

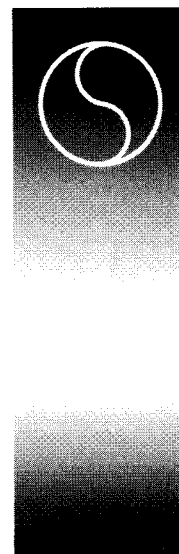


SYNETIC
SYSTEMS

BIO LIGHT™



User's Guide & Reference



Contents

BioLight User's Guide and Reference

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SECTION 1

Working with the BioLight

- 1 Working with the BioLight
- 2 What the BioLight can do
- 3 BioLight relaxation exercises

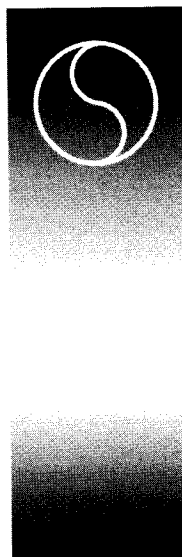
SECTION 2

Operating the BioLight

- 8 Setting up the BioLight
- 8 Battery charging
- 8-9 Using the LiteFrames, headphones, and finger probes
- 10 Selecting the BioLight's modes
- 11 The BioLight's 5 pre-set light and sound sessions
- 12 Operating the BioLight: step by step
- 14 Options
- 14-15 Sensitivity adjustment: a closer look
- 16 Table: The LED's descending colors
- 17 Table: Percent of change in skin resistance
- 18 Reading the percent of change table
- 18-19 Questions and Answers

SECTION ONE

Working with the BioLight



Today's demanding and high-stress lifestyles make staying on top of your internal state essential! It's hard to stay focused when you're not relaxed. You can't be creative or perform at your best when you're worried. And who can maintain high levels of productivity when your mood changes from hour to hour? What's more, one can become less aware of the uses of stress, and not realize the toll it is taking physically.

Like many people, perhaps you purchased the BioLight as a tool for stress management, and indeed, the technologies within BioLight have earned a stellar reputation in this area. But in fact, stress management is a stepping stone to a wider range of benefits, like learning to concentrate better, accessing creativity more easily, or gaining new perspectives on how moods and emotions affect your performance.

The BioLight gives you the best of what mind development can offer in one convenient package. In a sense, it's three machines in one: it offers the soothing and entertaining effects of light and sound, the self-monitoring capabilities of biofeedback, and — for the first time — a way to integrate both that gives you an even more effective way to take charge of your internal state. Let's see what the BioLight can do.

What performance feedback™ does

Performance feedback™, or biofeedback as it is sometimes called, is a proven methodology whereby one learns to more readily access desirable peak-performance states like concentration or relaxation.

It precisely and accurately measures fluctuations in the moisture content of your skin, which reflect shifts in your physical, mental, and emotional states. These tiny changes can be so subtle that you are not consciously aware of them. But performance feedback lets you become conscious of the changes by displaying them to you as visual or auditory feedback. This tells you a great deal about the influences that affect the way you feel and react to situations. And as you learn to modify the feedback, you learn to access these desirable states at will.

What the light and sound experience does

The light and sound experience is very simple, but effective. The user plays “sessions” that generate gently flickering lights synchronized with pulsed sound. These patterns of light and sound are not random, however. They’re “composed” — much in the way music is composed. They produce patterns of stimulation that, depending on the tempo, help one to relax, focus or energize, much in the way classical music might soothe you or rock and roll might energize you. The light and sound may be computer generated, but it works just like subtle patterns in nature: the flicker of firelight or the rhythm of the waves on the beach.

The positive effects of light and sound are similar to performance feedback, but light and sound does not provide you with feedback; that is, you don’t have any control over the input you receive. You watch, listen and absorb the session. The measure of a session’s effectiveness is simply how you feel during the session and after it’s over.

What performance feedback combined with light and sound can do

This combination dynamically integrates the advantages of both technologies. Now you can enjoy the benefits of a light and sound session while simultaneously measuring its effectiveness with feedback. Or you can use variations in the light and sound as forms of feedback.

In any application, the BioLight gives you a variety of operating “modes” never available before in one machine. You have at your fingertips the best tools for taking control of your performance and your life!

BioLight relaxation exercises

Getting started

Mental fitness training is a very effective skill. And like any skill, you need to practice and establish consistency to meet your goals.

If possible, set aside a time every day for your sessions. Fortunately, the BioLight is very easy to use and never requires “hard” or forced effort. In fact, such an effort would create the opposite effect desired! You’ll enjoy using the BioLight and be pleased with the immediate and positive reinforcement you receive as soon as you start using it.

As you’ll see, the BioLight offers several operating modes. Some provide light and sound stimulation coupled with feedback so you can monitor your progress. Other modes are feedback only. In these types of sessions, many people often practice various relaxation or visualization type exercises. The following exercises are ideal for use with feedback-only modes. They are simple and effective.

Give yourself some time to do the exercises and don’t worry if you do not get immediate results. It is best to start with five to ten minutes per day, and over several weeks work up to 20 to 30 minutes per day. The key to maximum effectiveness is regular use. For maximum long term benefits, make a commitment to yourself to do it every day, even if only for a few minutes. You will notice that results will happen a little bit at a time over a period of several weeks.

A good analogy is that using the system is like riding a bicycle to get from one point to another. The machine doesn’t do the work for you like an automobile. Rather, it assists you by making more efficient use of the way your mind and body naturally work. This is not doing something to you; it is doing something *with* you, an all important distinction. With regular use you will notice that you are more aware of how you are feeling and reacting, and that you can quickly access deeply relaxed states.

EXERCISE I

Attention on Deep Breathing

Take a few moments right now to pay attention to your breathing pattern. When you are under stress you will tend to breath from your chest in shallow, rapid breaths. By simply paying attention you may immediately notice that your breathing becomes deeper and more relaxed. Reduction of psychological stress is enhanced when you learn how to breath in a way that promotes relaxation.

Now try the following exercise: Start by breathing deeply from your diaphragm. One way to know that you are doing this correctly is to place your hand on your belly; it should move up and down with each breath you take.

Leave your hands on your belly for the moment. Now inhale slowly through your nose. Take at least five seconds to do this. Count to yourself, 1...2...3...4...5... and then hold that breath for one second before releasing it. Now exhale slowly and silently on the count of five ...5...4...3...2...1. Allow your mouth to open slightly to let your breath out. Allow one second after the release and begin again.

Continue this exercise for the duration of your session. In fact, it is a great exercise to practice at any time. It is especially useful during stressful situations while going about your daily routine: while driving, talking to a business associate, while dealing with your children.

When training with the BioLight, find a quiet place with few distractions if possible.

Your focus naturally tends to be on the cause of your stress. Simply move your focus slightly by giving some attention to your breathing pattern. You will find that you immediately become more relaxed, and the more often you do this exercise, the more quickly and deeply you will relax. Practice is the key! You will find breathing for relaxation becomes a part of your daily activities. You will find something as simple as this will give you a sense of greater control over many of the common stress filled situations in your life.

EXERCISE 2

Body Awareness / Tension Release

People hold tension in different parts of their body. You can observe this in yourself and others very easily. Notice that some people clench their jaws; others hold tension in their hands by clenching their fists. Some people hold it in their legs while still others keep tension in their back, neck or shoulders. But the most common place to see and feel tension is above and between the eyebrows.

With your eyes open until you become comfortable doing this exercise without reading, try this:

Start by practicing your breath awareness exercise. Pay full attention to your body one area at a time. Start at the top of your head, what do you feel? Is there some tightness there? Try letting it go. Now move down to your forehead and your eyes. Do you notice any tension there? If so, just imagine that you are like ice cream in the warm sun. Feel that tension melt away, just let it go...

Next, move down to your jaw. Pay attention to the back of your jaw. Pay attention to your teeth, is your jaw clenched together? Allow your mouth to droop ever so slightly, release any tension you feel there. Take as long as you need to accomplish this, you are not in any hurry. Next is your tongue, allow it to just relax.

Move down to your neck and shoulder area. Allow your shoulders to drop ever so comfortably to your sides. Make slow circles with your neck, let your chin just about touch your chest as you move your head

first clockwise a few times and then counter-clockwise. Extend your neck first over one shoulder then behind your head, then over the other shoulder, then back over your chest. Do that for a minute or two until you can really feel the tension leaving this part of your body. It takes time, there is no need to rush.

Now, go back for a moment to your head again. Are you still relaxed there. Let your entire upper area melt just a little bit more than before. Take those long leisurely deep breaths before moving on.

Go to your arms and hands, feel the tension going down your arms through your hands and out finger tips. Feel your hands and fingers getting warmer. Feel the energy from your body tingle through your fingers. It feels good, doesn't it?

Now go to your chest, does it feel tight, just let it go, let it melt away. Stay with each of these areas until you feel you have made even a little progress. You will get better and better at this with each day that you practice this technique. Move on to your lower back, feel it get warm, feel the tension leaving it. At the same time feel your whole upper body now just become a little bit more relaxed with each breath. Your melting... tension is going away...

Now, go to your hips, groin and trunk. Let this area feel warm and relaxed as if it is flowing with radiant energy. Move down now to your upper legs, then to your lower legs. Pay attention to your calf muscles, allow them to relax. Now move down to your feet. Release any remnants of tension that remain there. Feel your feet and toes tingle with warm radiant energy. Doesn't that feel wonderful?

Go back to your breathing and just remain here, in this state of deep relaxation for as long as you like. Let the thoughts that enter your mind drift by like clouds in a warm peaceful summer sky. Watch their randomness and enjoy. Allow your eyes to close now and drift away....

EXERCISE III

Visualization Immersion / Guided Imagery Exercise

This is similar to daydreaming except you are actively involved in the imagery. This exercise uses the right side of your brain, your creative, intuitive side. You can take anywhere from five minutes to as long as you like with this. Do the following:

Imagine you are outside in a peaceful, pleasant setting. It can be in a park, on a boat, in the forest; it's your choice. For our example let's imagine you are at the ocean.

Start by hearing and seeing the waves. It is a pleasant day, feel the warm, comfortable sun on your body. Look up at the sky, see the large, white puffy clouds drift slowly by.

Can you feel the gentle warm breeze on your face? It feels good... Smell the air blowing off the sea. Doesn't it smell clean and fresh?

Now feel the warm, soft sand between your toes. Listen to the ocean. Hear the seagulls as they call to each other... Can you feel the breeze? Does it smell wonderful? Immerse yourself in it; you deserve it.

Look down the beach, first in one direction and then in the other. You are alone, safe, peaceful. You feel good; you feel calm.

What is your breathing pattern like now? How relaxed are you?

Keep going by taking yourself deeper and deeper into the exercise. Watch the sun set, go for a walk, feel the water lap up on your feet. Just have fun.

There are a number of excellent tape and compact disc recordings on the market with these kinds of exercises. Check your local bookstore.

Additional hints:

- It is okay to move around a little during the session, but avoid sudden or jerky hand movements. This can cause false readings.
- Make sure the probes are on snugly, but not too tight. They should feel comfortable without feeling restrictive.
- Wear loose fitting clothing, or if this is not possible, loosen up your belt or tie, and take off your shoes. Do the things that will allow you more freedom.
- Sit comfortably in an upright position, support your back with the back of a chair or a pillow to supplement it, do not slouch. A slouched position can cause more stress and cause you to nap; you do not want to nap during your session. Remember, the purpose is to teach you conscious relaxation. If you find yourself regularly falling asleep while using the BioLight perhaps it would be a good idea for you to try to get more sleep or try doing your practice at a different time of the day.

Keeping a record of your progress

As you progress, you will make discoveries about what affects your relaxation response. Keeping track of these can be very helpful. You'll also see how the speed with which you access your relaxation or concentration improves over time.

Charting your progress over times can be instructive and give you the information needed to make mid-course corrections. What's working and what's not? Do I need to adjust the sensitivity level? Am I achieving success but not staying with the session long enough? Do I need to try a different type of exercise? Do I get better results when I use both feedback options? Do I get better results depending on what time of day I do a session?

SECTION TWO

Operating the BioLight



This section offers step by step instructions for setting up and using your BioLight. BioLight is easy to use; however, be sure to take the time to review this section carefully. It provides important information that will help you get the most out of your BioLight.

WARNING: People with epilepsy should not be exposed to flickering light except under medical supervision. Likewise, individuals who are uncomfortable with bright light, who are using psychoactive drugs such as sedatives, stimulants, or alcohol, or who feel at all uncomfortable with the light/sound experience should consult their physician prior to regular use, as should users who have ever experienced seizures of any sort.

Setting up the BioLight

Your BioLight system should include the following items:

- 1. Control Unit
- 2. LiteFrames (special glasses)
- 3. Headphones
- 4. Finger probes
- 5. Battery charging adaptor

Battery charging

The BioLight comes with its own internal rechargeable batteries which, if charged properly, will have of lifetime of 7,000 hours. The batteries are fully charged when you first receive your system. When the batteries run down, the unit will simply not turn on or begin to act erratically.

To recharge the BioLight: Connect the battery charging adaptor to the male port in back of the unit (Figure 2, opposite page), and let it charge eight to nine hours. Use the charger only with standard household outlets (120 volts A.C., 60 Hz.). A full charge gives between 10 and 15 hours of play, depending on which options you work with. (For example, the LED array and using the LiteFrames at maximum brightness tend to consume more power.)

NOTE: Do not overcharge the unit as this will lessen battery life. Make a habit of recharging only when it runs down or after about 10 hours of use.

Connecting the LiteFrames, headphones and finger probes

Insert the **LiteFrame** and **headphone** plugs into their respective jacks in the front of the control unit (Figure 1, below). Most any headphones will work with the BioLight; however, do not attach glasses designed for other light/sound machines to the BioLight as they could damage the unit.

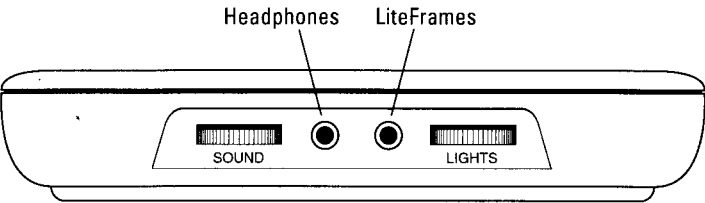


Figure 1. Front of the BioLight

Insert the **finger probe** plug into the correct jack in the back of the unit (Figure 2, below).

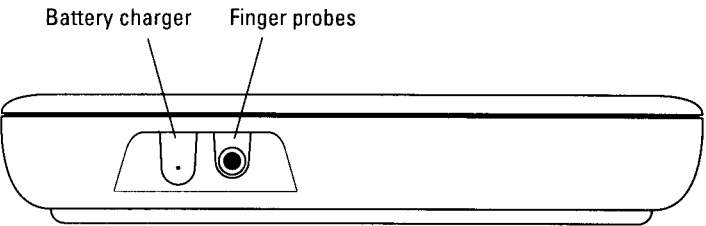


Figure 2. Back of the BioLight

Using the LiteFrames

Always keep your eyes closed during a light/sound session. The brightness of the LiteFrames varies in some modes and can also be manually adjusted with the dial. There is no danger in keeping the LiteFrames at maximum brightness; however, don't make them bright if it feels uncomfortable.

Using the headphones

As with any audio device, adjust the volume to a comfortable and safe level.

Using the finger probes

Your hands should be clean and dry before putting on the probes. **NOTE:** The BioLight is shipped with one of two types of finger probes: fabric or metal. Both work equally well; the only difference is the way they attach to your fingers. The fabric type wraps around your finger, while the metal is placed on the tips of your finger.

In either case, we suggest placing the probes on your first and third fingers so they do not touch each other. (If the probes touch during a session, an error reading could result.) You must use both probes to ensure proper readings. They should fit snugly, but comfortably without feeling restrictive.

NOTE: The probes must be used for all modes except 8.

Unit calibration: When you first put on the probes and turn on the unit, the processor begins taking readings of your skin resistance and needs a short time to calibrate itself. When you start a session the LED array displays a distinctive "ping-pong" sequence for 10 seconds, giving the unit time to calibrate. This is accompanied by a series of tones in the headphones.

Selecting the BioLight's modes

The BioLight has eight operating modes that let you select among the many combinations of feedback and light and sound.

- **Mode 8** - Light and sound sessions *without* any feedback.
- **Modes 5–7** - Light and sound sessions, coupled with feedback in the form of variable pitch and LiteFrame brightness.
- **Mode 1–4** - *Feedback-only* sessions, with feedback in the form of light and sound.

NOTE: As the user relaxes, brightness lowers, frequency slows, and pitch lowers.

Pre-set sessions

- Frequency of light and sound is fixed according to one of the five pre-set light/sound sessions.
- User feedback may control brightness and pitch as noted.
- Sessions run for fixed time. (See session descriptions.)
- Probes must be used for Modes 1–7

Mode 8 Uses pre-set sessions. Stand-alone light and sound. No feedback effects.

Mode 7 Uses pre-set sessions. Feedback controls brightness.

Mode 6 Uses pre-set sessions. Feedback controls pitch.

Mode 5 Uses pre-set sessions. Feedback control brightness and pitch

Variable sessions

- Does not use pre-set sessions. User feedback may determines light frequency, brightness, pitch.
- Each mode has different frequency ranges.
- Length of session determined by user.
- Probes must be used for modes 1–4

Mode 4 Feedback controls light frequency and sound pitch. Frequency ranges from 12 Hz to 4 Hz.

Mode 3 Feedback controls light brightness and sound pitch. Light frequency constant at 8 Hz.

Mode 2 Feedback controls brightness and sound pitch. Light frequency constant at 14 Hz.

Mode 1 Feedback controls light frequency and brightness, and sound pitch
Frequency ranges from 16 Hz to 6.4 Hz.

The BioLight's 5 pre-set light and sound sessions

1 Calmness

30 minutes. Designed to rapidly induce calmness and a sense of well being. Ideal for whenever a quick relaxation break is needed, especially during the workday or in the evening. Also helpful as a meditation trainer. Try the session and then continue your meditation at session's end.

2 Accelerated Learning/Mental Focus

36 minutes. Developed to enhance learning. Shifting light patterns enhance visualization associated with the rapid learning of new material. Extensive tests over a four year period at Arizona State University showed that 85% of users reported improved test scores when the session was used immediately before taking the test. Fifty percent reported significantly decreased test anxieties. Others reported "large increases in creativity and writing."

3 Accelerated Learning and Quick Refresher

20 minutes. Originally developed to help students relax and focus on learning new material. Also convenient as a "freshener" when used immediately prior to exams and meetings.

4 Sleep Time

30 minutes. Sleep Time provides a gradual descent into the deepest state offered in any of these sessions. It was developed for use at bedtime, and as an aid in clearing your mind should you wake during the night.

5 Energizer

15 minutes. Rapid change in frequency helps produce intense imagery and an overall feeling of energy. Try this in the morning or anytime you need a pick-me-up or feel jet lagged.

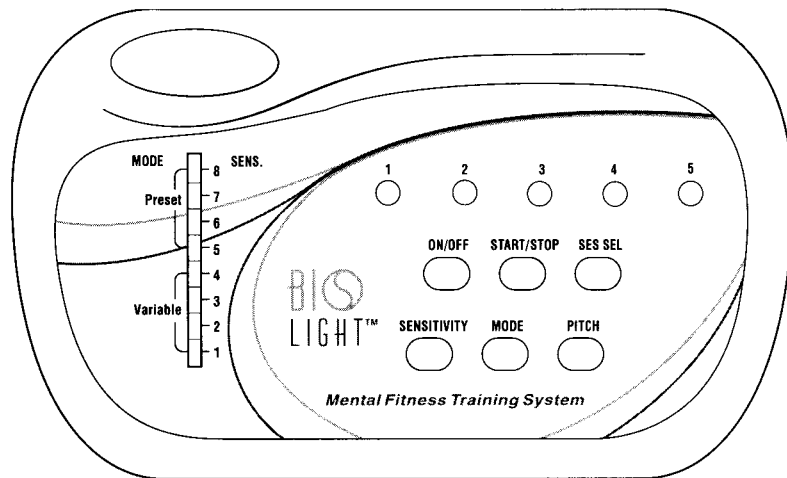
Operating BioLight

Before starting

Check connections: Be sure the probes, LiteFrames, and headphones are connected properly. Remember, the probes must be connected for all modes except 8.

“Warm-up”: For most reliable readings, it is recommended that you do a pre-session “warm up.” Sit down and get comfortable for a few minutes before beginning. This allows your body functions to stabilize a bit. If you start a session immediately after activity, like coming in from outside where air temperature is substantially different, right after exercise, or after being involved in any kind of activity that causes some stress, you may see wide swings in the readings until your body has had an opportunity to settle down.

Decide which mode you would like to work in.



1 Turn on the unit

Press the ON/OFF key. One of the LED's lights glows RED, indicating the current mode.

NOTE: In modes 5, 6, 7, and 8, one of the five session lights across the top will also light up, indicating which session number is selected. (In modes 1–4 the session lights are not activated because they do not use the pre-set sessions.)

2 Select the mode

Press the MODE key. With each press, the LED will step down a mode, cycling through each of the eight modes.

3 Select the session

Press the SES/SEL key. With each press, the LED (in the top row of keys) will skip to the next session number, cycling through each of the sessions. (The session lights will not light up in modes 1–4, since they do not use the pre-set sessions.)

4 Select sensitivity

(Applies to all modes except 8.) **Press the SENSITIVITY key.** The RED light on the LED array will switch to a GREEN, indicating the current sensitivity level for feedback. With each press, the light will drop by one level, cycling through each of the eight levels.

What the sensitivity adjustment does. Sensitivity greatly influences how you receive feedback. It determines whether the BioLight will be more or less *sensitive* to the small changes in your skin's resistance to electricity.

- A **higher** sensitivity means the BioLight will display smaller changes in your skin resistance. Thus, it will seem easier to affect changes in feedback, which descend in steps more quickly.
- A **lower** sensitivity means that greater changes in your skin are required to affect a change in the feedback. Here, it will seem harder to effect changes in feedback, which will descend in steps more slowly.

NOTE: The BioLight retains the sensitivity adjustment of the previous session.

5 Start a session

Press the START/STOP key. The LED array will display a “ping-pong” sequence of colored lights for 10 seconds as the system calibrates itself. This is accompanied by repeating tones in the headphones. After 10 seconds, the sequence stops and is replaced by a full bank of RED LEDs, indicating the start of a session.

6 End a session

Press the START/STOP key at any time to terminate any session.

REMINDER: Modes 5–8, which use the pre-set sessions, run a specified amount of time. Modes 1–4, however, are entirely feedback driven. You determine how long you want to work with a session and must manually turn off the BioLight when you want to stop.

Options

LED array: Alternative visual feedback

The BioLight's modes take advantage of the LiteFrames in so many ways, it would be easy to forget that the BioLight has one other very powerful tool for visual feedback — the LED array. In all modes except 8, you can opt to watch your feedback on the LED array *instead* of using the LiteFrames. It presents feedback in an easy-to-read, graphical way — very useful when you want a clearer picture of the changes in feedback. See *The LEDs descending colors*, page 16.

Disable LED array

When opting to use the LiteFrames, it's best to disable the LED array. Simply press the MODE key once a session has started. Leaving the LED array on while running the LiteFrames can sometimes cause a degradation of sound quality.

Volume

You can manually regulate the volume of the feedback tones or the pulsed sound of the light/sound sessions with the VOLUME dial.

Brightness

While many sessions display feedback through varying LiteFrame brightness, you can apply a brightness adjustment that acts globally by using the BRIGHTNESS dial. **TIP:** For maximum range in feedback, turn brightness all the way up (only if it feels comfortable).

Pitch

In modes 7 and 8 only, you can adjust the pitch manually. (Feedback does not influence the pitch in these modes.) Once a session starts, press the PITCH key. Each quick press raises the pitch in a distinct increment.

Audio only

You also have the option not to receive any visual feedback, and only listen to the tones through your headphones. Simply don't wear the LiteFrames.

Sensitivity adjustment: a closer look

The sensitivity adjustment greatly influences the way you receive feedback. The BioLight's feedback works by measuring the small changes in your skin's resistance to electricity. The sensitivity adjustment determines whether the BioLight will be more or less *sensitive* to those changes. The BioLight's eight sensitivity levels range from **8**, the maximum, to **1**, the minimum.

- A higher sensitivity means the BioLight will display smaller changes in your skin's resistance to electricity.
- A lower sensitivity means that greater changes in your skin are required to affect a change in the feedback.

You can see this for yourself: Set the BioLight to maximum sensitivity. As soon as the session starts, pause, then exhale slowly. You will immediately see a change in the feedback. Then start another session with the sensitivity set to the lowest setting. Here, you'll find that change does not happen nearly as quickly.

Sensitivity is relative: In either case, the actual amount you have relaxed is the same. Sensitivity can be seen as a measuring framework that is laid over your relaxation response. It divides the overall shifts in your skin resistance into many or fewer divisions. The feedback you receive is only a relative measure of your shift toward relaxation.

Think of sensitivity levels as ranging from "beginner" (8) to "expert" (1). They allow you to choose a feedback level that best supports your progress. If you were to begin your practice at a low sensitivity, for example, you might not experience enough change in the feedback to feel like you were making any progress. (Part of the reason performance feedback is so successful is because of its ability to provide positive reinforcement as you progress.) Begin your practice with high sensitivity levels and work your way down.

By the same token, once you become more experienced with the BioLight, a high sensitivity produce changes too quickly. Working with the right sensitivity is like weight lifting. You need to apply just the right amount of weight to make you stretch, but not so much that you can't get any results. Your goal is to allow you to reach "all GREEN" in about five to ten minutes.

Feedback and skin resistance: a relative measure

Because your skin resistance is not a constant — it varies from day to day and from moment to moment — *the BioLight must begin measuring changes in your skin resistance from where you're at when you begin a session.* It always assigns this starting point a full bank of RED LEDs, regardless of whether you begin that session in a relaxed or stressed state. In other words, the changes in arousal level, as reflected in the feedback, are not absolute values that are consistent from session to session. Each time you start a session, the changes are relative to where you begin.

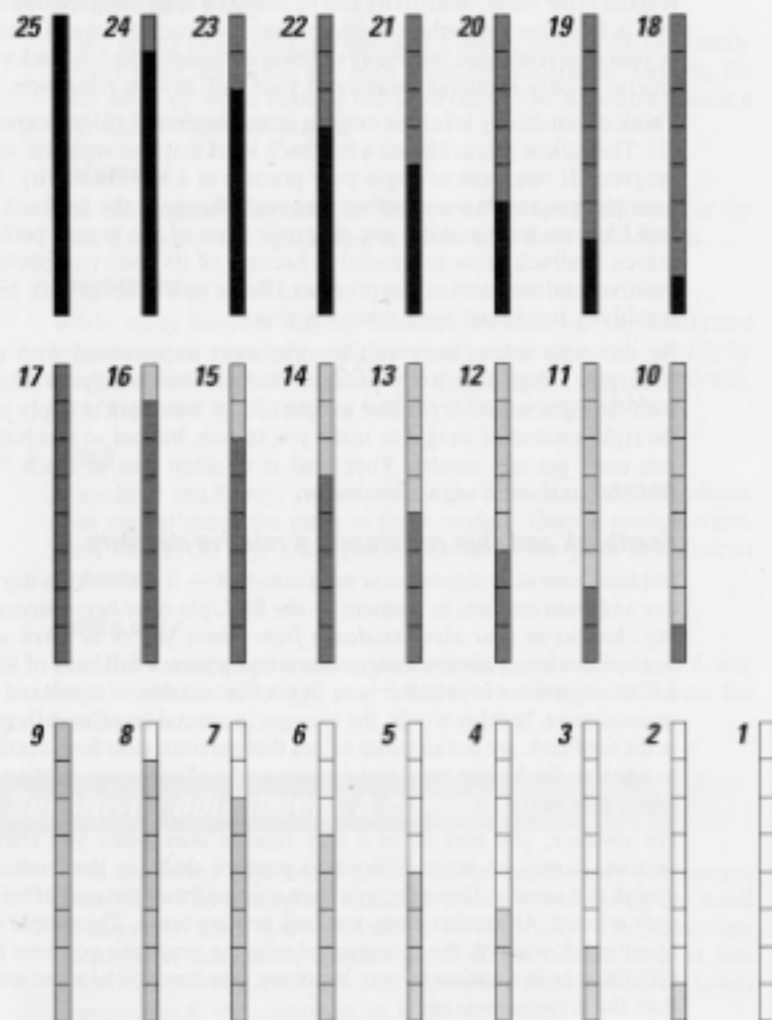
For instance, you may be in a very relaxed state when you start a session. It may be more difficult to produce shifts in the feedback during that session. However, you have accomplished the goal of being very relaxed. At another time, you may be very tense. The simple act of sitting down with the intention of relaxing may take you into the GREEN zone in a minute or two. However, you may still be more tense than the previous session.

The LEDs descending colors

The BioLight offers alternative visual feedback in the form of the LED array. The eight LEDs can display four colors — RED, ORANGE, YELLOW, or GREEN — in a way that lets you view your descent into relaxation in 25 visually discrete steps. See page 18.

Color key

■ RED ■ ORANGE ■ YELLOW ■ GREEN



Percent of change in skin resistance

This table shows the percent of change in skin resistance at each of the 25 levels along the LED cycle. The overall change is different depending on the sensitivity level chosen. See page 18.

LED Level	Sensitivity level							
	8	7	6	5	4	3	2	1
25	0	0	0	0	0	0	0	0
24	0.1	0.2	0.3	0.4	0.7	0.8	1.5	2.4
23	0.4	0.5	0.8	1.3	2.0	2.4	4.6	7.1
22	0.6	1.0	1.5	2.3	3.6	4.3	8.4	13
21	1.0	1.5	2.4	3.6	5.5	6.7	13	20
20	1.4	2.2	3.3	5.1	7.8	9.4	18	28
19	1.9	2.9	2.5	6.8	10	13	25	38
18	2.4	3.6	5.5	8.5	13	16	31	47
17	2.9	4.4	6.8	10	16	19	38	58
16	3.5	5.3	8.2	13	19	23	45	69
15	4.1	6.2	9.6	15	23	27	53	81
14	4.6	7.1	11	17	26	31	61	93
13	5.3	8.1	13	19	29	35	69	106
12	6.0	9.2	14	22	33	40	78	120
11	6.7	10	16	24	37	45	87	134
10	7	11	17	27	41	49	97	148
9	8	13	19	30	45	55	107	164
8	9	14	21	32	50	60	117	179
7	10	15	23	35	54	65	127	195
6	11	16	25	38	59	71	138	212
5	11	18	27	41	63	76	149	228
4	12	19	29	44	68	82	160	246
3	13	20	31	48	73	88	172	264
2	14	22	33	50	78	94	183	281
1	15	23	35	54	83	100	196	300

Reading the percent of change table

The table on the previous page shows the approximate percentage of change of skin resistance at each of the 25 steps along the LED cycle. The overall change differs, depending on the sensitivity level chosen. For example, look at the range of percentages under sensitivity level 8. They range from 0% at Level 25 to 15% at Level 1. In other words, the LED array can change from all RED to all GREEN with only a 15% overall change in your skin resistance. This makes it “easier” to affect changes in the feedback. The lights and tones “descend” more rapidly.

On the other hand, at the **minimum sensitivity** (1), the same change from all RED to all GREEN requires a 300% overall change in your skin resistance. This means at lower sensitivities it seems “harder” to affect feedback; changes will not happen as quickly.

Questions and Answers

Sometimes I get odd readings, or the feedback doesn't present itself in the usual way.

Because the probes work by detecting subtle changes in your skin's resistance to electricity, certain factors can affect readings:

- Finger pressure - It is possible for varying finger pressure to affect your skin's resistance to moisture; therefore, avoid pressing your fingers together or adjusting the probes once a session has started. Moving your hands around can also cause fluctuations in the readings. Find a comfortable resting position for your hands before you begin.
- If you are cold or coming in from cold weather.
- A session following a large meal.
- A session following physical exercise.
- The time of day you use the BioLight.
- Whether you smoke or have ingested caffeine, alcohol, or drugs.

What if my hands are cold or hot or sweaty? Will that affect the BioLight's readings?

These could affect the readings since temperature and perspiration affect your skin resistance. It's best to be sure your hands are dry and let them assume their normal temperature before starting.

I work with my hands and have calluses. Does this affect the results?

Heavily callused skin does not have the same kind of sweat gland activity as uncallused skin. If you have heavy calluses, attach the probes lower on your finger (if you have the fabric type). If you have

metal probes, try attaching them to your smaller fingers which may not be as callused.

Is there any chance of a shock hazard from the finger probes?

Absolutely not. The amount of electricity used in the probes is so minute, you can't consciously detect it.

Sometimes after I've begun a session, I begin to receive strange feedback that sounds like the initial calibration sequence. What's going on?

You are receiving an error indication, which is usually caused when one of the probes loses contact with your skin. If you are using the metal type probes, an error can be caused if the probes touch. Press the START/STOP button and begin again. (See *Using the finger probes*, page 9.)

I am able to make the LEDs change from all RED to all GREEN in a relatively short period of time. Can I adjust the BioLight to go below that?

The BioLight only displays those 25 levels; however, you can select different sensitivity levels that will directly affect how “easy” or “hard” it is to change the feedback. (See *Sensitivity adjustment: a closer look*, page 14.)

Sometimes I fall asleep during a session. Is that okay?

You are relaxing deeply and sleep is often the natural response. However, your goal is to learn conscious relaxation, and remaining fully conscious during your sessions is the only way this will happen. Try a different position: sit up straight if you've been lying down, or try doing sessions at a different time of day.

Does it matter which fingers I put the probes on?

In theory, no. However, we recommend putting them on the first and third fingers so that the probes do not touch, which can sometimes cause an error reading. Some people find it more effective to place the probes separate hands.

The BioLight Limited Warranty and Release from Liability

1. **REPAIR OF DEFECTIVE PARTS.** The BioLight is guaranteed from manufacturing defects for a period of one year from the date of purchase. Any defective parts will be repaired free of charge (exclusive of shipping costs) during that one year period. This limited warranty does not cover defects caused by a purchaser's misuse or accident, or defects caused by fire, flood or other natural disaster. This limited warranty will be void if A) a power supply other than that provided by the manufacturer is used, or B) lights other than those provided by the manufacturer are used. In addition, the Warranty Card must be returned to the manufacturer for this limited warranty to apply. This warranty shall be the sole and exclusive remedy of purchaser for damages arising from or relating to the purchase of the BioLight.

When shipping the BioLight to the manufacturer, be sure to include name, address, telephone and a description of the problem. **PURCHASER MUST CONTACT FACTORY FOR AUTHORIZATION BEFORE RETURNING THE BIoLIGHT FOR ANY REASON.** Shipping address is as follows: Synetic Systems, 3822 Stone Way North, Seattle, WA 98103.

2. **DISCLAIMER.** EXCEPT AS PROVIDED IN PARAGRAPH 1 ABOVE, THE PURCHASER ACKNOWLEDGES THAT HE/SHE IS PURCHASING THE BIoLIGHT "AS IS." THE MANUFACTURER AND SELLER SPECIFICALLY DISCLAIM ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE OR USE. THE MANUFACTURER AND SELLER ALSO ASSUME NO LIABILITY FOR ANY LOSS OR DAMAGE ARISING FROM THEORIES OF TORTIOUS CONDUCT, INCLUDING NEGLIGENCE AND STRICT CONDUCT.

3. **RELEASE FROM LIABILITY.** The purchaser is fully aware that the BioLight is intended for personal experimentation. The purchaser understands that Synetic Systems, Inc. is not certain that it is suitable for all applications or users, each of whom may be affected differently by the BioLight because of his/her unique physical and emotional makeup. Persons who have a history of seizures, hallucinations or other physical or mental problems should use the BioLight only under medical supervision.

The purchaser further understands that Synetic Systems, Inc., its agents and employees, will not be held liable in any way for any occurrence of any kind and nature whatsoever in connection with his/her use of the BioLight, or another person's use of the BioLight, that may result or ostensibly result in physical or emotional damage to the purchaser or others. Furthermore, in consideration of and part payment for the BioLight, the purchaser hereby personally assumes all risks in connection with his/her use of the BioLight, and shall advise other users of the BioLight of the experimental nature of this device, especially regarding use by those with a history of seizures. Furthermore, the purchaser assumes all risks in connection with use of the BioLight with other persons.

4. **LIMITATION OF DAMAGES.** If, notwithstanding the foregoing, there should arise any question of liability on the part of the manufacturer or seller, the purchaser agrees that such liability is limited to the cost of replacement of the BioLight.

5. **PURCHASER REPRESENTATIONS.** The purchaser represents that he/she is of legal age and legally competent, and understands that the terms set forth herein are contractual and not mere recital. The purchaser has read or will fully read the User's Guide before using the BioLight.