

# AeroDR X60

Motorized X-ray System



**AeroDR**  
**X60**

# AeroDR X60

## MOTORIZED X-RAY SYSTEM

The AeroDR X60 is a high quality, cost effective, compact motorized floor mounted X-ray system, built around all Konica Minolta's renowned wireless AeroDR flat panel detectors. High quality components were selected to minimize maintenance and realize a short installation time.

The AeroDR X60 supports both auto stitching and auto tracking, maximizing daily work efficiency, resulting in a more user friendly working environment. The AeroDR flat panel detector and user-friendly AeroNAV console deliver high image quality for better patient care.

### Automatic charging

The AeroDR detector can easily be stored and at the same time automatically charged in the AeroDR X60 bucky tray, even while working. This exclusive functionality greatly improves efficiency and avoids the hassle with additional cables or changing batteries.

### Free Positioning

The X-ray tube stand provides the possibility of 360° rotation for a maximum of application flexibility. Ideal for immobile patients who should be X-ray examined directly in the bed/trolley without relocating the person. The AeroDR X60 is the perfect alternative to more complex and expensive ceiling suspension installations.

### Touch Panel

The AeroDR X60 is a fully integrated digital DR-system with a 10 inch touchscreen user interface. Next to the digital indication of SID to table and wall stand bucky, the indication of table height and other system details also patient information, position guide information and auto stitching workflow steps are displayed on the touchscreen.





### ▀ User friendly and flexible

Light handling of the x-ray tube, wall stand and floating table top allow for easy patient positioning, creating a comfortable environment for both user and patient. Due to the flexibility of the system, you can achieve a high variety in examinations and a more efficient workflow, even with a high patient load.

### ▀ Autotracking

One of the key features of the AeroDR X60 system is its highly intelligent autotracking function, which enables a synchronized movement of several system components to each other. This can lead to significant time saving in workflow, e.g. in case of vertical autotracking of the Source to Image Distance (SID).

Synchronized movement of the tube and detector is standard. The X-ray tube and bucky are synchronized differently for wall stand and table operation.

The most commonly used workflow steps that can be used with auto tracking:

- Height adjustment of the table ► autotracking of the X-ray tube
- Moving and turning the X-ray tube ► autotracking of table bucky
- Positioning of the wall stand bucky ► autotracking of the X-ray tube
- Turning the X-ray tube ► autotracking of wall stand bucky

### ▀ Auto Stitching

The AeroDR X60 supports the automatic stitching procedure for both full spine and long leg examinations for which 2 or 3 images need to be stitched. The touch panel is used to guide the user through the stitching workflow. This auto stitching feature reduces patient hold time and speeds up your workflow.

### ▀ One detector, multiple positions

Use the AeroDR detector for examinations in the table bucky, wall stand or on the tabletop, as you would use a film or CR cassette. Even examinations that require standing on the detector pose no problems. The AeroDR detector can be shared within the x-ray room while a built-in exposure safety control blocks the exposure if the detector is not inside the correct bucky. The AeroDR Detector can even be taken to the patient's bed and used with your existing portable X-ray equipment.

# HIGH QUALITY DIGITAL DETECTORS

**Speed** - Its improved cycle time of 6 seconds in Wireless mode, allows you to do more exams per day and enables you to achieve a quicker diagnosis.



**Capacitor** - With a charging time of only 30 minutes, the AeroDR HD is completely charged from empty to full.



**Lightweight** - Konica Minolta's AeroDR HD is one of the world's lightest 14x17 inch Flat Panel Detectors (2.6kg).



**Robust** - The AeroDR was already known for having a high surface load (400 kg), making it suitable to be used with all types and sizes of patients.



**Waterproof** - The AeroDR HD is waterproof (IPX6).



**AED** - The hybrid detection technology inside the detector has contributed to an even more reliable Automatic Exposure Detection (AED) with AeroSync.



**100% Wireless** - The AeroDR detectors are completely wireless for data transmission

**100 µm resolution** -

- Display micro structures
- Better visibility of trabecular bone
- Edge of the bone is more clear
- No "pixel shape" when zooming in
- Higher DQE and Lower Radiation doses

## LIGHTWEIGHT & ROBUST

The AeroDR X60 can be equipped with all Konica Minolta portable detectors. From 10"x12", which fit in most incubators, to

14"x17" for daily routines up to 17"x17" for chest exams. Of course, all Konica Minolta detectors are reliable and robust.

### Quality components

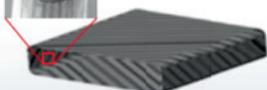
AeroDR's CsI scintillator was developed by Konica Minolta to provide high quality images at a low dose. The AeroDR detector features various characteristics, such as the safe and long-lasting built-in lithium-ion capacitor and a robust mono-coque design.

High-class components were selected, which together with the AeroDR detector make the AeroDR X60 a reliable and high quality product.

By thoroughly reviewing the housing and components, we have been able to reduce the weight of the AeroDR detectors. For example, the AeroDR HD weighs only 2,6 kg and is therefore comparable to standard CR cassettes of the same size.

#### ● Monocoque case made out of carbon fiber

Carbon fiber



### Durable carbon fiber housing

By using the same housing technology (carbon fiber reinforced plastic), the AeroDR HD detectors have a surface load up to 400 kg.

### High performance capacitors

Konica Minolta has chosen a capacitor for its AeroDR detectors instead of battery to allow quick 0 to 100% charging time of just 30 minutes or less for AeroDR and less than 13 minutes (!) for AeroDR 2S. This means that the detector is ready when you are!

Using this unique capacity technology, there is no loss of capacity and no need to replace the power unit during the lifetime of the detector like you would with e.g. Li-ion batteries. In addition, there is no risk of overheating while in use or charging and therefore ensuring additional safety for you and your patients.

## Water resistance

X-ray detectors may be accidentally exposed to water, or body fluids when used in demanding environments such as emergency rooms. To prevent possible damage to the interior of the detector, the

AeroDR HD, AeroDR Premium and AeroDR 2S have been equipped with an IPX6 certified waterproof housing. This also allows for easy and more effective disinfection and cleaning when needed.

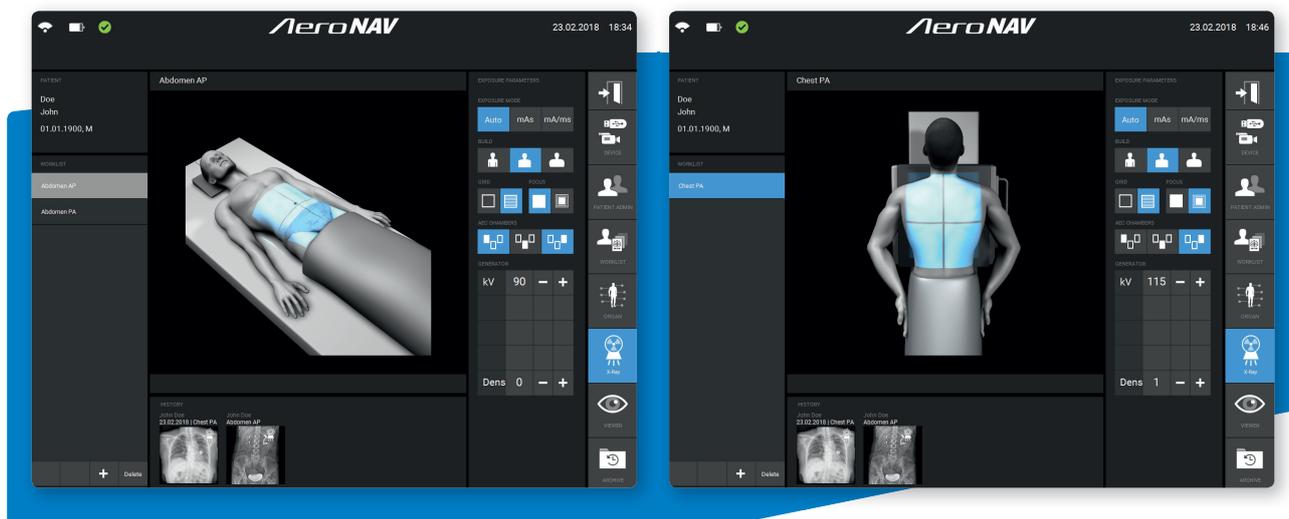


## AeroNAV Software for optimized workflow

With AeroNAV, which is available in a flexible single or multi detector configuration, AeroDR X60 incorporates a powerful digital radiography control and acquisition system. The AeroNAV work station does not only control the AeroDR system; it also controls the generator, the collimator, and displays the integrated DAP measurements.

Connect the AeroDR X60 to your hospital RIS system for automated workflow, or simply adjust the exposure parameters on the user-friendly AeroNAV console and preview your image within 2 seconds. Intuitive operation, quick preview and short cycle times ensure significantly higher productivity.

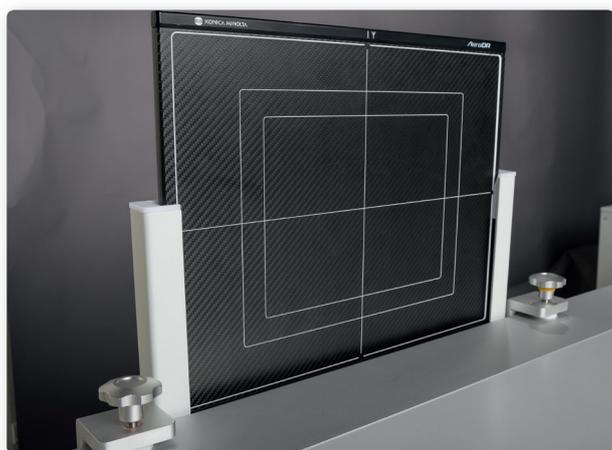
# PREVIEW IMAGE IN LESS THAN 2 SECONDS



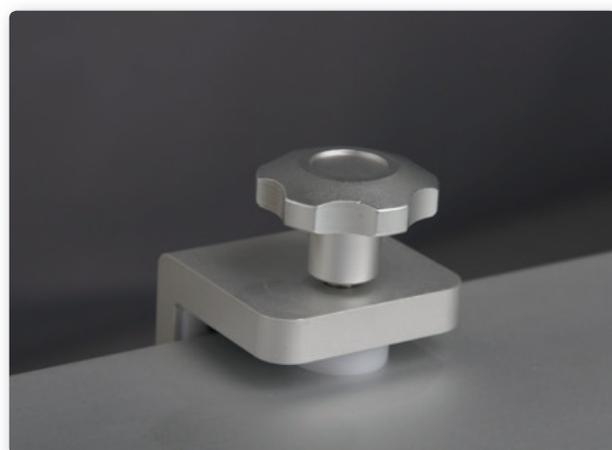
Options



DAP meter



Lateral detector holder



Patient hand grip (table)

## AeroDR X60 Technical Specifications

PRODUCT	AeroDR 1012 HD	AeroDR 1417 HD	AeroDR 1717 HD
Dimensions	282x333x15 mm	384x460x15 mm	460x460x15 mm
Weight	1,5 kg	2,6 kg	3,2 kg
Pixel Matrix	2.456 x 2.968	3.488 x 4.256	4.248 x 4.248
Image Preview	< 2 sec	< 2 sec	< 2 sec
Cycle Time	5 sec (wireless)	7 sec (wireless)	7 sec (wireless)
Battery Performance	Up to 145 exposures and 3,9 hours(100μ) Up to 165 exposures and 4,5 hours(200μ)	Up to 251 exposures and 6,9 hours(100μ) Up to 309 exposures and 8,6 hours(200μ)	Up to 217 exposures and 6,0 hours(100μ) Up to 276 exposures and 7,6 hours(200μ)
Charging time	20 min or less	30 min or less	30 min or less
Max. load	400kg (entire imaging area)	400kg (entire imaging area)	400kg (entire imaging area)
Waterproof	IPX6	IPX6	IPX6

WORKSTATION AERONAV	
Image preview	Less than 2 sec.
Monitor screen size	23.0" (584mm) touchscreen
Monitor resolution	1.920x1.080 pixels

GENERATOR	Standard	Option
Output	65kW	80 kW
Frequency (up to)	100 kHz	
Exposure voltage	40 - 150 kV	
mA range	10 - 800 mA	
Dual speed starter	option: high speed starter	
Input rating (power supply)	400 VAC (+/- 10%), 50/60 Hz	

X-RAY TUBE	Standard	Option
Type	Varex, RAD 14 LEO	Varex, RAD 21 LEO
Focal spot	0,6 - 1,2	
Thermal capacity	300 kHU	
kW rating (small/large focal spot)	32 kW - (0,6) / 77 kW - (1,2) @ 10.000rpm	36 kW - (0,6) / 100 kW - (1,2) @ 10.000rpm
Anode angle	12°	
Anode rotation speed	2.850 rpm@50 Hz, 3.450 rpm@60 Hz Option high speed starter: 8.500 rpm@150 Hz, 10.000 rpm@180 Hz	
Source Image Distance (SID)	350 - 1.800 mm	

COLLIMATOR	Standard	Option
Operation mode	Manual	Motorized
Type	Ralco R 302	Ralco MTR 230 ACS
Automatic switch-on collimator light	Yes, switches automatically on when moving	Yes, switches automatically on when moving
Light remote switch on	Yes, wall stand button for activating	Yes, wall stand button for activating
Laser light	Yes	Yes

X-RAY TABLE	
Height	Elevating height 575 mm - 875 mm
Table top	Floating table top, 6way movement
Table top dimension	2.300 mm x 805 mm
Table top movement transvers	260 mm, +/- 130 mm
Table top movement, longitudinal	850 mm, +/- 425 mm
Table top height	575 - 875 mm
Table top brakes and height adjustment	Electr. 4-pedal foot switch
Elevation speed	Upwards: 20,4 mm/s, downwards: 22 mm/sec
Programmable height/ position for favored FFS/SID	Yes

## ✦ AeroDR X60 Technical Specifications

Table top thickness	9 mm
Table top material	MDF
Al. attenuation equivalent @100 kV	1,2 mm Al
Min. distance Bucky center to table head end	400 mm
Min. distance Bucky center to table foot end	380 mm
Distance table top to image receptor	70 mm
Patient load, max.	320 kg
X-ray tube stand	Maximum user comfort, 360° rotation
Touch Display	Standard
Around horizontal support arm	± 180°
Around tube column	360°, ± 180°
Detents at	90°, 0, +90°
Brakes for the movements of the column	Electromagnetic
Control of the brakes	At control handle
Power supply of the column	Via Power Box (230V)
Height tube column	2.400 mm
Tube stand longitudinal travel	2.200 mm
Focal spot to table to distance	Max. 1.225 mm
Focal spot vertical travel @ horizontal X-ray beam	350 – 1.800 mm
Auto Tracking	Height adjustment table ▶ autotracking tube Moving or turning tube ▶ autotracking Bucky

WALL STAND	Standard	Option
Motorized	Motorized, remote function	
Column height	2.290 mm	
Vertical range detector center	350 - 1.800 mm	
Distance Bucky cover to image receptor	70 mm	
Vertical bucky movement via remote control	Yes	
Auto tracking wall stand	Turning tube ▶ autotracking for wall bucky Positioning wall stand Bucky ▶ autotracking tube	

X-RAY GRID / BUCKY	
Type	Carbon 480 x 438 x 3 mm FFD 110 cm, 40 lines/cm, ratio 10:1 FFD 150 cm, 40 lines/cm, ratio 10:1 FFD 200 cm, 40 lines/cm, ratio 10:1
Bucky	Longitudinal travel 500 mm
Detector size	14"x17" and 17"x17"

AUTOMATIC EXPOSURE CONTROL	
AEC	3-field measuring chamber
kV range	40 - 150 kV
Exposure time range	1 ms - 10s

OPTIONS	
	Patient stretch grip (wall stand)
	Generator high speed starter
	Dose Area Product (DAP) meter
	Auto stitching (motorized collimator is mandatory)

ROOM DIMENSIONS	
Minimum room size (LxWxH)	4.600 x 3.000 x 2.500/2.700 mm
Minimum room size incl. additional patient bed	5.250 x 4.300 x 2.500/2.700 mm
Minimum room size	5.000 x 3.000 x 2.500/2.700 mm