KARL STORZ OR1 FUSION®
The Integrated Operating Room
The KARL STORZ OR1 FUSION® system represents the culmination of over fifteen years experience in integration solutions. KARL STORZ OR1 FUSION® is defined as the combination of various disparate applications into “one” sole source solution. This permits the KARL STORZ OR1 FUSION® to be a compact platform, while providing exceptional image management, documentation, communication and safety features unparalleled in the industry. The first fully digital IP based platform available in the market with robust feature sets and an enhanced graphical user interface, the KARL STORZ OR1 FUSION® will exceed the expectations of clinicians today while meeting their demands in the future.

KARL STORZ OR1 FUSION® also offers a highly innovative approach to the communication demands of an increasingly connected society, allowing your OR to easily connect with virtually any fixed or mobile device around the globe.

**Integrated Simplicity**

**Integrated Safety**

**Integrated Scalability**

NEW:
- 4K Ready
The system is designed to access the applications you need today. From PACS imaging, VITALS, and C-ARM images to 3D endoscopic views and medical device control, the unique dynamic nature of the platform allows seamless “plug and play” of devices necessary to complete your tasks in a safe and efficient manner. Its workflow process system provides the capability to track and monitor the progress of your case from beginning to end. No longer will steps be missed as each task is followed via this workflow process ultimately to the conclusion of the case.

Since the system also provides for image preview, any workstation can become a viewing station capable of visualizing the source selected. The clinician can simply navigate to the respective source and visualize that image prior to transmission. That means you always know what is available and that the right device is selected.

Experience the “FUSION REVOLUTION” and be immersed in a new “state of the art” technology unmatched by any other in the industry.
**Integrated Connectivity**

Connect and Communicate

- Flexible communication opportunities: Reach your counterparts via telephone, videoconference or Skype
- Presence information: See who is online, and who is available
- Unified communications network: Reach any device, anywhere, anytime
- Enjoy an easy-to-use User Interface, to share with your counterparts any video source in your OR with a single touch
- Share uncompressed, high-quality video streams with your colleagues without any delays

Let your voice be heard.
Integrated Device Control

- Control is at your fingertips, access all your medical devices via truly realistic interfaces
- Handle a multitude of devices and setups at the push of a button
- Simple presets allow you to setup the room correctly the first time
- Adjust your environment and music to meet your needs (switch from Bach, Mozart, to John Denver and Scorpions at will and as your mood desires)
- Enjoy the features of your portable music/video device and satisfy your need for playlists
- Adjust your ambience with control of lighting and personalize it to your liking

Control your room like never before and make it your own.
Integrated Intelligence

- Dual image capture provides instantaneous control of two sources asynchronously capturing and timing those important events so they are not missed
- Patient information is automatically retrieved via the built-in DICOM worklist ensuring that proper patient information is populated
- Capture and playback HD and 3D images and videos
- Immediate feedback is provided on the surgical display highlighting specific settings as well as informing staff of real-time capture
- Export and portability capabilities to a multitude of different media during and after the case. No need to wait any longer to get your information on network repositories
- Flag, mark, edit, and transmit your case before you close

Access, retrieve, and store without concern.
ADAPTOR1™ – Integrated Simplicity

- No need to look for different connectors, one plug does it all
- Auto detect and define any source in the OR when it arrives
- Plug and Go! With the ADAPTOR1™, the system knows when a device is available for use
- Robust, military grade, reliable and portable
- Handle any signal no matter the connector type
- Individual configurations of various PIP/PaP images can be set up for each monitor

Bring it, see it, route it... immediately.
Integrated Scalability

- Be ready
  Whatever you will need in the future, KARL STORZ OR1 FUSION® will adapt to it. No matter if 2D, 3D, UHD or 4K, any video source can be connected to any video destination without upgrading your hardware.

- Don’t have enough Inputs/Outputs? Never again!
  The words “Inputs/Outputs” are words of the past. With an open 48 port agnostic switch, any port can manage any device or monitor

Connect 1, 2, or 3 OR1™ Systems within a single switch

Expand your possibilities.
• Create a “Home” screen that works for your OR
  Using a software-based platform, KARL STORZ OR1 FUSION® delivers a user interface experience that is completely scalable to your growing needs. Only turn on the features each OR needs.

• Add functionality “App” by “App”
  With each feature being software-driven, new functions can be added by installing a new application or “App”. KARL STORZ OR1 FUSION® is one software interface that can be expanded feature by feature.

Build your interface one application at a time.
Integrated Safety

- ✓ Patient
  ✓ Procedure

- KARL STORZ is a market leader in patient safety tools. Being the first company to integrate a WHO compliant checklist into our integration platform, we understand the importance of improved compliance to reduce complications.

- Integrated checklists: Sign In, Time Out, Sign Out

- Each checklist is completely customizable to the standards of individual hospitals. Time Out is a team activity. The entire team should have a standard, fully visible checklist to ensure consistency and completeness – KARL STORZ OR1 FUSION® delivers this.

Leverage technology to improve compliance.
• Visualization is the **key to a difficult airway**
  Patient safety is the most important part of the surgical procedure, and securing the airway is a crucial part of the procedure. Through a combination of KARL STORZ OR1 FUSION® integration technology and airway management solutions, standard intubations and difficult airways can be visualized around the operating theatre in a second

• Visualization is the **key for patient monitoring**
  Integrated patient vital signs to be viewed on any monitor in the room. With single touch routing, the surgeon has immediate access to the patient’s physiological status without ever leaving the surgical field

• As **Proven Medical Integrators**, KARL STORZ combines the experience from over 12 years in airway management and integration, to deliver smart surgical integrated solutions designed to improve safety in every surgical procedure

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**Immediate access to visualization with one touch.**
Integrated Infinite Possibilities

- **The fiber standard.** Fiber optics is the standard in telecommunications, computer networking, and now with KARL STORZ OR1 FUSION® OR Integration, which standardizes the OR infrastructure to all fiber delivering less signal degradation over smaller cable bundles.

- **Higher signal capacity.** Not only is fiber stronger than copper, but its bandwidth is dramatically larger. Having a larger bandwidth means new signals coming into the OR can be easily routed on a fiber infrastructure. Your OR is future ready.

- **Near zero latency.** There isn’t a second to lose in the OR. Since the KARL STORZ OR1 FUSION® leverages an IP standard to route all signals in the room, a near zero latency standard is established. Can you afford to lose a millisecond?

Digitally ready at the speed of light.
• **The Internet Protocol (IP).** Shouldn’t the world’s most popular standard for data communication be your OR standard? Shouldn’t the most non-proprietary standard be used to interconnect all of your OR devices? Of course it should.

• **Creating a routing standard.** KARL STORZ OR1 FUSION® is the first IP based, all fiber infrastructure system on the market. The IP standard is world renowned, and KARL STORZ OR1 FUSION® leverages this standard to deliver the most cutting edge solution on the market.

• The KARL STORZ OR1 FUSION® System’s all fiber infrastructure is also 3D and 4K ready, in order to integrate our current and future camera technology.

• **Unified Communications.** KARL STORZ OR1 FUSION® can be connected to your Skype for Business network, allowing your staff to easily communicate with any device supporting Skype for Business, anywhere, at any time.

Open your world with true networking capabilities.
## Overview of Functions

<table>
<thead>
<tr>
<th>Workplace</th>
<th>Room Control</th>
<th>Medical Device Control</th>
<th>Possibility to adjust any parameter on the connected medical devices, either manually or automatically by recalling a preset.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Room Control</td>
<td>Different parameters (lights, blinds, …) can be controlled from the control touch screens.</td>
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<tr>
<td>Workflow</td>
<td>Procedure specific worklists can be displayed and worked through.</td>
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<tr>
<td>Capture</td>
<td>It is possible to capture multiple Full-HD or 3D video signals simultaneously, both in parallel as well as asynchronously. A playback feature allows the review of the captured data prior to being sent to the network.</td>
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<tr>
<td>Content share</td>
<td>After a procedure is closed, KARL STORZ OR1 FUSION® sends the captured information to the preconfigured local or network storage location (video repository, HIS, PACS, ...). It is also possible to export the data manually to any connected device (printers, USB mass storage devices, DVD, network drives, ...).</td>
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</tbody>
</table>

### Multimedia

<table>
<thead>
<tr>
<th>Video</th>
<th>Room Camera</th>
<th>The OR1™ room camera can capture the entire OR area in FULL HD resolution and is ideal for live transmission. It can be controlled from the central touch screen, either by recalling pre-configured scenes or through manual adjustment (pan/tilt/zoom).</th>
</tr>
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<tbody>
<tr>
<td>PiP/PaP</td>
<td>OR1™ Picture-in-Picture / Picture-and-Picture is a feature that allows the display of two images from different video sources on every monitor within the OR at the same time. The images can be aligned according to individual requirements.</td>
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<tr>
<td>Wall-Plates</td>
<td>This option offers the possibility of connecting additional video sources to the OR1™ system.</td>
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<tr>
<td>ADAPTOR1™</td>
<td>Connects mobile video sources to the KARL STORZ OR1 FUSION® system. If a mobile device is connected to the OR1™ via ADAPTOR1™, it will be automatically recognized and listed in the routing screen as a new source with name and icon. A C-arm, for example, no longer remains as an undefined source in an integrated OR but as a defined component in the OR1™ systems.</td>
<td></td>
</tr>
<tr>
<td>Audio</td>
<td>Loudspeakers</td>
<td>This option includes wall- or ceiling-mounted loudspeakers that can be used for entertainment, communication or audio feedback purposes.</td>
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<tr>
<td>Wireless Microphones</td>
<td>One or more wireless microphones provide freedom of movement within the OR.</td>
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### Multimedia

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<tr>
<th>Display Type</th>
<th>Description</th>
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<tbody>
<tr>
<td>Virtually unlimited number of monitors</td>
<td>KARL STORZ OR1 FUSION® theoretically allows the simultaneous connection of up to 72 displays.</td>
</tr>
<tr>
<td>2D Monitors</td>
<td>OR1™ has a wide range of FULL HD medical-grade monitors, from 26” to 55” diagonal size, which is available to our OR1™ sales representatives in order to offer our clients the most optimal solution for their needs.</td>
</tr>
<tr>
<td>3D Monitors</td>
<td>26” or 32” medical-grade 3D monitors can also be connected to the system. KARL STORZ OR1 FUSION® can route and capture a mix of 2D and 3D video signals.</td>
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### Communication

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<td>Direct Connection</td>
<td>Two FULL HD or 3D video signals can be sent to an external location (such as a doctor's office, a lecture room, ...) using an uncompressed point-to-point connection.</td>
</tr>
<tr>
<td>Room-to-Room</td>
<td>Two KARL STORZ OR1 FUSION® systems can exchange uncompressed Full-HD or 3D video signals without overloading the hospital's network.</td>
</tr>
<tr>
<td>Videoconference</td>
<td>KARL STORZ OR1 FUSION® allows you to exchange high quality video and audio via standard H.323 protocols.</td>
</tr>
<tr>
<td>Unified Communication</td>
<td>This option activates a fully embedded Skype for Business compatible client, thus enabling a direct connection with a large number of different platforms.</td>
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</tbody>
</table>

It is recommended to check the suitability of the product for the intended procedure prior to use.
Perfecting SURGICAL Outcomes

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