

# MOVIX DREAMY

TECHNICAL SPECIFICATIONS

**CANON DIGITAL MOBILE**

**BATTERY POWERED**

**HIGH FREQUENCY**

**X-RAY UNITS**



## MOVIX DREAMY – DIGITAL RADIOGRAPHIC MOBILE UNIT

The motorised mobile unit is perfectly suitable for the following applications or departments:

- › Patient bedside examinations
- › In emergency rooms
- › ICU department
- › Paediatrics



MOVIX DREAMY is the Top of the DIGITAL Radiographic Mobile Systems. With its WIFI portable detector & software, allows us the manoeuvrability and operability that the Clinics and Hospitals demand.

Thanks to the new Telescopic Column, this X-ray mobile can access anywhere and allows the professional a complete visibility and safety when driving the system.

The most innovative technology application for the High Frequency X-ray Generator, which permits high constant output power from any standard power socket or without it (Stand Alone).

Thanks to the battery-charger, the generator can be operated for a long period of time in any Clinic or Hospital area, Operating Rooms, Intensive Care, Emergency, etc. Images can be obtained with the patient in the sitting, standing or lying position.

### MAIN DIFFERENCIES BETWEEN MODELS

ADVANCED	STANDARD
Head-assembly with integrated touch-screen.	No screen on head-assembly.
Electromagnetic brakes for omnidirectional head-assembly movements.	Head-assembly movements by friction.
4 steps telescopic arm.	3 steps telescopic arm.



## OPERATION MOVEMENTS

- › **New movement control:** smoother, safer and very easy to use. Only one hand to move the unit.
- › Speed up to 5.5 km/h.
- › Dead-man handle with **capacitive touch technology**. Handle height adjustable with tool.
- › Ramps up to 8°.
- › When the system is out of parking position or being moved backwards, the speed is limited.



**Anti-collision proximity sensors** (optional) and collision detection:

- › The mobile system slows down speed automatically when an object is close to it.
- › Visual & acoustic indications, when an object comes close to it. When a collision-risk is detected, the mobile will automatically stop.

Maximum Speed (Parking Position)	Forwards: approx. 5.5 km/h Backwards: 2.5 km/h
Areas with maximum step	5cm (1.9")
Maximum Sliding	8 °

## PARKING POSITION

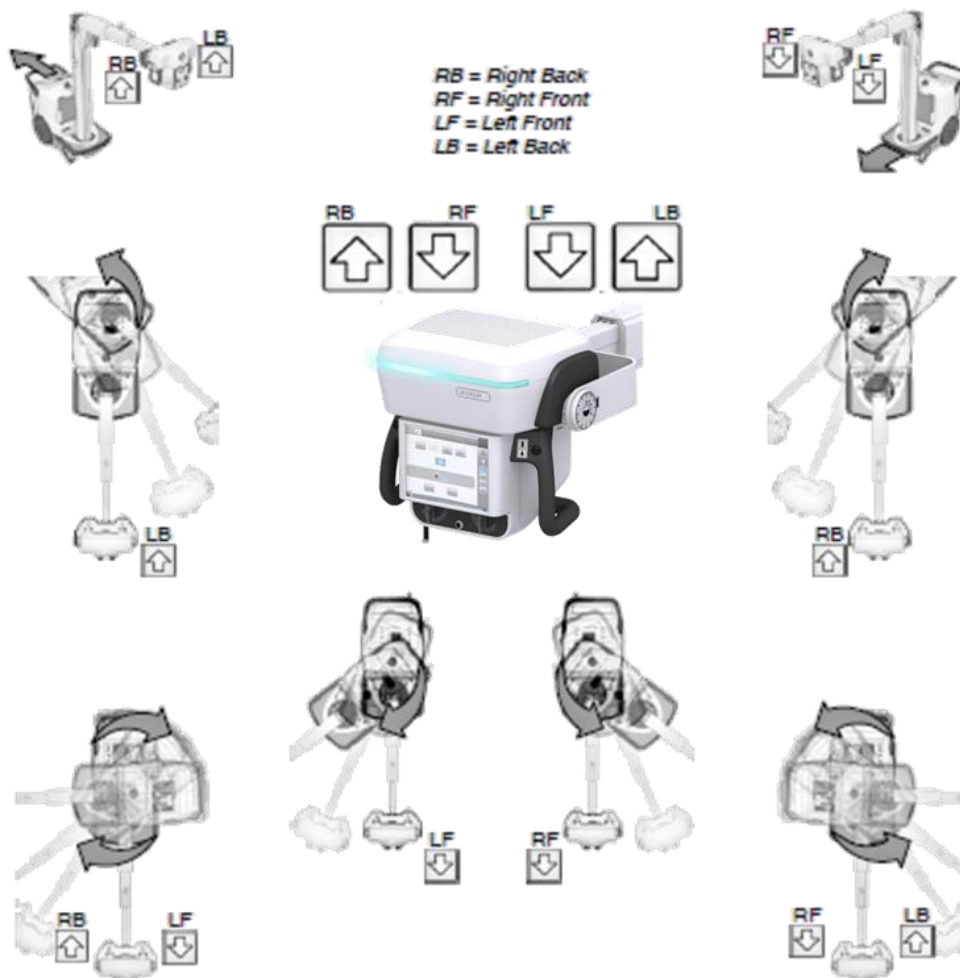
Except for radiological examinations, the arm of the mobile unit must always be kept in parking position, the unit is in parking position when the Parking Detent is secure in the Catch.

This position (retracted) also reduces the height of the system in order to have complete visibility and safety when driving the system and provides a compact size for handling and storage the system.



<b>Parking</b> Dimensions and weight (H x W x D)	129x122x54cm (50.7x48x21.2")
Height	Max: 223cm (87.8")/ Min: 129cm (50.7")
Weight	520Kg (1,146.4lb)

## FINE POSITIONING



- › It is possible to move each wheel independently, at low speed, for fine positioning.
- › The four buttons on the handgrips control the motion of each driving wheel (forwards / backwards). This permits fine positioning respecting the patient, with the operator positioned opposite the Tube-Collimator Assembly.
- › \* When the mobile is plugged to mains, only fine positioning movements are allowed.

Max. Distance from Focal Spot of X-Ray tube to Floor (SID)	202 cm (79.5")
Min. Distance from Focal Spot of X-Ray tube to Floor	<53cm (20.8")
Telescopic-Arm Max Distance:	122cm (48")
Telescopic-Arm Min. Distance (Advanced models)	62.5cm (24.6")
Telescopic-Arm Min. Distance (Standard models)	70.5cm (27.7")
Collimator Rotation:	±90°
Head Rotation around arm axis	±180°
Head rotation around axis perpendicular to arm	- 30° /+90°
Head Assembly Movement Brakes	Electromagnetic Brakes (Optional on Standard models)



- Head Rotation around arm axis:  $\pm 180^\circ$
- Detents:  $0^\circ$ .



- Head rotation around axis perpendicular to arm:  $-30^\circ - +90^\circ$ .
- Detents:  $0^\circ$ .



- Collimator Rotation:  $\pm 90^\circ$ .
- Detent  $0^\circ$ .



- Electromagnetic brakes for omnidirectional movement (optional).

- Telescopic Column:
  - Max SID: 202cm (79.5")
  - Min Focus-Floor distance:  $< 53\text{cm}$  (20.8")



- Telescopic Arm:
  - Max: 122cm (48")
  - Min: 62.5cm (24.6") or 70.5 cm

- Column Rotation:  $\pm 317^\circ$


## CONTROL PANEL & SWITCHES

- **Control Panel**, with controls to turn ON/OFF the system, System ON/OFF Indicator, Battery Charge Level Indicator, Emergency Switch OFF.
- **Control Console**; Head-Assembly Touch Screen (Advanced system).
- Handswitch; Remote Infrared Handswitch (optional).
- Controls for the unit motion and controls for Telescopic Column and Arm movements.
- **Manual Collimator** with controls for opening or closing the Collimator Blades and to switch ON the Collimator Lamp Battery Charge Level Light Indicators during all charging battery process.
- Button to turn ON the Collimator Lamp from the Control Panel.



## X-RAY BATTERY GENERATOR

Power kW	20 kW	32 kW	40 kW	50 kW
<b>kV Range</b>	From 40 kV to 150 kV in 1 kV steps.			
<b>Minimum Power</b>	0.4 kW (40kVp 10 mA)			
<b>Input Line Operation</b>	100-240Vac			
<b>Frequency</b>	50/60 Hz			
<b>mAs Range</b>	Product of mA x Time values from 0.1 mAs to 500 mAs			
<b>mA Range</b>	10 to 500		10 to 500 (optional to 630)	
	From 10 mA to 320 or 500 mA through the following mA stations: 10, 12.5, 16, 20, 25, 32, 40, 50, 64, 80, 100, 125, 160, 200, 250, 320, 400, 500. (Depending on the Generator model)			
<b>Exposure Time Range</b>	1.0 ms, From 1.0ms to 10,000 ms (0.001 to 10 seconds)			
<b>Power Output (@ 0,1s)</b>	125 kVp @ 160 mA 100 kVp @ 200 mA 80 kVp @ 250 mA 62 kVp @ 320 mA	150 kVp @ 200 mA 128 kVp @ 250 mA 100 kVp @ 320 mA 80 kVp @ 400 mA 64 kVp @ 500 mA	150 kVp @ 250 mA 125 kVp @ 320 mA 100 kVp @ 400 mA 80 kVp @ 500 mA	150 kVp @ 320 mA 125 kVp @ 400 mA 100 kVp @ 500 mA
<b>X ray Tube</b>	XRR3331, focal spots 0.6 and 1.2 mm, anode angle 12°, 300 kHU			
	E7886X, focal spots 0.7 and 1.3 mm, anode angle 16°, 300 kHU			
<b>Maximum Input Power</b>	1.1kVA			
<b>Operation</b>	Independent from mains supply (Stand-Alone): Standard			
<b>Battery Capacity for the Generator</b>	<ul style="list-style-type: none"> <li>Charging Time (0-100%): 9 hours approximately</li> <li>Autonomy: 6 hours, in stand-alone</li> <li>Maximum Storage Energy Capacity: 137500 mAs@80 kVp (Maximum energy available for making Exposures and supplying energy to the Generator)</li> </ul>			
<b>Battery Capacity for the Motors</b>	<ul style="list-style-type: none"> <li>Autonomy: 4 hours (20Km).</li> </ul>			
<b>Operating Environmental Conditions</b>	<ul style="list-style-type: none"> <li>Temperature range of 10oC to 35°C. (the recommended temperature for a longer life cycle of batteries is:15°C~ 25°C for Batteries).</li> <li>Relative Humidity (no condensing) range of 30% to 75%</li> <li>Atmospheric Pressure range of 700 hPa to 1060 hPa.</li> </ul>			

<p><b>Monoblock: without high voltage cables.</b></p> <ul style="list-style-type: none"> <li>Small size and modular design.</li> <li>Faster rise time and drop down in kV.</li> <li>Up to 50 kW.</li> <li>Models: <ul style="list-style-type: none"> <li>20KW. 150KVp.</li> <li>32KW. 150KVp.</li> <li>40KW. 150KVp.</li> <li>50KW. 150KVp.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Tube XR331 Focal spots: 0.6-1.2 mm Anode angle: 12° Anode Heat capacity: 300kHU</li> <li>Tube E7886X Focal spots: 0.7-1.3 mm Anode angle: 16° Anode Heat capacity: 300kHU</li> </ul>	
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## USER INTERFACE



➤ **Main screen: 19”:**

- Standard
  - Bit Depth 8 bits.
  - Maximum luminance: 225 cd/m<sup>2</sup>.
- Advanced (optional)
  - Ambient light presets available.
  - Closed-loop brightness control available.
  - DICOM calibrated luminance.
  - Anti-reflective surface treatment.
  - Bit Depth 10 bits.
  - Maximum luminance: 330 cd/m<sup>2</sup>.

➤ **Second screen on head-assembly: 8.4”.**

➤ **Led Strip Status light indicators on head-assembly:**

- System Ready.
- Prep/Exposure.
- Operator intervention needed (errors, interlocks, etc.).
- Proximity of objects.

➤ **Acoustic indications (usability settings):**

- Prep/exp, errors, warnings, interlocks.



Radiographic exposures are controlled by the **X-Ray Handswitch:**

- PREP.
- EXP: to complete the X-Ray exposure.
- With Collimator Lamp Button to help patient positioning,

➤ **Infrared remote control** with built-in rechargeable battery for preparation, exposure and collimator light (optional).

➤ **Barcode reader** (optional).

➤ **Connectivity:**


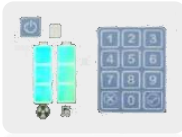

- Hospital network:
  - Wi-Fi connectivity: 802.11ac.
  - Wired connectivity: Ethernet connector (RJ45).
- **2 x USBs** accessible for the operator.
- Display port connector for an external monitor (optional).
- **\*IR sensor** for detector registration.
- 5 m retractable mains cable.



\*The availability of these options will depend on the model of the detector.

## ON / OFF SYSTEM ROUTINE

There are three ways to turn ON the system, depending on the system configuration:

<p><b>1. Standard on/off button + login by user/password</b></p>	<p><b>2. Numeric keypad for secure on/off.</b></p>	<p><b>3. Smart on/off: Smart Card</b></p> <ul style="list-style-type: none"> <li>- Users management. Different permissions for:             <ul style="list-style-type: none"> <li>· X-Ray operator.</li> <li>· Equipment movement.</li> <li>· Detector sharing.</li> </ul> </li> <li>- Power on the unit and log on in one single operation.</li> <li>- The detectors are blocked in the back cabinet when the user has no permission.</li> <li>- Compatible with smart cards ISO/IEC 4443A and ISO/IEC 14443B.</li> </ul>
		

## DETECTOR INTEGRATION



- **Front cabinet:**
  - Storage space for:
    - Large detector.
    - Small detector.
    - Large detector handle.
  - \*One charging slot for large or pediatric detector (optional).
  - \*One additional charging slot for pediatric detector (optional).
  - The detectors are blocked in the front cabinet:
    - When the system is powered off.
    - When the user has no permission (with smart on/off option).
- **Back cabinet:**
  - Two options:
    - Storage space for one panel with or without handle/grid.
    - Detector charging slot (optional).
    - Detector support for easy bagging.
  - \*Detector alignment assistance: The system indicates when the head-assembly angle and detector angle are aligned. (optional)( WIP)\*\*.

\*The availability of this options will depend on the model of the detector.

## DETECTOR COMMUNICATION BACK UP CABLE (OPTIONAL)

The communication with the panel is wireless. But, in environments where the wireless connectivity is frequently interrupted (for instance military environments), a backup communication cable may be available, and the panel could be wired connected to the unit when needed. There is a safety plate to store it.

\*The availability of this option will depend on the model of the chosen detector.



## STORAGE SPACES



## COLLIMATOR

### FOR MOVIX DREAMY STANDARD

- Manual without filters.
- Manual with motorized filters & dual laser for optical SID adjustment

### FOR MOVIX DREAMY ADVANCED (WITH SECOND SCREEN):

- Manual with motorized files & dual laser for optical SID adjustment.
- Manual with motorized files & dual laser for optical SID adjustment & dual side shutter control (front and back).

**DAP chamber integrated inside the collimator (optional).**

Dual Laser SID adjustment





**DIMENSIONS (STANDARD MODEL)**

