



KERN & Sohn GmbH

Ziegelei 1
72336 Balingen-Frommern
Germany

+0049-[0]7433-9933-0
+0049-[0]7433-9933-149
info@kern-sohn.com

Operating manual KERN Interface Adapter with Cable for WLAN

KERN YKUP-05

Type TYKUP-05-A
Version 1.0
2021-09
GB



You will find the current version of these instructions also online under:
<https://www.kern-sohn.com/shop/de/DOWNLOADS/>
Under the column Operating instructions

TYKUP-05-A-BA-e-2110_WLAN



KERN Interface Adapter with Cable

Version 1.0 2021-09

Installation Instructions for WLAN

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1 General hints

Cable length: 0.15 m

i	<ul style="list-style-type: none">• Weighing data can be transferred by WLAN• Only KERN KUP-adapters may be connected to the 15-pol-sub-D-connection of the balance!
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1.1 Installation

- Turn off appliance
 - Plug in KUP-adapter (WLAN) at the 15-pol-Sub-D-connection of the appliance
 - Switch on appliance
 - The KUP adapter is automatically recognised by the appliance
- ⇒ After switching-on without configuration, the appliance creates first a WLAN access point named "AI-Thinker_xxxxxx.
- ⇒ Connect the computer to the appliance via this access point
- ⇒ Enter the IP-address 192.168.4.1 in a web browser (standard-IP). The configuration website will appear. The static IP will be assigned via the KCP-commands.

A	Select operating mode "apsta"
B	Enter WLAN-network name and the corresponding password
C	Save settings and restart target software (reboot button)

(s. fig.:)

The screenshot shows the 'ESP8266 WebConfig' interface with three main configuration panels: 'Serial Setting', 'SoftAP', and 'Station'. At the top right, there are 'Restore' and 'Reboot' buttons. The 'Serial Setting' panel includes fields for Baud (115200), Databits (8), Parity (NONE), and Stopbits (1), with a 'Save' button at the bottom. The 'SoftAP' panel includes fields for SSID (AI-THINKER_872B77), Passwd, Auth Mode (OPEN), IP addr (192.168.4.1), Subnet mask (255.255.255.0), Gateway (192.168.4.1), and Mac (be:dd:c2:87:2b:77), with a 'Save' button at the bottom. The 'Station' panel includes fields for Mode (apsta), AP Name (PDWLAN), AP Password (12345678), IP address (0.0.0.0), Subnet mask (0.0.0.0), Gateway (0.0.0.0), and Mac (bc:dd:c2:87:2b:77), with a 'Save' button at the bottom. Red boxes labeled A, B, and C are placed over the Mode, AP Name, and the Station Save button respectively.

D	Disconnect the connection to the PC and the power supply of the appliance
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i If settings were made on the appliance, make sure that the appliance is completely switched off! Only then the settings will be imported. Update (reboot-button) and saving (save-button) are not sufficient!

E	<ul style="list-style-type: none"> • Reconnect the appliance to the power supply, • Re-establish connection with the PC • Invoke the configuration website and check the IP-address.
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(s. fig.):

The screenshot shows the 'ESP8266 WebConfig' interface with three main configuration panels: Serial Setting, SoftAP, and Station. At the top right, there are 'Restore' and 'Reboot' buttons. Each panel has a 'Save' button at the bottom.

- Serial Setting:** Baud: 115200, Databits: 8, Parity: NONE, Stopbits: 1.
- SoftAP:** SSID: AI-THINKER_872B77, Passwd: (empty), Auth Mode: OPEN, IP addr: 192.168.4.1, Subnet mask: 255.255.255.0, Gateway: 192.168.4.1, Mac: be:dd:c2:87:2b:77.
- Station:** Mode: apsta, AP Name: PDWLAN, AP Password: 12345678, IP address: 10.0.11.13 (marked with 'E'), Subnet mask: 255.255.0.0, Gateway: 10.0.0.1, Mac: be:dd:c2:87:2b:77.

F	Close the configuration website, connect the PC to the selected network
G	Open the target software (e.g. KERN Balance Connection) and enter the IP-address and port 23.

(s. fig.):

The screenshot shows a dialog box titled 'TCP/IP -> 10.0.11.13:23 < 440 (Gewichtswert-Parser) - Eigenschaften'. It has three tabs: 'Allgemein', 'Bus', and 'IP Port Eigenschaften'. The 'IP Port Eigenschaften' tab is active, showing 'TCP/UDP / IP Einstellungen'.

- Verbindungsart: TCP - Client - verbindend
- Lokale IP Adresse: (empty)
- Port: (empty)
- Ziel Host/IP Adresse: 10.0.11.13
- Port: 23
- Keep-Alive:

Buttons: Abbrechen, Anwenden

For inquiry of the configuration allocated via DHCP, as well as to the specific/static configuration of the IP-address, subnet-mask or the gateway, the KCP-commands **JNWx** can be used.

1.2 Extract from the KERN Communications Protocol KCP (Ref. manual 1.5.0)

JNWA – Query / set network address (IP) of WIFI Interface

Description

Use this command to query or set the network address (IP) of WIFI Interface.

Syntax

Command

JNWA	Query the current network address.
JNWA_«NetworkAddress»	Set the current network address.
JNWA_0.0.0.0	Activate DHCP.

Responses

JNWA_A_«NetworkAddress»	Current network address (IP).
JNWA_A	Network address setting successfully performed.
JNWA_I	Command understood but currently not executable (device is currently executing another command, e.g. taring, or timeout as stability was not reached).
JNWA_L	Command understood but not executable (incorrect parameter).

Parameters / Return values

Name	Type	Values	Meaning
NetworkAddress	string		Network address (e.g. 192.168.0.1).

Comments

- All three commands, JNWA, JNWK and JNWG are required to enter sequentially for completing the setting of WIFI Interface.
- The exceptional case is activating the DHCP. The network mask and gateway address are not required. A single command “JNWA 0.0.0.0” can activate the DHCP of the WIFI Interface.
- It may take a few seconds to response to the command.

Examples

↓	JNWA	Send current network address.
↑	JNWA_A_192.168.0.1	The current network address is 192.168.0.1.

↓	JNWA_192.168.0.1	Set network address to 192.168.0.1.
↑	JNWA_A	Set network address setting successfully performed.

↓	JNWA_0.0.0.0	Activate DHCP setting.
↑	JNWA_A	Successfully activated DHCP setting.

See also

→	JNWK – Query / set network mask
→	JNWG – Query / set gateway address

JNWK – Query / set network mask of WIFI Interface

Description

Use this command to query or set the network mask of WIFI Interface.

Syntax

Command

JNWK	Query the current network mask.
JNWK_«NetworkMask»	Set the current network mask.

Responses

JNWK_A_«NetworkMask»	Current network mask.
JNWK_A	Network mask setting successfully performed.
JNWK_I	Command understood but currently not executable (device is currently executing another command, e.g. taring, or timeout as stability was not reached).
JNWK_L	Command understood but not executable (incorrect parameter).

Parameters / Return values

Name	Type	Values	Meaning
NetworkMask	string		Network mask (e.g. 255.255.255.0)

Comments

- All three commands, JNWA, JNWK and JNWK are required to enter sequentially for completing the setting of WIFI Interface.
- The exceptional case is activating the DHCP. The network mask and gateway address are not required. A single command “JNWA 0.0.0.0” can activate the DHCP of the WIFI Interface.
- It may take a few seconds to response to the command.

Examples

↓	JNWK	Send current network mask.
↑	JNWK_A 255.255.255.0	The current network mask is 255.255.255.0.

↓	JNWK_255.255.255.0	Set network mask to 255.255.255.0.
↑	JNWK_A	Set network mask setting successfully performed.

See also

➔	JNWA – Query / set network address (IP)
➔	JNWK – Query / set gateway address

JN WG – Query / set gateway address of WIFI Interface

Description

Use this command to query or set the gateway address of WIFI Interface.

Syntax

Command

JN WG	Query the current gateway address.
JN WG_«GatewayAddress»	Set the current gateway address.

Responses

JN WG_A_«GatewayAddress»	Current gateway address.
JN WG_A	Gateway address setting successfully performed.
JN WG_I	Command understood but currently not executable (device is currently executing another command, e.g. taring, or timeout as stability was not reached).
JN WG_L	Command understood but not executable (incorrect parameter).

Parameters / Return values

Name	Type	Values	Meaning
GatewayAddress	string		Gateway address (e.g. 192.168.0.99)

Comments

- All three commands, JN WA, JN WK and JN WG are required to enter sequentially for completing the setting of WIFI Interface.
- The exceptional case is activating the DHCP. The network mask and gateway address are not required. A single command "JN WA 0.0.0.0" can activate the DHCP of the WIFI Interface.
- It may take a few seconds to response to the command.

Examples

↓	JN WG	Send current gateway address.
↑	JN WG_A_192.168.0.99	The current gateway address is 192.168.0.99.
↓	JN WG_192.168.0.99	Set gateway address to 192.168.0.99.
↑	JN WG_A	Set gateway address setting successfully performed.

See also

→	JN WA – Query / set network address (IP)
→	JN WK – Query / set network mask