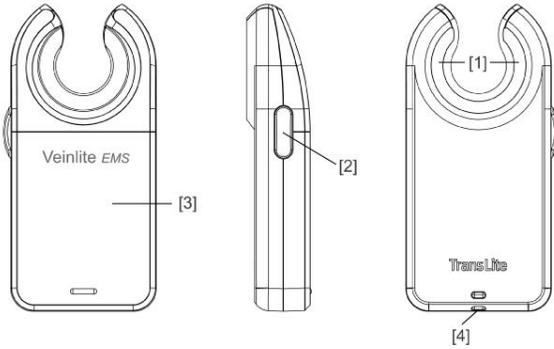


Veinlite EMS[®] CE



- [1] – Clear Window
- [2] – ON/OFF Button – Low Battery Light
- [3] – Battery Cap
- [4] – Lanyard Hole

READ INSTRUCTIONS BEFORE USE

CAUTION

- United States Federal Law restricts this device for sale by or on the order of a physician or other licensed health care professional.
- Veinlite EMS is designed for external examination only.
- Always use the disposable plastic cover when examining patients with Veinlite EMS.
- To avoid contamination of the device, do not use Veinlite EMS without the disposable plastic cover.
- To avoid spread of infection, always change the disposable plastic cover between patients.

TransLite, LLC

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Attachments

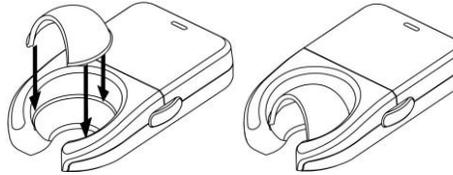
Two patented*** attachments are included with the Veinlite EMS:

- A. A snap-on light shield to reduce interference from bright overhead lighting.
- B. A snap-on pediatric adapter to reduce the size of the viewing area for use with infants.

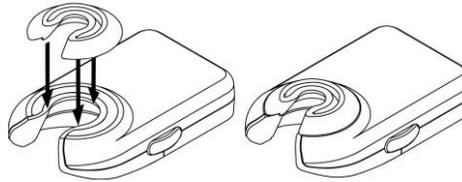
The diagrams below indicate how to attach the light shield and neonatal adapter.

*** US Patent Number 8,032,205 B2

A. Veinlite EMS Light Shield



B. Veinlite EMS Pediatric Adapter



Warranty

The Veinlite EMS has a one year parts and labor warranty. It is not necessary to register your Veinlite EMS for warranty: the process is automatic and the serial number of the unit provides all the information needed.

Veinlite EMS Specifications

Number of LEDs: 12 orange and 4 red LEDs
 Weight without batteries: 1.5 oz
 Dimensions: 115 x 55 x 21 mm
 Batteries: 2 AA Alkaline Batteries

Explanation of Symbols

Symbol	Explanation
REF	Model Number
SN	Serial Number
	Manufacturer
	EC Representative (EU Only)
	Do not dispose as unsorted municipal waste.



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INSTRUCTIONS

Introduction

The TransLite Veinlite™ EMS is a hand-held battery powered transillumination device for finding veins and assisting in vein access. It utilizes the patented* transillumination technique known as side-transillumination, which enables the Veinlite EMS to uniformly illuminate a small region of skin and subcutaneous tissue, anywhere on the body, without any areas of shadow. The shadow-free side-transillumination technique allows better visualization of veins than any other transillumination method. The design of the Veinlite EMS is such that during vein access, the vein is visualized, skin is stretched and the vein is sequestered to keep it from rolling.

Applications

- Finding veins and assisting in vein access in all patient populations
- Venous access in patients with a history of difficult venous access or fragile veins
- Easier visualization of veins in dark skinned patients

Side-Transillumination Technique

In side-transillumination, the patented* new transillumination technique, light shines into the skin from outside the area of interest. A ring of bright light is focused below the skin surface and directed towards the ring's center. The focused light creates a volume of illumination, with the central focus acting as a virtual light source under the skin. This technique achieves uniform illumination of a small region of tissue anywhere on the body and does not create the shadows that limit the usefulness of other transillumination techniques. The LED light colors are designed to be absorbed by venous blood and veins show up as darker lines in the field of view.

Description of Veinlite EMS

The Veinlite EMS has 16 light emitting diodes (LEDs), mounted in a circular array and pointed towards the center of the circle. There are 12 orange LEDs and 4 red LEDs. The light from the LEDs shines through a clear plastic window [1] so that it is focused under the skin. There is an opening in the circle to allow access. The LEDs are spaced around the circle for optimum vein imaging.

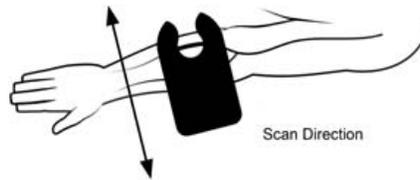
The two colors of the LEDs were selected for the specific characteristics of the light they emit, resulting in optimal visualization of veins at varying depths and through skins of different pigmentation. The orange** LEDs are optimal for viewing veins in light skin patients, whereas the red LEDs are optimal for viewing deeper veins in darkly pigmented skin. The LEDs can be turned on and off by pressing the orange colored button [2] located on the side of the Veinlite EMS.

* US Patent Number 5,146,923.

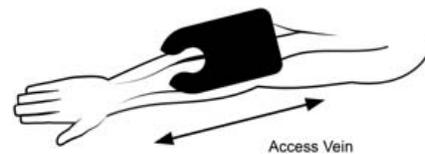
**US Patent Number 7,874,698 B2

Operating Directions

1. Place the Veinlite EMS inside the disposable plastic cover so that the cover flap is on the side as the LEDs. Wipe the area of the cover coming in contact with the patient with 70% isopropyl alcohol or other medically accepted disinfectant. Check the cover to make sure it is intact.
2. Turn off any overhead fluorescent lights as these may interfere with transillumination. Low power, non-fluorescent side lighting should be used instead.
3. Visually locate the region of the skin you wish to examine for veins and then place the Veinlite EMS over it, with the LEDs facing down towards the skin.
4. Apply gentle pressure to the Veinlite EMS to ensure it is in contact with the skin, then depress the orange button [2] to switch on the LEDs.
5. To locate a vein, move the Veinlite EMS slowly across the arm, positioned as shown in the diagram below.
6. To access a vein while viewing with the Veinlite EMS, rotate the device so the opening in the circle of LEDs faces away from the heart. Apply gentle pressure on the Veinlite EMS to sequester the vein. Pull back slightly on the Veinlite EMS to stretch the skin and provide traction. Insert the needle in the normal way.
7. Discard the disposable plastic cover after each patient and switch off the Veinlite EMS when it is not in use.



Position of Veinlite EMS while looking for vein



Position of Veinlite EMS while accessing vein

CAUTION

- DO NOT LOOK AT THE LEDs WHEN THEY ARE SWITCHED ON!
- DO NOT SHINE THE LIGHT FROM THE LEDs INTO ANYONE'S EYES!

Disposable Plastic Cover

The Veinlite EMS should always be used with its disposable plastic cover to protect it from contamination and to prevent the spread of infection from patient to patient. These plastic covers are not sterile. Before using Veinlite EMS, always wipe any part of the cover coming in contact with the patient with 70% isopropyl alcohol or other germicidal wipe. The Veinlite EMS is shipped with 50 plastic covers. Additional covers can be ordered from TransLite or any of its authorized dealers.

Low Battery Indicator

The Veinlite EMS is powered by two AA alkaline batteries. The batteries will provide between 5 and 6 hours of continuous usage depending on the type of battery used. Light output from the Veinlite EMS will decrease as the batteries become depleted. When the batteries run low, an orange low battery indicator light will come on behind the orange switch [2]. Approximately one hour of battery use is left when the orange light first comes on. For optimum lighting please replace the batteries when the low battery indicator turns on.

Installing or Replacing Batteries

To install or replace the batteries, press firmly on the battery cap [3] and slide it off. Remove any used batteries. Install two new AA batteries, oriented as indicated by the markings inside the battery compartment then slide the battery cover back into place.

Cleaning Directions

Always use the disposable plastic covers to protect the device and to minimize the spread of infection. Avoid using alcohol on the clear plastic window as this may cause it to become fogged.

CAUTION

- ALWAYS USE THE DISPOSABLE PLASTIC COVER!
- DO NOT IMMERSE THE DEVICE IN LIQUID!
- DO NOT AUTOCLAVE THE DEVICE!

Attaching a Lanyard

A lanyard can be attached to the Veinlite EMS, via the hole at the bottom of the unit [4]. Use a thin cord for this purpose.

Troubleshooting

Before returning the Veinlite EMS to TransLite for repair, please call or e-mail to obtain a return authorization code and shipping information. No refunds will be given for unauthorized shipping.

- LED failure

The LEDs are designed to have in excess of 50,000 hours of operation. They should not require replacement during the lifetime* of the Veinlite EMS. If an LED fails, the unit is designed to continue operating using the remaining LEDs, with only a slight decrease in intensity of light output. In case of multiple LED failure, please contact TransLite to arrange return for repair.

- No light from any LEDs

Replace the batteries and depress the orange button [2] to switch on the LEDs. If the LEDs do not switch on, contact TransLite for assistance.

*The predicted lifetime of the Veinlite EMS is 5 years.