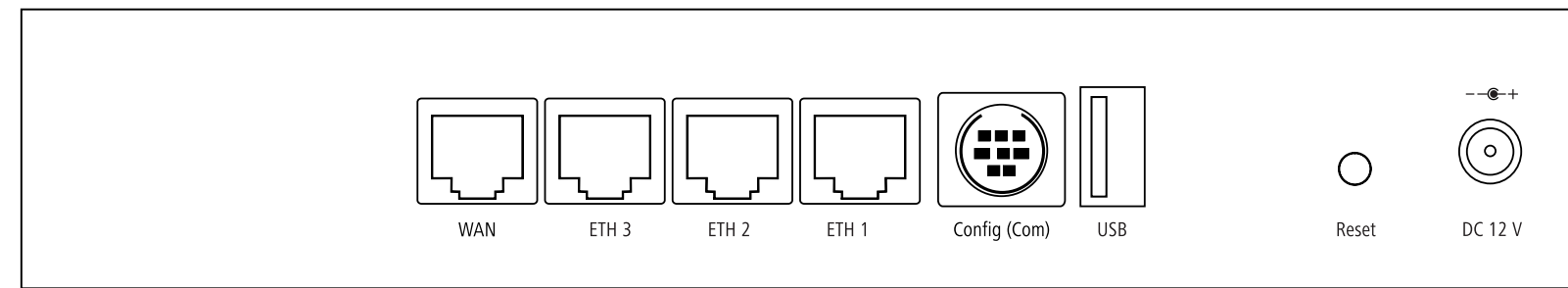
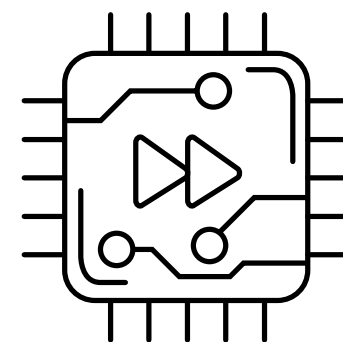
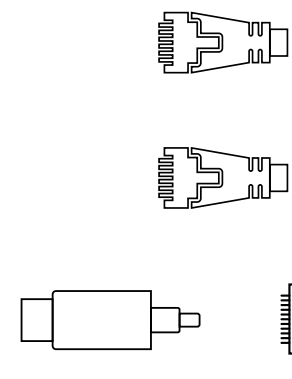


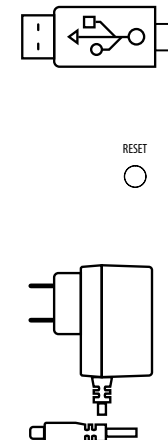
## Hardware Quick Reference LANCOM 1640E



- ① **WAN interface**  
Connect the WAN interface to your WAN modem using the enclosed ethernet cable with the dark green connectors.
- ② **Ethernet interface**  
Use the cable with the kiwi-colored connectors to connect one of the interfaces ETH 1 to ETH 3 to your PC or a LAN switch.
- ③ **Configuration interface**  
Configuring the device via the serial interface requires a serial configuration cable (available as an accessory).



- ④ **USB interface**  
You can use the USB interface to connect a USB printer or a USB storage device.
- ⑤ **Reset button**  
Pressed up to 5 seconds: device restart  
  
Pressed until first flashing up of all LEDs: configuration reset and device restart
- ⑥ **Power**  
When connecting the cable to the device, turn the bayonet connector 90° clockwise until it clicks into place.  
Use only the supplied power adapter.



**Before initial startup, please make sure to take notice of the information regarding the intended use in the enclosed installation guide!**

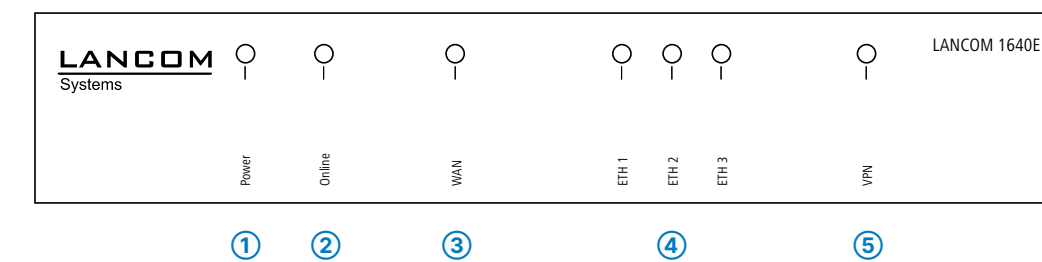
**Operate the device only with a professionally installed power supply at a nearby power socket that is freely accessible at all times.**



### Please observe the following when setting up the device

- The power plug of the device must be freely accessible.
- For devices to be operated on the desktop, please attach the adhesive rubber footpads
- Do not rest any objects on top of the device
- Keep all ventilation slots on the side of the device clear of obstruction
- In case of wall mounting, use the drilling template as supplied
- Rack installation with the optional LANCOM Rack Mount (separately available)
- Please note that support service for third-party accessories is excluded.

## Mounting & connecting



### ① Power

Off	Device switched off
Green, permanently*	Device operational, resp. device paired / claimed and LANCOM Management Cloud (LMC) accessible
Red / green, blinking	Configuration password not set. Without a configuration password, the configuration data in the device is unprotected.
Red, blinking	Hardware error
Red, blinking slowly	Time or charge limit reached/error message occurred
1x green inverse blinking*	Connection to the LMC active, pairing OK, device not claimed
2x green inverse blinking*	Pairing error, resp. LMC activation code not available
3x green inverse blinking*	LMC not accessible, resp. communication error
<b>② Online</b>	
Off	WAN connection inactive
Green, blinking	WAN connection is established (e.g. PPP negotiation)
Green, permanently	WAN connection active
Red, permanently	WAN connection error

### ③ WAN

Off	Interface deactivated
Orange, blinking	Synchronization with the modem
Orange, permanently	Synchronization with the modem successful
Green, permanently	WAN connection established
Green, flickering	WAN data transmission
Red / orange, blinking	Hardware error, ext. modem
<b>④ ETH</b>	
Off	No link
Green, permanently	Network connection ready (link)
Green, flickering	Data transmission
<b>⑤ VPN</b>	
Off	No VPN connection active
Green, permanently	VPN connection active
Green, blinking	Establishing VPN connection

\*) The additional power LED statuses are displayed in 5-seconds rotation if the device is configured to be managed by the LANCOM Management Cloud.

This product contains separate open-source software components which are subject to their own licenses, in particular the General Public License (GPL). The license information for the device firmware (LCOS) is available on the device's WEBconfig interface under "Extras > License information". If the respective license demands, the source files for the corresponding software components will be made available on a download server upon request.

Hereby, LANCOM Systems GmbH | Adenauerstrasse 20/B2 | D-52146 Wuersele, declares that this device is in compliance with Directives 2014/30/EU, 2014/35/EU, 2011/65/EU, and Regulation (EC) No. 1907/2006. The full text of the EU Declaration of Conformity is available at the following Internet address: [www.lancom-systems.com/doc](http://www.lancom-systems.com/doc)

### Hardware

Power supply	12 V DC, external power adapter (110 or 230 V) with bayonet connector to secure against disconnection
Power consumption	Max. 8.5 W
Environment	Temperature range 0 – 40 °C; humidity 0 – 95 %; non-condensing
Housing	Robust synthetic housing, rear connectors, ready for wall mounting, Kensington lock; measures 210 × 45 × 140 mm (W x H x D)
Number of fans	None; fanless design, no rotating parts, high MTBF

### Interfaces

WAN	10 / 100 / 1000 Mbps Gigabit Ethernet
ETH	3 individual 10 / 100 / 1000 Mbps Gigabit Ethernet ports; ex-factory operation as switch. One port configured as WAN port. The ports can be electrically disabled in the LCOS configuration and support energy saving functionality as per IEEE 802.3az.
USB	USB 2.0 Hi-Speed host port for connecting USB printers (USB print server), serial devices (COM-port servers), or USB data media (FAT file system)
Serial Interface	Serial configuration interface / COM port (8-pin Mini-DIN): 9,600 - 115,000 baud, suitable for optional connection of analog / GPRS modems. Supports internal COM-port server and provides transparent asynchronous serial data transmission via TCP

### WAN protocols

Ethernet	PPPoE, Multi-PPPoE, ML-PPP, PPTP (PAC or PNS) and IPoE (with or without DHCP), RIP-1, RIP-2, VLAN, IP
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### Package content

Cable	2 Ethernet cables, 3m
Power adapter	External power adapter 12 V / 2 A DC/S, barrel connector 2.1 / 5.5 mm bayonet, LANCOM item no. 111303 (not for WW devices)