

POWER REQUIREMENTS FOR BATTERY CHARGER

Type	Single phase, AC
Frequency	50/60 Hz
Standard voltage	100, 110, 120, 200, 220, 230, 240 V
Fluctuation of voltage	± 10% from standard voltage

DIMENSIONS AND WEIGHT

Height during transportation	Approximately 1930 mm (76.0 inches) from floor
Height of X-ray tube focus in radiography	Maximum: approximately 2010 mm (79.1 inches) from floor Minimum: approximately 600 mm (23.6 inches) from floor
Total weight	Approximately 370 kg (815 lbs)

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MUX-100D MobileDaRt

The MUX-100D is a mobile DR digital X-ray system.



Shimadzu's Mobile DaRt advances traditional mobile radiography to new levels with the first integrated and approved Direct Capture portable system that features touch screen controls, a tethered large array DR Panel from Canon and on-the-go patient and image transfer capabilities.

MobileDaRt



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Specifications are subject to change without notice.

MUX-100D

MobileDaRt

 SHIMADZU



Mobile Direct Capture (DR) digital system for radiographic examinations in any location away from the main X-ray department

Product Data

The MUX-100D is a mobile DR digital X-ray system. It is designed for radiographic examinations in any location away from the main X-ray department. The unit consists of a digital radiographic detector, acquisition system, touch panel display, an inverter X-ray generator, independent motors for drive wheels, and a telescopic tube arm — all in a system that can be operated cordlessly, efficiently and with minimal operator induced errors.

FEATURES

Easy movement	The unit is easily driven by the unique power assist system. A two motor design allows for easy movement, even in small areas such as confining rooms or between beds.
Easy positioning	Because the tube arm is totally balanced, positioning is fast and easy.
Wide positioning area	Positioning flexibility is increased by telescopic methods of movements.
Unobstructed visibility	Because of the wide view design, it can be driven more easily and safely.
Inverter type generator	The high frequency inverter X-ray generator provides consistent exposure output for shorter exposure times.
Cordless operation	Due to the cordless feature, there is not a concern regarding the available power at the patient location. An added feature of this unit is that it can be plugged into any outlet.
Direct Capture	The integrated Canon Imaging platform and mobile Direct Capture panel eliminates the need to carry traditional film cassettes.
Image review	A low resolution preview appears within 3 to 5 seconds after the radiographic exposure, allowing the operator to accept or reject/retake the image.
Information handling	DICOM 3 protocol allows patient and image information communication through any institutions DICOM drop connection.
Sharp images	By utilizing a small focal spot, very sharp images utilizing optimum exposure parameters can be produced.
Self-diagnosis function	Messages (error codes) are displayed on the panel to notify the operator of the unit's condition.

SPECIFICATIONS OF MAIN UNIT

Rating:	
Maximum tube voltage	125 kV
Maximum tube current	160 mA
Maximum power	12.5 kW (12.5 kW at 0.1 sec)
Power supply - batteries	12 V 7.2 Ah x 20 pcs
Adjustment of tube voltage	40 to 125 kV in increments of 1 kV
Setting of mAs	0.32, 0.36, 0.40, 0.45, 0.50, 0.56, 0.63, 0.71, 0.80, 0.90, 1.0, 1.1, 1.2, 1.4, 1.6, 1.8, 2.0, 2.2, 2.5, 2.8, 3.2, 3.6, 4.0, 4.5, 5.0, 5.6, 6.3, 7.1, 8.0, 9.0, 10, 11, 12, 14, 16, 18, 20, 22, 25, 28, 32, 36, 40, 45, 50, 56, 63, 71, 80, 90, 100, 110, 125, 140, 160, 180, 200, 220, 250, 280, 320 mAs

Maximum mAs for each kV	40 to 90 kV : 320 mAs
	91 to 100 kV : 280 mAs
	101 to 110 kV : 250 mAs
	111 to 120 kV : 220 mAs
	121 to 125 kV : 200 mAs
X-ray tube focal spot	0.7 mm
Maximum size of X-ray field	43 cm x 43 cm (SID 1 m)
Minimum inherent filtration: X-ray tube assembly Collimator	Equivalent to 1.5 mm Al, measured at 70 kV Equivalent to 1.0 mm Al, measured at 70 kV
Drive speed	Approximately 5 km/h forward Approximately 2.5 km/h backward
Grade ability	Maximum 7° <i>Note: This unit is not explosion-proof type.</i>

SPECIFICATIONS OF X-RAY TUBE UNIT

Maximum operating voltage	125 kV
Effective focal spot size	0.7 x 0.7 mm
Maximum anode heat storage capacity	300000 HU (212kJ)
Maximum continuous input	170 HU/S (120 W)
Short time (0.1s) maximum input	15.6 kW
Maximum filament voltage	15 V
Maximum filament current¹	5.6 A
Target material	Rhenium Tungsten-faced on molybdenum
Target angle	16°
Focal track diameter	58 mm
Anode rotation	Direction of rotation of anode is counter-clockwise as viewed from cathode side. RPM is 60 Hz: 3200 rpm (min – 1) or more.
Inherent filtration	Min. 1.5 mm Al at 70 kV
X-ray protection²	Less than 0.87 mGy (2.58 x 10 C/kg) in an hour at a distance of 1 m from focus
Minimum ambient temperature	-10° C
Weight	Approximately 13 kg

Remarks:

¹ This is maximum value which can be used at the time of adjustment of tube current.

² Conditions of detection for the leakage radiation are:

(a) Maximum used input 125 kV, 160 W continuously

(b) Repeated radiographic loading to keep the average load to be 71 W (100 HU/s) at the maximum voltage.

CONFIGURATION

Inverter type	High voltage generator
X-ray tube unit	CIRCLEX 1.7U163CS-36
Collimator	R20C

CANON CXDI-50G DETECTOR

Purpose	Portable digital radiography
Method	Flat panel detector: scintillator & amorphous silicon (a-Si)
Sensor	LANMIT 4 (Large Area New – MIS sensor and TFT)
Scintillator	GOS (Gd ₂ O ₂ S: Tb)
Pixel pitch	160 x 160 microns
Pixels	2,208 x 2,688 pixels (5.9 million pixels)
Image size	Automatic sizing up to 14 x 17 inches (35 x 43 cm)
Grid	Attachable (Canon CXDI grid)
A/D	14-bit
Grayscale	4,096 grayscale (12-bit)
Preview image access time*	Approximately 3 – 5 seconds after X-ray exposure
Total image processing*	Approximately 20 seconds per image
Interface	DICOM 3.0, Ethernet 10/100 Base T
DICOM**	DICOM 3.0 compatible, Print Management Service Class (SCU), Storage Service Class (SCU), and others
Storage	Temporary storage available
Voltage	100 V, 120 V, 230/240 V (50/60 Hz)
Power consumption	Sensor unit: 200 VA maximum
Operating environment	Sensor unit: 41 - 95° F (5 - 35° C), 30 – 75% RH (non-condensing)
Certification	FDA 510(k), FCC Class A, UL 2601-1, EN60601, CE0197
Dimensions	Sensor unit (W x L x H): 19.3 x 18.8 x 0.9 inches (491 x 477 x 23 mm)
Weight	Sensor unit: 10.6 lbs. (4.8 kg)
Standard components	Sensor unit, power box, remote switch, X-ray interface cable
Grid options	Choice of 10:1 (180 cm). 6:1 (150 cm), 8:1, 4:1 (110 cm)

**Actual times may differ due to various factors*

***Varies with system configuration*