

NOMAD PRO 2

MANUFACTURED BY ARIBEX

GETTING STARTED

This quick reference guide is intended to supplement the NOMAD Pro 2 Operator Manual and operator training materials located on the operator training DVD.

NOTE: The manual and training materials are also available for download on the Aribex website @ www.aribex.com.

1. Unwrap each component from the protective plastic and check for any noticeable signs of damage. Do not use the device if it shows signs of damage.

The standard package system includes the following items:









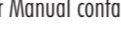

- NOMAD Pro 2 X-ray Head
- Two Handsets
- Battery Charging Cradle
- AC Power Supply
- Certificate of Conformance
- Warranty Card
- NOMAD Pro 2 Operator Manual and Training DVD

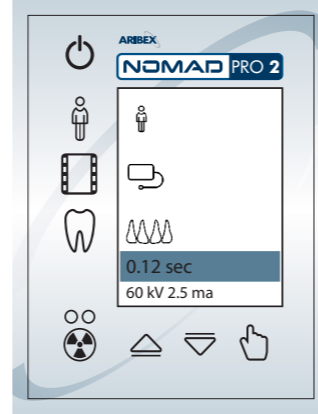
2. Verify that the serial number on the product registration card matches the X-ray head serial number and the device serial number on the carrying case.


3. Please complete the product registration card and mail it with proper postage to Aribex today, or go on-line at aribex.com/portable-x-ray-machine/warranty-registration/.

 Review the Operator Manual and training material contained on the DVD shipped with this device.


BASIC OPERATION

1. Attach a fully charged handset.
2. Turn the power on by pressing the **Power**  button.
3. Select **Patient Size** (Adult  or Child .
4. Select **Image Receptor** type (Film , Phosphor Plate , or Sensor .
5. Select the **Tooth Group** (Anterior , Posterior , or Bitewing ). For more on adjusting the time settings see the Operator Manual contained on the DVD.
6. Position the NOMAD Pro 2 relative to the receptor.
7. Pull and release the trigger once to put the NOMAD Pro 2 into the **Ready** state.
8. Pull and hold the trigger (a second time) until **X-ray Complete** is displayed and the audible tone indicates the exposure is done.
9. Turn off the power by pressing the **Power**  button.







- Use a non-acetone based disinfectant wipe (with less than 17% alcohol content) to wipe the NOMAD Pro 2 and charger. Do NOT use cleaners intended for hard surfaces, since certain chemical combinations may deteriorate the plastic prematurely.



- Do not spray disinfectant or cleaners directly on the NOMAD Pro 2, handset, or charging cradle. Damage to your device or a shock hazard may result.



- Do not operate NOMAD Pro 2 or the handset, charging cradle, or AC power supply if equipment was subjected to moisture.
- Do not open the housings.
- Locate the charging system away from the normal patient environment.




- NOMAD Pro 2 should not be operated if it has been dropped or if performance degrades; it should be returned to Aribex for a safety check.

HANDSET CARE


The following are important handset (battery) care notes:

- Handsets must be charged before initial use! Alternate handsets each week to maximize service life.
- Routinely change out a discharged handset with a fully charged one as needed.
- Remove handsets from the charging cradle once they are fully charged.
- Battery charge will diminish during extended inactivity. **Fully recharge handsets every three months during inactivity.** Never place a low charge battery into long-term storage.
- Battery life is expected to be between 1 – 2 years or 200 – 300 charge/discharge cycles, whichever occurs first.
- Do not store handsets in extreme conditions: below -20°C (-4°F) or above $+60^{\circ}\text{C}$ ($+140^{\circ}\text{F}$), or above 95% relative humidity (non-condensing). The optimal storage location is cool, dry, and away from direct sunlight.
- When the charging cradle senses a bad handset battery, the indicator lights will illuminate red rather than green. In this case, the batteries are inoperable and must be replaced.
- Handset communications and mechanical integrity are checked when the handset is first placed on the charging cradle: good communication exists when the first bar illuminates green for approximately two seconds. The routine charging sequence should then commence.






- Do not attempt to charge a handset with damaged batteries.



- Risk of fire or explosion exists if batteries inside the handset are replaced by unauthorized service personnel; do not use batteries from other sources.



- Properly dispose of spent or damaged handsets; return to Aribex or an authorized distributor for replacement and recycling. Do not place in municipal waste stream.

WAYS TO IMPROVE IMAGE QUALITY

Ensure you are using the correct time setting. The NOMAD Pro 2 comes with presets that give you a place to start. However, these times settings can be adjusted to achieve the desired image quality and then saved for future use.

Make sure you are as close to the patient's cheek as possible without touching. If your positioning device prohibits you from getting close enough to the cheek, you may want to check with your dental dealer to find a Pro 2-friendly positioning device.

Check for an **Incomplete** message on the Pro 2 display. The **Incomplete** message indicates that the trigger was released prematurely, resulting in an incomplete exposure. To achieve complete exposures, do the following: press and release the trigger to enable the X-ray and wait for the display to read **Ready**; press and hold the trigger until the device tones and the display reads **X-ray Complete**.

NOMAD CARE PLAN

In order to activate your NOMAD Care Plan (the first year is free), complete the product registration card and mail it with proper postage to Aribex today. This can also be completed on-line at aribex.com/portable-x-ray-machine/warranty-registration/.

For terms and conditions of the NOMAD Care Plan, visit nomadcareplan.com/termsandconditions.



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U.S. patents 7,224,769 and 7,496,178
United States and international patents pending.
English is the original draft language for this manual.

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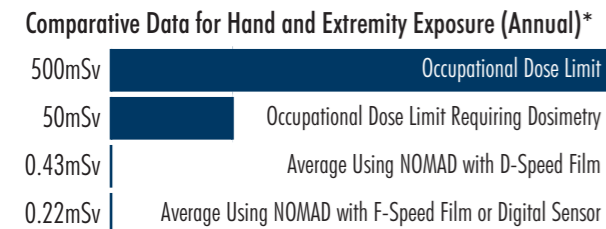
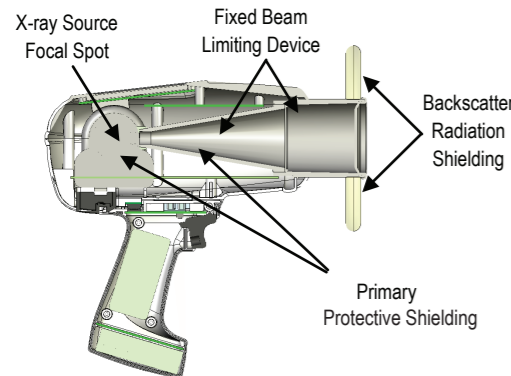
THE NOMAD™ PRO 2

DIFFERENCE

NOMAD Pro 2 is safe to be used as a handheld X-ray source when used correctly. There is no need to leave the room during an exposure.

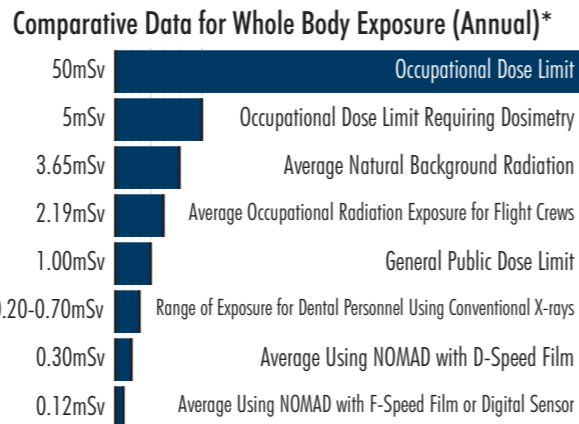
Aside from the direct beam, X-ray devices have two potential operator radiation sources: 1) leakage radiation and 2) backscatter radiation bouncing back off the subject.

1. **Leakage:** Unique internal shielding of NOMAD Pro 2 encases the X-ray tube eliminating leakage radiation. As demonstrated by the data below, this makes it safe to use Pro 2 as a handheld device during exposures.



*For source references, please see your Operator Manual.

2. **Backscatter :** When properly oriented, the transparent shield on the NOMAD Pro 2 collimator acts as a barrier against backscatter radiation, making it safe for the operator to stay in the room.



*For source references, please see your Operator Manual.

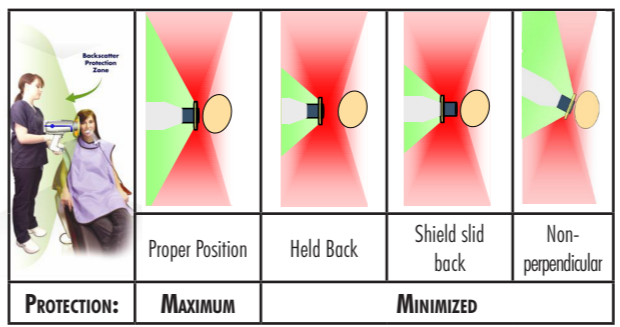
As a result of the internal and backscatter shielding, operator X-ray exposure is far below federal regulatory limits.

RADIATION SAFETY

- Operators must follow all applicable regulatory guidelines and in-house radiation protection programs in regard to patients and operators who are pregnant or expect to become pregnant.
- Operators must be fully acquainted with industry safety recommendations, established maximum permissible doses, and local jurisdiction requirements for use.

RADIATION SAFETY (CONT.)

- Do not enable NOMAD Pro 2 until patient and operator are positioned and ready for the exposure.
- Do not attempt an exposure if anyone other than the patient is in the direct beam. If others are assisting, then they should wear protective covering as required by local jurisdictions.
- When selecting and using sensors, preference should be given to models that allow the backscatter shield to remain at the outer end of the collimator cone for maximum operator protection.
- An exposure can be terminated for any reason by prematurely releasing the depressed trigger.
- Optimal operator radiation backscatter protection exists when:
 - the backscatter shield is positioned at the outer end of the collimator cone,
 - the backscatter shield is close to the patient,
 - the patient tilts their head when needed to accommodate exposures, and
 - the operator remains within the significant zone of occupancy immediately behind the device shield.
- As shown in graphic representations, maximum protection (green area) from backscatter radiation (red area) exists when the NOMAD Pro 2 is positioned near the patient (oval), is perpendicular to the operator with the patient positioned/tilted as needed, and the backscatter shield is fully extended toward the patient.



- Operation outside the protection zone (or with a diminished protection zone) requires proper precautions such as the use of a lead apron, according to requirements of local jurisdictions.

ALARMS & ALERTS

ALERT	FUNCTION/RESOLUTION
ENABLING X-RAYS No audible signal	Initiated by a single pull and release of the trigger, within one second. If no further action is taken the device will shift into the Ready state. Do not pull trigger again until the Ready state is indicated.
READY Double ascending tone 	Ready message will display on-screen following the Enabling X-Rays message. The Ready state will last for 15 seconds, or until one of the buttons on the user interface panel is pressed, or until the exposure is initiated by a second pull of the trigger.
X-RAYS ON Single tone during exposure 	At the end of the successful exposure the yellow LED turns off, and display panel briefly indicates X-ray Complete and the screen returns to the normal mode.
ALARM	FUNCTION/RESOLUTION
COOLING DOWN [count down]	Initiated if the operator presses the trigger to activate the Ready state before the duty cycle time has lapsed. Countdown timer will be displayed showing time remaining until normal operation mode resumes.
Double tone at the start and end of cool down	(Same as above)
RECHARGE HANDSET 	Ensure the handset is locked in place. If battery voltage is lower than required for the X-ray exposure, the device will not allow the exposure. Replace the current handset with a freshly charged handset.
5 audible tones	(Same as above)
INCOMPLETE (PRESS ANY KEY)	Activates if trigger is released before the timed X-ray exposure finishes. This condition is cleared by pressing any button on the user interface panel or by turning the power off then on. Depress the trigger for the duration of the exposure time.