There are THREE CHOICES to be made when choosing a SolRx UVB phototherapy device:

1. Which Device Family (SolRx Series):
   - E-Series, 1000-Series, 500-Series or 100-Series?
2. Which Waveband of Ultraviolet Light:
   - UVB-Narrowband or UVB-Broadband?
3. How many ultraviolet bulbs? (replaceable fluorescent lamp tubes)

It is important that you discuss with your physician / healthcare professional the best choices for you; their advice always takes priority over any guidance provided by Solarc, including these selection guidelines. A physician’s prescription is required for all products shipped to USA, regardless of intended use. The prescription does not have to be written by a dermatologist; any medical doctor (MD) is acceptable, including of course general practitioners (GP’s), and nurse practitioners.

Each device family, or SolRx "Series", is uniquely designed to perform a different type of phototherapy treatment, generally based on the device’s treatment area, shape and size. Within each device family are several “device models” that share the same basic construction and features, but differ in the quantity of bulbs (or in the case of the E-Series, the number of devices), and the wavelength of ultraviolet light they produce. (UVB-Narrowband or UVB-Broadband).

The following chart is properly scaled to show the relative treatment areas of each of the four device families:

For more information, visit: SolarcSystems.com
Full Body  (A large percentage of head to toe involvement)
When there is a large percentage of affected skin, or there are many small lesions evenly distributed all over the body, 6-foot high devices are the usual choice, either the E-Series Expandable/Multidirectional or the 1000-Series Full-Body Panel. These powerful units can irradiate a large area and efficiently provide head to toe treatments in a reasonable amount of time, typically 1 to 10 minutes per side, depending on the number of bulbs. The charts above show that the E-Series and 1000-Series have a much greater treatment area and total power than the other smaller device families. These devices use exactly the same part numbers of 6 foot long 100-watt fluorescent bulbs that are commonly used in full-sized booths at phototherapy clinics.

Choose the E-Series Expandable/Multidirectional when:
• initial cost is most important, because just one E-Series MASTER device can provide totally effective full body phototherapy (but at the expense of longer treatment times);
• the ability to EXPAND is important, so you can reduce your total treatment time, for example after the effectiveness for your skin condition has been established, or when more funds are available;
• you want the highest performance, because the many configurations of the E-Series are better at delivering ultraviolet light AROUND the patient’s body, which further reduces the total treatment time;
• portability is important, because an E-Series system can be very easily separated into individual 33-pound twin-bulb devices, each with its own carrying handle;
• you want the ultimate full-surround booth, now or maybe sometime in the future.

Choose the 1000-Series Full-Body Panel when:
• you feel more comfortable with a simple single-device system, with 20+ years of proven effectiveness;
• an insurance company is paying for a "panel" device only, because they may agree to buy only one single device, and a multiple-bulb 1000-Series has better performance than a 2-bulb E-Series MASTER;
• you want a system with the lowest overall cost-per-bulb;
• there is not enough floor-space for a multidirectional system - the 1000-Series just lies flat against a wall;
• you are familiar with panel type devices, and know that you will never need to expand the system;
• you want to buy one device that you are pretty sure will work, and not any more devices in the future.

Hand & Foot Treatment
Hand & Foot treatments are best given using the 500-Series, as it is designed specifically for that purpose. By using very high performance PHILIPS PL-L36W/01 bulbs, model 550UVB-NB has the greatest light power intensity (irradiance) of all the Solarc devices, which minimizes the treatment time for the often thick psoriatic skin on the hands and feet. All 500-Series models are supplied standard with a "hood" to reduce light leakage, just like at the clinic. The hood can be removed quickly without tools allowing the main unit to be rotated to any position, for example pointing downward to treat the tops of the feet. The 500-Series has a grab handle, built tough and is very easy to transport. Device weights range from 15 to 25 lbs. (520 to 550)
Spot Targeting  (Isolated patches)
For spot targeting, there are two possible device family selections, determined by the size and number of treatment sites. If there are only a few small isolated patches, such as elbows and knees, the 12.5 sq.in. treatment area, high irradiance and targeting capabilities of the 100-Series may be the best choice. If the patches are bigger, or spread out over a larger area, the more powerful 500-Series can be used without the hood, to provide about 234 sq.in. (1.6 sq.ft.) of treatment area, which considerably reduces the total treatment time; and the mounting yoke allows the unit to rotate any direction. If there are many small isolated patches, using the small 100-Series to treat them individually may be too time consuming. Consider instead grouping the areas together and using the 500-Series, or even the 1000-Series. If you are treating vitiligo, the 100-Series’ Aperture Plate system may be beneficial. The 500-Series hood and yoke do not require any tools.

Scalp Treatment:  The SolRx UV-Brush™
The 100-Series is the only device with the ability to treat the scalp of patients with moderate length hair, using the optional SolRx UV-BrushTM. Scalp UVB-Narrowband treatment times are usually much longer than general body treatments, because the hair on most patients blocks a considerable amount of the UV light. A very effective alternative for treating scalp psoriasis is for the patient to cut their hair very short (the shorter the better), and use the 100-Series without the UV-brush, with the clear acrylic window touching the head in close contact with the scalp.

2. Waveband:  UVB-Broadband  OR  UVB-Narrowband (UVB-NB) ?
Waveband selection may be determined by your physician based on the disease being treated, and is ideally indicated on your prescription if so used. UVB-Narrowband (UVB-NB or PHILIPS /01) is now by far the most common choice for psoriasis, vitiligo, and atopic-dermatitis (eczema). Indeed, about 98% of all Solarc devices are now UVB-NB.

UVB-Broadband (FS-UVB or PHILIPS /12), which was formerly the only UVB waveband type available, is also sometimes used for psoriasis, and atopic-dermatitis (eczema); but almost never for vitiligo. UVB-Broadband is considered a more aggressive UV-light therapy than UVB-Narrowband, so it’s use is usually reserved for more difficult cases, usually after first trying UVB-NB. UVB-Broadband treatment times are much shorter than UVB-Narrowband, because UVB-Broadband has much greater skin-burning potential; assuming devices with the same number and wattage of bulbs. For more information read our “Understanding Narrowband UVB Phototherapy” article.

Waveband selection for other skin diseases such as CTCL, PMLE, pruritus and others are strictly by physician guidance. UVB-Narrowband devices have an "UVB-NB" or “UVBNB” suffix in the model number, such as 1780UVB-NB. UVB-Broadband models have the "UVB" suffix only, such as 1760UVB.

Several other different waveband type bulbs can be fitted into some Solarc devices, including UVA (“PUVA” aka 350BL aka Philips /09 - not available for the 100-Series), and UVA-1 (365nm peak aka Philips /10). These bulbs are dimensionally interchangeable, but if making a waveband change, it is important to revise the device label to correctly list the waveband type. Users Manuals, exposure guidelines and treatment times are not available for all wavebands.

3. Number of Bulbs ?  (replaceable fluorescent lamp tubes)
The number of bulbs has one main purpose: to reduce treatment time. There is a direct relationship between the light power of a device (Irradiance), Dose and Time, as expressed by the equation:  \[ \text{TIME} = \frac{\text{DOSE}}{\text{IRRADIANCE}} \]
Increasing the number of bulbs increases the irradiance and therefore reduces the treatment time.

The goal for phototherapy equipment is almost always to reduce the total patient treatment time, so it is less onerous to take treatments, and the patient more willing to follow the treatment schedule. It follows that, when comparing devices of similar size and type, the best equipment value can generally be determined by simply calculating the cost per watt of total bulb power; for example, by simply dividing the price in dollars by the total bulb wattage. This, of course, assumes that the devices being compared are the same type (multidirectional, panel, hand&foot, or hand-held), and have comparable value-added features such as built-in digital timer, switchlock, reflectors and other accessories.
The second last number in the SolRx model number denotes the number of bulbs. For instance, a 1740UVB has 4 bulbs and a 530UVB-NB has 3 bulbs. The only exception to this is the 10-bulb 1790UVB-NB.

The choice of number of bulbs is influenced by the skin condition being treated and, in the case of psoriasis, your skin’s natural pigment (skin type). For other skin conditions, please consult your physician. Solarc may also be able to provide information from our library.

UVB-Broadband devices usually have fewer bulbs than UVB-Narrowband devices because UVB-Broadband has considerably greater potential to cause erythema (burning), theoretically by a factor of 4 to 5 times. In other words, UVB-Narrowband treatment times are typically much longer than UVB-Broadband, so more bulbs are needed to compensate.

**Psoriasis:** For FULL-BODY UVB-Narrowband treatment of psoriasis, the 1000-Series 6 or 8 bulb models (1760UVB-NB & 1780UVB-NB) have become the most popular. Based on feedback from our after sale follow-ups, they provide reasonable treatment times (1-10 minutes per side) and work well for most people. For full body psoriasis patients that require higher dosages, such as dark skinned people or perhaps determined by experience from the phototherapy clinic, or for those that are not concerned with price, the 10-bulb 1790UVB-NB is a good choice, as is the new multidirectional and expandable E-Series, which offers the very best performance among several other innovative features. The E-Series is unique in its ability to start as a super-economical 6-foot 2-bulb 200-watt panel, and then later be EXPANDED by adding more 2-bulb devices to eventually surround the patient and provide so-called “multidirectional” phototherapy, with much better light delivery efficiency than flat-panel type devices.

For FULL-BODY UVB-Broadband treatment of psoriasis, because UVB-Broadband treatment times are quite short, the 4-bulb 1740UVB is usually adequate (the 1740UVB was the original Solarc device from 1992). The 6-bulb 1760UVB is a good choice if you might want to later change the waveband to UVB-Narrowband.

500-Series model selection is now dominated by the powerful 5-bulb 550UVB-NB, especially for hand & foot treatments, because higher doses are typically required due to the thicker skin AND it has more uniform light output at the recommended hand & foot treatment distance of 3 inches, which is quite close to the bulbs. The 3-bulb 530UVB-NB may be a good selection for those with less severe disease and intentions to use the device only at the spot treatment distance of 8 inches. Consider the 2-bulb 520UVB-NB for even less demanding cases or perhaps if there is a need to economize; for example, with a total of 72-watts of bulb power, a 520UVB-NB still has 4-times the power of the 18-watt 100-Series Hand-held.

**Vitiligo:** Vitiligo doses are much less than those for psoriasis, so vitiligo patients can often use the device models with fewer bulbs (such as the 1740UVB-NB / 1760UVB-NB and 520UVB-NB / 530UVB-NB ). However, the devices with more bulbs will always minimize total treatment time, and make it easier to follow the treatment regimen. Vitiligo is normally not treated with UVB Broadband.

**Eczema / Atopic Dermatitis:** Treatment times for eczema / atopic dermatitis are in between those for psoriasis and vitiligo; any number of bulbs could be chosen.

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**More Questions?**

If you have any more questions, contact us toll free at 1-866-813-3357 [ 705-739-8279 ]. We can also be reached by fax at 705-739-9684 or by email at info@SolarcSystems.com. Our website is SolarcSystems.com. We will do our best to help.