

Digital Electronic Tourniquet, Model 120

Operating Manual

Surgical Equipment

Intended use

Automatic single-port pneumatic tourniquet that inflates a limb cuff and maintains the set pressure to provide a bloodless field during limb surgery.

Intended users

For use by trained healthcare professionals (surgeons, anesthesia and OR staff). Follow your facility's protocols and applicable regulations.

Read this manual completely before first use and keep it with the product. This document provides general operating, care and safety guidance. Where the product is supplied with manufacturer labeling or instructions, those take precedence. For questions, a replacement copy, or a digital copy of this manual, email sales@scimedstore.com.

1. Safety

Safety warnings and cautions

- For use by trained healthcare professionals. Follow your facility's protocols and applicable regulations.
- Set cuff pressure and tourniquet time according to clinical protocol and the physician's judgment. This manual does not give pressure or time values.
- This is a single-port unit. Do not use it for procedures that require a dual-cuff system.
- Select a cuff of the correct size for the limb. Apply over suitable padding and avoid wrinkles in the skin or padding.
- Monitor cuff pressure and elapsed time throughout the procedure, and deflate according to protocol.
- Check the unit, cuff and tubing for leaks before every use. Do not use damaged cuffs or tubing.
- Connect the charger only to a grounded outlet with the supply voltage marked on the unit. Unplug before cleaning. Do not allow liquids to enter the housing.
- Make sure the battery is charged before each case and keep the charger available.

2. Package contents

- Tourniquet unit
- Silicon cuffs, 5 sizes
- Silicon cuff tubing

Check contents on receipt. Report missing or damaged items to sales@scimedstore.com within 48 hours of delivery.

3. Specifications

Model	120
Type	Single-port, automatic, microcontroller-based
Pressure range	50-400 mmHg
Pressure resolution	2 mmHg
Pressure accuracy	+/- 4 mmHg
Display	16 x 2 LCD showing pressure and elapsed time (MM:SS)
Timer	0-299 minutes
Inflation	Motorized pump, maintains set pressure automatically
Cuffs	Silicon, 5 sizes; autoclavable at 134 C (per listing)
Battery	Internal rechargeable; recharge by connecting power cable
Dimensions	220 x 200 x 80 mm
Weight	Approx. 3 kg
Power input	230 V, 50/60 Hz (charging)

4. Unpacking and setup

- 1 Charge the internal battery fully by connecting the power cable to a grounded outlet before first use.
- 2 Inspect the unit, cuffs and tubing for damage.

- 3 Connect the cuff tubing firmly to the unit's cuff port.
- 4 Switch on with the power switch and check that the display shows pressure and time.
- 5 Perform a leak check per facility protocol: inflate the cuff (wrapped around a suitable object or test mandrel) and confirm the pressure holds.

5. Operation

Applying the cuff

- 1 Select the cuff size appropriate to the patient's limb.
- 2 Apply padding to the limb per facility protocol.
- 3 Wrap the cuff smoothly and snugly over the padding at the planned site and secure it.
- 4 Position the tubing so it is not kinked and is away from the surgical field.
- 5 Connect the cuff tubing to the unit.

Inflation and monitoring

- 1 Set the cuff pressure as determined by clinical protocol and the physician's judgment, using the pressure controls.
- 2 Start inflation. The pump inflates the cuff and maintains the set pressure automatically.
- 3 Confirm the displayed pressure has reached the set value and note the start time shown by the timer.
- 4 Monitor pressure and elapsed time on the display throughout the procedure.
- 5 Adjust pressure during operation only as directed by the responsible clinician.

Deflation and removal

- 1 Deflate the cuff when directed by the surgeon, using the deflate control.
- 2 Confirm the display shows the cuff fully deflated.
- 3 Remove the cuff and padding and check the patient's skin under the cuff.
- 4 Record tourniquet time and pressure per facility documentation.
- 5 Switch off the unit and recharge the battery.

6. Cleaning and disinfection

- Switch off and unplug the unit before cleaning.
- Wipe the housing with a cloth dampened with a disinfectant compatible with the materials, per facility protocol. Do not spray or pour liquids on the unit.
- Clean cuffs and tubing to remove soil, then sterilize. The listing states the silicon cuffs and tubing are autoclavable at 134 C; follow your facility's validated cycle.
- Do not autoclave the tourniquet unit itself.
- Let cuffs and tubing dry fully before storage.

7. Maintenance and storage

- Store the unit, cuffs and tubing in a clean, dry place.
- Keep the battery charged; recharge after each use and periodically during storage.
- Check pressure accuracy periodically against a calibrated reference gauge per facility biomedical engineering schedule.
- Inspect cuffs and tubing for wear, cracks or leaks before each use and replace damaged parts.
- Refer electrical and pneumatic repairs to qualified service personnel. Do not open the housing.

8. Troubleshooting

Problem	Likely cause	What to do
Unit does not switch on	Battery discharged	Connect the power cable to charge and retry.
Pressure does not reach set value	Leak in cuff, tubing or connection	Check connections; replace the leaking cuff or tubing.
Pump runs frequently	Slow leak in cuff or tubing	Inspect and replace the cuff or tubing.
Cuff moves on the limb	Wrong cuff size or loose application	Reapply with the correct size, snugly over padding.
Display reading erratic	Kinked tubing or electrical fault	Straighten tubing; refer for service if it continues.
Battery runs down quickly	Battery aging or not fully charged	Charge fully; refer for battery replacement if needed.

9. Disposal

- Decontaminate before disposal.
- Dispose of the unit and battery as electronic waste in accordance with local regulations. Do not discard in household waste.
- Dispose of worn cuffs and tubing in accordance with facility procedures.

10. Warranty and support

Products are covered by SciMed's standard warranty (12 months from purchase unless a different period is stated on your invoice). Warranty terms: scimedstore.com/pages/warranty.

Support, spare parts and additional copies of this manual: sales@scimedstore.com. Please include your order number and a photo of the product or issue.

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