

Panasonic HL-G Laser Series

Manual Programming Instruction

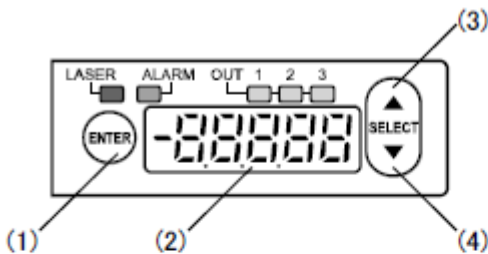
Instruction how to setup Klippel settings rev.1.1 manually, starting from factory settings

Requirements:

1. HL-G1xx Laser Sensor
2. Klippel measurement device + cable:
 - a. Klippel Analyzer 3 and HL-G-Laser-Sensor-Cable (HR25 female to LEMO male), Art.-No.: 2102-063
 - b. Distortion Analyzer 2, HL-G-Laser-Sensor-Y-Cable (HR25 female to LEMO male and M8 female) Art.-No.: 2102-061 and 24V accessories power supply unit

Reference:

1. Klippel Hardware Manual, chapter 2.3.2 “Laser Handling \ Settings and Status LEDs \ HL-G1xx Series”, available with F1 keyboard key in dB-Lab or dB-Lab \ Help \ PDF Manuals
2. HL-G manufacture manual, chapter 3 “Functions”, available from dB-Lab \ Help \ 3rd Party Manuals



(1) [ENTER] Key

Used to enter items.

(2) Digital Display

Displays measurement values, set values, and system errors.

(3) [UP] Key

Used to select items.

(4) [DOWN] Key

Used to select items.

Procedure for HL-G103 (+/- 4 mm measurement range):

	Button to be pushed	Conditions	Display (2) state after button pushed	Comment
			1. level 2. level 3. level	
1.	ENTER (1)	hold button during Power ON	Init	flashes for some seconds → factory reset
2.	ENTER (1)	hold for 2s	mmr	Setting mode
3.	DOWN (4)	1x click	Pro1	Sensing setting
4.	ENTER (1)	1x click	SAmPL	
5.	ENTER (1)	1x click	500	
6.	DOWN (4)	1x click	200	Sample rate = 200 μ s
7.	ENTER (1)	1x click	SAmPL	
8.	DOWN (4)	1x click	SHUtt	
9.	DOWN (4)	1x click	rL1	
10.	DOWN (4)	1x click	Quit	
11.	ENTER (1)	1x click	Pro1	
12.	DOWN (4)	1x click	Pro2	Data processing setting
13.	ENTER (1)	1x click	AvE	
14.	ENTER (1)	1x click	1024	
15.	DOWN (4)	5x click	256 / 64 / 16 / 4 / 1	Averaging = OFF
16.	ENTER (1)	1x click	AvE	
17.	DOWN (4)	1x click	AnAL Y	
18.	DOWN (4)	1x click	SPAn	
19.	DOWN (4)	1x click	oFFSt	
20.	DOWN (4)	1x click	0-clr	
21.	DOWN (4)	1x click	Quit	
22.	ENTER (1)	1x click	Pro2	
23.	DOWN (4)	1x click	Pro3	Output setting
24.	ENTER (1)	1x click	oUt SL	
25.	ENTER (1)	1x click	2uAL	
26.	UP (3)	1x click	3uAL	
27.	ENTER (1)	1x click	oUt SL	
28.	DOWN (4)	1x click	tH-A	
29.	ENTER (1)	1x click	04.000	
30.	Up (3) & Down (4)	1x click together	04.000	
31.	DOWN (4)	4x click	00.000	
32.	Up (3) & Down (4)	1x click together	00.000	
33.	Up (3)	2x click	00.200	Threshold for OUT1 LED
34.	ENTER (1)	1x click	tH-A	
35.	DOWN (4)	1x click	tH-b	
36.	ENTER (1)	1x click	-04.000	
37.	Up (3) & Down (4)	1x click together	-04.000	
38.	DOWN (4)	4x click	-00.000	
39.	Up (3) & Down (4)	1x click together	-00.000	

40.	Up (3)	2x click	-00. <u>2</u> 00	Threshold for OUT3 LED
41.	ENTER (1)	1x click	tH-b	
42.	DOWN (4)	1x click	HYS	
43.	ENTER (1)	1x click	<u>0</u> 0.008	
44.	Up (3) & Down (4)	3x click together	00.0 <u>0</u> 8	
45.	Up (3)	2x click	00.0 <u>2</u> 8	
46.	Up (3) & Down (4)	1x click together	00.02 <u>8</u>	
47.	Up (3)	2x click	00.02 <u>0</u>	Hysteresis for OUT2 LED
48.	ENTER (1)	1x click	HYS	
49.	DOWN (4)	1x click	dELAY	
50.	DOWN (4)	1x click	m-dSP	
51.	ENTER (1)	1x click	Set1	
52.	Up (3)	1x click	SEt2	
53.	ENTER (1)	1x click	m-dSP	
54.	DOWN (4)	1x click	Quit	
55.	ENTER (1)	1x click	Pro3	
56.	DOWN (4)	1x click	Pro4	Analog setting
57.	ENTER (1)	1x click	A-oUt	
58.	ENTER (1)	1x click	I-oUt	
59.	Up (3)	1x click	u-oUt	
60.	ENTER (1)	1x click	A-oUt	
61.	DOWN (4)	1x click	m-A	
62.	DOWN (4)	1x click	u-A	
63.	ENTER (1)	1x click	<u>0</u> 0.000	
64.	Up (3)	1x click	<u>1</u> 0.000	-4 mm = +10V
65.	ENTER (1)	1x click	u-A	
66.	DOWN (4)	1x click	m-b	
67.	DOWN (4)	1x click	u-b	
68.	ENTER (1)	1x click	<u>1</u> 0.000	
69.	Up (3)	1x click	<u>0</u> 0.000	+4 mm = 0V
70.	ENTER (1)	1x click	u-b	
71.	DOWN (4)	1x click	Quit	
72.	ENTER (1)	1x click	Pro4	
73.	DOWN (4)	1x click	Pro5	Alarm setting
74.	DOWN (4)	1x click	Pro6	COM setting
75.	DOWN (4)	1x click	Pro7	System setting
76.	DOWN (4)	1x click	Quit	
77.	ENTER (1)	1x click	xx.xxx	Measurement mode

Procedure for HL-G105 (+/- 10 mm measurement range):

	Button to be pushed	Conditions	Display (2) state after button pushed	Comment
			1. level 2. level 3. level	
1.	ENTER (1)	hold button during Power ON	Init	flashes for some seconds → factory reset
2.	ENTER (1)	hold for 2s	mmr	Setting mode
3.	DOWN (4)	1x click	Pro1	Sensing setting
4.	ENTER (1)	1x click	SAmPL	
5.	ENTER (1)	1x click	500	
6.	DOWN (4)	1x click	200	Sample rate = 200 μ s
7.	ENTER (1)	1x click	SAmPL	
8.	DOWN (4)	1x click	SHUtt	
9.	DOWN (4)	1x click	rL1	
10.	DOWN (4)	1x click	Quit	
11.	ENTER (1)	1x click	Pro1	
12.	DOWN (4)	1x click	Pro2	Data processing setting
13.	ENTER (1)	1x click	AvE	
14.	ENTER (1)	1x click	1024	
15.	DOWN (4)	5x click	256 / 64 / 16 / 4 / 1	Averaging = OFF
16.	ENTER (1)	1x click	AvE	
17.	DOWN (4)	1x click	AnAL Y	
18.	DOWN (4)	1x click	SPAn	
19.	DOWN (4)	1x click	oFFSt	
20.	DOWN (4)	1x click	0-clr	
21.	DOWN (4)	1x click	Quit	
22.	ENTER (1)	1x click	Pro2	
23.	DOWN (4)	1x click	Pro3	Output setting
24.	ENTER (1)	1x click	oUt SL	
25.	ENTER (1)	1x click	2uAL	
26.	UP (3)	1x click	3uAL	
27.	ENTER (1)	1x click	oUt SL	
28.	DOWN (4)	1x click	tH-A	
29.	ENTER (1)	1x click	<u>10.000</u>	
30.	DOWN (4)	1x click	<u>00.000</u>	
31.	Up (3) & Down (4)	2x click together	00. <u>000</u>	
32.	Up (3)	5x click	00. <u>500</u>	Threshold for OUT1 LED
33.	ENTER (1)	1x click	tH-A	
34.	DOWN (4)	1x click	tH-b	
35.	ENTER (1)	1x click	- <u>10.000</u>	
36.	DOWN (4)	1x click	- <u>00.000</u>	
37.	Up (3) & Down (4)	2x click together	-00. <u>000</u>	
38.	Up (3)	5x click	-00. <u>500</u>	Threshold for OUT3 LED
39.	ENTER (1)	1x click	tH-b	

40.	DOWN (4)	1x click	HYS	
41.	ENTER (1)	1x click	<u>00.020</u>	
42.	Up (3) & Down (4)	3x click together	00.0 <u>2</u> 0	
43.	Up (3)	3x click	00.0 <u>5</u> 0	Hysteresis for OUT2 LED
44.	ENTER (1)	1x click	HYS	
45.	DOWN (4)	1x click	dELAY	
46.	DOWN (4)	1x click	m-dSP	
47.	ENTER (1)	1x click	Set1	
48.	Up (3)	1x click	SEt2	
49.	ENTER (1)	1x click	m-dSP	
50.	DOWN (4)	1x click	Quit	
51.	ENTER (1)	1x click	Pro3	
52.	DOWN (4)	1x click	Pro4	Analog setting
53.	ENTER (1)	1x click	A-oUt	
54.	ENTER (1)	1x click	I-oUt	
55.	Up (3)	1x click	u-oUt	
56.	ENTER (1)	1x click	A-oUt	
57.	DOWN (4)	1x click	m-A	
58.	DOWN (4)	1x click	u-A	
59.	ENTER (1)	1x click	<u>00.000</u>	
60.	Up (3)	1x click	<u>10.000</u>	-10 mm = +10V
61.	ENTER (1)	1x click	u-A	
62.	DOWN (4)	1x click	m-b	
63.	DOWN (4)	1x click	u-b	
64.	ENTER (1)	1x click	<u>10.000</u>	
65.	Up (3)	1x click	<u>00.000</u>	+10 mm = 0V
66.	ENTER (1)	1x click	u-b	
67.	DOWN (4)	1x click	Quit	
68.	ENTER (1)	1x click	Pro4	
69.	DOWN (4)	1x click	Pro5	Alarm setting
70.	DOWN (4)	1x click	Pro6	COM setting
71.	DOWN (4)	1x click	Pro7	System setting
72.	DOWN (4)	1x click	Quit	
73.	ENTER (1)	1x click	xx.xxx	Measurement mode

Procedure for HL-G108 (+/- 20 mm measurement range):

	Button to be pushed	Conditions	Display (2) state after button pushed	Comment
			1. level 2. level 3. level	
1.	ENTER (1)	hold button during Power ON	Init	flashes for some seconds → factory reset
2.	ENTER (1)	hold for 2s	mmr	Setting mode
3.	DOWN (4)	1x click	Pro1	Sensing setting
4.	ENTER (1)	1x click	SAmPL	
5.	ENTER (1)	1x click	500	
6.	DOWN (4)	1x click	200	Sample rate = 200 μ s
7.	ENTER (1)	1x click	SAmPL	
8.	DOWN (4)	1x click	SHUtt	
9.	DOWN (4)	1x click	rL1	
10.	DOWN (4)	1x click	Quit	
11.	ENTER (1)	1x click	Pro1	
12.	DOWN (4)	1x click	Pro2	Data processing setting
13.	ENTER (1)	1x click	AvE	
14.	ENTER (1)	1x click	1024	
15.	DOWN (4)	5x click	256 / 64 / 16 / 4 / 1	Averaging = OFF
16.	ENTER (1)	1x click	AvE	
17.	DOWN (4)	1x click	AnAL Y	
18.	DOWN (4)	1x click	SPAn	
19.	DOWN (4)	1x click	oFFSt	
20.	DOWN (4)	1x click	0-clr	
21.	DOWN (4)	1x click	Quit	
22.	ENTER (1)	1x click	Pro2	
23.	DOWN (4)	1x click	Pro3	Output setting
24.	ENTER (1)	1x click	oUt SL	
25.	ENTER (1)	1x click	2uAL	
26.	UP (3)	1x click	3uAL	
27.	ENTER (1)	1x click	oUt SL	
28.	DOWN (4)	1x click	tH-A	
29.	ENTER (1)	1x click	20.000	
30.	DOWN (4)	2x click	00.000	
31.	Up (3) & Down (4)	1x click together	00.000	
32.	Up (3)	1x click	01.000	Threshold for OUT1 LED
33.	ENTER (1)	1x click	tH-A	
34.	DOWN (4)	1x click	tH-b	
35.	ENTER (1)	1x click	-20.000	
36.	DOWN (4)	2x click	-00.000	
37.	Up (3) & Down (4)	1x click together	-00.000	
38.	Up (3)	1x click	-01.000	Threshold for OUT3 LED
39.	ENTER (1)	1x click	tH-b	

40.	DOWN (4)	1x click	HYS	
41.	ENTER (1)	1x click	<u>00.040</u>	
42.	Up (3) & Down (4)	2x click together	00. <u>040</u>	
43.	Up (3)	1x click	00. <u>140</u>	
44.	Up (3) & Down (4)	1x click together	00. <u>140</u>	
45.	DOWN (4)	4x click	00. <u>100</u>	Hysteresis for OUT2 LED
46.	ENTER (1)	1x click	HYS	
47.	DOWN (4)	1x click	dELAY	
48.	DOWN (4)	1x click	m-dSP	
49.	ENTER (1)	1x click	Set1	
50.	Up (3)	1x click	SEt2	
51.	ENTER (1)	1x click	m-dSP	
52.	DOWN (4)	1x click	Quit	
53.	ENTER (1)	1x click	Pro3	
54.	DOWN (4)	1x click	Pro4	Analog setting
55.	ENTER (1)	1x click	A-oUt	
56.	ENTER (1)	1x click	I-oUt	
57.	Up (3)	1x click	u-oUt	
58.	ENTER (1)	1x click	A-oUt	
59.	DOWN (4)	1x click	m-A	
60.	DOWN (4)	1x click	u-A	
61.	ENTER (1)	1x click	<u>00.000</u>	
62.	Up (3)	1x click	<u>10.000</u>	-20 mm = +10V
63.	ENTER (1)	1x click	u-A	
64.	DOWN (4)	1x click	m-b	
65.	DOWN (4)	1x click	u-b	
66.	ENTER (1)	1x click	<u>10.000</u>	
67.	Up (3)	1x click	<u>00.000</u>	+20 mm = 0V
68.	ENTER (1)	1x click	u-b	
69.	DOWN (4)	1x click	Quit	
70.	ENTER (1)	1x click	Pro4	
71.	DOWN (4)	1x click	Pro5	Alarm setting
72.	DOWN (4)	1x click	Pro6	COM setting
73.	DOWN (4)	1x click	Pro7	System setting
74.	DOWN (4)	1x click	Quit	
75.	ENTER (1)	1x click	xx.xxx	Measurement mode

Procedure for HL-G112 (+/- 60 mm measurement range):

	Button to be pushed	Conditions	Display (2) state after button pushed	Comment
			1. level 2. level 3. level	
1.	ENTER (1)	hold button during Power ON	Init	flashes for some seconds → factory reset
2.	ENTER (1)	hold for 2s	mmr	Setting mode
3.	DOWN (4)	1x click	Pro1	Sensing setting
4.	ENTER (1)	1x click	SAmPL	
5.	ENTER (1)	1x click	500	
6.	DOWN (4)	1x click	200	Sample rate = 200 μ s
7.	ENTER (1)	1x click	SAmPL	
8.	DOWN (4)	1x click	SHUtt	
9.	DOWN (4)	1x click	rL1	
10.	DOWN (4)	1x click	Quit	
11.	ENTER (1)	1x click	Pro1	
12.	DOWN (4)	1x click	Pro2	Data processing setting
13.	ENTER (1)	1x click	AvE	
14.	ENTER (1)	1x click	1024	
15.	DOWN (4)	5x click	256 / 64 / 16 / 4 / 1	Averaging = OFF
16.	ENTER (1)	1x click	AvE	
17.	DOWN (4)	1x click	AnAL Y	
18.	DOWN (4)	1x click	SPAn	
19.	DOWN (4)	1x click	oFFSt	
20.	DOWN (4)	1x click	0-clr	
21.	DOWN (4)	1x click	Quit	
22.	ENTER (1)	1x click	Pro2	
23.	DOWN (4)	1x click	Pro3	Output setting
24.	ENTER (1)	1x click	oUt SL	
25.	ENTER (1)	1x click	2uAL	
26.	UP (3)	1x click	3uAL	
27.	ENTER (1)	1x click	oUt SL	
28.	DOWN (4)	1x click	tH-A	
29.	ENTER (1)	1x click	<u>60.000</u>	
30.	DOWN (4)	6x click	<u>00.000</u>	
31.	Up (3) & Down (4)	1x click together	<u>00.000</u>	
32.	Up (3)	3x click	<u>03.000</u>	Threshold for OUT1 LED
33.	ENTER (1)	1x click	tH-A	
34.	DOWN (4)	1x click	tH-b	
35.	ENTER (1)	1x click	- <u>60.000</u>	
36.	DOWN (4)	6x click	- <u>00.000</u>	
37.	Up (3) & Down (4)	1x click together	- <u>00.000</u>	
38.	Up (3)	3x click	- <u>03.000</u>	Threshold for OUT3 LED
39.	ENTER (1)	1x click	tH-b	

40.	DOWN (4)	1x click	HYS	
41.	ENTER (1)	1x click	<u>00.120</u>	
42.	Up (3) & Down (4)	2x click together	<u>00.120</u>	
43.	Up (3)	3x click	<u>00.320</u>	
44.	Up (3) & Down (4)	1x click together	<u>00.320</u>	
45.	DOWN (4)	2x click	<u>00.300</u>	Hysteresis for OUT2 LED
46.	ENTER (1)	1x click	HYS	
47.	DOWN (4)	1x click	dELAY	
48.	DOWN (4)	1x click	m-dSP	
49.	ENTER (1)	1x click	Set1	
50.	Up (3)	1x click	SEt2	
51.	ENTER (1)	1x click	m-dSP	
52.	DOWN (4)	1x click	Quit	
53.	ENTER (1)	1x click	Pro3	
54.	DOWN (4)	1x click	Pro4	Analog setting
55.	ENTER (1)	1x click	A-oUt	
56.	ENTER (1)	1x click	I-oUt	
57.	Up (3)	1x click	u-oUt	
58.	ENTER (1)	1x click	A-oUt	
59.	DOWN (4)	1x click	m-A	
60.	DOWN (4)	1x click	u-A	
61.	ENTER (1)	1x click	<u>00.000</u>	
62.	Up (3)	1x click	<u>10.000</u>	-60 mm = +10V
63.	ENTER (1)	1x click	u-A	
64.	DOWN (4)	1x click	m-b	
65.	DOWN (4)	1x click	u-b	
66.	ENTER (1)	1x click	<u>10.000</u>	
67.	Up (3)	1x click	<u>00.000</u>	+60 mm = 0V
68.	ENTER (1)	1x click	u-b	
69.	DOWN (4)	1x click	Quit	
70.	ENTER (1)	1x click	Pro4	
71.	DOWN (4)	1x click	Pro5	Alarm setting
72.	DOWN (4)	1x click	Pro6	COM setting
73.	DOWN (4)	1x click	Pro7	System setting
74.	DOWN (4)	1x click	Quit	
75.	ENTER (1)	1x click	xx.xxx	Measurement mode

Find explanations for symbols at:

<http://www.klippel.de/know-how/literature.html>

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Designs and specifications are subject to change without notice due to modifications or improvements.