

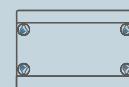


Please observe the following when setting up the device

- > For devices to be operated on the desktop, please attach the adhesive rubber footpads
- > Do not rest any objects on top of the device



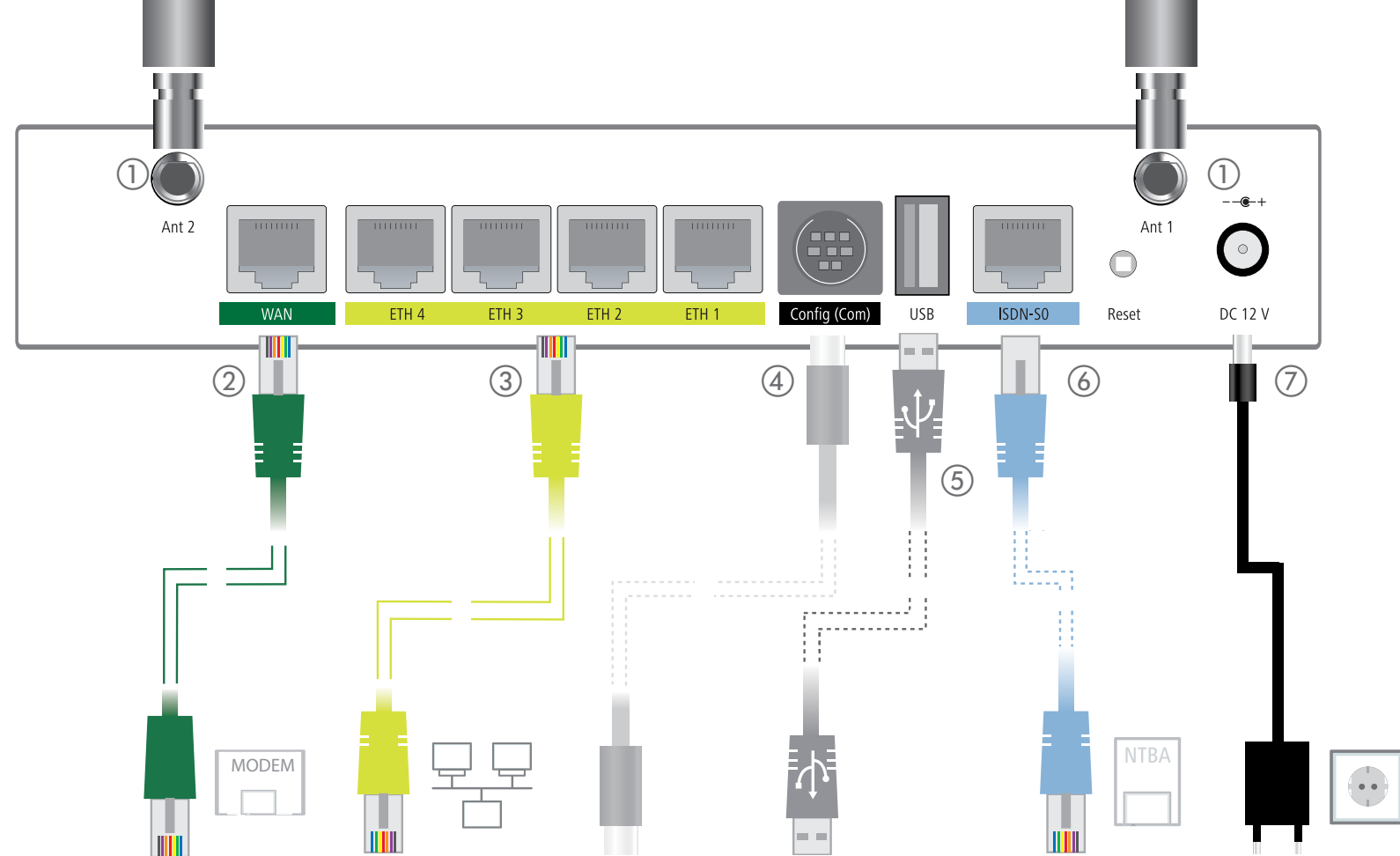
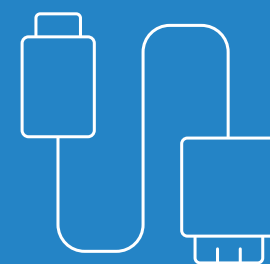
- > Keep the ventilation slots on the side of the device clear of obstruction
- > In case of wall mounting, use the drilling template as supplied



- > Rack installation with the optional LANCOM Rack Mount (not supplied)



LANCOM 1781EW+ Quick Reference Guide



①

WLAN antennas

Screw the WLAN antennas supplied to the connectors Ant 1 and Ant 2. Depending on how the antennas are to be used, the 'Antenna Grouping' parameter may need to be configured in order provide the desired MIMO behaviour.

②

WAN Interface

Connect the WAN interface to your WAN modem using the cable with the green connectors.

③

Ethernet Interface

Use the cable with the kiwi-colored connectors to connect one of the interfaces ETH 1 to ETH 4 to your PC or a LAN switch.

④

Serial Interface

You can connect the device to a PC with a configuration cable (available separately).

⑤

USB Interface

You can use the USB interface to connect a compatible USB cellular modem, a USB printer or a USB flash drive for device configuration.

⑥

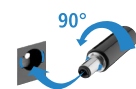
ISDN Interface

Use the ISDN cable with the light-blue connectors to connect the ISDN interface to the NTBA if you wish to use ISDN.

⑦

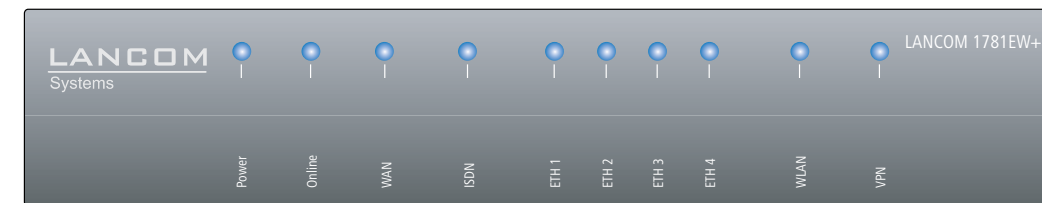
Power

When connecting the cable to the device, turn the bayonet connector 90° clockwise until it clicks into place.



Use only the supplied power adapter.

MOUNTING AND CONNECTING THE DEVICE



① Power

Off	Device switched off
Green on, permanently	Device operational
Blinking green/orange	Configuration password not set. Without a configuration password, the configuration data in the device is unprotected.
Blinking red	Charge or time limit reached

② Online

Off	WAN connection inactive
Green on, permanently	WAN connection active
Red on, permanently	WAN connection error

③ WAN

Off	Interface deactivated
Green on, permanently	WAN connection established
Flickering green	WAN data transmission
Blinking red/orange	Hardware error, ext. modem

④ ISDN

Off	Interface deactivated
Green on, permanently	D-channel active
Orange on, permanently	B-channel active
Flickering green	ISDN data transmission
Flickering red	ISDN transmission error
Blinking red/orange	ISDN hardware error

⑦ VPN

Off	VPN connection inactive
Green on, permanently	VPN connection active
Blinking green	Establishing VPN connections

⑥ WLAN

Off	No WLAN network defined or WLAN module deactivated. The WLAN module is not transmitting beacons.
Green on, permanently	At least one WLAN network is defined and WLAN module activated. The WLAN module is transmitting beacons.
Green inverse flashing	The number of flashes between pauses indicates the number of connected WLAN stations. When operating point-to-point connections, the number can also indicate the signal strength.
Blinking green	DFS scanning or other scan procedure.

⑤ ETH

Off	No networking device attached
Green on, permanently	Connection to network device operational, no data traffic
Flickering green	Data transmission

Hardware	
Power supply	12 V DC, external power adapter (230 V) with bayonet connector to secure against disconnection
Power consumption	Max. ca. 12.5 W
Environment	Temperature range 5–40 °C; humidity 0–95 %; non-condensing
Housing	Robust synthetic housing, rear connectors, ready for wall mounting, Kensington lock; measures 210 × 45 × 140 mm (W × H × D)
Number of fans	None; fanless design, no rotating parts, high MTBF
Wireless LAN	
Frequency band	2400–2483.5 MHz (ISM) or 5150–5725 MHz (restrictions vary between countries)
Radio channels 2.4 GHz	Up to 13 channels, max. 3 non-overlapping (2.4-GHz band)
Radio channels 5 GHz	Up to 26 non-overlapping channels (channels available vary according to country regulations; DFS for automatic dynamic channel selection required)
Interfaces	
WAN	10/100/1000 Mbps Gigabit Ethernet
ETH	4 individual ports, 10/100/1000 Mbps Gigabit Ethernet, by default set to switch mode. Up to 3 ports can be operated as additional WAN ports. Ethernet ports can be electrically disabled in the LCOS configuration. The ports support the energy-efficient features 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), USB data media (FAT file system), or supported UMTS USB modems
ISDN	ISDN-S ₀ bus
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 the internal COM-port server.
Ant 1, Ant 2	Two reverse SMA connectors for the supplied dipole antennas, LANCOM AirLancer Extender antennas or for antennas from other vendors. Please respect the restrictions which apply in your country when setting up an antenna system. For information about calculating the correct antenna setup, please refer to www.lancom.eu .
WAN protocols	
Ethernet	PPPoE; Multi-PPPoE; ML-PPP; PPTP (PAC or PNS) and IPoE (with or without DHCP); RIP-1; RIP-2; VLAN; IP; IPv6 over PPP (IPv6 and IPv4/IPv6 dual stack session); IPoE (auto-configuration, DHCPv6 or static); tunnelling protocols (IPv4/IPv6) 6to4, 6in4, 6rd (static and via DHCP)
ISDN	1TR6, DSS1 (Euro- ISDN), PPP, X75, HDLC, ML-PPP, V.110/GSM/HSCSD
Declaration of conformity	
The Declaration of Conformity is available from the product page on our website www.lancom.eu	
Package content	
Manual	Quick Reference Guide (DE/EN), Installation Guide (DE/EN)
CD/DVD	Management software (LANconfig, LANmonitor) and documentation
Cable	2 Ethernet cables, 3 m (LAN: kiwi-colored connectors; WAN: green connectors), ISDN cable, 3 m (light-blue connectors)
Antennas	Two external 3 dBi dipole dualband antennas, one internal 3 dBi dipole dualband antenna
Power adapter	External power adapter (230 V); NEST 12 V/1.5 A DC/S; coaxial power connector 2.1/5.5 mm bayonet; LANCOM item no. 110723 or 111301 (EU, 230 V); LANCOM item no. 110829 or 111302 (UK, 230 V)

License information for the device firmware (LCOS) is available within the file LCOS-Licenses.txt on the supplied data medium.



If you operate separately purchased antennas, please ensure that you do not exceed the maximum allowed transmission power for your system. The system operator is responsible for adhering to the threshold values. Antennas are only to be attached or changed when the device is switched off. Mounting or demounting antennas while the device switched on may cause the destruction of the WLAN module!