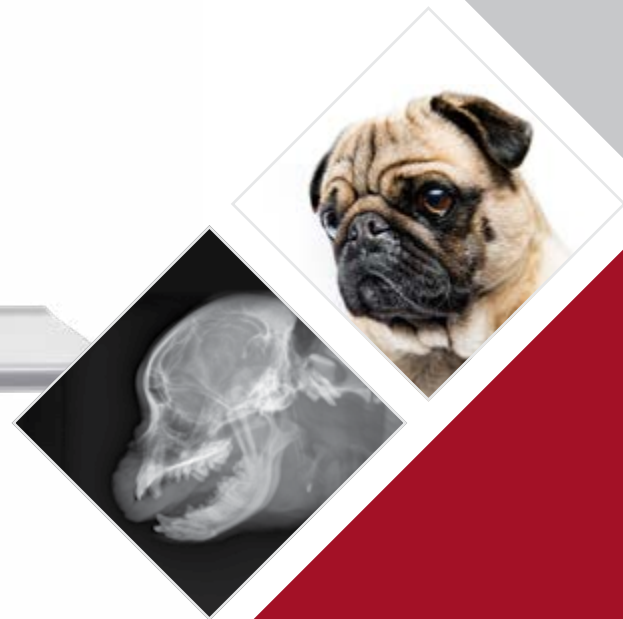# EXAMION X-ray systems

Individual solutions for your individual needs

EXAMION GmbH

EXAMION is a specialist provider of digital radiography solutions dedicated to human and veterinary medicine, based in Germany. We offer a large portfolio of digital X-ray systems and services for veterinary practices and medical clinics. For 35 years now, we have been committed to the provision of future-oriented solutions in the areas of digital X-ray systems, software and support services especially designed for veterinary practitioners.

In addition to controlling our X-ray systems, our innovative X-AQS software also incorporates image viewing and reporting facilities, as well as full archive storage of all medical imaging data.

EXAMION currently supports more than 7,000 systems. We constantly review and evaluate the needs of the individual market segments and align our business activities accordingly.

We provide full support packages for our customers, from planning and project management to expert installation and comprehensive technical support services.

35 years of experience and expertise in digital X-ray systems

EXAMION's successful business history began in 1989, and since then it has continued to consolidate its leading position as an innovator in its field. Our many years of experience make us a trusted partner for all your digital X-ray system needs.

Future oriented

EXAMION systems are fully integrated solutions comprised of hardware and software components. When it comes to hardware, we place particular emphasis on durability. Our proprietary EXAMION X-AQS X-ray software is constantly being developed. As a result, we are able to keep pace with the constant advancements in IT technology, and we are accordingly able to guarantee the future problem-free secure operation of our regularly updated software on new generation computer equipment.

Customer-oriented

Given our commitment to the "one stop shop" principle, EXAMION operates its own nationwide sales representative and service network in Germany. Customers are allocated a personal representative, who will be your point of contact for any questions or clarifications you may need. In case of technical support service requests, we aim for prompt and effective resolution, putting you in touch with expert technicians in the shortest possible time. Internationally, we collaborate with our own subsidiaries and selected sales and service partners.

Innovation

Development, sales and service are closely interlinked thanks to direct contact within the company. Because we also maintain close contact with our customers, their requirements can be incorporated directly into the development process. Due to this, we are able to develop solutions which incorporate a growing number of multiple functions with rapid and intuitive operation. Our pioneering approach has led us to effectively break down existing boundaries between different separate products and combine their previously independent functions within a single operational unit. One example of this is the EXAMION X-AQS software, which combines image acquisition and image archiving under a uniform, modular concept.

Quality awareness

EXAMION is committed to maintaining the highest standards of quality. Our company implements a quality management system which is compliant with ISO 13485, the standard which has a special focus on design and manufacture of medical devices. The processes designed around this standard are subject to constant monitoring with internal and external audits. The core process relies on standardised product assembly and subsequent comprehensive quality controls.

With a focus on your investment budget:

EXAMION X-ray systems offer an optimal price/performance ratio. Due to the wide range of systems and multiple configuration options, as an EXAMION customer, we can advise you on your purchase and make sure you only buy the components you really need. Please contact us for more details, we will be happy to assist you.

X -R X-ray systems – overview

Advantages of EXAMION X-ray systems

Optimised workflow and minimum throughput time per X-ray exposure due to:

- Reliable detector technology
- Common control of system components via EXAMION X-AQS software
- Intuitive software design

Maximum image quality due to:

- High-quality EXAMION detectors
- State-of-the-art image processing

Why purchase an X-ray system from EXAMION?

We offer a range of digital X-ray solutions suitable for individual practitioners who are starting out with just a few examinations per week, or for well-established veterinary practices or clinics with a high volume of examinations.

EXAMION offers both stationary equipment, as well as portable X-ray systems for use off-site, suitable for difficult conditions or emergency situations.

Areas of application

Our systems are most commonly used in the following settings

- Small animal veterinary practices
- Small animal clinics
- Mobile equine veterinary practices
- Dedicated equine veterinary clinics

Naturally, we also offer solutions for specialised applications, including birds, fish, wild or exotic animals.
Our systems are also used in zoos and university teaching and research settings.

		Small animal veterinary practices	Small animal clinics	Mobile equine practices	Equine clinics
X-DRS Ceiling					X
X-DR Static Classic		X	X		

		Small animal veterinary practices	Small animal clinics	Mobile equine practices	Equine clinics
X-DRS Floor Basic			X		
X-R Static Univet		X			
X-R Portable 20 BT				X	X
X-R Portable 20 BT Plus				X	X
X-R Portable 40 BT		X		X	X
X-R Portable 20 Plus				X	X
X-R Portable 40		X		X	X
X-DR Portable Solution M+ Equine				X	X
X-DR Portable Case L WiFi		X		X	X
X-R Static Dental HF wall / mobile		X	X		
X-CR More Tabletop FireCR Dental		X	X		
X-CR systems		X	X		

Complete fully-digital equine diagnostic

Our fully digital complete X-ray system with its extensive functions is specially designed for professional radiographic examination of horses. Well-designed X-ray generators provide enough power to penetrate even the dense thickness of the horse's torso. Ceiling-mounted telescopic arms hold the X-ray generator, eliminating the need for the X-ray operator to manually carry the weight of an X-ray machine. This system combines high performance with maximum ease of use.

X -DRS Ceiling Systems

X-DRS Ceiling One

X-DRS Ceiling Two

Stationary X-ray systems for Equine Veterinary Clinics

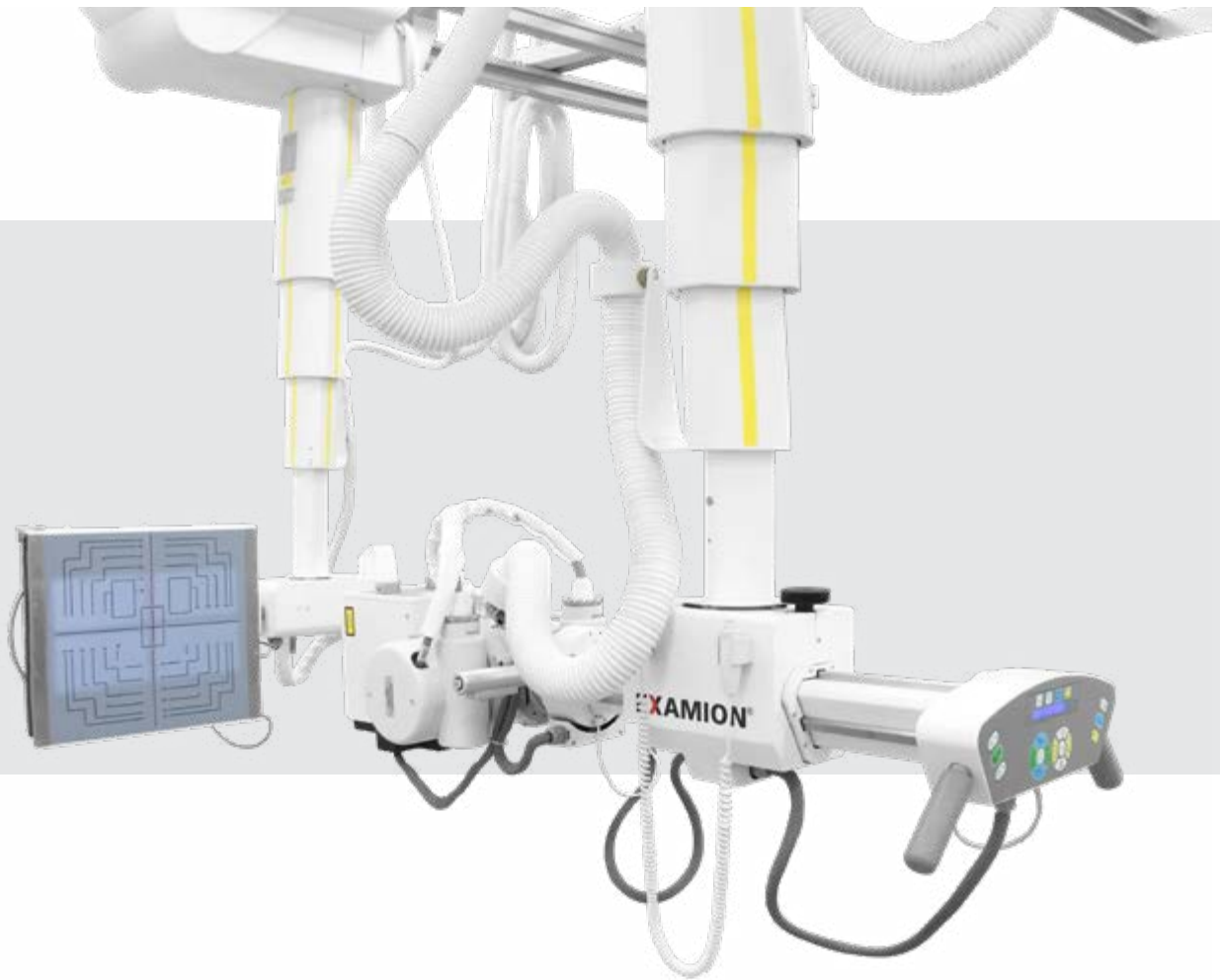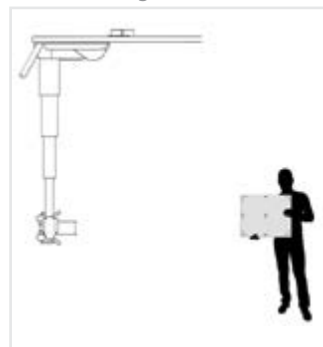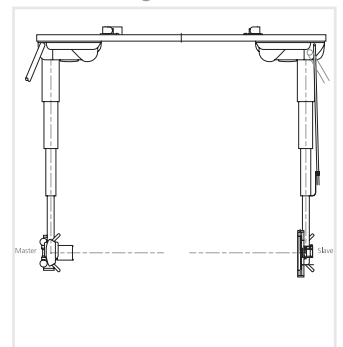Due to the combination of high generator power, telescopic arms, and EXAMION's high-quality detectors, the stationary X-DRS Ceiling X-ray System is ideally suited for radiological imaging in equine clinics.
The particular challenge in examining horses is the extra thickness of certain body parts. High powered X-ray equipment is in particular required for penetration of the torso, for example. For this purpose, X-DRS Ceiling systems are equipped with X-ray generators of up to 80 kW capacity as standard components, with the corresponding X-ray tube. High performance generators matched with optimal performance EXAMION detectors deliver brilliant high-quality, X-ray images.

The system can be equipped with one or with two telescopic arms. The large traversing range of the telescopic arms in the ceiling track offers the greatest possible freedom of movement during examinations.

Available types

X-DRS Ceiling One

The X-DRS Ceiling One is equipped with a single telescopic arm which holds the X-ray tube. High power X-ray tubes are unfortunately inherently associated with corresponding heavy weight. Here, however, this is compensated for by the telescopic arm, which means that the operator is essentially relieved of the physical burden.

X-DRS Ceiling Two

The X-DRS Ceiling Two has two telescopic arms. The X-ray detector is installed on a second telescopic arm, which can be moved in conjunction with the X-ray tube. If the detector is positioned in the corresponding tray, no assistant is needed to hold it in place. Thus the number of staff involved can be reduced, limiting overall exposure of personnel to X-rays. The detector tray on the second telescopic arm also performs the function of so-called automatic exposure, which ensures that each image is acquired with an optimum dose.

To obtain radiological images of the extremities, the X-ray detector can of course be removed from its tray and moved freely.

Technical specifications

Vertical mobility	180 cm height (193 cm height optional)
Ground clearance	7 cm to 13 cm
Spatial requirements	430 cm × 460 cm
Horizontal mobility of the X-ray tube telescopic arm	32 cm

Digital All-in-One Systems for Small Animals

Digital All-in-One solutions constitute fully-integrated systems essentially comprised of an X-ray device and a detector.
All components of the integrated system are controlled via EXAMION's core X-AQS software platform, ensuring maximum operating convenience and the fastest possible workflow.

The detector and X-ray system are configured for optimum performance in conjunction with each other. As a result, you consistently get the best image quality.

X -DRS – Digital all-in-one systems for small animals

Our digital all-in-one X-ray systems for small animals set the benchmark for image quality and ease of use. The systems were developed from the ground up as a complete solution, each with the aim of achieving an optimal product. The central element is our intuitive EXAMION X-AQS software, which is installed in the control workstation.

Intuitive operating system software

Our software carries species-specific organ X-ray programs. The selection of a specific organ determines X-ray exposure values, detector operation, and optimal image processing, as well as the proper labelling of the X-ray image. All settings are entered with just one click, and the X-ray image is displayed within a few seconds.

The X-ray viewer display function is fully integrated within the control workstation via the software platform. This enables viewing and evaluation directly from the device. All measurement functions are also readily accessible.

The permanent image file archive can also be integrated within the control workstation. If you already have an image archive, this can be easily linked to the system via the DICOM interface.

Highest image quality

The detector's advanced cesium iodide technology, its optimal coordination with the X-ray system, and EXAMION's advanced image processing capabilities, combine to maximise image quality.

The MetaGrid software module is used to suppress so-called scatter radiation. Scattered radiation can lead to a loss of contrast and detail, i.e. to lower image quality. This can now be easily eliminated using state-of-the-art scatter reduction algorithms. Grids placed between the subject and the x-ray film used to be used to reduce the scattered radiation reaching the detector and thus improve image contrast.

The disadvantage of the grid is that it requires an amplified radiation dose for each exposure. MetaGrid modular software not only increases image quality, but also offers enhanced radiation protection for operators.

X-DR Static Classic

All-in-one X-ray system with maximum integration

The X-DRS Static Classic is ideally designed to satisfy all the requirements of any small animal X-ray system, for use anywhere from small animal veterinary practices to large veterinary clinics. Key features are the high performance and the sophisticated design of the system.

All components parts of the X-ray system are fully integrated for optimum performance. No separate computer control station is required. System cabling is largely contained within the device, for a high-quality aesthetic appearance, and the best possible protection for the cables.

In addition to actual operation of the system, all software functions are directly accessed from the device:

Image viewing:

- Diagnostic tools and measurement functions

File sharing:

- Patient CD
- Export to stick
- Cloud upload/storage option
- Forwarding via your clinic/veterinary practice email

Image archive:

- The EXAMION image archive can also be optionally integrated into the system.

All functions are conveniently accessible via the integrated multi-touch screen.

The system is wall socket-compatible. No special power connection is required for installation.

Technical specifications

Generator output power	32 kW / max. 450 mA
Voltage range	40 kV to 125 kV
Capacitor technology	Standard socket connection, 230 V (capacitor technology to achieve performance values exceed those of a wall socket connection)
X-ray tube	Monoblock, focus 0.6 mm / 1.3 mm
Exposure time	1 ms to 2.5 s
Preset organ programming:	352 pre-installed
Tabletop	160.6 cm × 77.6 cm, floating longitudinal range +/-35 cm, transverse range +/-11 cm

X-DRS Floor Basic

Optionally with wall stand

All-in-one X-ray system with top performance

The X-DRS Floor Basic was developed as a high-end system specifically to meet the needs of small animal clinics where imaging is one of the main areas of focus. The main features of the system are its extremely high performance capabilities and its extra-large yet flexible X-ray table. These are particularly useful when examining large patients, such as very large dogs.

The system control station is a separate unit. Depending on space available, it can be installed either in the X-ray room or a separate control room.

Superior performance

Generator output capacity is 50 kW. This provides sufficient power reserve for large objects. High generator power reduces the exposure time for image acquisition. Especially in the case of very large dogs, there is otherwise a risk that breathing or movement can result in blurred images.

The X-ray source is matched to the generator and has a particularly high thermal capacity. Only a small amount of the energy inside the X-ray tube is converted into X-rays during exposure, while most of it is converted into waste heat. This high thermal capacity however also reliably ensures problem-free handling of high numbers of X-ray exposures.

Maximum positioning possibilities

A major feature of the system is the large size of the tabletop. Despite its size, it can easily be manoeuvered into the optimal position for examinations. In addition to the floating tabletop, the X-ray tube is also movable, providing multiple options for setting up the desired exam position.

The X-ray tube and the detector tray on the table can be mechanically coupled to each other. When the coupling is engaged, they will always correctly align with each other, without any further action being required on the part of the operator. The addition of the optional wall unit means that X-ray images can also be taken of animals in a standing position. In this case the X-ray tube can be swiveled into position towards the wall unit.

Technical specifications

Longitudinal range of the X-ray tube	136.5 cm
Vertical range of the X-ray tube	127.6 cm
Vertical range wall stand (centrally from X-ray base)	Min.: 40 cm Max.: 176.5 cm
Tabletop dimensions (LxW)	228 cm x 80.6 cm
Tabletop height	70 cm
Range tabletop	Longitudinal: ±50 cm Transverse: ±8.5 cm
Load tabletop	Max. 250 kg in prone position

X-ray system for small animals

If you are looking for a high-performance system for your small animal practice (that is, a fully-integrated combination of an X-ray system and a detector, instead of an all-in-one digital system), we can offer a reliable, tried-and-tested solution.

X-R Static Univet

The ideal entry level model

The X-R Static Univet is a universal, reliable X-ray system with high performance capabilities.
The system can be combined with various corresponding imaging systems using the appropriate
cassette trays positioned under the X-ray tabletop. Can be used with:

- Existing imaging plate system (CR systems)
- Existing detectors (DR systems)

The system can even handle X-ray film cassettes for classic X-ray films, if required.

Features

- The X-R Static Univet can be installed quickly, conveniently and safely.

- The X-ray equipment is designed for standard wall sockets. No special power connection is required for installation.

- Animals can be positioned comfortably on the floating tabletop for examination.

- Despite its floating tabletop and high output capacity, the system is remarkably compact.

- The system contains a customised version of our EXAMION software which enables intuitive control of the X-ray generator.

Technical specifications

Generator output power	30 kW / 400 mA
Voltage range	40 kV to 125 kV
Capacitor technology	Standard socket connection, 230 V (capacitor technology to achieve power values exceeding wall socket connection capacity)
X-ray tube	Double focus, focus 0.8 mm / 1.8 mm
Preset organ programming:	352 pre-installed
Tabletop	160 cm × 68 cm, floating, operated electrically via foot pedal, longitudinal range +/-28 cm

Dental X-rays

EXAMION offers the full range of optimally matched components for dental X-rays: On the one hand, an X-ray system tailored to the needs of the veterinary practitioner, and on the other hand, a flexible, fast imaging plate system for image development.

Dental treatment often requires a full set of dental X-rays spread over several exposures. With this in mind, it is clearly advantageous if the individual images can be exposed and read together seamlessly, i.e. rapidly, one image after the other.

X -R Static Dental HF wall / mobile

X-R Static Dental HF wall

X-R Static Dental HF mobile

X-R Static Dental HF mobile

Comfortable dental X-ray system

The X-R Static Dental HF X-ray system is characterised by its high performance and reliability, enabling accurate acquisition of X-ray images. This system is complemented by the corresponding digital X-ray image reading unit.

Because the system involves positioning the tube in front of the radiation exit window, this type of system is also known as a dental tube unit. The tube is used specifically for correct alignment with the object, and to maintain the intended focus-image receiver distance.

This type of X-ray system permits more rapid safe acquisition of the desired dental images. Using veterinary-specific dental charts, the appropriate exposure values can be intuitively selected, for example for dogs and cats.

The dental tube's flexible joints mean that it can be easily manoeuvered into position. The dental tube permits left-right rotation of up to 395°. This makes it easy to switch between positions to examine the left and right sides of the jaw as needed.

The X-R Static Dental HF X-ray system can be easily adapted to the available space in any facility: Choose between the wall-mounted model or the caster stand model version.

Technical specifications

Tube voltage	60 kV / 70 kV
Tube current	4 mA / 8 mA
Exposure time	20 ms – 3.2 s (23 increments)
X-ray tube	Focus 0.7 mm
Wall arm sizes available:	40 cm, 80 cm, 110 cm

X -CR More Tabletop FireCR Dental

Flexible reading unit

The X-CR Tabletop FireCR is the ideal reading unit to complement any dental X-ray system.
It is very easy to use, combining high flexibility with fast throughput.

Special image plates in various sizes for dental application are available for the unit. After intraoral exposure, the X-CR Tabletop FireCR is able to deliver fast reliable read-outs of the image plates. This means that, in contrast to detector technology, it is a two-step process involving exposure followed byreadout.

This two-step process may take slightly longer, but it also has significant advantages:

- The special image plates themselves are very thin, durable and resilient. This makes them very easy to position intraorally.

- The appropriate imaging plate size can be selected for each dental region. The X-CR Tabletop FireCR then acts as the central reading unit for all available sizes.

At 12 cm wide and 32 cm deep, the X-CR Tabletop FireCR is an extremely compact unit, suitable for even the smallest exam room.

The magnetic feed of the X-CR Tabletop FireCR has several advantages:

- No additional adapters are required to read the imageplate. Image plates are placed directly on the feeder and held in place magnetically. This ensures a fast workflow.

- During the dental image read-out process, the plate itself is not bent or touched by the rollers as it moves through the feeder. This ensures a longer life cycle for the image plates before they need replacement.

FireCR image plate sizes

Size 0	(22 mm × 31 mm) 628 px × 885 px
Size 1	(24 mm × 40 mm) 685 px × 1.143 px
Size 2	(31 mm × 41 mm) 886 px × 1.171 px
Size 3	(27 mm × 54 mm) 771 px × 1.542 px
Size 4c	(48 mm × 54 mm) 1.370 px × 1.542 px

Portable X-ray systems

EXAMION's portable X-ray systems provide essential support for mobile veterinary practitioners during patient visits. If you perform X-ray examinations exclusively or predominantly in the field, you need sturdy equipment that is inherently flexible and known to be reliable. Our portable X-ray solutions fully meet these requirements and can be conveniently controlled remotely via a handset.

Used in conjunction with EXAMION's battery-powered DR Case solutions, you have access to a fully portable X-ray system.
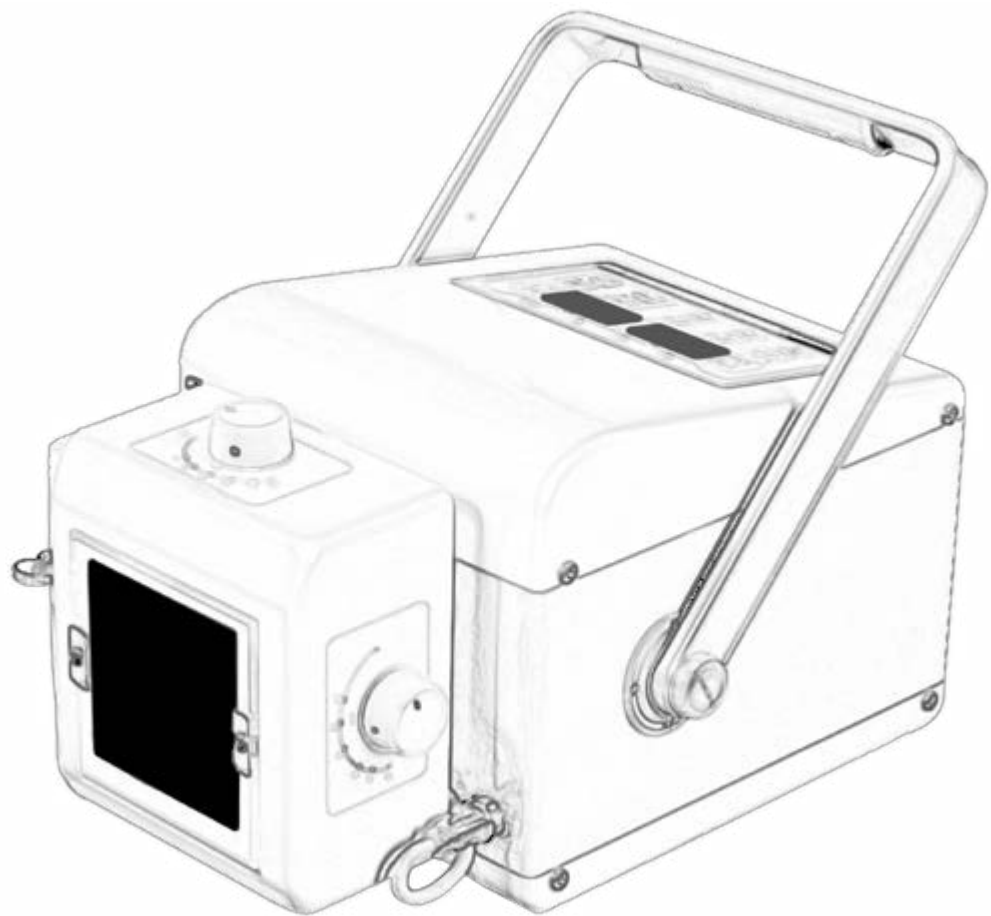
X-R Portable – battery-powered devices

Take a look on
our website

X-R Portable 20 BT

X-R Portable
20 BT Plus

X-R Portable 40 BT

Lightweight and easily portable for mobile use

Battery-powered X-ray systems are the perfect tool for mobile equine veterinary practitioners.
They are completely cable-free and therefore ensure maximum freedom of movement in use.

The small X-ray device with flat keyboard and digital LED display are naturally lightweight and
convenient to operate. The job is made even easier by the rotating display, enabling better readability
from different directions. Energy-saving LED light is also used on the panel to protect the battery.

Available types

X-R Portable 20 BT

The X-R Portable 20 BT is the most compact unit available.
With its low weight, it makes it much easier to lift, particularly
important for equine veterinary practitioners performing
pre-purchase exams.

X-R Portable 20 BT Plus

The X-R Portable 20 BT Plus is optimised for continuous operation.
With its larger housing, it efficiently dissipates the heat generated
during image acquisition.

X-R Portable 40 BT

The X-R Portable 40 BT is the perfect choice for practitioners
requiring a high-performance system.

Technical specifications

	X-R Portable 20 BT	X-R Portable 20 BT Plus	X-R Portable 40 BT
Weight	7.2 kg	11.2 kg	12.8 kg
Max. output	1.6 kW @ 80 kV	1.6 kW @ 80 kV	2.4 kW @ 80 kV
Power	90 kV / 20 mA	100 kV / 20 mA	100 kV / 35 mA
Voltage	50 kV bis 90 kV (1 kV increments)	40 kV to 100 kV (1 kV increments)	40 kV to 100 kV (1 kV increments)
mAs	0.4 mAs – 20 mAs (25 increments)	0.4 mAs – 100 mAs (32 increments)	0.4 mAs – 100 mAs (25 increments)

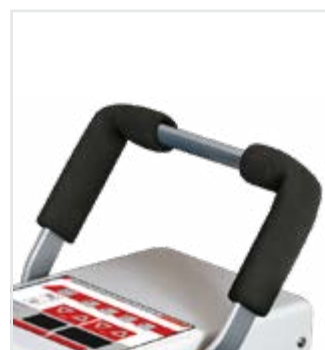# **X** -R Portable – Cable connection devices

Take a look on
our website

X-R Portable 20 Plus

X-R Portable 40

With mains cable connection, but still easy to transport

Apart from battery-powered portable X-ray systems, EXAMION also offers mains cable connection portable X-ray solutions. The hybrid devices with cable are suitable for users who primarily work in the veterinary practice, but occasionally wish to use the device for mobile application. Mains cable connection devices may also offer an advantage, if you use the device infrequently, or if you do not want to worry about the battery being sufficiently charged.

Available types

X-R Portable 20 Plus

Due to its weight and dimensions, the X-R Portable 20 Plus is ideally suited for mobile equine practitioners.

X-R Portable 40

The X-R Portable 40 is the ideal universal device for mixed practitioners with a small animal practice who also perform equine veterinary services requiring a certain degree of mobility.

Technical specifications

	X-R Portable 20 Plus	X-R Portable 40
Weight	9.8 kg	12.8 kg
Max. output	1.6 kW @ 80 kV	2.4 kW @ 80 kV
Power	100 kV / 20 mA	100 kV / 35 mA
Voltage	40 kV to 100 kV (1kV increments)	40 kV to 100 kV (1kV increments)
mAs	0.3 mAs – 50 mAs (22 increments)	0.4 mAs – 100 mAs (25 increments)

Portable case solutions

We have developed two high-quality EXAMION detector case solutions ideally suitable for mobile practitioners, and especially equine practitioners. The systems are extremely compact and ready for use in no time. The main difference between the two systems is the detector size.

Our case solutions are ideally complemented by one of our battery-powered portable X-ray device (see pages 30 – 31).

X -DR Case solutions

Our portable case solutions consist of optimally matched components. The two most essential pieces of equipment, the detector and the Ultrabook, are accompanied by the necessary accessories e.g. batteries, charger. The case solution accommodates all system components.


The system is ready for use in a few seconds and quick to operate. You can concentrate on the animal you are examining without the distraction of having to follow complicated system operating procedures. Operating our software requires a minimal number of clicks.

- Special workflow for equine exams. No inputs need to be made on the Ultrabook between individual image acquisitions. You can stay focused on the horse, with visual and acoustic signals indicating when the system is ready for the next exposure (after only a few seconds).

- Horse-specific organ programs with optimal organ image processing, in just one click.

- Short-cut buttons generate complete organ exam lists with just one click, for example, in the case of equine prepurchase exams.

The advanced cesium iodide scintillator technology of our detectors and sophisticated EXAMION image processing features provide high-quality X-ray images with optimal resolution for display on the Ultrabook's specially calibrated screen.

Our detectors are equipped with AED (automatic exposure detection) functionality. The detector recognises incident X-rays automatically and starts recording the X-ray image without the need any further external signal from a remote handset, for example. Detector and Ultrabook communicate directly. In an emergency or when space is limited, you only need these two items plus the X-ray device to perform an X-ray exam.
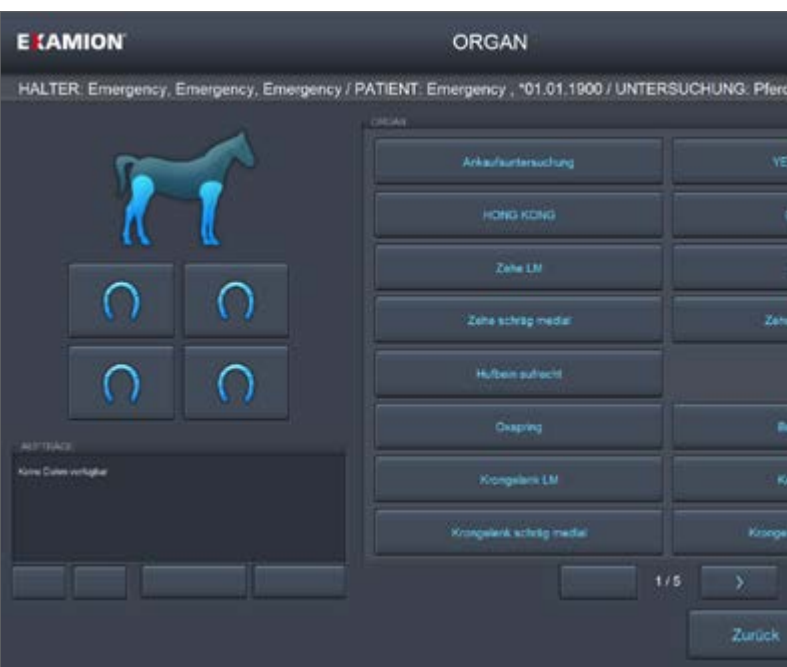
Detector and Ultrabook communicate directly. In an emergency and when space is limited, you only need these two components in addition to the X-ray equipment to perform an X-ray examination.

As a fully integrated solution, our EXAMION X-AQS software is able to provide not only image acquisition on the Ultrabook, but also all the other necessary functions via a single common interface:

• Easy image evaluation and viewing via our full-featured radiological viewer with evaluation tools and measurement functions

• Integrated image archiving. Access to all archived images directly on the Ultrabook

• Share images with customers and colleagues via the integrated cloud function

The Ultrabook can be operated with a click or touch on its multi-touch screen, via keyboard, or touchpad.

X-DR Portable Solution M+ Equine

EXAMION cutting edge technology

X-DR Portable Solution M+ Equine is a new generation, high-performance 10 × 13-inch wireless FPD developed on a flexible substrate. It features a 100 μm pixel pitch with direct deposition CsI. The cutting-edge flexible panel technology features a strong, yet lightweight design with IPX5 ingress protection, and reliable full surface, power-saving AED. With its exceptional image quality, the X-DR Portable Solution M+ Equine is the most excellent choice for equine and mobile X-raying.

The X-DR Portable Solution M+ Equine is a real two-component, fully wireless equine X-DR solution. This system will maximize your work on site whilst being extremely portable in-between. Supplied in one compact hardcase or a rugged rucksack, complete with a 10 × 13 inch lightweight AED X-DR panel with its laptop touchscreen acquisition station.

- High performance flexible wireless a-Si flat panel detector

- See more with a narrow borders design (7/7/10 mm) on three sides for optimal hoof and stifle images

- Unbreakable a-Si sensor developed on flexible substrate for ultimate strength and durability, withstanding 120 cm drops

- Best-in-class 100 μm pixel pitch with 16-bit ADC for brilliant image detail and the highest diagnostic confidence

- Full surface power saving AED control, exposure at any time

- Large capacity battery design, with 8+ hours per charge on a single battery (battery saving mode)

Technical Specifications

Detector Technology	Flexible
Pixel Matrix	2528 × 3318 (8.4 MP)
Active area	10" × 13"
Pixel Pitch	100 μm
Battery Autonomy	8.5 h @ 90 s cycles
Weight	2.2 kg
Dimensions detector	269 mm × 362 mm × 16 mm

X -DR Portable Case L WiFi

Universal mobile solution

This case solution is equipped with our L-Format detectors, the active area of which is equivalent to the classic 35 cm × 43 cm (or 14 inch × 17 inch) film size, which is also the most common detector size produced by manufacturers worldwide.

The cost savings of this option are definitely worth considering, particularly at the start of your professional career. Get all the advantages of a mobile detector at the best possible price.

The L-Format is also ideal for small animal examinations; for instance, acquiring overview images of dogs and cats. The detectors can also be used in conjunction with a small animal examination table. When you need to conduct animal examinations away from the clinic or private practice, simply remove the detector from the animal examination table cassette tray and stow it safely in the X-ray case provided. It is then easily transportable together with the Ultrabook to wherever your patient is waiting.

Soft travel case specially designed for easy transportation of the detector, available on request.

Technical specifications

Case dimensions (L × W × D)	590 mm × 525 mm × 225 mm
Case total weight (fully equipped)	<18 kg
Pixel matrix detector	2.304 px × 2.800 px
Transmission time detector	5 sec
Detector synchronization	AED (Automatic Exposure Detection)/external trigger
Detector battery	Type: Lithium polymer Loading time: 2 hours Battery life (single battery): 4 hours for 200 images Lifetime: min. 1,000 cycles

Imaging plate systems

Imaging plate systems, also known as CR systems, represent ideal entry-level systems for digital image processing. They can be easily combined with virtually all existing X-ray systems.

In contrast to detector systems, also known as DR systems, which transmit the X-ray image directly to the computer control unit, readout requires additional steps.

X -CR Systems for digital X-ray

Take a look on
our website

X-CR Tabletop Sigma

X-CR Tabletop HighCap

CR systems for digital X-ray

EXAMION imaging plate systems are a cost-optimized solution for digital X-ray. In contrast to detectors that transmit the X-ray image directly to the computer control unit, imaging plate systems require several steps. First, the imaging plate cassette is exposed by the respective X-ray system, then it is placed into the image plate scanner, and the image plate is automatically extracted by the scanner, for readout.

Image plate systems are suitable if time pressure in the working veterinary practice setting is not that heavy, and therefore any relative delay in acquiring the X-ray image, due to the more complicated read-out process, is hardly significant.

The systems can be easily combined with all existing X-ray systems, provided that the preferred 35 cm × 43 cm cassette format fits into the respective cassette tray.

The approximate throughput of the available systems is 60 cassettes in 35 cm × 43 cm format per hour. The time required to read the imaging plate cassettes is compensated for to a certain extent by the fact that, in addition to the 35 cm × 43 cm size, there are also smaller cassette sizes available, for which the reading process can be completed somewhat faster.

EXAMION's X-AQS software includes a special operating mode designed for image plate scanners. Clicking on 'Start' in the software program initiates the respective reading process.

This software version offers the same performance as our standard version in terms of image post-processing and evaluation, that is, it can carry out the full range of functions. If you subsequently decide to switch from an imaging plate system to a digital detector system, our software remains virtually the same. Very little extra training would be required.

Our imaging plate scanners are desktop devices, among the most compact in their category.

The EXAMION portfolio includes a range of image plate systems. Please contact us for more details, we will be happy to assist you.

Detectors

Our X-DR series detectors can be used to digitise stationary systems, as well as mobile and portable X-ray systems. Our customised retrofit solutions typically consist of a suitable detector and our X-AQS software. With just these two quick-to-install elements, you have an efficient X-ray system right at your fingertips.
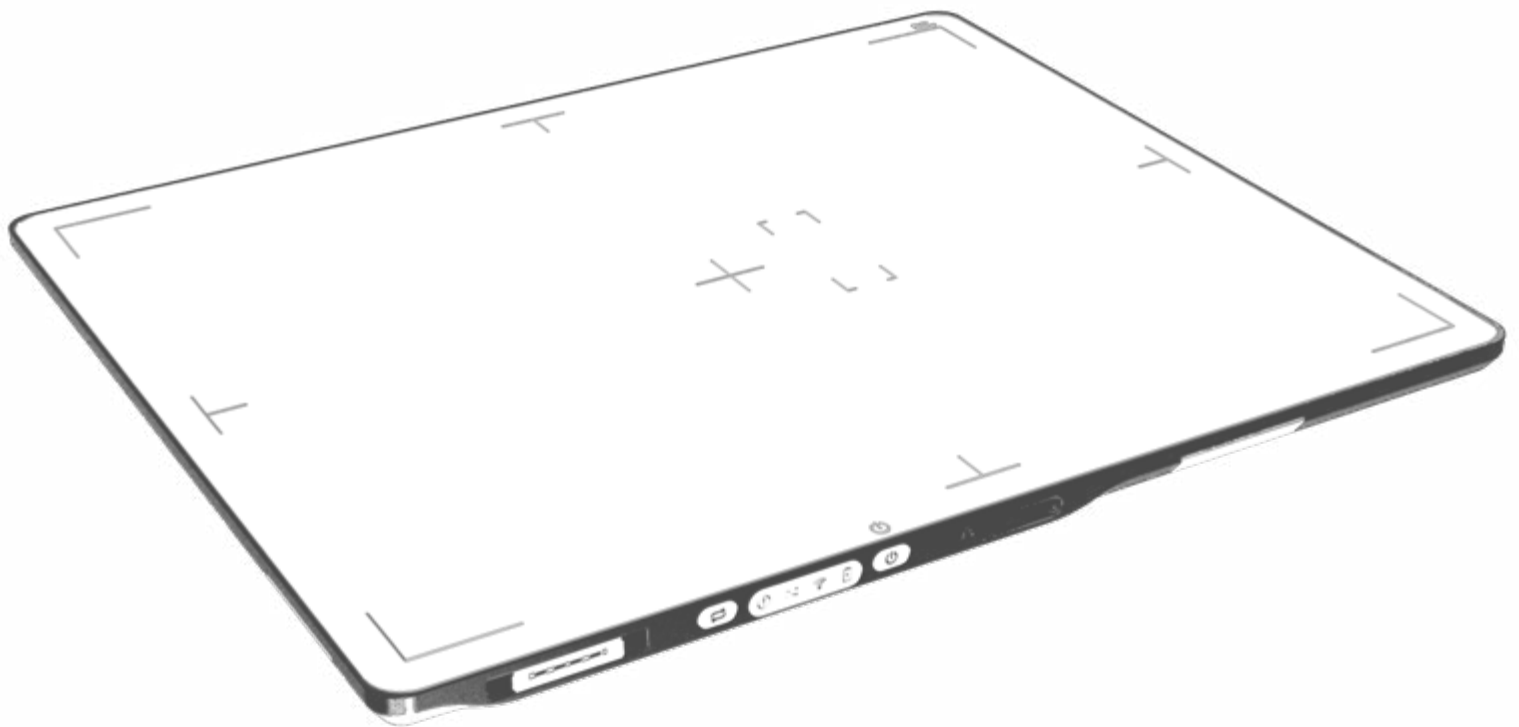
⊠-DR WiFi – detectors in different sizes

The detectors are the same size as classic X-ray cassettes, so they can easily be retrofitted into existing systems. In addition, they are suitable for all the X-ray systems presented in this brochure.

EXAMION detectors are at the heart of the majority of our X-ray solutions. They ensure maximum image quality and increase your workflow speeds:

- Advanced cesium iodide scintillator technology provides high resolution and low image noise.

- The detectors transmit the image directly to the control station computer with no additional steps needed. This offers you the quickest way to capture an X-ray image.

Take a look on
our website

Data is transmittable via WiFi and power can be supplied by rechargeable battery. If the detector is installed in a permanent location, then the corresponding power supply cable is also available as an option.

For stationary X-ray systems with two workstations – usually bucky table and wall-mounted unit – various options are available:

- A single detector can be used either in the bucky table or wall stand, as needed.

- In case of a two-detector solution, both the tabletop bucky tray and the wall-mounted device are equipped with their own detector. This avoids time-consuming swapping out of the detector between the tabletop and wall-mounted device.

There are three areas of application for our detectors:

- Our fully digital all-in-one X-ray systems are equipped with these detectors. Thus, the detectors are optimally integrated into the system. For a smooth workflow, all components are perfectly matched.

- Together with an Ultrabook our detectors become a lightweight and flexible carry case system for mobile applications.

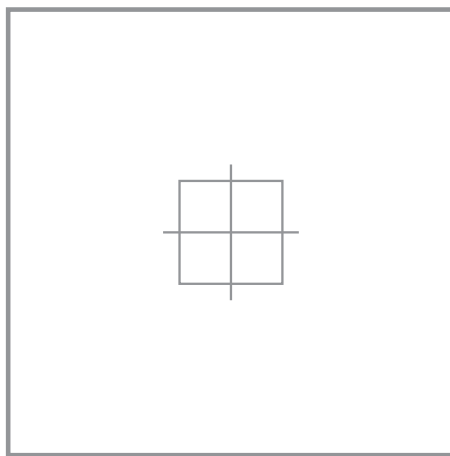- Existing X-ray systems can be retrofitted with our detectors (retrofit systems).
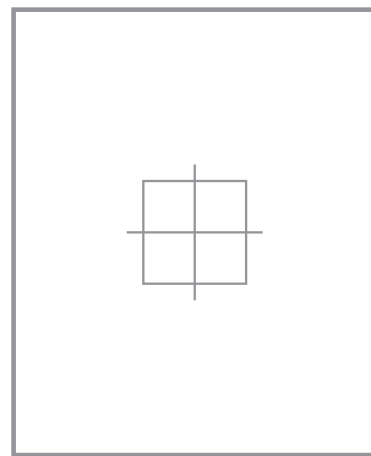
Our most popular models at a glance

	X-DR L WiFi	X-DR L WiFi Premium	X-DR XL WiFi	X-DR XL WiFi Premium
Pixel pitch	150 µm	100 µm	139 µm	100 µm
Pixel matrix	2.304 × 2.800	3.500 × 4.300	3.072 × 3.072	4.267 × 4.267
Weight	3.4 kg	2.8 kg	4.6 kg	3.4 kg

X-DR XL

X-DR L

43 cm (+/-2 cm)

43 cm (+/-2 cm)

35 cm (+/-2cm)

X-DR L WiFi and X-DR XL WiFi

Our bestselling product offers superior value for money. One special feature of these detectors is their excellent image quality, satisfying even the most demanding specifications.

X-DR L WiFi Premium and X-DR XL WiFi Premium

Our premium X-ray detectors are characterised by their lightweight design and high IP protection rating against ingress of fluids. Due to their low pixel size of only 100 µm, they provide X-ray images of optimum quality that satisfy even highest demands.

One Stop Shop & Service

With EXAMION as a partner able to offer solutions for all the issues affecting your specific practice, you benefit from a one-stop shop provider with long-standing experience. We provide comprehensive support for X-ray equipment, components, accessories and digital X-ray systems. With the comprehensive customer service provide, we are at your side from the planning stages through to installation and after.

Our tried and tested modular approach will always give you the opportunity to find the best fit solution to meet the demands of your specific practice or clinical setting.

EXAMION®

X -AQS Software – Acquisition, control, archiving

EXAMION X-AQS software provides a universal solution for X-ray image acquisition, processing and archiving, giving you control over a wide range of CR digitisers, DR detectors, X-ray generators and processes. The software is available in DICOM modality format, for connection to your existing image archive, and also as an X-AQS PACS system solution, with the same standard operation at viewer workstations. The software can be adapted and expanded to meet your growing needs.
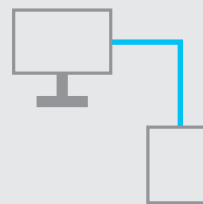
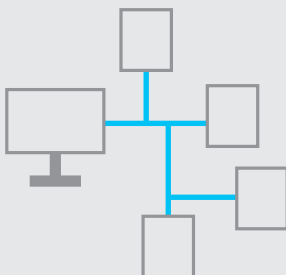Take a look on
our website

Version 1:

X-AQS with DICOM modality for connection to an existing image archive.

Version 2:

System solution with X-AQS PACS with integrated access even from viewer workstations.

Version 3:

X-AQS hybrid model with local image mini-archive & additional storage in central archives.

A single source!

Our proprietary X-AQS software with its impressive user-friendly interface serves as the central control unit for digital X-rays. Simple, self-explanatory buttons enable the acquisition of perfect X-ray images with just a few clicks.

We offer you a future-proof universal software platform that continues to be improved and developed and is subject to continuous testing by users.
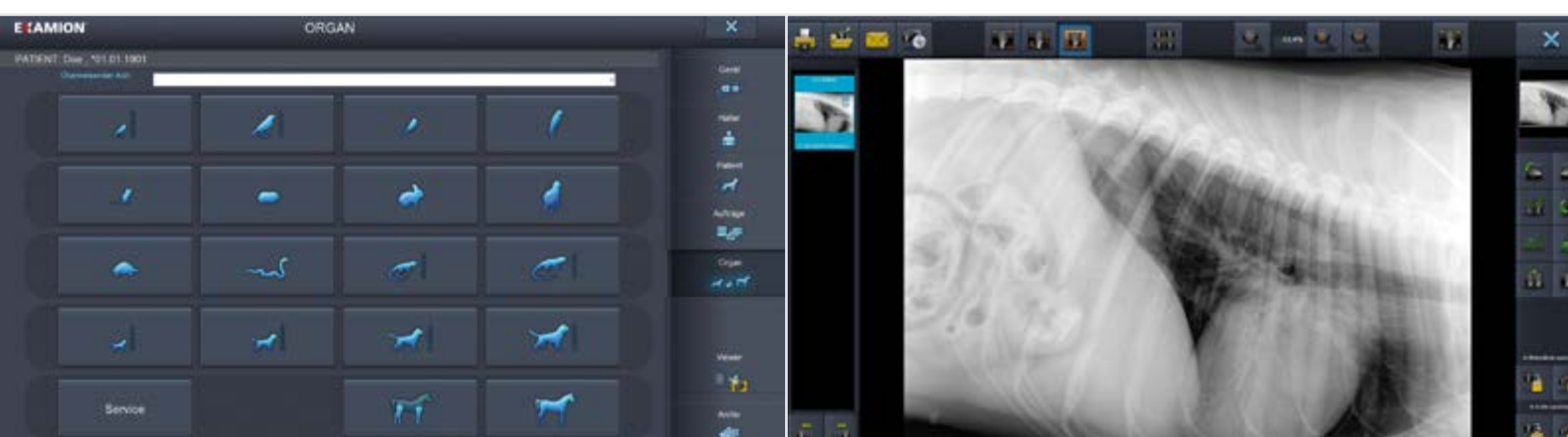
System instructions

Full touchscreen operation – Specific selection of animal species – Freely-configurable organ lists per animal species

Image acquisition

State-of-the-art X-AQS image processing – Consistent operation with different image sources, even when switching between CR and DR systems – Digital X-ray log

Post-processing

Export to DICOM and other formats via USB stick, DVD and email – Extensive image post-processing functions – Measuring tools already available from the acquisition workstation

Additional functions with the X-AQS image archive

Client software for any number of viewer workstations – Integration of peripheral devices, e.g. ultrasound, endoscopy, CT and MRI

Web client

Full-featured web client not only for image viewing, but also capable of handling patient management and order placement
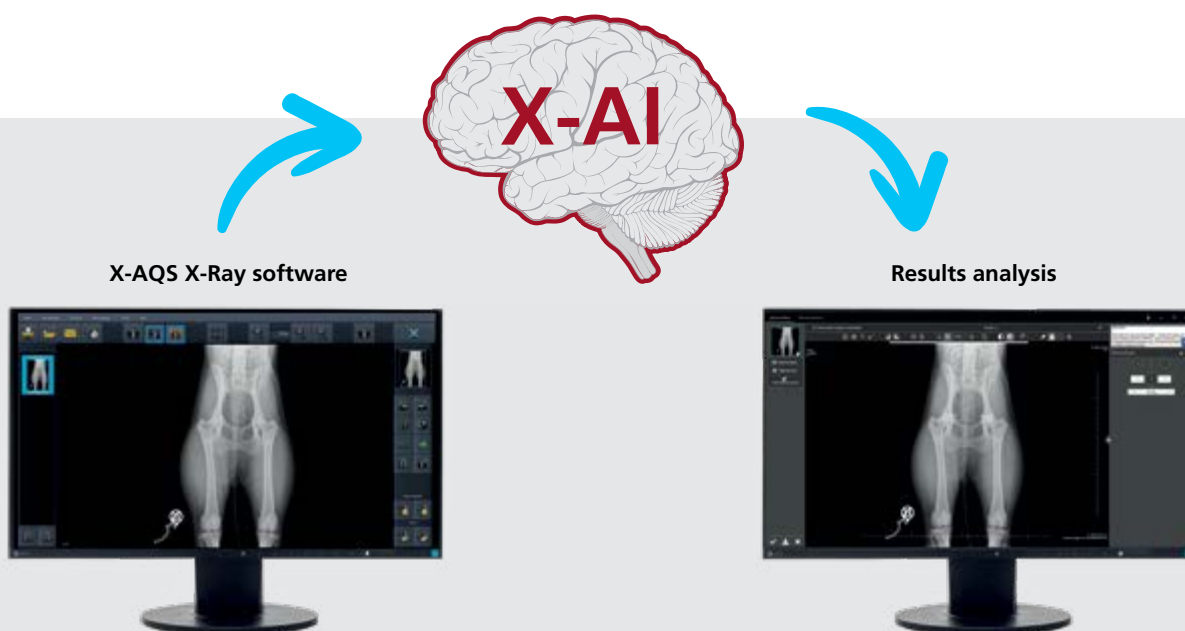
X -AI Integrator – Artificial intelligence in your veterinary practice

The X-AI Integrator is a unique option in the EXAMION X-AQS X-ray software to transfer your X-ray images to an artificial intelligence for analysis. The analysis is intuitively integrated into your workflow.

At the touch of a button, this connected artificial intelligence provides you with a second opinion at any time – even in the evenings and on weekends. This reduction in workload is something you'll never want to do without again. The artificial intelligence also helps you to maintain a comprehensive perspective during the diagnosis while paying attention to all abnormalities.

Take a look on
our website

X-AI

X-AQS X-Ray software

Results analysis

Your advantages at a glance

✓ Simple operation with X-AQS

The artificial intelligence X-AI can be seamlessly integrated into the EXAMION X-AQS software. With just one click, you can continue to use your usual software for diagnostic. Just like the X-ray software X-AQS, X-AI is designed to be operated intuitively.

✓ Structured analysis

X-Ai performs a detailed, structured and objective analysis of your X-ray image data. In addition, the software provides objectivity, i.e. it works without using a suspected diagnosis.

✓ Probability calculation

The software indicates the degree of probability for each lesion. The probabilities are color-coded to simplify identification.

✓ Speed

Thanks to the high-speed analysis capability of artificial intelligence, it will take only 10 – 20 seconds to get results. The X-AI integrates seamlessly into your workflow.

A single source!

EXAMION has integrated the artificial intelligence of the distinguished manufacturer PicoxIA via the X-AI Integrator. The PicoxIA diagnostic software is specially designed for veterinary medicine and the only one that has been evaluated in scientific studies. Currently, PicoxIA can be used to analyze X-ray images of dogs and cats. The expansion to other animal species is planned.
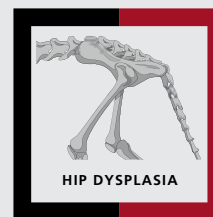
X-AI provides reliable support for the most common issues in your small animal practice.

ABDOMEN
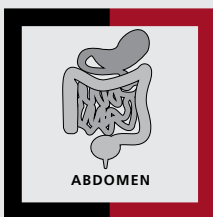
13 identificabl lesions
3 suggestions for
differential diagnosis
Automatic calculation of
the kidney size

THORAX
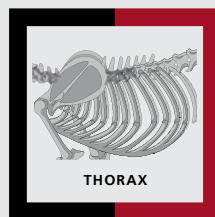
16 identifiable lesions
4 suggestions for
differential diagnosis
Automatic VHS
determination

HIP DYSPLASIA

5 recognizable lesions
Automated calculation of
Norberg-Olsson angle

✓ **Designed with the future in mind**

Consistend development is our benchamark. The current feature set is only the status quo.

By and for veterinarians: Our software was developed to encounter the daily challenges in practice. The algorithm is constantly being optimized by an interdisciplinary team of veterinarians and software specialists.

✓ **Diagnostic report**

Artificial intelligence automatically generates a detailed report that can be processed, shared with colleagues or provided to the pet owner.

✓ **Constant validation**

External assessment and validation by experts is important to us. Therefore, the future development of X-AI will continue to be subject to scientific studies. PicoxIA study results have been repeatedly published in specialist journals to create transparency and prove the reliability of the algorithms.

X -Services – We're here for you!

Our sales and service network is constantly expanding, so we can make sure that we are never too far away. This means we can be here for you throughout: during planning, installation and after-wards, with our full range of post-sales services. We also have you covered if you need assistance with relocation, expansion or modifications to your veterinary practice or clinical setting.

Consulting

EXAMION complete X-ray systems are able to meet even the most demanding conditions and specifications. Our expertly-qualified sales representatives will be happy to advise you. You can find us at trade fairs or call to arrange an appointment at your own facility.

Together we can create a customised solution with the appropriate hardware components and software modules to suit your needs.

Installation, maintenance, repair

With their extensive know-how, our technicians guarantee smooth operational commissioning into service of your new X-ray system when your devices are installed.

We ensure that the right maintenance schedules are in place, in particular for heavily-used X-ray systems. In the event of a malfunction, you benefit from our nationwide service team.

Hotline

For quick and easy routine operations, our professional support team can be contacted directly and respond directly to your issues – either by telephone, remote maintenance or by immediate dispatch of a field service technician.

Temporary solutions

Until repairs and full restoration take place, we will provide the assistance you need to ensure that you don't have to worry about prolonged downtimes, even in case of system defects.

We are committed to our customer's satisfaction. All of our departments work hand in hand to achieve this goal.

Notes

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EXAMION GmbH

EXAMION is a global provider of solutions for digital radiography in human and veterinary medicine. For 35 years, we have been working according to the principle of "everything from a single source". We are available to our customers as a competent partner for planning, installation and after-sales services.

Our advice on technical and sales questions is based on the respective customer needs and practice premises requirements. Contact our experts for your personalised advise!

More than 7,000 systems are currently being serviced by EXAMION, most of which are stationary X-ray systems installed in medical and veterinary hospitals and practices, also a large number mobile X-ray systems. Our in-house develloped EXAMION X-AQS software empowers our system control, image processing, reporting and archiving, while ensuring efficient workflow. In addition to radiography and digital image processing systems, our product portfolio includes medical mammography and X-ray therapy systems.

The more than 150 EXAMION employees work together with passion for our customers throughout Germany and at four European locations, Belgium, Poland, Portugal and Switzerland, and our constantly growing network of reputed and certified service and sales partners worldwide.

Benefit from years of experience

X-ray systems
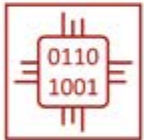
Digital systems

X-ray archives

Services

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