	29	0	12	50
			Packet										Packet						
N2	Header		length							CK	Header		length		**Gain**		**Dumping**		CK
	175	250	0	10	63	0	0	0	0	73	175	250	0	9	4	176	0	0	189
			Packet										Packet						
N3	Header		length							CK	Header		length		**Max Power**				CK
	175	250	0	10	80	0	0	0	0	90	175	250	0	9	7	208	39	16	23
			Packet										Packet		**min pulse**		**max pulse**		
N4	Header		length							CK	Header		length		**width*4**		**width*4**		CK
	175	250	0	10	81	0	0	0	0	91	175	250	0	9	0	65	0	65	139
			Packet										Packet						
N5	Header		length							CK	Header		length		**Min Angle**		**Max Angle**		CK
	175	250	0	10	82	0	0	0	0	92	175	250	0	9	16	0	0	0	25
			Packet										Packet						
N6	Header		length							CK	Header		length		**Neutral**				CK
	175	250	0	10	83	0	0	0	0	93	175	250	0	9	0	15	0	0	24
			Packet										Packet						
N7	Header		length							CK	Header		length		**Deadband**				CK
	175	250	0	10	84	0	0	0	0	94	175	250	0	9	0	1	0	0	10
			Packet										Packet						
N8	Header		length							CK	Header		length		**Inversion**				CK

The servo answer very quickly to the command and the programming software send inquity packets every 50ms..
Values are sent and received MSB (Big Endian)

To program the servo programming packet are sent with a logic of “fire and forget” the servo never answer to programming commands

N1	175	250	0	10	1	0	29	0	0	40
	Header		Packet length			Gain				CK
N2	175	250	0	10	5	0	12	0	0	27
	Header		Packet length			Dumping				CK
N3	175	250	0	10	18	3	32	7	208	22
	Header		Packet length			Overload Power		Overload Time		CK
N4	175	250	0	10	24	4	176	0	0	214
	Header		Packet length			Max Power				CK
N5	175	250	0	10	64	0	0	0	65	139
	Header		Packet length					Min Angle		CK
N6	175	250	0	10	65	0	0	0	65	140
	Header		Packet length					Max Angle		CK
N7	175	250	0	10	66	0	0	16	0	92
	Header		Packet length					Neutral		CK
N8	175	250	0	10	67	0	0	0	15	92
	Header		Packet length					Deadband		CK
N9	175	250	0	10	68	0	0	0	1	79
	Header		Packet length					Inversion		CK
N10	175	250	0	10	69	0	0	0	0	79
	Header		Packet length			unknown		unknown		CK
N11	175	250	0	10	72	7	208	39	16	96
	Header		Packet length			Minpulse * 4		Maxpulse * 4		CK
N12	175	250	0	10	70	0	0	0	1	81
	Header		Packet length					Softstart		CK

The command 69 (N10) is present but always write 0 0 0 0 as parameters.