



# Flight Dental Systems

**X-Vision Portable X-Ray**

The Future of Radiographic Dental Imaging

# Flight Dental Systems

---

## History

- ▶ Flight Dental Systems is a Canadian owned and managed dental equipment manufacturer and distributor with operations in over 25 countries around the world.
- ▶ Our company was founded on a commitment to deliver high quality products that provide the design, function and durability demanded by today's dental professionals at an affordable price.

## Mission

- ▶ To provide our customers with high quality products designed and engineered in Canada at an affordable price. Along with our excellent customer service and expert knowledge of the product from the top to bottom makes for better support for our products globally.

## Motto

- ▶ Quality and reliability meets affordability. First Class has never been so affordable.
- 





## OUR LOCATIONS:

Flight Dental Systems  
21 Kenview Blvd, Unit 9 Brampton, ON L6T  
5G7 Canada  
Tel: 1 905 799 0517  
Fax: 1 905 793 2406

Flight Dental Systems – BC Branch  
3083 271 St Aldergrove, B.C.V4W 3R2  
Tel: 604-674-0697, Ext 103

Flight Dental Systems USA  
3720 College Park Dr.  
The Woodlands ,TX, USA  
Tel: 346-398-4817

Email: [info@flightdentalsystems.com](mailto:info@flightdentalsystems.com)

Website: [www.flightdentalsystems.com](http://www.flightdentalsystems.com)



# Certifications

---



ISO 13485:2016



ETL Mark



Flight Dental System's Handheld X-Vision X-ray is cleared by the U.S Food and Drug Administration. There are varying regulatory requirements for every local jurisdiction. Inquire from your local agencies about its use



# X-Vision Portable X-Ray

---

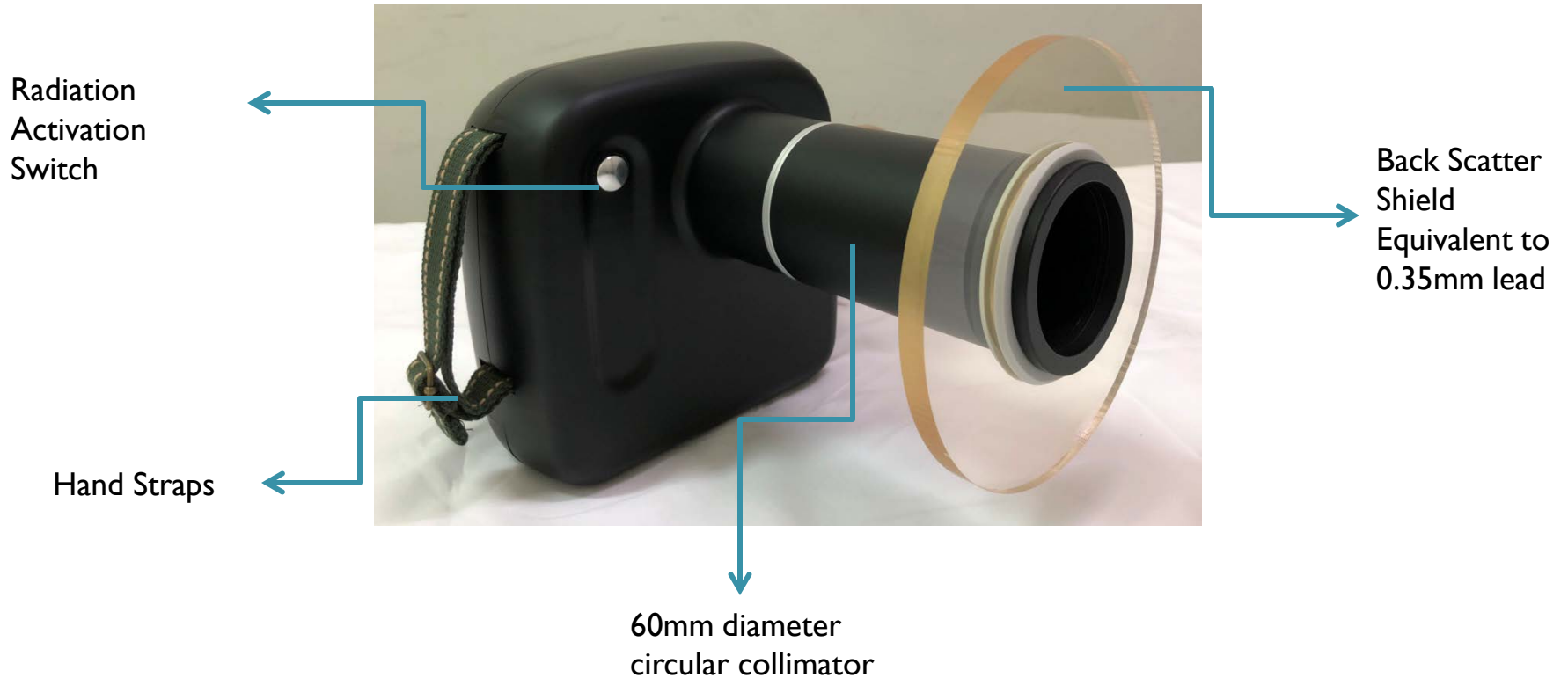
Includes:

- 1) Heavy Duty Storage Case
- 2) X-Ray Unit with Adjustable Hand straps and Neck straps
- 3) Charging Cable and Power Supply
- 4) Backscatter Shield (0.35mm) + Silicon Ring
- 5) Collimator Cone



# X-Vision Portable X-Ray

---



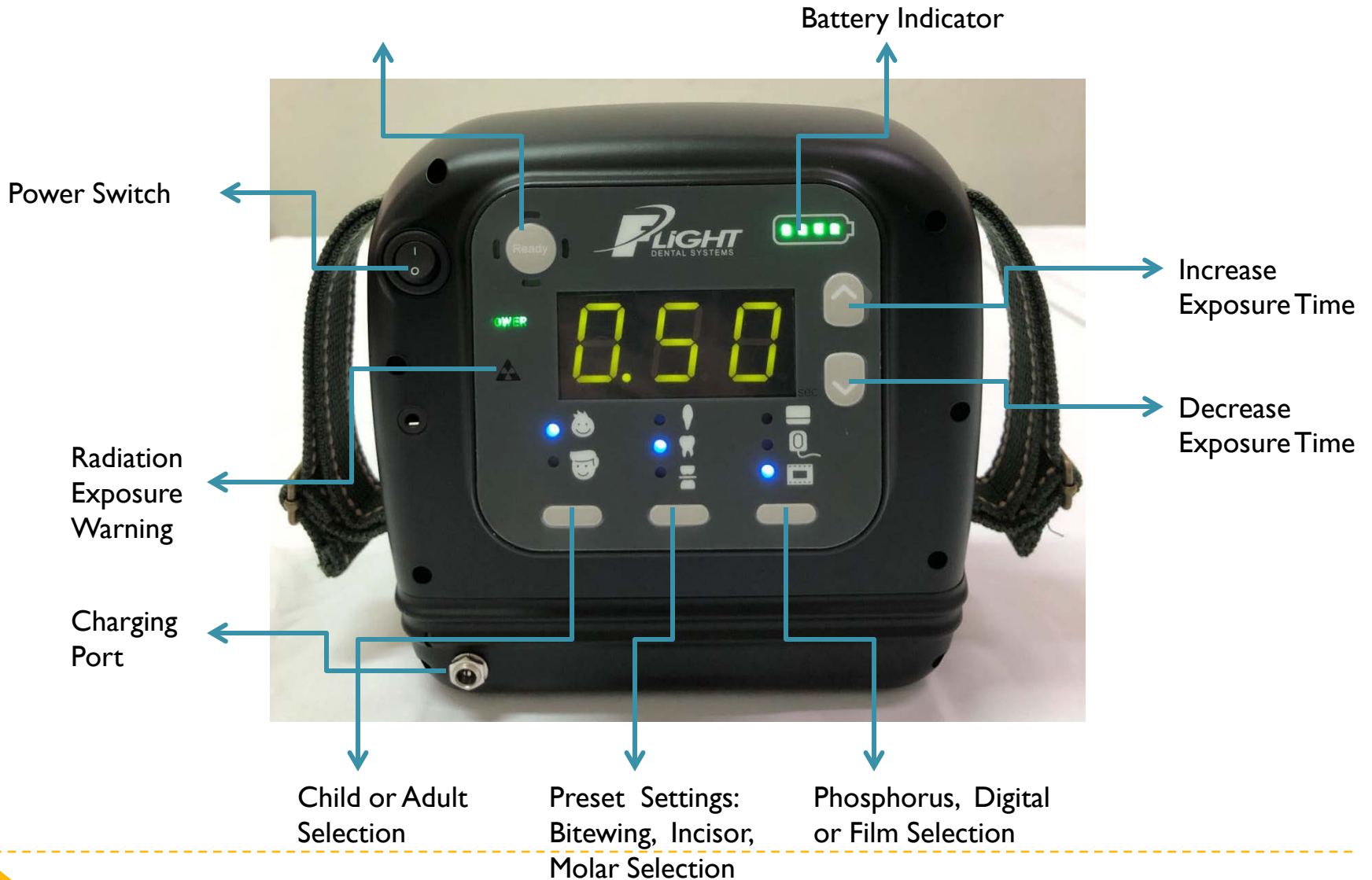
\* Neck Strap Not Shown but Included



## Indicator Switch

Green = Ready – Safety Lock Disabled

Orange = Cooling/Warming



# Benefits of a Handheld X-Ray vs Traditional Wall Mounted X-Rays


---

## Handheld X-Ray

Vs.

## Wall Mounted X-Ray

- ▶ No Installation
- ▶ Portable
- ▶ Cordless
- ▶ Remaining in the room allows you to control patient's movement and skilfully take pictures at any desired position due to its mobility (less retakes needed)
- ▶ Less radiation per exposure
- ▶ Only one unit needed per clinic

- ▶ Mounting Block Needed
  - ▶ Stationary
  - ▶ Outlet needed
  - ▶ Limited control on how to angle and take pictures. The wall mount can sway causing blurry images
  - ▶ Higher tube current leads to greater exposure of radiation for the same clarity of images
  - ▶ Limited to one unit per operator
- 
- 



# Benefits of X-Vision X-ray

---

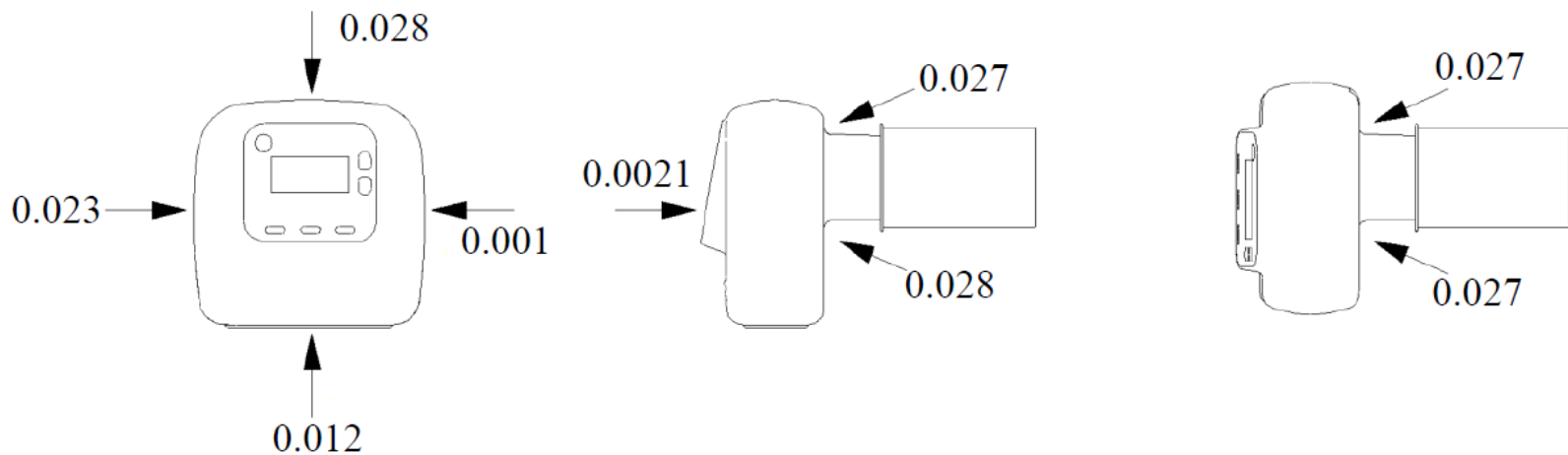
- Easy to learn and use
  - Pre-set settings to avoid any unnecessary manipulation of parameters needed to generate X-Rays
  - Largest battery capacity on the market of any handheld X-Ray
    - 2900 mAh battery allows for over 800+ exposures before needing to charge (40+ patient's full mouth series)
  - >1.6 mm total Aluminum filtration leads to the very low amounts of leakage radiation of any handheld device
  - Oiled cooling allows for less refractory time between exposures
- 



# Safety

---

- Double Shielding from X-Ray Radiation
- Lead Shielding around Generator + Back Scatter Shield (0.35mm pb equivalent)
- No Significant radiation exposure measured at 10mm distance from device
- Below Leakage Radiation Measured in mr/hr



# Safety

---

- ▶ Maximum allowable yearly radiation is 50msv or 5000mrem. The operator is exposed to 0.98 mrem/yr of back scatter radiation based on 24000 exposures a year.
- ▶ Leakage Radiation is almost insignificant








# Safety

---

- ▶ Stand behind Back Scatter shield at all times to reduce radiation exposure



# Comparison of Competitors

	Flight Dental System's X-Vision	Vector Maxray	KaVo Nomad Pro 2	Vatech EzRay Air	GenoRay Port-X IV	Digital Doc XTG	Denterprise MobileX	Phoenix Imaging Remedi T100	Midmark Preva
<b>Photo</b>									
<b>Price</b>	\$4995	\$5500	\$8300	\$5398	\$4998	\$7995	\$4795	\$3995	\$6000
<b>Tube Voltage</b>	60 kV	65 kV	60 kV	65 kV	70 kV	60 kV	70 kV	70kV	60-70 kV
<b>Tube Current</b>	2.0 mA	1.7 mA	2.5 mA	2.5 mA	2.0 mA	2.0 mA	2.0 mA	2.0mA	4-7 mA
<b>Exposure Time Range</b>	0.02-2.0 s	0.05-1.35 s	0.02-1.0 s	0.05-1.0 s	0.5 s	0.01-1.0 s	0.01-2.0 s	0.01-2.0 s	0.01-2.0 s
<b>Battery Life (Exposures)</b>	2900 mAh (800 exposures)	1050 mAh (300-500 exposures)	2400mAh (600 exposures)	2500 mAh (400 exposures)	1000 mAh (300 exposures)	1000 mAh (350 exposures)	400 Exposures	400 Exposures	N/A
<b>Weight</b>	6.8 lbs	6 lbs	6 lbs	5 lbs	3.5 lbs	5.3 lbs	4.7 lbs	4.7lbs	N/A
<b>Total Filtration</b>	>1.6 mmAl	(Inherent Filtration: 0.8 mmAl, Fixed added filter: 0.7 mmAl)	>1.5 mmAl equivalent	1.5 mmAl minimum		Inherent Filtration: 0.8 mm Al, Fixed Added Filtration: 1.0 mm Al			1.7 mm Al
<b>Warranty</b>	1 Year	12 months Limited Warranty *\$495.00 5 Year Extended	12 Month Warranty covering repairs and overnight Loaner	2 year Limited Warranty	2 Years Parts Warranty	90 day Parts and Labor Warranty then Repair warranty for 2 years		2 Year 5 Year Battery	2 years

# Error Codes

Error Code	Reason	Resolution
E00	Battery power is too low to generate an X-Ray	Recharge Battery
E01	Filament is broken so it won't heat up	Contact Flight Dental System's to replace the filament
E02	The inner temperature of the tube assembly is over 60°C	<ol style="list-style-type: none"><li>1. Stop operating</li><li>2. After 2 hours, check again</li><li>3. If same message appears, contact Flight Dental Systems</li></ol>
E03	Insufficient Exposure Time because the operator released the exposure button prematurely	<ol style="list-style-type: none"><li>1. Check the exposure parameters</li><li>2. Reinitiate the exposure</li></ol>



# Charging X-Ray

---

- ▶ Full Charge takes about 4 hours
- ▶ If the battery is completely drained and you receive an E00 error the device has a quick charge capability and can be used again to complete a Full Mouth Series in as little as 5 minutes.
- ▶ Charging Time:

5 minute charge from E00 (Low Battery Error)

- 1 LED on battery indicator
- Adult Bitewing with Digital Sensor is 0.29s/image – Approx: 34 Exposures with 5 minute Charge

10 minute charge from E00 (Low Battery Error)

- 1 LED on battery indicator
- Adult Bitewing with Digital Sensor is 0.29s/image – Approx: 72 Exposures with 10 Minute Charge

15-minute charge from E00 (Low Battery Error)

- 1 LED on battery indicator
  - Adult Bitewing with Digital Sensor is 0.29s/image – Approx: 110 Exposures with 15 minute Charge
- 



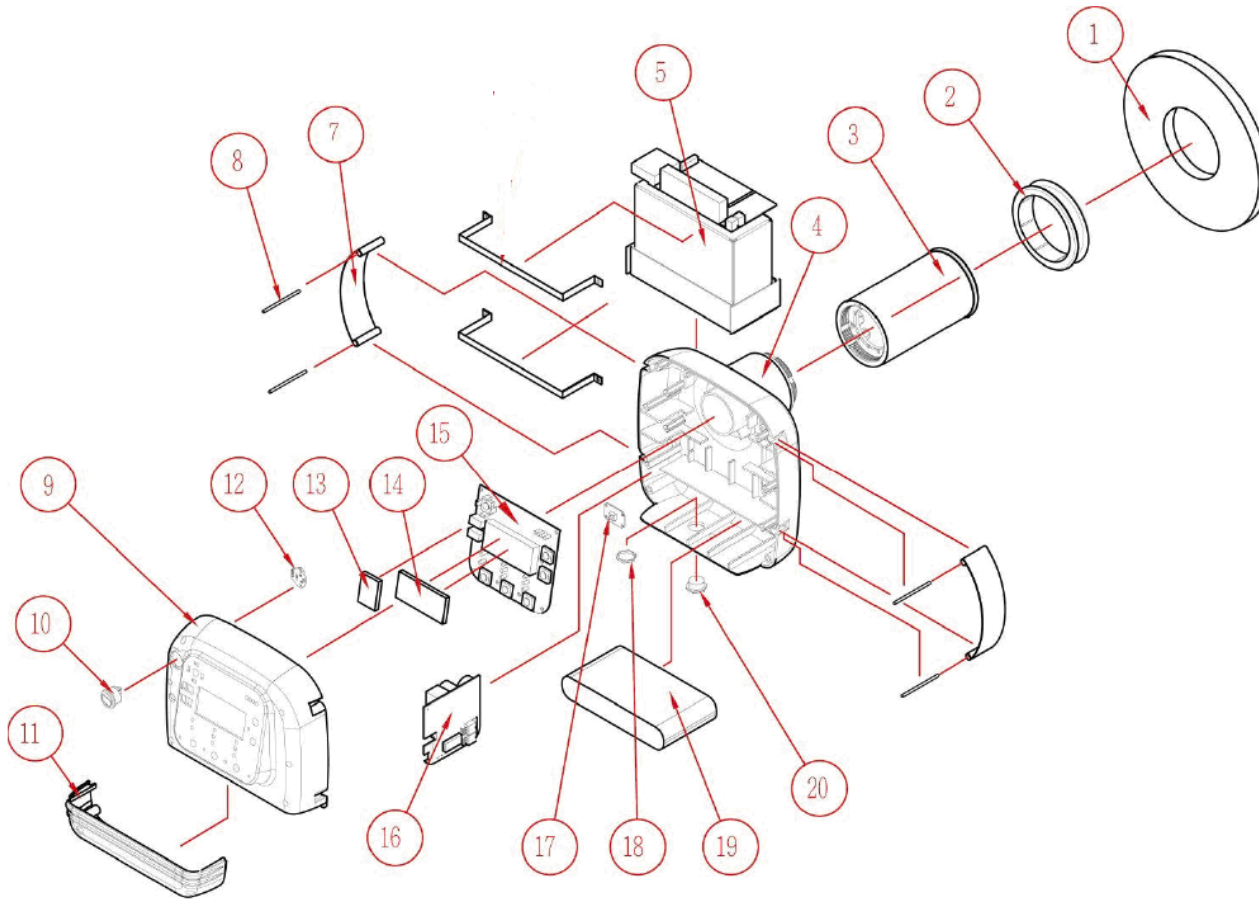
# Exposure Time

Item	Part		Exposure Time
Phosphorus Plate	Adult	Anterior	0.27 sec
		Posterior	0.32 sec
		Bite Wings	0.34 sec
	Child*	Anterior	0.15 sec
		Posterior	0.26 sec
		Bite Wings	0.27 sec
Digital Sensor	Adult	Anterior	0.20 sec
		Posterior	0.27 sec
		Bite Wings	0.29 sec
	Child*	Anterior	0.15 sec
		Posterior	0.22 sec
		Bite Wings	0.24 sec
Film	Adult	Anterior	0.50 sec
		Posterior	0.65 sec
		Bite Wings	0.68 sec
	Child*	Anterior	0.31 sec
		Posterior	0.50 sec
		Bite Wings	0.55 sec





# Parts



No.	Component	Quantity-unit	Part Number
1.	Back Scattered Shield	1	XR38001001
2.	Silicone ring	1	XR38001002
3.	Extension Cone	1	XR38001003
4.	Front Case	1	XR38001004
5.	Drive Circuit	1	XR38001005
7.	Holding Ribbon	2	XR38001007
8.	Fixed Pin	4	XR38001008
9.	Rear Case	1	XR38001009
10.	Power Switch	1	XR38001010
11.	Battery Cap	1	XR38001011
12.	Remote Control PCB A	1	XR38001012
13.	Brown Arcylic (S)	1	XR38001013
14.	Brown Arcylic (L)	1	XR38001014
15.	Main PCB A	1	XR38001015
16.	Charge PCB	1	XR38001016
17.	Trigger PCB A	1	XR38001017
18.	Fixture Fasten Nut	1	XR38001018
19.	Battery	1	XR38001019
20.	Holding Fixture	1	XR38001020
21.	AC to DC Power Adaptor	1	XR38001021



# Parts

---

- ▶ 21 Replaceable Parts
- ▶ Backscatter Shield and PCB's are the most expensive parts on the unit.
- ▶ Uses Canon(Toshiba) X-Ray Generator similar to many leading manufactures



# State Regulations

---

Allowed in all states except for Utah, Michigan, Oregon and Kansas

- ▶ Each states have their own requirements for acceptance

FDA Approved

Washington State, New York, New Jersey and Maryland  
Approved Device List



# Warranty

---

- ▶ 1 year warranty on all parts including battery
- ▶ Extended Warranty Coming Soon

