



## TruBaby X Lite User Manual



**A complete solution for pediatric clinical skills training.**

**TruBaby X Lite is incredibly lifelike with the appearance, weight, size and movement of a 50th percentile 5-month old infant.**

**This clinical skills training model is ideal for nurses and other pediatric emergency medical professionals practicing Directly Observed Practical Skills (DOPS), Pediatric Basic Life Support (PBLS).**

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## Product specifications

Product Code: TBL10001X

Full shipment weight: 10kg

Full shipment dimensions: 79cm x 46cm x 28cm

## Package contents

- 1 TruBaby X model with the following inserts attached:
  - 1 left & 1 right TruBaby X Arm (TBARM01L/TBARM01R)
  - 1 left & 1 right TruBaby X Leg (TBLEGO1L/TBLEGO1R)
  - 1 left & 1 right TruBaby X IO inserts (TBIO20)
  - 1 TruBaby X female genitalia insert (TBUI01F)
- *Additional package contents:*
  - 1 TruBaby X carrier case
  - 100ml bottle of TruCorp lubrication (TL001)
  - 250ml bottle of artificial blood concentrate (CVB250)
  - 1 syringe with yellow & white tubing for fluid insertion/removal
  - 4 left & 4 right IO inserts (TBIO20)
  - 1 TruBaby X male genitalia insert (TBUI01M)

## Initial set-up information

- Place the manikin on a suitable flat surface
- Ensure the head is in the correct position – the head can be easily adjusted into the sniffing position by rotating the head, if required for direct laryngoscopy
- The fluid interface is located on the back of the model and is colour coded as follows:
  - Red = Fluid system for IV
  - Yellow = Fluid system for urethral catheterization
- The syringe and tubing provided with the model will be used to insert and withdraw fluids throughout the system
- Use generous amounts of lubrication on the airway, urethra etc. and supporting equipment prior to use

- Mix an appropriate concentration of artificial blood as indicated on the bottle's instructions (ratio of blood to water is 1:9). Distilled water can be used as a substitute for blood if desired

### List of procedures facilitated by TruBaby X Lite

- Airway management techniques including double naso-tracheal intubation, Bag Valve Mask (BMV) ventilation, supraglottic device insertion, direct and video laryngoscopy, endotracheal tube insertion etc.
- Cardio-Pulmonary Resuscitation (CPR)
- IO Tibia
- Urethral catheterization (interchangeable male and female genitalia)
- Peripheral IV cannulation (Hand, arm and foot)

### Recommended equipment sizes

- 3.5-4.0mm ID for oral intubation
- 2.0-3.0mm ID for nasal intubation
- Size 1 for supraglottic devices
- Size 1 for video laryngoscopy
- Size 18G needle for IO tibia
- Size 8F urethral catheter
- Size 24G needle for IV

Please ensure to strictly follow the above recommendations. Any damage caused to the model outside of these recommendations may void your warranty. Please refer to page 18 for additional warranty information.

## Fluid interface area

The following guide should be referred to for all input and output of fluids:

### 1: Blood outlet

Connect the yellow outlet tube here and place the other end of the tube in an empty container to collect excess fluid



### 2: Blood inlet

Connect the white inlet tube with a fluid-filled syringe here and slowly insert the fluid. Continue to insert fluid until a steady flow exits from the yellow tube connected to 1. Blood outlet



### 1: Urine outlet

Connect the yellow outlet tube here and place the other end of the tube in an empty container to collect excess fluid



### 2: Urine inlet

Connect the white inlet tube with a fluid-filled syringe here and slowly insert the fluid. Continue to insert fluid until a steady flow exits from the yellow tube connected to 1. Urine outlet



**1 + 2** (Fluid system for IV)

**1 + 2** (Fluid system for urethral catheterization)

## Airway Management

- Realistic and durable AirSim X Airway supported by a 5-year airway guarantee
- Double naso-tracheal intubation
- Endotracheal tube insertion with visible chest rise
- Bag Valve Mask (BVM) ventilation techniques
- Full range of supraglottic device insertion
- Direct and video laryngoscopy
- Realistic movement including head tilt, chin lift and jaw thrust

## Preparation

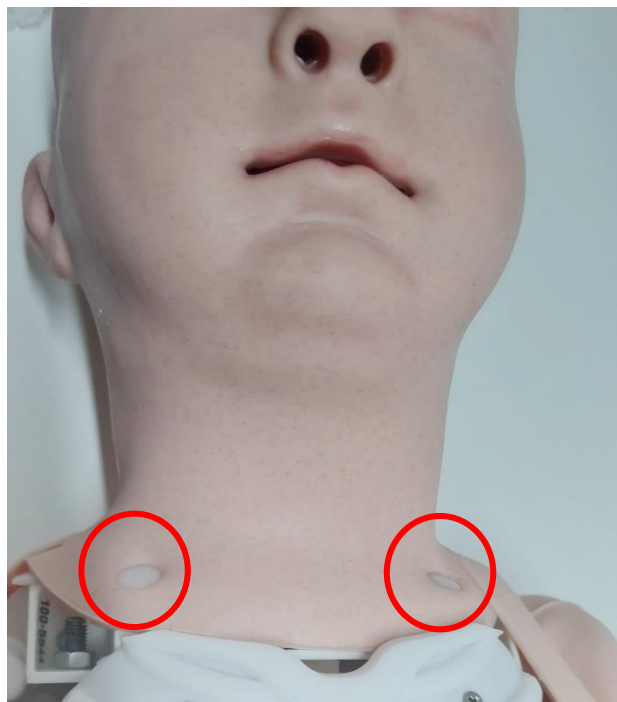
1. Ensure generous amounts of lubrication is applied to the manikin and on all devices before entering the nasal or oral cavities
2. The head can be intubated in either neutral or sniffing position

## Replacement of parts

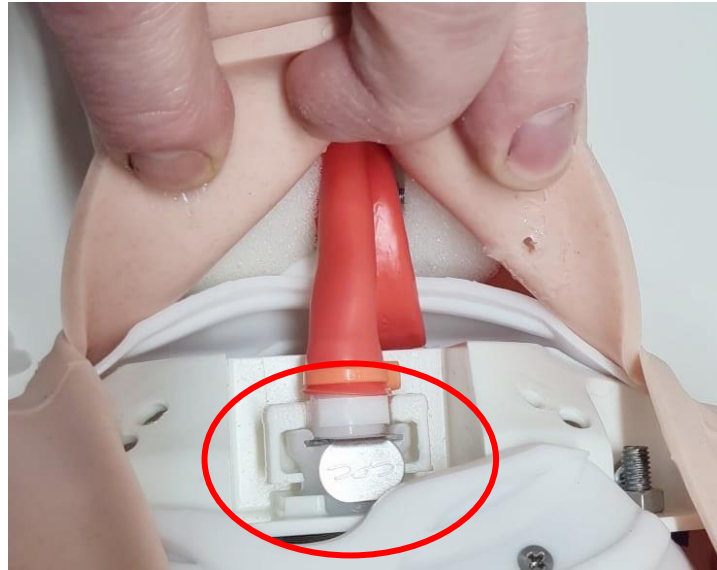
TruCorp provide a 1-year warranty on all parts and a 5-year warranty on the AirSim X airway. (please refer to page 18 for further information)

In the event of the head skin or airway being worn out or torn, replacement of the head is an easy process. Please contact our team at [info@trucorp.com](mailto:info@trucorp.com) for assistance regarding repairs.

1. Peel back the head skin and gently remove the pins to detach from the base



2. **Unlock the metal stud connector from the base, unscrew the neck joint bolt and detach the head (Tools required: Star-head screwdriver and spanner)**



3. **Align the metal stud connector on the new head with the plastic interface on the TruBaby X body and click into position**
4. **Re-attach the pins and neck joint bolt to secure the head to the TruBaby X body. Adjust the skin back to its original position (Tools required: Star-head screwdriver and spanner)**

## Peripheral Venous Cannulation (Hand, Arm & Feet)

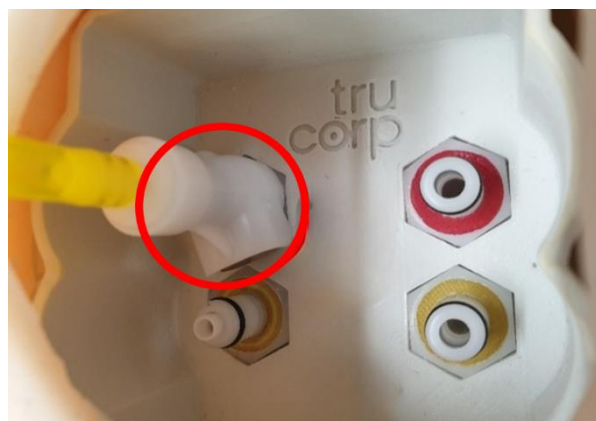
- The hand and arm contain the dorsal venous arch, cephalic and basilic veins allowing needle cannulation at various locations
- The feet contain the dorsal venous arch, great and lesser saphenous veins allowing needle cannulation at various locations
- Manual activation of venous blood flow allows fluids to be withdrawn and administered to provide realistic blood flashback
- Each arm facilitates up to 300+ needle penetrations and each foot facilitates up to 250+ needle penetrations using the recommended equipment sizes (please refer to page 3)

### Preparation

1. Gently turn the manikin onto its stomach to access the fluid interface area (under the lumbar puncture insert):

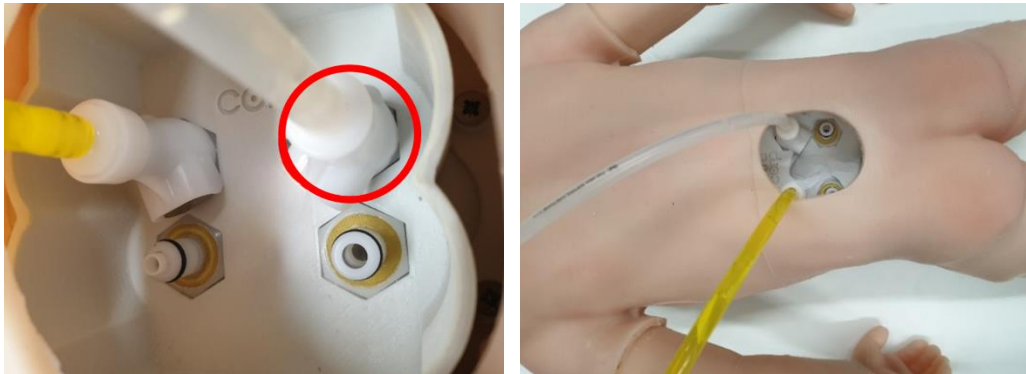


2. Connect the yellow outlet tube to the red connector labelled '1. Blood outlet' (identified by the inner yellow ring). Place the open end of the tube into an empty fluid container to collect excess fluid





3. Prepare the artificial blood concentrate as instructed on the bottle (ratio of blood to water is 1:9). Fill the syringe with approx. 100ml of simulated blood (this can vary depending on fluid retention in the model from previous training sessions). Connect the white inlet tube to the syringe
4. Connect the white inlet tube and the fluid-filled syringe to the red connector labelled '2. Blood inlet'



5. *Slowly* insert the fluid to fill the venous system until a steady flow exits from the yellow tube connected to '1. Blood outlet.' A steady output of fluid indicates the fluid has been sufficiently distributed
6. Unclick the metal stud connectors to disconnect the tubes
7. Using the recommended equipment size (please refer to page 3), the IV sites can be accessed to visualise realistic blood flashback

*Please note:* Initially the flow of fluid may be fast, but this will stabilize after a short period of time.

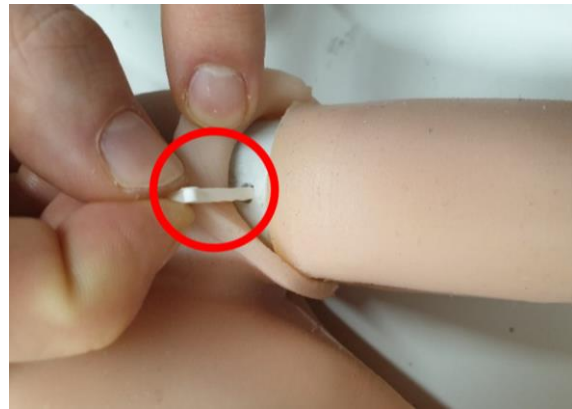
### Replacement of parts (Hand and Arm)

TruCorp provide a 1-year warranty on all parts (please refer to page 18 for further information)

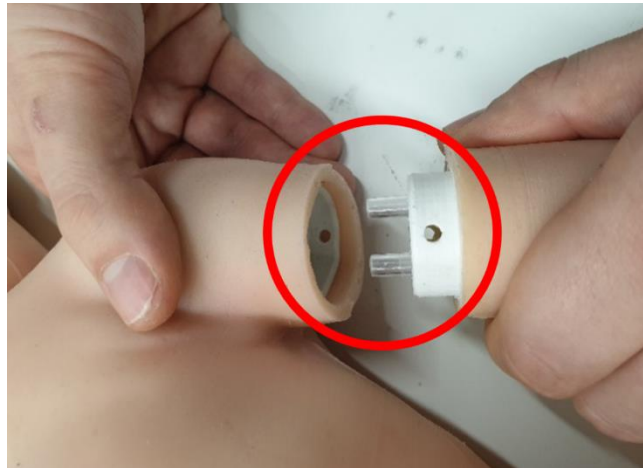
After approx. 300+ needle penetrations per arm using the recommended equipment sizes (please refer to page 3), the arm and feet can be easily changed.

1. Please remove fluid from the venous system prior to changing the arm, by connecting the white inlet tubing and syringe to the red connector labelled '2. Blood inlet.' Gently withdraw until no blood remains

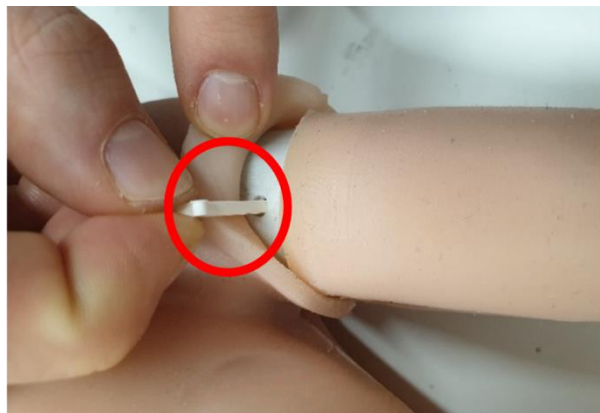
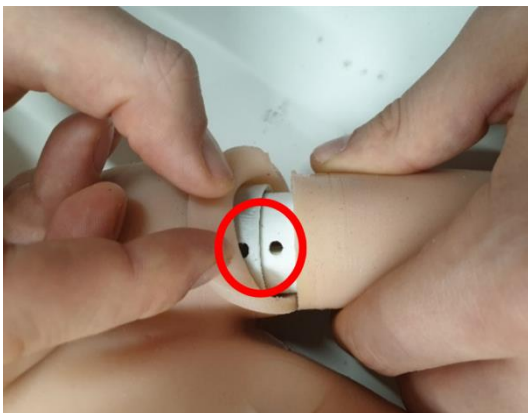
2. Fold back the skin at the edge of the insert and remove the white pin:



3. Gently pull the arm outwards to remove and discard:



4. Align the hole on the new arm insert with the hole on the model, gently press into position and re-insert the white pin:

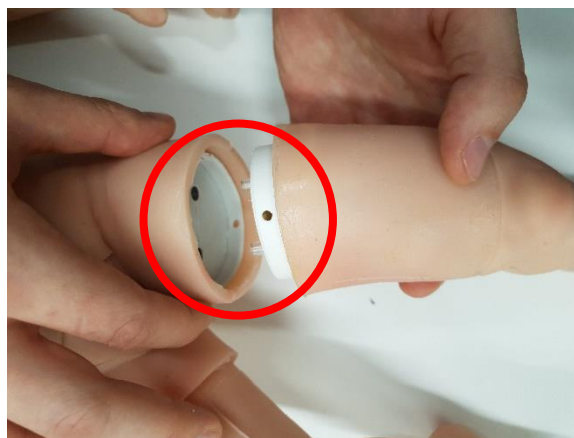


## Replacement of parts (Feet)

1. Please remove fluid from the venous system prior to changing the leg, by connecting the white inlet tubing and syringe to the red connector '2. Blood inlet.' Gently withdraw until no blood remains
2. Fold back the skin at the edge of the insert and remove the white pin:



3. Gently pull the leg outwards to remove and discard:



4. Align the hole on the new leg insert with the hole on the model, gently press into position and re-insert the white pin:



## IO Tibia

- Features the tibial tuberosity and patella anatomy to teach identification of the proximal tibia intraosseous needle insertion site
- Realistic resistance when penetrating the medullary cavity
- Each IO insert is delivered pre-filled with simulated blood
- The inserts are designed for single use to provide the user with a unique training experience (please refer to page 3 for recommended equipment sizes)

## Preparation

1. The IO inserts are delivered with simulated blood pre-filled in the cavity
2. Please ensure the correct IO needle size is used to enable penetration into the medullar cavity (please refer to page 3).
3. The IO inserts will also facilitate fluid infusion in low volumes. All current devices can be used on the model

## Replacement of parts

TruCorp provide a 1-year warranty on all parts (please refer to page 18 for further information). Do not extend the legs outward to avoid causing internal damage to the model. Any damage caused by this may void the warranty.

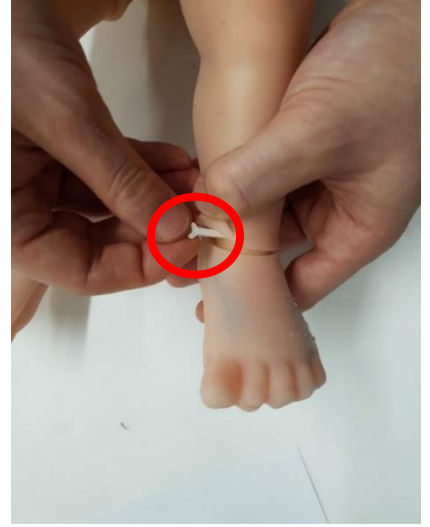
The IO inserts are designed to be replaced after single use to provide the user with a unique training experience.

1. Fold back the skin at the edge of the insert and remove the white pins at the top and bottom of the insert:



2. Remove the used IO insert from the leg and discard

3. Align the new IO insert into position and re-insert the pins



## Urethral Catheterization (male and female)

- Realistic anatomy to practice the techniques of urethral catheterization
- Easy to change genitalia parts for practising both male and female catheterization skills
- Catheter can be inserted into the urethra and the bladder (see page 3 for recommended equipment sizes)
- Fluid will flow through the catheter when the procedure is successfully performed

### Preparation

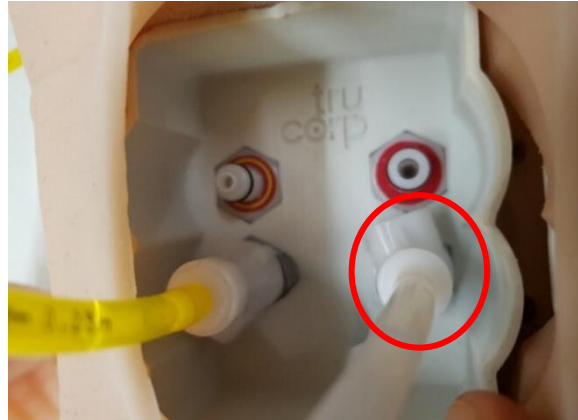
1. Gently turn the manikin onto its stomach to access the fluid interface area (under the lumbar puncture insert):



2. Connect the yellow outlet tube to the yellow connector labelled '1. Urine outlet' (identified by the two-tone yellow ring). Place the open end of the tube into an empty fluid container to collect excess fluid



3. Fill the syringe with approx. 50ml of artificial urine (this can vary depending on fluid retention in the model from previous training sessions). Connect the white inlet tube to the syringe.
4. Connect the white inlet tube and the fluid-filled syringe to the yellow connector labelled '2. Urine inlet'



1. *Slowly* introduce the fluid to fill the urine system until a steady flow exits from the yellow tube connected to '1. Urine outlet.' A steady output of fluid indicates the fluid has been sufficiently distributed
2. Unclick the metal stud connectors to disconnect the tubes
3. Ensure a generous amount of lubrication is applied to the catheter prior to use
4. Gently part the genitalia to expose the urethra and insert the recommended size 8F catheter (please refer to page 3)

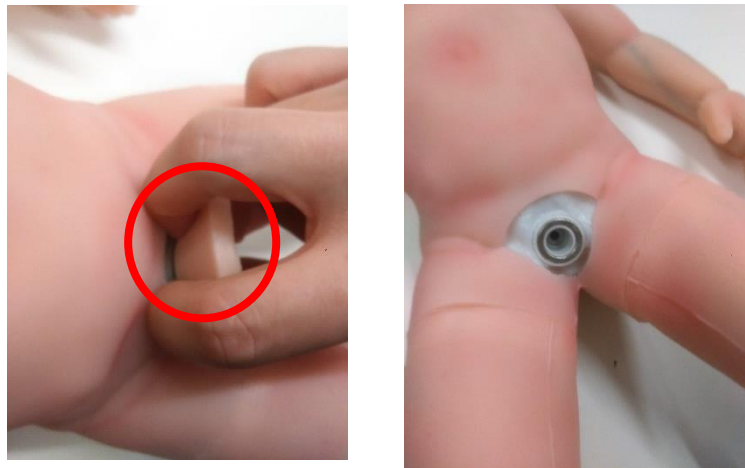
*Please note:* Initially the flow of fluid may be fast, but this will stabilize after a short period of time.

## Replacement of parts

TruCorp provide a 1-year warranty on all parts (please refer to page 18 for further information)

The male and female genitalia inserts can be changed easily when required (interchanging process is the same for both genders)

1. Gently stretch skin surrounding the insert, hold the genitalia insert and gently pull towards you to remove the insert



2. Position the new insert and click firmly into place



3. Adjust the excess skin to sit under the skin of the model's body





## Cardio-Pulmonary Resuscitation (CPR)

- Realistic rib structure with xiphoid process and sternum
- Full recommended depth of 1.5 inches can be achieved with full chest recoil
- CPR can be performed in line with AHA guidelines



## Removal of fluid

This is recommended prior to storing the manikin, especially if it will be stored for a long period of time without use. Please ensure to remove fluid from the model as recommended to retain a valid warranty.

The process of removing the fluid is the same for the three fluid chambers.

1. Gently turn the manikin onto its stomach to access the fluid interface area:



2. Connect the yellow outlet tube to the red connector labelled '1. Blood outlet' (identified by the inner yellow ring).



3. Attach an empty syringe to the end of the outlet tube and gently withdraw all fluid from the model
4. Repeat this process to remove fluid from the urethral catheterization chambers. The urethral catheterization outlet is yellow and labelled '1. Urine outlet'

## Care and Maintenance

The model should be treated with care, as though it is a real-life clinical environment. When the product is not in use, please store in the black carrier case provided. Do not extend the legs outward to avoid causing internal damage to the model. Any damage caused by this may void the warranty.

Store in clean, dry conditions away from heat and direct sunlight; avoid contact with metals, solvents, oils or greases and strong detergents.

Thoroughly wash the AirSim X airway with warm water. Please use warm soapy water or similar until all visible foreign matter and residue is removed.

Mild detergents or enzymatic cleaning agents may be used on the airway in accordance with the manufacturer's instructions and at the proper dilution. The detergent must not contain skin or mucous membrane irritants.

*Please do not use any of the following when cleaning the product:*

- Germicides, disinfectants, or chemical agents such as glutaraldehyde (e.g. Cidex®),
- Ethylene oxide, phenol-based cleaners, or iodine-containing cleaners

We recommend a frequent deep clean of the internal fluid systems to prevent mould and fungal build-up. A sterilizing product such as Milton Sterilizing Fluid is sufficient.

**In response to the recent COVID-19 pandemic, we recommend this additional step to ensure the product is fully sanitised:**

Use alcohol spray (minimum 75%) and wipe off. Repeat this for 3-4 times to ensure to kill the virus completely. This method can be used on both the silicone skin and the latex airway.

## Warranty

TruCorp warrants this unit to be free of defects in materials and workmanship and to give satisfactory service for a period of 1-year from the date of delivery. This ensures that our customers receive maximum coverage on each product. If the unit should malfunction it must be returned to the factory for evaluation. Upon examination by TruCorp, if the unit is found to be defective it will be repaired or replaced at no charge.

Additionally, TruCorp warrants a 5-year warranty (up to five years of protection and cover) on TruCorp branded AirSim X airways, as provided on the TruBaby X range. The 5-year warranty only covers the actual TruCorp AirSim X airway and not any other part of the model.

TruCorp will pay for the freight/delivery and the actual parts needed free of charge if any part of the product fails within the 1-year period. TruCorp will pay for the freight/delivery of the TruCorp AirSim X airway free of charge if the airway fails within the 5-year period.

However, these warranties are VOID, if; the unit shows evidence of having been tampered with or shows evidence of having been damaged by excessive heat, the use of sharp instruments, misapplication, misuse or other operating conditions outside of TruCorp's control. Components that wear or are damaged by misuse are not warranted and will be charged for if repair has been approved. Warranty is void if third party products are seen to have damaged or caused failure of the TruCorp models. Please ensure to closely follow the recommend equipment sizes (please refer to page 6), if damage occurs due to misuse of equipment, your warranty will be void.

**Please direct all warranty and repair inquiries to:**



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