

EXTREMEAIR ADA

Hi-Speed Surface-Mounted ADA Compliant Hand



All "AXT" Series



Please read and save these instructions. Read carefully before attempting to assemble, install, operate or service the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage. Retain instructions for future reference.

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EXTREMEAIR[®] ADA
American Dryer[®]

Description

Warm air hand dryer is a surface-mounted ADA (American Disabilities Act) compliant dryer powered by a universal brushed motor, and delivers up to 950 watts of drying power. These models operate at all voltages 115 – 230VAC, incorporate an integrated heating element, blower speed control and infrared sensor for automatic activation. Your specific model may include a high efficiency particulate absorption (HEPA) filter to remove a minimum of 99.97% of contaminants at 0.3 microns in size or larger. These models are intended for use in commercial, industrial, office and public facility environments.


Electrical Specifications

Table 1


Models	Type	Electrical Ratings	Certifications
AXT	Automatic	115 / 208 / 230 VAC 950W 50/60Hz	cETLus, CE, IP24

General Safety Information


This appliance is not intended for use by young children or persons with physical, sensory or mental disabilities unless adequately supervised by a responsible person to ensure they can use the appliance safely. Young children should be supervised to ensure they do not play with the appliance.

 **DANGER** Failure to disconnect the power source before installation or servicing can result in serious injury or death from electric shock.


- Always disconnect the power source before servicing or installing the hand dryer.

 **DANGER** Failure to properly ground this unit could result in severe electrical shock and/or death.

- This hand dryer must be properly grounded for safe operation. An identified ground connection point is supplied on the hand dryer's wall base.
- We recommend GFCI protection in wet or damp locations or as required by local code.

 **WARNING** Risk of fire, personal injury or property damage are possible if local codes, or safety recommendations are not followed.

- Installation and servicing should only be performed by qualified electrical technicians.
- Use only the electrical power (voltage and frequency) specified for the model hand dryer being installed. See Table 1 - Electrical Specifications.
- Connect the hand dryer to the nearest suitable distribution panel. The fixed wiring must include a disconnection means complying with local wiring codes.
- To limit a voltage drop, and insure efficient operation, use No.14 AWG wire or larger as required by local electrical codes.
- Always connect to a branch circuit with circuit breaker or fuse protection with an electrical rating greater than the model hand dryer's rated amperage shown in Table 1 - Electrical Specifications in accordance with required local electrical codes such as NEC (National Electrical Code) and/or CEC (Canadian Electrical Code).
- To avoid a hazard due to inadvertent resetting of the thermal cutout, the hand dryer must not be supplied through an external switching device, such as a timer, or connected to a circuit that is regularly switched on and off by the utility.
- Each automatic model hand dryer must have a dedicated circuit.
- Route all field wiring away from moving parts within the hand dryer.
- Use fittings with smooth, rounded surfaces for protection of power supply cables as required by local electrical codes such as The NEC (National Electrical Code) and/or CEC (Canadian Electrical Code).

 **CAUTION** Improper mounting could result in personal injury or property damage.

- Follow the mounting height recommendations in Table 2.
- On a stud wall, one side of the hand dryer should be mounted to an existing stud.

Unpacking

1. Remove all packing material. Recycling is recommended.
2. Carefully remove the hand dryer from the shipping carton, using care not to drop the appliance.
3. Inspect carefully for any damage that may have occurred during transit. Check for any loose, missing or damaged parts. If the hand dryer is damaged, promptly inform the dealer where you purchased it.

Installation

1. Disconnect the power source.
2. Using Table 2 to determine the recommended mounting height, select a mounting location for the hand dryer where no reflective surfaces or objects (such as a hand basin) are directly under the infra-red sensor eye. The infra-red sensor eye is visible from the bottom of the dryer. The minimum mounting distance from bottom of the dryer to a reflective surface is 18 in (46 cm). When two or more dryers are installed, they should be spaced apart 24 in (61 cm). Avoid placement where the dryer may be directly exposed to natural light (sunlight).
3. Use the security hex key supplied to turn the cover mounting screws **clockwise** to remove the cover from the dryer.
4. Using the mounting template provided, mark locations for the mounting bolt holes on the wall. For stud walls, ensure at least one fastening location will be secured to a stud.
5. Fasten the base to the wall, using the type of bolts recommended in Table 3.
6. Each dryer must have its own dedicated circuit.
7. Connect the dryer to the nearest suitable distribution panel.
8. Replace cover, turn screws **counter-clockwise** making certain not to over-tighten.

IMPORTANT: Consult local and general regulations before performing dryer installation. Ensure the electrical network is not overloaded. Always connect to a branch circuit with circuit breaker or fuse protection with an electrical rating greater than the model hand dryer’s rated amperage shown in Table 1 - Electrical Specifications in accordance with the required electrical codes such as NEC (National Electrical Code) and/or CEC (Canadian Electrical Code).

Table 2

Recommended Mounting Heights from Floor to Dryer Bottom Edge	in. (mm.)
Men’s washrooms	44 (1118)
Women’s washrooms	42 (1067)
Children’s washrooms	32-42 (813-1067)
Handicap Mounting Height	36 (914)

Table 3

Type of Wall	Type of Bolt	Minimum Bolt Length
Hollow Tile, Lath, Wall Board or Metal	1/4” (M6) screw Type or Wing Type toggle Bolts	Dependent on wall thickness
Cement, Brick, or Tile Covered Cement or Brick	1/4” (M6) Stud Type Expansion Bolts	3” (76mm)
Stud Wall with wood Backing	No 16 (M8) Wood Screws	23/4” (70mm)

Adjusting Blower Speed

These models include adjustable blower speed control for (2) levels of operation – Hi, and Low. The switch is located on the printed circuit board inside the dryer as shown in Fig. 1 below.

Note: The factory setting for the blower speed control is “Hi”.

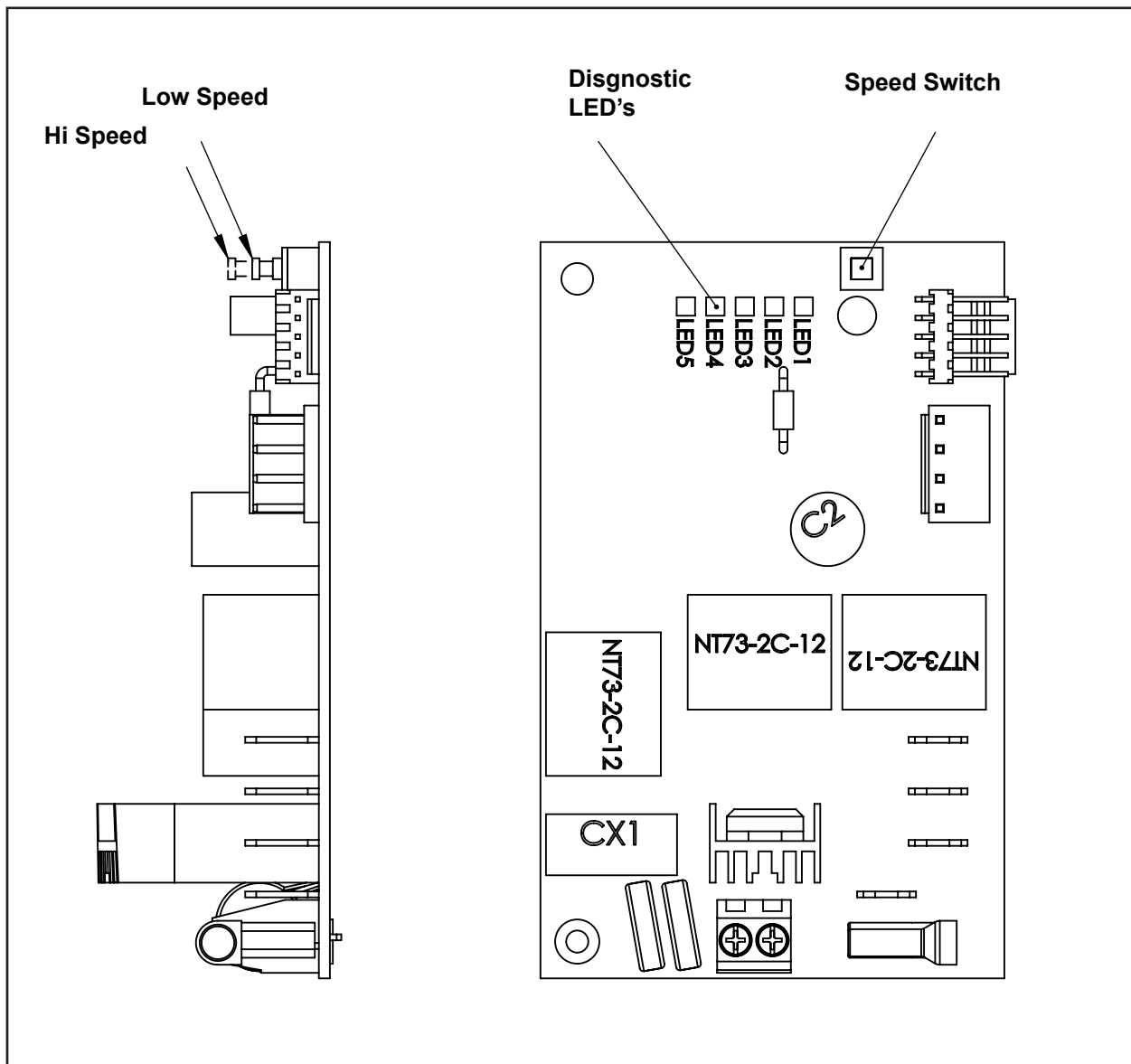
To adjust blower speed:

1. Disconnect the power source.
2. Use the security hex key supplied to turn the cover mounting screws **clockwise** to remove the cover from the dryer.
3. Locate the switch on the printed circuit board inside the dryer as shown in Fig. 1 below, and adjust blower speed as desired. (Note: When Low speed is selected, LED 4 on the printed circuit board will light “blue”).

Reassemble the dryer cover using the security hex key supplied to turn the cover mounting screws **counter-clockwise** and tighten until snug. Do not over tighten.

4. Reconnect the power source.

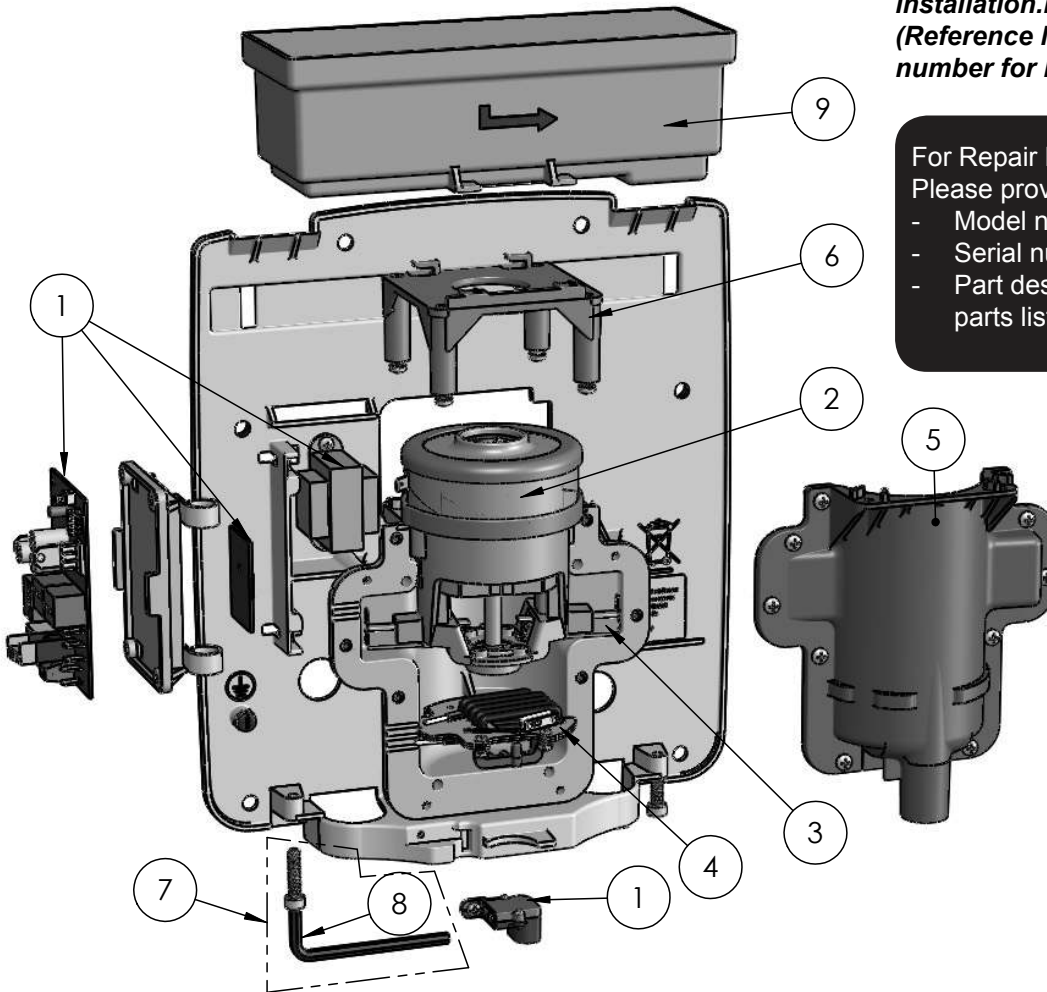
Figure 1



Parts List

Repair Parts List For **EXTREMEAIR ADA™** Hand Dryer

All kits include fasteners needed for installation. Part Number for Cover Assy. (Reference Number 7) varies with model number for hand dryer.



For Repair Parts, visit www.WorldDryer.com
Please provide following information:

- Model number
- Serial number
- Part description and number shown in parts list

#	Description	Part Number
1	Kit, Dryer Controls with Sensor and Transformer	16-10283K
2	Kit, Motor	32-10268K
3	Kit, Replacement Motor Brushes	32-10337K
4	Kit, Heating Element	21-10306K
5	Kit, Front Plenum – with Seal	47-10270K
6	Kit, Motor Cap	47-10297K
7 (not shown)	Cover Assy - Alum - White	20-Q974AXT
	Cover Assy – Alum – Black	20-Q162AXT
	Cover Assy - Alum - Polished Stainless Steel	20-Q972AXT
	Cover Assy - Alum - Brushed Stainless Steel	20-Q973AXT
7	Kit, Security Screws (includes Wrench)	46-040221K
8	Wrench, Security	56-40189
9	Filter, HEPA (for models with HEPA filter)	93-10292
10	Filter, Coarse Particulate (for models without HEPA filter) (not shown)	93-10331

Maintenance and Cleaning Instructions

IMPORTANT: The dryer may collect lint and debris that is naturally present in the air. Excessive build up of lint and debris can damage the motor and heating element. The dryer should be cleaned on a routine schedule to maintain the dryer in good operating condition. With light to moderate wash room traffic, cleaning once a year is recommended. If wash room traffic is high, cleaning every 6 months is recommended.

To clean the hand dryer:

1. Disconnect the power source.
2. Use the security hex key supplied to turn the cover mounting screws **clockwise** to remove the cover from the dryer.
3. Use a soft-medium bristle paint brush to clean lint, dust and debris from the air intake slots, and the motor's exterior.
4. After cleaning, reassemble the dryer cover using the security hex key supplied to turn the cover mounting screws **counter-clockwise** and tight until snug. Do not over tighten.

HEPA Filter Replacement (for models including HEPA filters)

Your specific model may include a high efficiency particulate absorption (HEPA) filter to remove a minimum of 99.97% of contaminants at 0.3 microns in size or larger.

The service life of a HEPA filter depends on the environment in which the dryer is installed and frequency of use. High traffic washrooms or high usage will require more frequent inspection and replacement of the HEPA filter. The HEPA filter should be inspected at least four times per year in washrooms with light to moderate traffic and normal environments. In environments with excessive, dust and debris or in washrooms with high traffic, inspection of the HEPA filter is recommended on a monthly basis. When visual inspection of the HEPA filter shows excessive buildup of lint, dust and debris, the filter should be replaced.

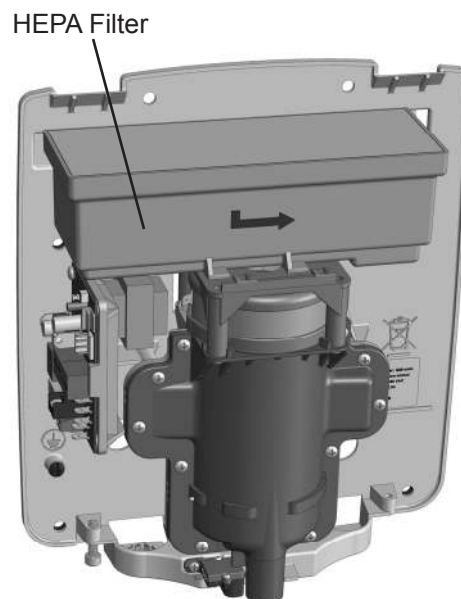
Examining and changing a HEPA filter regularly keeps hand dryers working efficiently. Operating a hand dryer with an excessively dirty or clogged filter can damage your machine.

The HEPA filter cannot be cleaned and re-used. Do not clean the HEPA filter or allow it to come into contact with water.

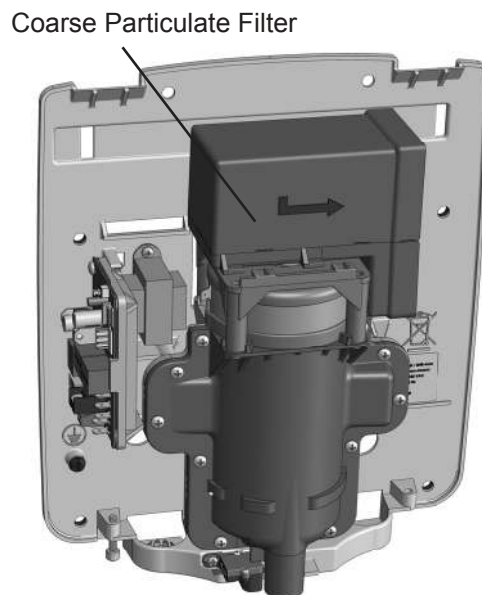
To inspect or replace the HEPA filter:

1. Disconnect the power source.
2. Use the security hex key supplied to turn the cover mounting screws **clockwise** to remove the cover from the dryer.
3. Removing and replacing the HEPA filter is easily done by sliding the filter in its mounting track on the motor cap.
4. After replacing the HEPA filter, reassemble the dryer cover using the security hex key supplied to turn the cover mounting screws **counter-clockwise** and tight until snug. Do not over tighten.
5. Reconnect the power source.

Figure 2



Models with HEPA Filter



Models not including HEPA Filters

Coarse Particulate Filter (for models not including HEPA filters)

The dryer has a coarse particulate air filter to prevent lint and debris build up that can damage the motor and heating element. Routine replacement or cleaning of the air filter is needed to maintain the dryer in good operating condition. With light to moderate wash room traffic, replacing or cleaning the air filter once a year is recommended. If the wash room traffic is high, the air filter should be replaced or cleaned every 6 months. Read complete instruction before proceeding.

To replace or clean the coarse particulate air filter:

1. Disconnect the power source.
2. Use the security hex key supplied to turn the cover mounting screws **clockwise** to remove the cover from the dryer.
3. Removing and replacing the air filter is easily done by gently pulling the filter away from the filter housing.
4. To clean the coarse particulate air filter, remove from filter from the filter housing. Use soft-medium bristle ½” paint brush to clean lint, dust and debris from the filter. If air filter cannot be completely cleared of debris, replace the filter.
5. After replacing the air filter into the filter housing, reassemble the dryer cover using the security hex key supplied to turn the cover mounting screws **counter-clockwise** and tight until snug. Do not over tighten.
6. Reconnect the power source.

Diagnostic LED’ Display

The printed circuit board includes a set of LED’s that indicate the operational status of the hand dryer. When contacting World Dryer Technical Service, be prepared to remove the dryer’s cover and provide the condition of the LED’s as they can be helpful in troubleshooting the dryer. See Figure 1 for location of diagnostic LED’s on the printed circuit board. See Table 4 for an explanation of LED function.

Diagnostic LED Function

Table 4

IR Sensor Activity	Dryer Speed	Supply Voltage Detected			Indication
LED 5	LED 4	LED 3	LED 2	LED 1	
		Flashing	Flashing	Flashing	Power Supply Voltage is less than 100V or greater than 255V
		OFF	OFF	Red	Power Supply Voltage is 110 – 120V
		OFF	Yellow	Off	Power Supply Voltage is 208V
		Light Green	OFF	OFF	Power Supply Voltage is 240V
	Blue				Motor speed is set at low speed
Green (solid)					IR sensor detects hands or object in sensing zone
Flashing Green					In vandal-resistant “lock out” mode (check for sensor obstruction)

Troubleshooting Chart

Dryer fails to start.	Incoming Power Supply	Remove cover and check diagnostic LEDS. If no LED's are lit, check power supply at the circuit breaker / fuse.
	Defective PCB	If no LED's are lit above and supply circuit is confirmed to be active, replace PCB and transformer.
	Sensor Obstruction	If LED 5 is lit or flashing (Green) without hands under the sensor , check Sensor Lens for foreign material or dirt. Clean Lens with soft damp cloth and mild cleaning agent
	Defective Sensor Operation	If LED 5 does not light when hands are under sensor, replace PCB and sensor.
	Motor Brushes at End of Service Life	Check motor brushes and replace if necessary.
	Defective Heating Element (Important: Applies only when connected to 208 – 240V power supply)	If dryer is connected to 208 – 240V power supply and all other possible causes have been checked, replace the heating element.
Dryer too loud.	Dryer Speed Setting	Adjust blower speed to "Low". See page 4. When operating at low speed, LED 4 will light (blue) when hands are under sensor.
Air temperature is too cold. The dryer's heating fluctuates / goes "on" and "off" during a drying cycle. The dryer speed fluctuates up and down during a drying cycle.	Defective Heating Element (Important: Applies only when connected to 120V power supply)	Replace heating element.
Dryer will only run a few seconds and then stops. Dryer will not activate every time. Arcing sound during operation. Funny smell (ozone) during operation.	Motor Brushes at End of Service Life	Check motor brushes and replace if necessary.
	Defective Heating Element (Important: Applies only when connected to 208 – 240V power supply)	Replace heating element.

Limited Warranty

All parts of the **EXTREMEAIR** models are warranted to the original consumer purchaser to be free from defects in material workmanship for a period of five (5) years from the date of purchase from the manufacturer. All models outside of the U.S.A. one (1) year. We will replace, during the warranty period, any warranted part which proves defective in material and or workmanship under normal installation, use, and service, excluding normal wear. Replacement parts can be obtained by returning the part, TRANSPORTATION CHARGES PREPAID. You must notify factory prior to returning part or dryer. Any damage to this dryer as a result of misuse, abuse, neglect, accident, improper installation, unauthorized repairs, or any other use violative of instructions furnished by us WILL VOID THIS WARRANTY. THIS LIMITED WARRANTY IS THE SOLE WARRANTY ON OUR PRODUCTS, AND WE DISCLAIM AND EXCLUDE ANY AND ALL OTHER WARRANTIED, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. OUR LIABILITY SHALL NOT EXCEED IN ANY EVENT THE REPLACEMENT OR SALE PRICE OF THE ALLEGEDLY NONCONFORMING PRODUCT AND SHALL EXCLUDE LABOR CHARGES. TO THE EXTENT PERMITTED BY LAW WE SHALL NOT BE LIABLE FOR ANY LOSS, COST, EXPENSE, OR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND. WHETHER BASED UPON WARRANTY (EXPRESS OR IMPLIED), CONTRACT, NEGLIGENCE OR STRICT LIABILITY AND ARISING IN ANY WAY IN CONNECTION WITH THE DESIGN, MANUFACTURE, SALE, USE OR REPAIR OF THE PRODUCT.