Keyence LK-Navigator 2

Technical Note for the KLIPPEL R&D and QC SYSTEM (Document Revision 1.1)

The Keyence LK-Navigator 2 software is dedicated to all Laser Sensors from the Keyence LK-G5000 Laser Series.

The LK-Navigator 2 is not included with LK-G5000 Lasers Sets bought from Klippel. It has to be ordered separately. Following note giving just a short introduction to the customer who own it.

From Klippel bought LK-G5000 Lasers Sets came with a small Klippel Keyence Tool to load Klippel provide setups to the Laser Controller. This tool requires a serial connection. A special serial adapter cable and USB to serial converter are included.

	×
	~
Serial Port	COM6 ~
	Help
	Debug
	Close
	Serial Port

1 How to load a Klippel provided Setup file into the software

1.1 Start LK-Navigator 2



1.2 Load from file

After program start:

Select startup configuration setting.		
Setting contents		
O Read Controller Settings.(A)		
Read from file.(F)		
O Start up with the default values.(I)		
	OK	2

Or from menu during program operation:

LK-Navigator2						_	
File(F) View(D) Communication(J)	Comn	nunication Settings(O)	Help(H)				
Save Setting File(S) Ctrl+S	settings	View	View	and a	View		Data Damas
Open Setting File(O) Ctrl+O	ntroller	Measurement Value	Received Light Waveform	2	Received Light Waveform		Data Storage
Exit(X)	Settings	Common Settings Settin	ıgs List				

1.3 Select Setup file

Irganisieren Neuer Ordner scan ^ TN10 - Stability I	Änderungsdatum 01.02.2018 16:53 02.02.2018 18:24 01.02.2018 16:50	Typ Dateiordner	Größe
TN10 - Stability I _old OneDrive Testfiles Dieser PC Ø 1b_LK-H022@Head1&2_+-3mm@50kHz_rev.2.0.ldtx	01.02.2018 16:53 02.02.2018 18:24	Dateiordner	Größe
ConeDrive Testfiles P 1a_LK-H022@Head1&2_+-3mm@50kHz_rev.2.0.ldtx Dieser PC P 1b_LK-H022@Head1&2_+-2.5mm@100kHz_rev.2.0.ldtx	02.02.2018 18:24		
OneDrive Testfiles Image: Diser PC Imag			
Ia_LK-H022@Head1&2_+-3mm@50kHz_rev.2.0.ldtx Dieser PC Ib_LK-H022@Head1&2_+-2.5mm@100kHz_rev.2.0.ldtx	01.02.2018 16:50	Dateiordner	
▼ ID_LK-HU22@Head102_+-2.5mm@100kHz_rev.2.0.10tx		LDTX-Datei	24 KB
3 3D_Objekte (3) 1-1/(1002@11-ad190212-acce@2004.l= acc.2014.b-	01.02.2018 17:49	LDTX-Datei	24 KB
30-00jekte IC_LK-H022@Head102_+-1.2mm@200kHz_rev.2.0.idtx	01.02.2018 17:52	LDTX-Datei	24 KB
Bilder 2a_LK-H052@Head1&2_+-10mm@50kHz_rev.2.0.ldtx	01.02.2018 16:10	LDTX-Datei	24 KB
Desktop 2b_LK-H052@Head1&2_+4mm@100kHz_rev.2.0.ldtx	01.02.2018 17:28	LDTX-Datei	24 KB
Dokumente	01.02.2018 17:37	LDTX-Datei	24 KB
Downloads	02.02.2018 15:33	LDTX-Datei	24 KB
3a_LK-H082@Head1&2_+18mm@50kHz_rev.2.0.ldtx	01.02.2018 16:41	LDTX-Datei	24 KB
Musik 2 4a_LK-H152@Head1&2_+40mm@50kHz_rev.2.0.ldtx	01.02.2018 16:46	LDTX-Datei	24 KB
Videos 🦻 5a_LK-H052@Head1_LK-H022@Head2_@50kHz_rev.2.0.ldtx	01.02.2018 16:54	LDTX-Datei	24 KB
Lokaler Datenträ 🕑 5b_LK-H052@Head1_LK-H082@Head2_@50kHz_rev.2.0.ldtx	01.02.2018 16:56	LDTX-Datei	24 KB
Volume (D:) Sc_LK-H052@Head1_LK-H152@Head2_@50kHz_rev.2.0.ldtx	01.02.2018 16:58	LDTX-Datei	24 KB
🛖 User-Share (U:)			
🛖 Video2Brain_neu			
Exchange_neu (\			
Network Y			
Dateiname: 2a LK-H052@Head1&2 +-10mm@50kHz rev.2.0.ldtx		✓ LK-Navig	ator2 Parameterdatei(

Load from file

2 How to connect the LK-Navigator to the Laser Controller

2.1 Connection Settings

TN11

LK-Navigator2		-	- 🗆 X
File(F) View(D) Communication(J) Comm	nunication Settings(O) Help(H)		
Receive settings from controller Send settings to controller	View View Measurement T Received Value Wavefo	Light 🛛 Received Light 🛝	Data Storage

2.2 Connection via RS-232

PC Communication	settings	×
PC Communication sett	ings	
Communication	via USB(<u>U</u>)	
Communicate with the second	th Ethemet(<u>E</u>)	
Specify conn	ection	
 Specif 	y controller IP address	
IP a	ddress 192 . 168 . 10 . 10	
◯ Auto s	earch for controller	
Con	nected controller 🗸 🗸	
	Search connected controller(\underline{C})	
Communication	via RS-232C(<u>R</u>)	
Port(C)	COM1 ~	
Baud rate(B)	9600 ~	
Parity(P)	NONE ~	
	OK Can	cel

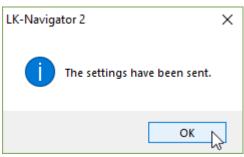
2.3 Connection via USB

P	PC Communication settings	×
	PC Communication settings	
	Communication via USB(U)	

3 How to load a Setup File to the Laser Controller

LK-Navigator2					_		×
File(F) View(D) Communication(J) Comm	nunication Settings(O)	Help(H)					
Receive settings from controller Send settings to controller Send the settings	View Measurement Value ngs of the connected con	Niew Received Light Waveform	2	View Received Light Waveform	~~~	Data Sto	orage

Wait until:



4 How to use the Measurement Value Display

4.1 Open the Measurement Value Display

🗭 LK-Navigator2					-	
File(F) View(D)	Communication(J) Comm	nunication Settings(O)	Help(H)			
Receive setting from controlle		View Measurement Value	View Received Light Waveform	View Received Light Waveform	~~~	Data Storage
Program	Head Settings OUT Settings	- 0	art up the Measurement	Value screen.		

4.2 Start the Measurement Value Display

Mesurement Value Display					– 🗆 X
Measurement value			Simultaneo Zero(7)		
📕 Head status	Select D)isplay(O)]		
HEAD01 HEAD07	OUT01	II GO LO	TIM ZERO		
STABILITY STABILITY BRIGHT BRIGHT					
DARK DARK					トトト
HEAD02 HEAD08					ጥጥጥ
STABILITY STABILITY BRIGHT BRIGHT					
	Zero	Reset	Timing		
HEAD03 HEAD09	OUT02	II GO LO	TIM ZERO	_	_
STABILITY STABILITY					
BRIGHT BRIGHT					
HEAD04 HEAD10					***
STABILITY STABILITY					
BRIGHT BRIGHT	Zero	Denst	Timing		
HEAD05 HEAD11	Zero	Reset	1 IIIIIIB		
STABILITY STABILITY					
BRIGHT BRIGHT DARK DARK					
HEAD06 HEAD12					
STABILITY STABILITY					
BRIGHT BRIGHT					
DARK DARK					
				Exit	Help(H)

TN11

Mesurement Value Display			-	- 🗆 X
Measurement value acquisition stop		Simultaneous Zero(7)	Simultaneous Reset(8)	Simultaneous Timing(9)
Head status	Select Display(O)			
HEAD01 HEAD07 STABILITY STABILITY BRIGHT BRIGHT DARK DARK HEAD02 HEAD08 STABILITY STABILITY BRIGHT BRIGHT DARK DARK HEAD03 HEAD09 STABILITY STABILITY BRIGHT BRIGHT	Zero Reset	Timing	-0.17	_
DARK DARK HEAD04 HEAD10 STABILITY STABILITY		-FF	FFF	mm
BRIGHT BRIGHT DARK DARK	Zero Reset	Timing		
HEAD05 HEAD11 STABILITY STABILITY BRIGHT BRIGHT DARK DARK HEAD06 HEAD12 STABILITY BRIGHT BRIGHT DARK DARK				
			Exit	Help(H)

5 How to change setting

Klippel provides approved and dedicated settings for loudspeaker measurements. It is strongly recommend to keep the Klippel settings. Klippel does not support own settings.

For more information read the Keyence provide LK-Navigator 2 manual.

6 References

6.1.1	Manual	Manual Hardware
6.1.2	Specification	A2 Laser Displacement Sensors

All screenshots are taken from the German software version.

Related English screenshots can be found in the included Keyence Manual.

Find explanations for symbols at: http://www.klippel.de/know-how/literature.html Last updated: 27.3.2018

