

Product portfolio

Medical IT hardware



Powerful IT hardware for use in medical and hygienically critical areas

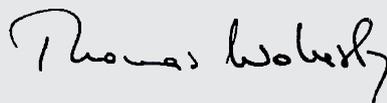
ACL, with headquarters in Leipzig / Germany, is an owner-managed medium-sized company that develops and produces optimised IT hardware for use in the medical sector that meets the special requirements of hygiene-critical areas.

Our intelligent solutions set trends and are always a step ahead of the competition. Those who use ACL products receive the highest reliability in tough routine operation, outstanding quality, durability and ergonomics. The pursuit of innovation at the highest technical standard and the realisation of your individual wishes is our incentive to always deliver excellent products.

Our wide range of products, individual consulting and services worldwide and a comprehensive portfolio of accessories make us one of the leading solution providers for IT technology in operating theatres, intensive care units, and hygienically critical areas.

This brochure provides you with an overview of our products and accessories. We would also be pleased to present our solutions on site and give you the opportunity to personally convince yourself of their quality and flexibility. In addition, we can also develop individual solutions for you.

We thank you for your interest and look forward to your enquiry.



Thomas Wollesky
CEO

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ACL products stand for outstanding quality, robustness and ergonomics

We produce medical IT hardware with over 70 employees in Germany. **All production steps are performed in our plant in Leipzig.** This includes CNC milling, painting, glass processing with printing as well as lamination and bonding in our own clean room and under ESD conditions. **Our own development department** is capable of producing individual solutions with regard to design and electronics in small quantities. Our durable products under the brands **OR-PC®**, **OR-MD®** and **OR-CONSOLE®** stand for the seal of quality approval »Made in Germany«.

Our own sales and service sites are also located in **Hong Kong** and **New York, USA**. ACL products are characterised by quality, functionality and sustainability and can be **procured via selected dealer network in over 40 countries worldwide.**



Over 25 years of quality »Made in Germany«

Since the development of our first medical panel PCs in 1995 we have been producing hardware solutions at the highest level for the medical sector **with technical competence, flexibility and passion**. We stand by Germany as a top production and development location. Thanks to our experience in the development of medical IT hardware, we have been offering clinics, medical technology and software manufacturers, planners and dealers the right solutions for the benefit of their patients and customers for over 25 years.

1997
ACL GmbH founded in Leipzig

2003
Development of the first surgical displays **OR-MD®**

2009
First mobile trolley solution with lithium-ion battery and medical PC with WLAN

1995
Development of the **first medical panel PCs ART-K1** by two engineering brothers for use in the University Hospital of Leipzig

2000
2nd generation of medical panel PCs with cast magnesium housing

2007
3rd generation of medical panel PCs with milled aluminium housing and Intel® Pentium® 4 processor

2011
4th generation of medical panel PCs with full glass front under the new product name **OR-PC®**



**History of OR-PC® series
1995–2020**

As an independent German manufacturer, we rely on our own production, design and electronic development and guarantee our customers durable products of the highest quality. In the development of our products we follow the maxim of combining ergonomics and design with state-of-the-art technology. ACL products therefore also convince with their modern, compact device concept and low weight.

2012

Own milling shop with **nine CNC milling machines**

2016

ACL OR-CONSOLE® as in-wall and on-wall display solution

2019

Sales and service centre in **Hong Kong and Houston, USA**

2021

ACL America Corp. as new subsidiary in **New York, USA**

2015

New 2200 m² production facility in Leipzig with clean room for display bonding and glass processing

2017

5th generation of the OR-PC® with display bonding

2020

6th generation of the OR-PC® with Intel® Core™ 8th generation

Our vision: »Always a step ahead«

It is our goal to provide medical staff with the best hardware for their daily work to ensure the safety and well-being of patients under **consideration of special hygienic standards and the continuous use of equipment.**



Innovation, product quality as well as customer service are our focus and form the three pillars of the »Made in Germany« quality seal.

■ Made
■ In
■ Germany

01



Innovation

For more than 25 years and for the future – **the know-how and inventive talent of our employees are the basis for continuous development** of our products for the benefit of our customers.



Product quality

The independent production in Germany with **state-of-the-art technologies and selected materials** as well as the economical and sustainable use of resources guarantee excellent product quality in the long term. **Reliable and durable products for continuous use on patients** are both an incentive and an obligation for all our employees.

02



Service

We hold dear the ultimate satisfaction of our customers. Our service is characterised by **customer proximity, short reaction times, and direct contact with the manufacturer**. Apart from **great individualisation possibilities** of our products, we also offer **high investment security**.

OR-PC® series

The OR-PC® with its **completely enclosed, fanless design** is **specially developed for continuous operation in hygienically critical areas** and the ideal workplace for medical applications. It impresses with its **passively cooled aluminium housing with internal power supply** and a high customisability.

OR-PC®



Specially developed for continuous operation in hygienically critical areas



Extremely high customisability and flexibility, extremely robust, durable and maintenance-free



Completely enclosed, fanless construction



FHD: 15", 19", 21", 24", 27", 32", 42"
UHD (4K): 24", 27", 43", 49", 55"

Strengths

Hygienic. Fast.

Silent. Modular. Robust.

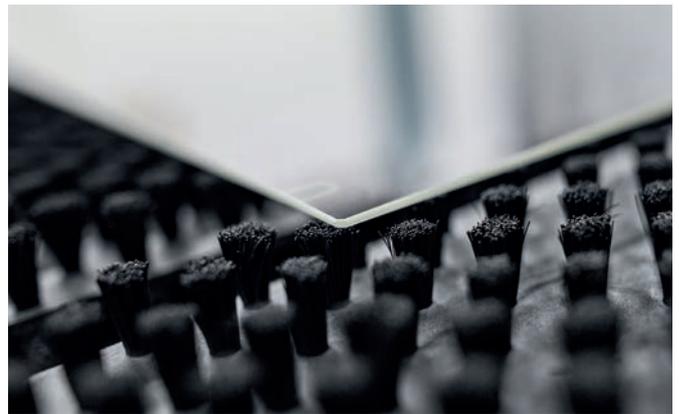
- **Easy to disinfect** milled aluminium housing without openings
- **Passive cooling system**
- **Intel® ULV processors**
- Use of industrial components for **24/7 continuous operation**
- Protective glass pane made of aluminosilicate glass with **anti-reflection coating (AR)** and **anti-fingerprint coating (AF)**
- Easy cable management due to **integrated power supply unit**
- Image reproduction of the highest brilliance through optional **optical bonding**
- **Noiseless operation** without rotating parts
- **Service-free device concept**
- Low unit weight due to **compact design**
- **Long product life** through optimised heat dissipation from the device and the use of durable industrial components
- Service-friendly, tool-free unit mounting via **VESA interface**
- Energy-saving night mode due to **backlight shut-down**
- **Easy deactivation at the touch** of a button for disinfection mode
- Wide range of **optional integrated accessories** such as RFID and barcode scanners
- **Individual window or logo printing** as well as housing colours, also for small series
- **High planning and investment security** through the use of industrial components available in the long term
- Optional **antibacterial paint** and protective glass pane with antibacterial coating
- Use of modern display technologies with true-colour reproduction and **all-round viewing angle**
- Use of **high-performance hardware components** and state-of-the-art technologies

Fields of application

The OR-PC® is characterised by an extremely high degree of customisability and flexibility, is extremely durable, maintenance-free, and perfectly adapted to the high demands of continuous clinical operation.

The OR-PC® serves as input terminal or bedside workstation for:

- **CIS** (Clinical Information Systems)
- **ePR/PDMS** (Patient Data Management Systems)
- **Anaesthesia Documentation Systems**
- **RIS** (Radiology Information Systems)
- **PACS** (Picture Archiving and Communication System)



ACL OR-PC®s have a protective glass pane made of aluminosilicate thin glass as standard. It is highly scratch-resistant and resilient, saves weight and increases display brightness.



In its own milling shop, ACL produces all-aluminium housings, which have an excellent thermal conductivity and thus, as passively cooled housings, enable a long life of the electronic components.

OR-PC® series

We offer exactly the right solutions for the OR-PC® according to individual requirements.

OR-PC® Hot Swap Battery



The OR-PC® 24 with Hot Swap Battery has been specially developed for mobile use in hygienically critical areas. It is perfectly suited for all those who want to use an OR-PC® without a separate power supply.

OR-PC® Thin-Client



With the OR-PC® Thin-Client, hardware and software clients from various manufacturers can be implemented in the ACL OR-PC®s. We thus offer an independent platform solution that can be easily integrated into existing networks.

OR-PC® Box



The OR-PC® Box enables the integration of additional cards. The optional 10" touch display allows for video capturing, for instance. All signals as well as the power supply are realised via a USB-C port and only one cable.

OR-PC® Box Mini



The OR-PC® Box Mini is the most compact version of the series. The space-saving stand-alone PC is also equipped with a passive cooling system and industrial components, and is suitable for continuous operation.

Specifications

Housing	Milled solid aluminium
Equipment	Intel® Celeron, Core i5, Core i7 (ULV processor Intel® 8. Generation)
	Up to 64 GB RAM
	Up to 2 TB M.2 SSD
	Internal power supply
Display sizes	15", 19", 21", 24", 27", 32", 42" (FHD) 24", 27", 43", 49", 55" (UHD)
Platforms for OR-PC® Thin-Client	DELL Wyse Thin-Client
	HP® T530
	IGEL Thin-Client
	Teradici® Zero-Client
	Rangée Thin- / Zero-Clients

Options

The OR-PC® series is highly customisable:

- **PCAP multi-touch**
- **Display bonding** L-OCA for extremely high image quality
- **RFID reader**
- **Barcode scanner**
- **Wi-Fi and Bluetooth**, mobile data transfer
- **Interface decoupling 4 kV** (RJ-45, RS-232, USB)
- **Fibre optic interface cards**
- **DVD drive, card reader**
- Integration of **frame grabber cards** for video capturing
- **Loudspeaker**
- **Cable cover**
- Individual, also **germicidal coatings**
- **Individual customer layout**
- **Individual glass coatings** (anti-reflective, anti-microbial, anti-glare, anti-fingerprint)
- Integrated **signal decoupling**
- Pre-installed **Windows operating system**
- **Warranty extension** up to 5 years

Hygiene



The glass front as well as the housing can be disinfected by all the usual means. The closed, fanless design prevents dirt or germs from accumulating in the device. The optional cable cover also thoroughly protects the devices against the penetration of liquids.

Individual customer solutions

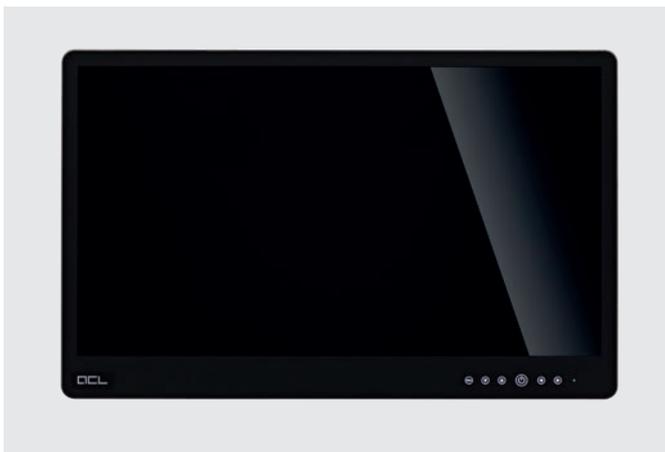


ACL offers a large portfolio of hardware upgrades and additional components, which enable us to produce tailor-made solutions even in smaller quantities, based on the existing IT infrastructure and the available budget.

OR-MD[®] series

As an image viewing monitor, the OR-MD[®] is the first choice for medical image and video displays in the operating theatre and intensive care units. **Bright, true-colour displays and a high all-round viewing angle are the hallmarks of this series.**

OR-MD[®]



For high-resolution medical image and video presentation in the operating theatre and intensive care units



OR-MD[®] - the best picture in FHD and UHD (4K)



FHD: 15", 19", 21", 24", 27", 32", 42"

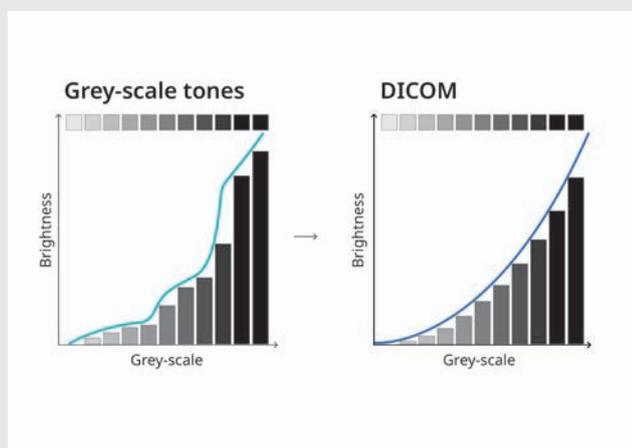


UHD (4K): 27", 32", 43", 49", 55"

Strengths

Brilliant. Robust. Touch.
FHD. UHD.

- **Easy to disinfect** milled aluminium housing without openings
- Protective glass pane made of aluminosilicate glass with **anti-reflection coating (AR)** and **anti-fingerprint coating (AF)**
- Easy cable management due to **integrated power supply unit**
- Image reproduction of the highest brilliance through **optional optical bonding**
- **Service-free** device concept
- Low unit weight, **compact design**
- **Service-friendly**, tool-free device mounting via VESA interface
- **Energy-saving night mode** due to backlight shut-down
- **Simple deactivation at the touch** of a button for disinfection mode
- **Individual window or logo printing** as well as housing colours, also for small series
- Optional **antibacterial paint** and protective glass pane with antibacterial coating
- **TFT panel** with all-round viewing angle
- **Available from 27" with UHD (4K)** resolution
Additional inputs and outputs possible (**DVI, VGA, display port, HDMI, 3G-SDI, 12G-SDI**)



Calibrated DICOM preset optionally possible

Fields of application

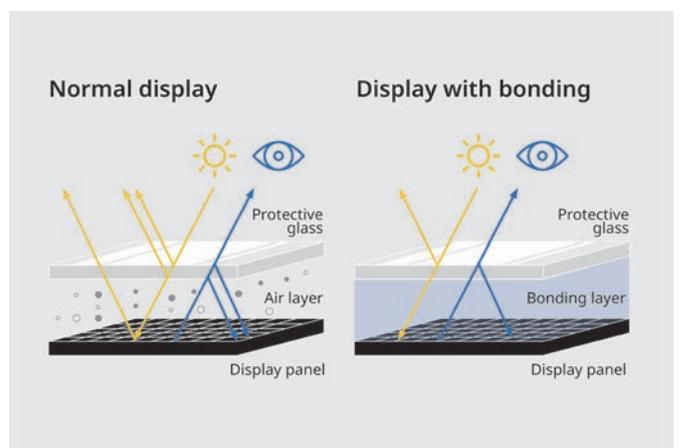
- **Operating theatres**
- **Radiology**
- **Endoscopy**
- **Microscopy**
- **Visualisation within the environment close to the patient (according to EN DIN/UL 60601)**

Optical bonding

The special process of optical bonding reduces distorted light refractions and disturbing reflections by bonding the display to the glass. This further increases the brilliance and brightness of the images and the experienced user can recognise the finest gradations in shades even faster and more reliably.



All medical displays up to 32" can be optionally bonded.



Optical bonding minimises distorted light refractions, prevents soiling and minimises the risk of falling splinters falling in the event of damage.

OR-CONSOLE® series

The OR-CONSOLE® serves as a **central control platform** for the display, recording, and distribution of patient-specific medical data in the operating theatre.



OR-CONSOLE® with metal housing

The cost-effective basic variant within this product family. The metal housing can be flexibly painted in all RAL colours according to customer requirements and is available with a frame for wall mounting and with a body for surface mounting.



OR-CONSOLE® with full glass front

Thanks to the non-reflecting, full-surface glass front, the wall consoles impress with a high-quality, modern and innovative design. The integrated touch and capacitive keypad guarantee full functionality and easy operation.



OR-CONSOLE® with full glass front and keyboard

In the version with a full glass front, it is also possible to integrate a keyboard, mechanical buttons, and interfaces leading to the outside. These can be flexibly arranged and realised in a stainless steel element without damaging the protective glass pane or exposing it to critical loads during operation.



Display sizes

FHD: 21", 24", 27", 32", 42"

UHD (4K): 24", 27", 32", 43", 49", 55"

Strengths

Hygienic. Fast.

Silent. Modular. Robust.

- **Customisable** in dimension and equipment options
- **Flexible modular system** for individual multi-display solutions
- **Hygienic, flush-fitting device installation concept** for effective disinfection
- **Passive cooling system**
- Use of industrial components for **continuous operation**
- Protective glass pane with **anti-reflection (AR) coating and anti-fingerprint (AF) coating**
- **Noiseless operation** without rotating parts
- **Service-free** device concept
- Long product life through the use of **durable industrial components** with low heat generation
- **Simple deactivation at the touch** of a button for disinfection mode
- Wide range of **optional integrated accessories** such as RFID and barcode scanners
- **Individual window or logo printing** as well as housing colours, also for small series
- **High planning and investment security** through the use of industrial components available in the long term
- **Optional protective glass pane** with antibacterial coating
- **Use of modern TFT panels** with all-round viewing angle
- Use of **high-performance hardware components** and state-of-the-art technologies
- **Calibrated DICOM preset** optionally available
- **Available from 27" with UHD (4K) resolution**
- **Individual equipment** with additional signal inputs and outputs possible

Fields of application

The OR-CONSOLE® has a modular design and can therefore be completely customised in terms of both size and equipment options. In addition to a mobile version, it is suitable for stationary installation in the operating theatre as an in-wall or on-wall system.

- **Operating theatres**
- **Intervention areas**
- **Areas with high hygienic requirements**
- **Laboratory**
- **Clean room**



ACL attaches great importance to quality with regard to the housing and mechanics. This is due to the flush integration into system walls, adjustment options for the exact adaptation of the devices to existing wall niches, as well as aluminium housings, which ensure optimum heat dissipation from the housing without the use of fans.



The OR-CONSOLE® - like all ACL devices - undergoes a comprehensive quality check before delivery. In addition to a visual inspection and an intensive functional test, all integrated electronic components are subjected to a documented stress test to guarantee the durability of the device.

OR-CONSOLE® series

In addition to the OR-CONSOLE® standard systems, ACL is also able to produce **individual dual or multi-screen solutions** due to the high vertical range of manufacture and its own design team.



There are almost no limits to the possible combinations and expansions for dual or multi-screen solutions. Screen diagonals from 10"-75" can be individually combined with each other and can also be supplemented with additional function displays, for example for time, timer, temperature and humidity. The same range of variants can be accessed as for the standard systems, optionally with metal housing or full

glass front, designed as a wall recessed or surface-mounted solution and with integrated PC or as a monitor. The modular device concept also guarantees a high degree of future and investment security, as hardware expansions or upgrades are possible at any time without difficulty.

Specifications

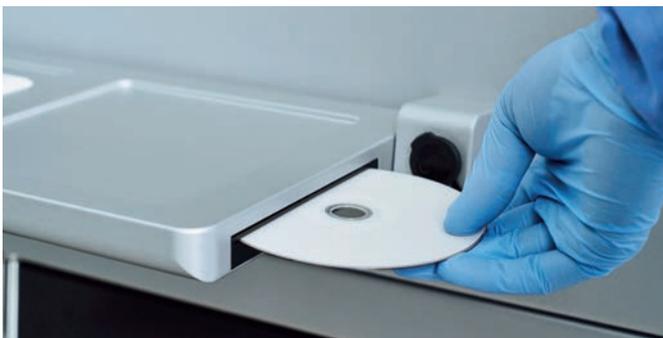
Basic system	Designed as monitor
Display sizes:	21", 24", 27", 32", 42" (FHD) 24", 27", 32", 43", 49", 55" (UHD)
Optional PC module: Equipment options	Intel® Celeron, Core i5, Core i7 (ULV processor Intel® 8. Generation) Up to 64 GB RAM Up to 2 TB M.2 SSD Internal power supply
Platforms for OR-PC® Thin-Client	DELL Wyse Thin-Client HP® T530 IGEL Thin-Client Teradici® Zero-Client Rangeé Thin- / Zero-Clients

Options

The **OR-CONSOLE®** can be individually configured:

- **PCAP multi-touch**
- **RFID reader**
- **Barcode scanner**
- **DVD drive**
- **Card reader**
- **Wi-Fi and Bluetooth**
- **Interface decoupling** 4kV (RJ-45, RS232, USB)
- **LWL-Interface cards**
- Integration of **frame grabber cards**
- **Loudspeaker**
- Individually with **germicidal coating**
- **Individual customer layout**
- **Individual glass coatings** (anti-reflective, anti-microbial, anti-glare, anti-fingerprint)
- **Signal decoupling** according to customer requirements
- **DICOM** preset
- **Windows operating system** pre-installed
- **Warranty extension** up to 5 years

Flexibly expandable



ACL also focusses on a great many various equipment options, which enables customer-specific solutions with the OR-CONSOLE®. Various input devices, signal extenders, expansion cards for the PC unit and different display modes are just some of the available options.

Interfaces and switches

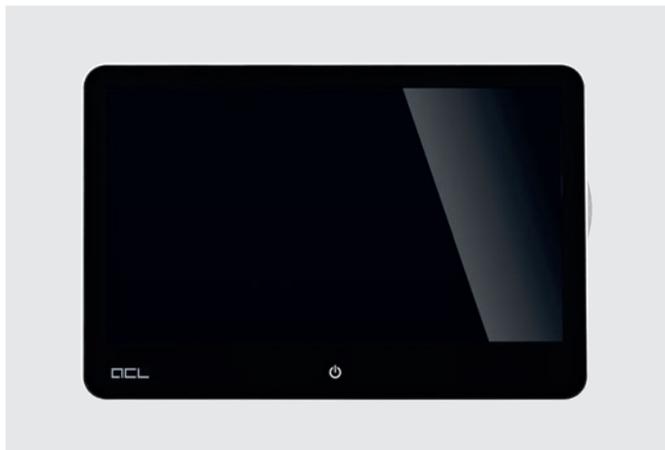


Individually adapted to the respective application, the OR-CONSOLE® can be flexibly equipped with interfaces, switches and buttons. The customer can also define the number as well as the position of the elements, regardless of whether the devices have a metal housing or a full glass front.

Bedside Terminal

The Bedside Terminal with 15.6 FHD display and PCAP multi-touch can be used at the **patient's bed for applications such as patient surveys, meal orders and TV/media entertainment.**

The Bedside Terminal is the perfect solution for information with maximum user comfort directly at the point of care and at the same time meets the highest requirements in terms of hygiene and infection prevention. The Bedside Terminal also corresponds to our device concept with a completely closed, milled aluminium housing, fanless, passive cooling system and a protective glass pane made of aluminosilicate glass.



With a total weight of only 2.4 kg, the Bedside Terminal can be flexibly installed directly at the patient's bed and connected to the modern media world. Each patient can therefore decide individually at any time what he or she wants to hear, see or read. The terminal offers an integrated loudspeaker, a headphone connection, USB port and smart card reader.

In addition to the use of different media, other services such as telephony, room control and patient information are possible.

By integrating the terminal into the in-house CIS, the connection of numerous hospital services as well as secure access to patient data for doctors and staff can also be implemented.

Mobile Solution

The mobile cart solution combines **the latest cart technologies with our OR-PC® or the OR-PC® 24 with Hot Swap Battery.**

Thus ACL offers flexible cart solutions tailored to your requirements.

With the mobile cart solutions from ACL, the nursing staff is optimally supported and relieved in their daily work, so that they have more time for the patient. For example, access to the hospital information system, patient records, RIS, PACS, medication systems, drug administration and logistics is possible at any time.



The battery solutions that can be integrated as well as the built-in components enable the cart to be used in permanent continuous operation. The rechargeable battery system can be integrated either in the cart or in the ACL OR-PC®. To ensure maximum flexibility, discharged batteries can be charged either by connecting the PC to an electrical outlet, in the device or in an external charging station. During operation, a digital display provides information at any time about the remaining capacity of the batteries.

The batteries integrated in the OR-PC® are discharged sequentially. Empty batteries can be replaced with charged ones at any time during operation without having to switch off the PC. This ensures uninterrupted work. The integrated WLAN also enables maximum mobility.

The mobile trolleys meet the highest ergonomic requirements and also offer numerous optional functions such as electric height adjustment or electric mobility support.

Accessories

We offer a wide range of accessories to match the products from the OR-PC[®], OR-MD[®] and OR-CONSOLE[®] series. **A large part comes from our own development and production and is therefore optimally adapted to the ACL products.** The high quality standards of our own brand products are also applied to the accessories of other manufacturers offered by ACL. We are happy to offer you **advice, planning, sales and installation for a wide range of peripheral items**, e.g. software, diagnostic monitors, barcode scanners and more.



Cable

We offer you a wide range of standard cables, also for country-specific variants. Furthermore, individual cable assemblies of any kind are possible on request.



Input devices

ACL has a wide range of hygienic keyboard variants, optionally with touchpad or mouse. The keyboards are both waterproof and dustproof, can be cleaned with all common disinfectants and thus provide effective protection against the spread of germs and pathogens. At the same time, the keypads meet the highest ergonomic requirements and optionally offer additional functions such as lighting, hygiene control software or a stand-by clean mode.



Wall station

The wall station is used for space-saving wall mounting of OR-PC® and OR-MD® devices up to 32" in combination with a hinged keyboard/keyboard/mouse combination. All cable connections are realised in the housing. All required interfaces, such as USB or network connections, are splash-proof. The wall station, milled from aluminium, can be completely disinfected and meets the highest demands on durability and quality.



Table stand

With the stand developed and manufactured by ACL, OR-PC® and OR-MD® up to 27" can be used as tabletop units. The elegant design is matched to our appliance concept and guarantees the best possible stability. The table stand is made of aluminium and therefore stable and easy to disinfect. The stand can be delivered in various RAL colours.



Support and mounting systems

We offer a wide range of fixing and mounting options for mounting the PCs and monitors on walls, supply ducts, ceiling supply units, anaesthesia equipment etc. All systems meet the required clinical guidelines for hygiene, ergonomics and safety. Integrated cable routing, height adjustability and large swivel and rotation ranges are just some of the added values of the solutions offered. We will also be happy to advise you on site to find the right solutions for individual workstations from our modular portfolio.



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ALWAYS A STEP AHEAD

Note: Not all options can be combined. We reserve the right to make technical changes.
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