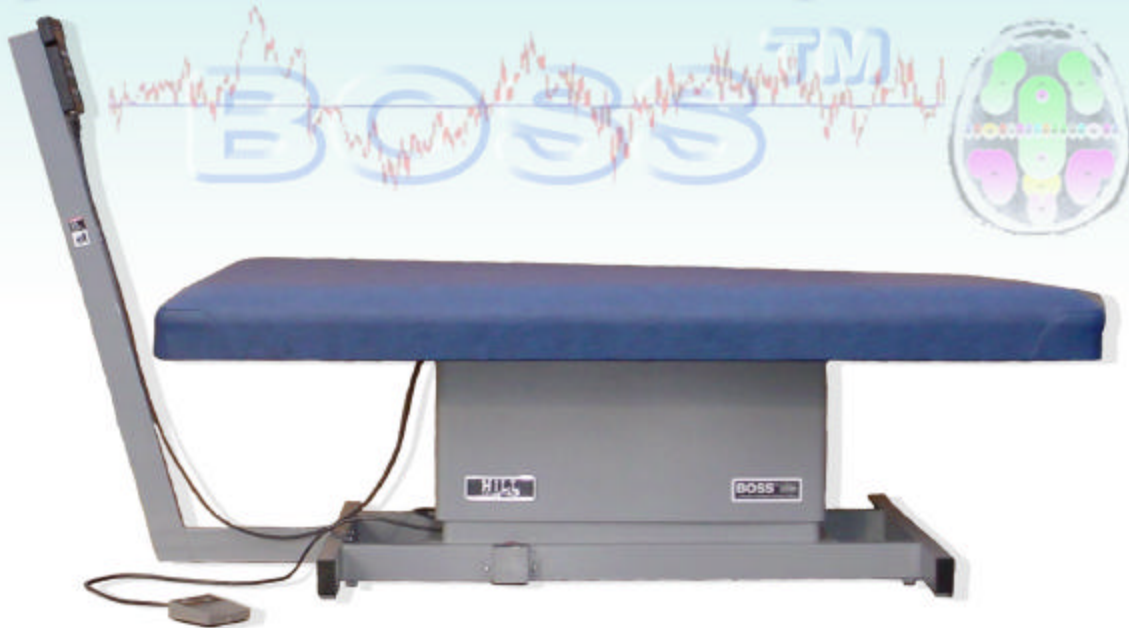


# The Brain Optimization and Synchronization System™



## Practitioner's Manual



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*Updated February 1, 2004*

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### **Clarification**

The **Brain Optimization and Synchronization System™ (BOSS™)** is a research and development program conducted by Innovation Technologies and Energy Medicine (ITEM), which makes use of a proprietary, custom-engineered rotating table known as the **BOSS™** Table. **BOSS™** is not a finished product, but rather an experimental system undergoing continuous evaluation and improvement. You have purchased a license from ITEM to use **BOSS™** (including this manual), on an experimental basis, and the name of the person listed on the enclosed **Certificate of Licensure** is considered by ITEM to be the **Licensed BOSS™ Investigator** or user.

This Manual is a works in progress. The information contained herein is based upon the research and analysis that we have conducted to date. We anticipate that this Manual will be updated periodically to take into account new information. ITEM encourages you to check the **BOSS™** website (<http://www.item-bioenergy.com/boss/index.html>) for updates as you continue to learn and experiment with **BOSS™**.

### **Disclaimer**

**BOSS™** and its components are not intended for the diagnosis, cure, mitigation or treatment of any disease nor any other medical condition, and are not intended to affect the structure or any biological function of the body. **BOSS™** is strictly an experimental process that can be used for researching the effects of controlled horizontal motion on energy systems of the body and other possible effects.

### **Copyright Notice**

This Manual is Copyright © 2004, Innovation Technologies and Energy Medicine (ITEM). All international rights are reserved. This Manual may not be copied and distributed to anyone other

than the Licensed Investigator named on the **Certificate of Licensure** accompanying the **BOSS™** system, unless the Investigator receives written authorization from ITEM. The Licensed Investigator is bound by these rules and the **License Agreement** that is presented on the following pages.

**License Agreement for Brain Optimization and Synchronization System™**

(The **BOSS™ License Agreement** is accepted automatically once you set the Table in motion for the first time – if you do not agree to all parts of this Agreement, then you must ship the Table back to the manufacturer before using it).

**Individual Scientific Researcher Contract**

**Read Carefully: This is not a standard contract. It is unique and specialized, and establishes your rights and restrictions related to using BOSS™.**

**PREAMBLE:**

- 1.1 Brain Optimization and Synchronization System™ (BOSS™)** is a process that may used to research the effects of controlled horizontal rotation on human energy systems and other possible effects. The trademark 'Brain Optimization and Synchronization System' is an Intended Use trademark, used to identify Innovation Technologies and Energy Medicine (ITEM) as the source of the developing technology.

**ITEM OBLIGATIONS:**

- 2.1** Innovation Technologies and Energy Medicine (ITEM) hereby grants a license to the purchaser of **BOSS™**, hereinafter referred to as Licensee, to use the **BOSS™** process, and related copyrighted materials and data derived from trade secrets, in the capacity of a

Scientific Investigator.

- 2.2** Upon accepting the terms of this license agreement (upon first placing **BOSS™** Table in motion), Licensee is granted the official title of 'Scientific Investigator' of ITEM's Research & Development (R&D) Program, and may represent this status on resumes and correspondence.
- 2.3** Toward this purpose, ITEM hereby: (A) provides a custom-engineered rotating table; (B) provides the copyrighted **BOSS™** Practitioner's Manual containing detailed instructions to perform the **BOSS™** process; (C) grants Licensee full use of the Table to conduct research as part of ITEM's **BOSS™** R&D Program.

#### **LICENSEE OBLIGATIONS:**

- 3.1** In consideration for this license, Licensee agrees to: (A) preserve the 'Brain Optimization and Synchronization System' trademark by ensuring that the name remains on all printed materials in connection with the **BOSS™** process and ITEM, and that the letters 'T.M.' appear with every use of the name 'Brain Optimization and Synchronization System and its acronym 'BOSS'; (B) actively represent Innovation Technologies and Energy Medicine (ITEM) as the source of this technology; (C) make reasonable efforts to record **BOSS™** results, and periodically submit such records to ITEM; (D) pay the licensing fee set by ITEM, which is included in the purchase price of the equipment; (E) respect and follow all of the Restrictions and Conditions in this contract.

#### **RESTRICTIONS AND CONDITIONS:**

- 4.1** Licensee promises not to knowingly reveal or share the trade secrets of the **BOSS™** process to any individual under any circumstances, and to actively guard such data against unlicensed viewing or use.

- 4.2** Licensee agrees not to make unauthorized copies of the **BOSS™** Practitioner's Manual. Replacement or backup copies of the Manual shall be obtained directly from ITEM.
- 4.3** All requests for authorization to reproduce copyrighted materials, or requests for authorization to teach the **BOSS™** process to another person shall be directed to Innovation Technologies and Energy Medicine in writing.
- 4.4** Licensee is prohibited from teaching any other person or organization to practice or study the **BOSS™** process, without written consent from ITEM. Licensee does have the right to train assistants only to assist Licensee in therapeutic practice, scientific research, or public events, without permission.
- 4.5** Licensee agrees not to reverse engineer from any **BOSS™** materials to discover the trade secrets of ITEM. In the event that such trade secrets are discovered by Licensee, whether willfully or accidentally, Licensee promises not to reveal such trade secrets to any other individual or organization, and agrees not to use such trade secrets for any commercial or public purpose.
- 4.6** Licensee agrees not to seek any patent rights or copyrights based on the **BOSS™** process.
- 4.7** Any and all discoveries, improvements or developments by Licensee related to the **BOSS™** technology itself, specifically the functioning, performance, study, or use of the **BOSS™** process, shall become and remain the intellectual property of ITEM. ITEM acknowledges that discoveries and developments related to other technologies, which are merely aided by the intended use of **BOSS™**, remain the property of Licensee as permitted by law.
- 4.8** Any and all research, experiments and reports made by Licensee are deemed to be in furtherance of ITEM's due diligence in developing the technology for a patent, in Licensee's

agency capacity as a licensed Scientific Investigator.

**ACCEPTANCE:**

- 5.1** Acceptance of this agreement occurs when Licensee places the Table in motion for the first time by connecting power and programming the hand control.
- 5.2** If the **BOSS™** Table does not get placed in motion after shipment from the manufacturer, then the purchaser of the license has the right to return the entire package for a refund of the license fee and equipment costs, excluding delivery costs, within 30 days of the receipt of the Table. The purchaser shall notify ITEM in writing within the 30-day guarantee period, and follow ITEM's instructions on the method and destination of the return shipment. The purchaser shall bear all costs associated with the return shipment.

**SPECIAL PROVISIONS FOR ORGANIZATIONS:**

- 6.1** If the purchaser of this license is not an individual, but rather a corporation, registered partnership, accredited educational institution, any department of the government of the United States or the government of any state therein, or any organization or entity using **BOSS™** for studies funded by the National Institutes of Health or any other state or federal science program, then the additional provisions of section number 6 shall apply.
- 6.2** All of Licensee's materials describing any results of studying the **BOSS™** process itself, whether by reference to Brain Optimization and Synchronization System™ or Innovation Technologies and Energy Medicine, and any statements regarding the effectiveness or use of **BOSS™**, shall not be published without prior written approval by the President of ITEM. In recognition of the fact that grants and federal funds often impose an obligation to disseminate the results of research, such approval shall not be unreasonably withheld.
- 6.3** In the event that Licensee, being an organization as described by section 6.1, violates any



of the Licensee Obligations, Restrictions and Conditions, or Special Provisions for Organizations, Licensee hereby agrees and consents to pay liquidated damages in the amount of \$10,000. Such liquidated damages shall not preclude nor substitute for any other damages which can be awarded under federal patent, copyright, trademark and trade secret law, except as pursuant to a legally binding settlement agreement.

**OTHER TERMS OF CONTRACT:**

- 7.1** The term of this contract is perpetual. If and when ITEM obtains a patent on **BOSS™**, Licensee shall retain a license to use the patented technology for the purposes specified in this contract.
- 7.2** If Licensee sells the **BOSS™** Table, Licensee shall immediately notify ITEM in writing and return the original License Certificate. The notification shall include the name, address, phone number and any other available contact information of the person receiving the Table. A copy of this License Agreement shall be provided to the recipient at the sales transaction.
- 7.2** Licensee agrees to be perpetually bound by the Obligations, Restrictions and Conditions of this licensing agreement at all times after receiving and using the **BOSS™** package, unless ITEM grants a written release from obligation.
- 7.3** In accepting this agreement, Licensee has not relied on anything other than that which appears in this writing.
- 7.4** In the event that any of the above provisions is held invalid, all remaining provisions shall retain their full force and effect.
- 7.5** Any disputes arising under this agreement shall be governed by U.S. law, and shall be resolved in a U.S. court of competent jurisdiction.

**7.6** Licensee hereby concedes personal jurisdiction to such U.S. court of law.

**7.7** Any provisions for conflict of laws shall not apply.

### **BOSS™ Return Policy**

**BOSS™ is NOT a commercial product**, and ITEM is not a retail store. **BOSS™** is a scientific research and development program, giving our researchers cutting-edge technology to develop this as well as their own technologies in cooperation with ITEM. All funds from this program are actively used for development of the technology based upon comments and suggestions from our researchers.

All **BOSS™** systems are **SPECIAL ORDER**, and thus **No Returns or Refunds** can be applicable, unless the **BOSS™** Table is not placed in motion and unless the consumer notifies ITEM in writing within 30 days of receipt of the Table. This policy supersedes any conditions expressed elsewhere, and may be modified in the future to account for new technology that ITEM incorporates to protect its trade secret materials. The consumer shall be responsible for shipping the table to the destination determined by ITEM, and a restocking fee to be set by ITEM.

While there are **NO RETURNS OR REFUNDS** allowed for this technology beyond the 30-day guarantee period, ITEM does permit users to re-sell their system to other individuals if they no longer require its use for their current purposes, or no longer wish to experiment with it. In such cases, ITEM will cancel the first license and re-issue a new license to the new user, based upon a written request from the original **BOSS™** Licensee.

## **1.0 INTRODUCTION TO BOSS™**

### **1.1 ABOUT ITEM**

Thank you for joining our efforts at Innovation Technologies and Energy Medicine (ITEM) in exploring the experimental technology called **Brain Optimization and Synchronization System™ (BOSS™)**.

ITEM (<http://www.item-bioenergy.com>) was originally established in 1994 as the US corporation “Institute of Technical Energy Medicine, Inc.”, for the purpose of developing proprietary, “cutting edge” technologies in the fields of energy medicine and bioenergy science.

ITEM has the following primary missions:

- Using its expanded infrastructure and resources, ITEM creates new and innovative technologies, making them available to high-tech consumers and hobbyists for personal use, as well as to scientists, psychologists and health practitioners for professional use.
- ITEM is a full service research & development and technology marketing firm, specializing in unique, proprietary technologies in the fields of electronics, electromagnetics, brain and neurological science and health care.
- ITEM provides practitioners, researchers and companies in the scientific and health industries with professional business development services.

ITEM continues to operate and expand its original corporate structure, the “Institute of Technical Energy Medicine, Inc.”, which today functions as ITEM’s center for the alternative health and bioenergy science industry sectors. The Institute’s primary mission is to give people the tools to

explore bioenergy science and energy medicine on their own, from a critical and technical perspective. It accomplishes this primarily through operating ITEM's popular Professional Development Series (PDS), and administering the international Certified Energy Medicine Analyst (CEMA) Program.

## 1.2 **BACKGROUND ON MOTION THERAPY**

The US National Aviation and Space Administration (NASA) and the US Navy have undertaken many experiments and explorations involving the effects of motion on the human body. The primary goal of the majority of related equipment was to expose astronauts to increased gravitational forces in vertical spin. These procedures were designed to prepare fighter pilots and astronauts for the increased forces during mission flight, as well as to condition their bodies and brains for increased, optimized functioning, and improved adaptation to physical and mental stress.

During an interview with Mike Siegel on the radio-program "Coast to Coast" on July 19, 2000, astronaut Gordon Cooper, one of the original seven Mercury mission astronauts, revealed the existence of an advanced mind control program administered by NASA in the 1950s and 1960s. According to Cooper, the program was conducted for "children with exceptional mental abilities", focused on cultivation of the children's psychic abilities, and involved telepathy, remote viewing and induced out-of-body experiences (OBEs). The training included speed-reading lessons, high-tech learning devices to rapidly teach great quantities of information, and preparation for Remote Viewing (RV) intelligence missions.

Based upon this disclosure, it is clear that the primary purpose of the program was enhancement, maximization and optimization of human capabilities for top performance during national security missions. In furtherance of this goal, a key component technology for the program was the practice of physically spinning the subjects on horizontally rotating table-like devices. The rotating table sessions were used to establish the necessary induced meditative states, activating critical,

rarely used parts of the human brain.

The experiments in this NASA program established the benefits of horizontal rotation as opposed to the more widely used vertical spinning, but the program lacked the scientific knowledge of the mechanics and physics involved in altered states of consciousness, and the mechanisms of mental energy-information exchange. As a result, the program served only to demonstrate the high potential of horizontal rotation methods in maximizing human capabilities, but did not result in any developed procedures or methodologies to achieve reliable and effective results.

Since the early NASA experiments, there have been some studies conducted on the effects of motion therapy on the human brain. Michael Hutchison describes the effects in his best-selling book, Mega Brain Power:

“Another technique for supercharging the brain is physical movement, particularly spinning. Research with laboratory animals kept motionless and humans who have been immobilized has provided dramatic evidence of the crucial importance of movement to human development and mental-physical well-being. From the time of our conception, movement is an essential nutrient: without it, the brain does not develop fully. As babies we are rocked; as kids we roll down hills and spin until we are dizzy; as adults we scuba dive, skydive, drive fast around turns, dance, and, when tired, sit in rocking chairs. This movement is not only pleasurable, but it stimulates our body and nervous system. Like light and sound, motion is a nutrient for the brain and body, and if we consistently fall short of meeting our minimum daily requirement, we become susceptible to chronic health problems.”

“Unfortunately, today many people are suffering from motion deprivation. They spend most of the day with heads held upright and become couch potatoes in the evenings. Compared to healthy children and our ancestors, who were free-roaming hunters and gatherers, spending much of their time in vigorous motion, today’s sedentary workers are virtually motionless, and rarely move enough to satisfy even the minimum daily requirement of motion. One major effect of movement is

that it stimulates the fluids of the inner ear, known as the vestibular system. This stimulation sends a flood of electrical impulses into our cerebellum and from there into the rest of the brain, including the pleasure and learning centers of the limbic system. This may explain the beneficial effects of motion has on learning and intelligence: motion directly stimulates learning."

"EEG and other evidence has shown that the use of spinning has a profound optimizing effect on the neuro-efficiency quotient (NEQ), a measure of how rapidly electrical signals are transmitted by the brain's neurons and pass from one part of the brain to another – a characteristic that has been shown to correlate very closely with IQ. Recent research at the University of California at Los Angeles (UCLA), in fact, suggests that the NEQ is directly related to IQ. Some users of motion systems have shown increases in NEQ that are statistically equivalent to increases in IQ of an astonishing thirty points or more."

"This kind of evidence suggests that the next time you have a test or material that requires peak mental performance, you might want to take a study break and spin around and around in your desk chair for a few minutes every half hour or so. Or get up and dance. Or, most effective of all, keep your brain in peak condition by providing enough motion to far surpass your minimum daily requirement."

"Motion also affects the fluids that compose some 90 percent of our body, including cerebrospinal fluid, blood, and lymph. In other words, what vigorous or repetitive motion is doing is "massaging" the body from the inside as the fluids move about and providing an efficient form of neurological "exercise" for the nervous system."

"I have described several motion systems experiences such as the depressed young woman who had a life-transforming experience with her [deceased] mother while on one of the systems. Others include the woman in one of my workshops who had suffered chronic back pain for twenty years and had it disappear after a session on a motion system. There is evidence that these motion systems alter brain-wave activity (greatly increasing the relaxing alpha and theta waves, and

enhancing hemispheric synchronization). They are being used clinically for such purposes as treatment of brain damage, learning disabilities, and drug addiction..."

ITEM has applied over 10 years of scientific research and empirical experimentation with the mechanics and physics of consciousness, brain functions, and bioenergy interactions to the concept of the **BOSS™** horizontal rotation table. As a result, ITEM succeeded in developing effective procedures and methodology for achieving specific results for optimization and synchronization of the human brain using its own custom-manufactured rotation table. A person simply lies on his or her back or side on the table, and is spun clockwise or counterclockwise at speeds of between 1 and 5 rotations per minute (RPM). This gentle motion produces a subtle, rhythmic pulsing of bodily fluids, beneficially affecting the entire person.

### 1.3 **WHAT IS BOSS™?**

**BOSS™** is an experimental method, or process, designed to relax the physical body and synchronize the electrical activity of the brain through horizontal rotation therapy. **BOSS™** utilizes a custom-engineered table to accomplish horizontal rotation, and is sold by ITEM through a license to participate in ITEM's R&D Program.

Each **BOSS™** table is quality manufactured by a US Food and Drug Administration-approved manufacturer of Class I medical tables, in accordance with ITEM's specifications, which are as follows:

- **Total Dimensions:** 92 inches

### **BOSSä Practitioner's Manual**



(234 cm) long x 40 inches (102 cm) wide x 47 inches (119 cm) height.

- **Weight:** 240 lbs (109 kg).
- **Mattress Dimensions:** 75 inches (191 cm) long x 40 inches (102 cm) wide, sits at a stationary height of 26 inches (66 cm) from ground or (for optional elevation feature) ranges from 26 to 36 inches (91 cm) from ground.
- **Mattress Materials:** 3/4-inch (1.9 cm) thick 7 ply plywood, insulated with 2.5-inch (6.4 cm) medium density Ultra cell® foam, and upholstered with extra strength vinyl.
- **Electrical:** 220/240 V AC required, either 60 Hz (N. American) or 50 Hz (European).
- **Motor:** 3 Phase, 230 V, 1.6 A, 1/3 hp.
- **Features:** Programmable Hand Control, Emergency Stop Lever, Head Rest and Pillow, Countdown Timer for Solo Use, 0 - 5 RPM Rotation Speed, Clockwise & Counterclockwise Rotation on 3 cycles, 99-Minute Maximum Session Time, Automatic Smooth Direction Reversal.
- **Warranty:** 1 year on all electrical components; 1 year on all mechanical and fabricated components.
- **Optional Accessories:** Detachable laptop desk, variable elevation and foot pedal, Resonant Field Imaging™ Aura & Brain Imaging System, WaveRider Jr. Electroencephalogram (EEG).

Attachment A of this manual includes design drawings for the **BOSS™** table.



## **2.0 USING YOUR BOSS™ TABLE**

### **2.1 PREPARATION**

Chances are that you are reading this manual before you actually receive your **BOSS™** table. We would like you to be prepared and know what to expect.

First, you should be aware that if you are located outside of the continental USA, your table is delivered by airplane. In general, the courier will take it to the customs center at the airport in your country. ITEM receives a “Waybill” receipt and shipping number from the courier, and will contact you with this information, as well as the intended delivery location. In some cases the courier will also contact you, but you should be prepared to travel to the appropriate airport to sign customs forms and pay any applicable fees. Please note that once the table package has “cleared” customs, the courier is no longer responsible for it, and you must pick up and deliver the table to your desired location on your own. If you do not have a truck or van, then we recommend that you rent one. The table is packaged in two pieces – one piece contains the mattress, and weighs approximately 50 lbs (23 kg). The other piece contains the table base on a wooden pallet, and weighs approximately 200 lbs (91 kg). Two or three strong individuals will be able to carry both pieces in most cases. You may also wish to use a cart to assist your transport.

If you are located within the continental USA, your table will be delivered in two pieces by truck. The transportation company used will depend on where you are located. Transportation companies are instructed to contact you with the scheduled time and date of delivery. ITEM will also contact you prior to delivery with the contact information for the trucking firm.

It is recommended that you locate your table in an area that is somewhat isolated from loud noise and commotion. Preferably, you will want to locate your table in a dry room, where the air is not humid, since the mattress is made of plywood and may be capable of warping over time. If you must locate the table in a basement or warm, humid area, using dehumidifying equipment is

recommended. The presence of equipment that emits electromagnetic waves is generally not recommended, except for equipment desired for treatment assessments such as computers, electroencephalogram (EEG) and related machines. Also, you will want to make sure that you have sufficient clearance room for the rotating mattress. Consideration should also be given to electrical access, especially if you will need to run new service wires from your circuit board to provide a 220-Volt electrical outlet.

A 220-Volt, 15 or 20-Amp outlet should be used for powering the **BOSS™** table. The three-prong connector attached to the electrical cable should plug into the outlet, and no other electrical devices should be plugged into the same outlet. The electrical line must have an adequate ground, or else the table will not operate. If your electrical service is not grounded, please contact an electrician to add a proper ground to your system.

## 2.2 **GETTING TO KNOW YOUR BOSS™ TABLE**

### 2.2.1 **Assembly**

Included in your package should be some paperwork, including a pre-shipment inspection sheet and a brief set of instructions on how to program the table. The serial number for your table should be listed on the upper right hand corner of the pre-shipment inspection sheet. The serial number will also be posted to the side of the table base, at the bottom (as in the picture to the right).



Other paperwork shipped by the manufacturer include a Caution sheet, informing you to keep all body parts away from the area between the end of the mattress and the hand control mount post; setup instructions; and instructions on how to install the emergency stop lever on the side of the table.

It is a good idea to have at least two people place the mattress on the motor shaft. The underside of the mattress has a bracket with a “keyway” that matches up to the “key” on the motor shaft – the keyway fits into the key. The key is identified by two black lines on the motor shaft – the lines are present to help you guide the bracket onto the motor shaft. One person should tip one side of the mattress downward while the other person guides the mattress keyway into the key. You will feel the bracket “lock” into place when you have successfully matched the keyway to the key. If there is any instability or noise in the motor shaft when you begin rotation, then you should stop the table and try placing the mattress on the shaft again.



Please follow the instructions included in the box for the installation of the emergency stop lever, and contact ITEM if you have any questions. The purpose of the lever is to allow the user (while lying on the table) to cease table rotation. The lever allows the user to stop rotation without the presence of anyone else. If someone else is present and you would like to stop rotating for any reason, you can either use the lever or ask the other person to press the

STOP button on the hand control. To stop table rotation using the lever, pull the handle outward, away from the table. This causes contact with a microcircuit switch, which relays the signal to stop to the motor controller. You will gently come to a stop in the “Home” position (position where you started rotation) within a few seconds.

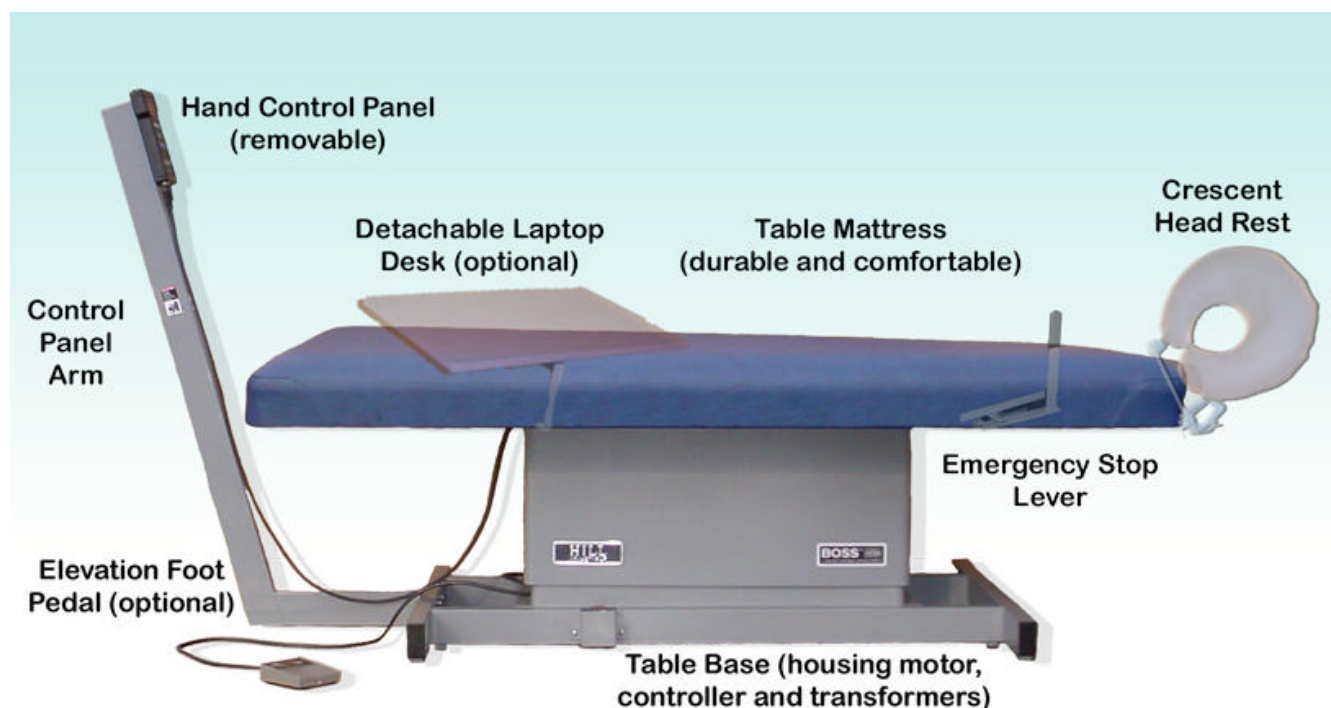
The hand control mount post is attached to the table base by two sets of nuts and bolts (supplied). The hand control panel is secured to the mount post by Velcro. Attach the RS-232 connector to the bottom end of the control panel and tighten the two screws.



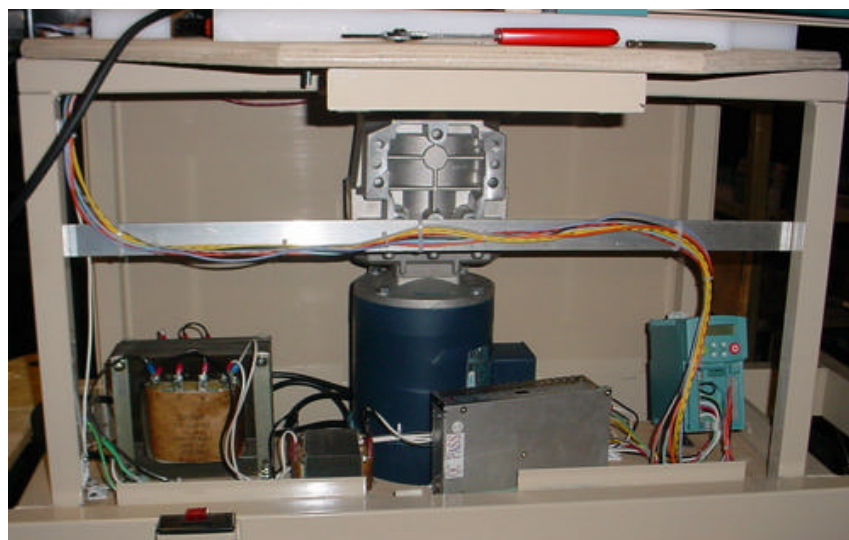
You should now be ready to test the table. Plug the power cord into the 220-Volt outlet and turn the table on by pressing the red ON/OFF button located on the base. The numbers on the control panel will light. If they do not, then your table is not ready for use, and you should contact ITEM for troubleshooting assistance. ITEM can be reached at 1-888-304-ITEM (4836) (toll-free in USA) or by email at [Central@item-bioenergy.com](mailto:Central@item-bioenergy.com).

### 2.2.2 Components

Refer to the graphic below for an overview of the various components of your table, and Attachment A for diagrams.



Inside the table base are the following electrical devices: two transformers (one 1,000-Volt and



one 100-Volt); one heavy-duty quiet motor; one motor controller; one 24 VDC power supply; one 10-Amp fuse; and one terminal barrier strip. You can unscrew the front panel of the table base to view the interior. These components are installed by the manufacturer in a way that produces rotational motion. Tampering with these parts on

your own can result in damage to the table or possible injury, and may void your warranty – therefore, we recommend that a trained electrician be contacted if changing or altering these parts is deemed necessary by ITEM or the manufacturer.

### 2.2.3 Programming the BOSS™ Table



Programming instructions are also included in the box from the manufacturer.

All programming is accomplished through the hand control panel. The **BOSS™** table can be programmed to rotate from 0.5 to 5.0 revolutions per minute (RPM) (**SPEED**), clockwise (**CW**) or counterclockwise (**CCW**), for up to three cycles (**STEP**), and up to a total of 99 minutes (**TIME**).

When you turn the table on using the red ON/OFF button on the table base, the control panel will light up, and the display will indicate flashing numbers. The STEP indicator should read 1 (Step 1). Press the **Side-to-Side** arrow

(« ) to move to the SPEED indicator. When SPEED is selected, it will begin flashing. Use the **Up** arrow (↑) to increase the speed in increments of 0.5 RPM, and use the **Down** (↓) arrow to decrease the speed incrementally. When finished with SPEED, press the Side-to-Side arrow again to select TIME. Enter a period of time, in minutes, from 1 to 99, by using the Up and Down arrows. (If you are planning on more than one step, then make sure you allow time for subsequent steps by setting TIME below 99 minutes).

When done entering the amount of time, press either CW or CCW to select the direction of rotation you desire for Step 1. After selecting the direction, it will light up. To finish programming Step 1, press the SET button. You will then move on to Step 2. Continue for Steps 2 and 3 as described for Step 1. You can change any parameter in subsequent steps. You can also go back and change the values for a step by pressing the Up and Down arrows at the STEP indicator.

We will illustrate how to program the **BOSS™** table through two examples.

### **Example 1**

*Program a **BOSS™** Therapy Session for 3 steps, a direction sequence of CW-CCW-CW, speeds of 2.0-3.0-4.0, and a total duration of 45 minutes (each step of equal duration).*

Solution: Go to STEP 1, use the Side-to-Side arrow to move to SPEED and enter 2.0 with the Up and Down arrows, use the Side-to-Side arrow to move to TIME and enter 15 with the Up and Down arrows, press the CW button, and then SET. For STEP 2, use the Side-to-Side arrow to SPEED and enter 3.0 with the Up and Down arrows, use the Side-to-Side arrow to move to TIME and enter 15 with the Up and Down arrows, press the CCW button, and then SET. For STEP 3, use the Side-to-Side arrow to SPEED and enter 4.0 with the Up and Down arrows, use the Side-to-Side arrow to move to TIME and enter 15 with the Up and Down arrows, press the CW button, and then SET.

## **Example 2**

*Program a **BOSS**<sup>™</sup> Therapy Session for 2 steps, CW direction, speeds of 2.5 and 3.5 RPM, and a total duration of 60 minutes, with 20 minutes for the first step and 40 minutes for the second step.*

Solution: Go to STEP 1, use the Side-to-Side arrow to move to SPEED and enter 2.5 with the Up and Down arrows, use the Side-to-Side arrow to move to TIME and enter 20 with the Up and Down arrows, press the CW button, and then SET. For STEP 2, use the Side-to-Side arrow to SPEED and enter 3.5 with the Up and Down arrows, use the Side-to-Side arrow to move to TIME and enter 40 with the Up and Down arrows, press the CW button, and then SET. For STEP 3, use the Side-to-Side arrow to move to TIME and enter 0 with the Up and Down arrows, and then SET.

**Important** – if you are programming less than three steps, then you must still enter those unused steps and specify “0” for the time.

Once you have completed programming the therapy session, press the **START** button. The START button light will blink and there will be a circular light pattern on the display screen for one minute. The one-minute delay allows a single user to program the table and then lie down on it prior to the start of the session. After one minute, the table will start turning the direction you programmed it for in Step 1. The table will rotate in accordance with the specifications you programmed for Step 1. At the end of Step 1 (assuming you have programmed additional steps), the table will gradually slow to a stop and then reverse direction – if you have programmed the direction change. Please note that you may notice a small “surge” when changing directions; this is perfectly normal, and generally it should not disturb your relaxation.

During rotation, the value indicated above TIME is the total time remaining in the entire session (all programmed steps). When there is one minute left in the session, the control panel will beep to inform you that your session is almost over. At the end of a session, the hand control will indicate



“H” above STEP (for “Home”), and the table will rotate at 2 RPM until it reaches its original position.



If you would like to Pause rotation at any time during the session, you can press **STOP** or pull the emergency stop lever outward as described above. (Note – if you are operating the table alone, the safest way to stop the table is to use the lever). You will see a “P” indicator above STEP, as in the picture to the left. If you would like to resume the session, simply press START. If you would like to end the session, press the **HOME** button and then START again, and the table will rotate at 2 RPM until it reaches the original position.

When you are finished with your session, turn off the power by pressing the red ON/OFF button on the table base. Additionally, we recommend that you unplug the electrical cord from the outlet when you are finished.

If you have any questions about these basic programming instructions, please contact ITEM.

#### 2.2.4 Other General Use Information

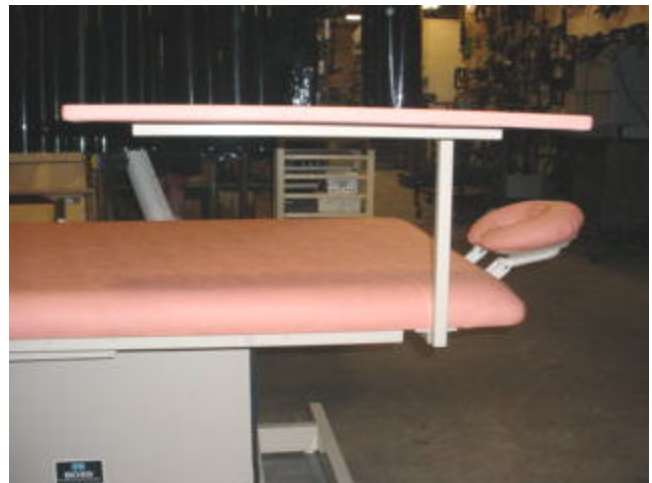
While the mattress is relatively comfortable, it is flat and is not meant to conform to the natural contour of the spine. For this reason, we recommend that you use a pillow under your head and, if necessary, under your lower back for comfort and support.





Each table comes equipped with two holes at the head end of the table. These holes allow for the insertion of the optional crescent headrest. You can insert the headrest and adjust the position to suit your head. This headrest is designed for use when the table is not in motion. It is useful for massage therapy or chiropractic treatments before or after a motion therapy session. When the table is being prepared for use, the headrest should be removed.

If you are planning to use EEG equipment or other biofeedback devices during **BOSS** sessions, then the detachable desktop is recommended. You can place a laptop on the desktop, for example, and continuously record data while the table is in motion. The desktop is easily inserted and removed by securing the bracket to the slot in the underside of the table.



The **BOSS**™ table sits, by default, at a height of 26 inches from the ground. If you ordered the **BOSS**™ elevation model, you are provided a foot pedal to automatically raise or lower the height of the table between 26 and 36 inches.

Press the CW and CCW buttons at the same time to view the total operation time of the table. This feature allows you to lease your table to others, and check the time to compute charges.

## 2.3 **RECOMMENDED THERAPY PROTOCOLS**

The purpose of this section is to provide ITEM's recommendations on using your **BOSS™** table to achieve brain hemisphere synchronization. The basis for ITEM's recommendations is provided in Chapter 3.0. ITEM emphasizes that these are preliminary recommendations, and that we are learning from the experiences of Licensed **BOSS™** Investigators. **BOSS™** is an experimental process and is undergoing a continuous process of evaluation and refinement. If you believe you have discovered new methods not discussed in this manual, ITEM would appreciate your feedback. Please keep in mind obligations that you have as a **BOSS™** Investigator through the License Agreement.

You do not need to follow these recommendations to achieve success. Your objective may not be to synchronize the brain; you might want to simply offer relaxation and stress reduction services – if so, then practically any **BOSS™** motion therapy session will provide relaxation, regardless of direction, time or speed.

### 2.3.1 **Pre-Session Evaluation**

In order to achieve brain hemispheric synchronization, it is first necessary to determine which of the two hemispheres are dominant (overactive), and which may be dormant (or underactive). This pre-session evaluation is important for determining how to program the **BOSS™** table. While hemispheric dominance is best determined through the use of EEG equipment, which can quickly show the precise levels of electrical activity in each hemisphere, not all practitioners have EEG equipment. Fortunately, there is a no-cost alternative, allowing the assessment of brain hemisphere dominance based upon the established empirical science of “selective lateralization of hemispheres”. This method consists of asking the subject a series of questions, which are directly related to the clearly defined and separate functions of the left and right brain hemispheres.

The following is a list of recommended questions to make an objective determination of brain dominance. For clarity and consistency, the questions are phrased in a “yes or no” or “alternative” form. Where the subject’s answer or choice would reveal a particular strength in that hemisphere, a plus (+) is indicated next to that part of the question. Where the answer reveals a weakness in that hemisphere, a minus (-) is indicated next to that part of the question. These questions should be used as a “checklist”, where you can circle each plus and minus. At the end of the questions, adding all the pluses and subtracting the minuses in each column will show which hemisphere is stronger than the other, which may be substantially dominant, and which may be more dormant. There are 8 questions for each hemisphere, so the mathematical scoring for each side of the brain ranges from between -8 to +8. The recommended questions are as follows:

<b><u>Left Hemisphere Questions:</u></b>	<b><u>Right Hemisphere Questions:</u></b>
Are you able to receive and remember information by listening only (+), or do you need to take notes (-)?	When looking at separated mechanical parts or puzzle pieces, are you able to visually understand how they fit or relate to each other (+), or do you need to try them to explore how they might fit (-)?
During studying or learning activities, are you able to notice and understand details the first time (+), or do you focus only on the main concept or idea (-)?	When looking at a road map, are you able to gain an understanding of the general shape and direction of the road the first time (+), or do you have to closely examine each part of the map in detail as you get to each part of it (-)?
Are you usually able to clearly say exactly what you mean the first time, and people understand you (+), or when you say something do you have to further explain to people what you mean (-)?	When organizing facts, parts or planned actions, are you able to draw a picture or chart of how they are related or organized (+), or do you have to rely only on lists and written descriptions (-)?

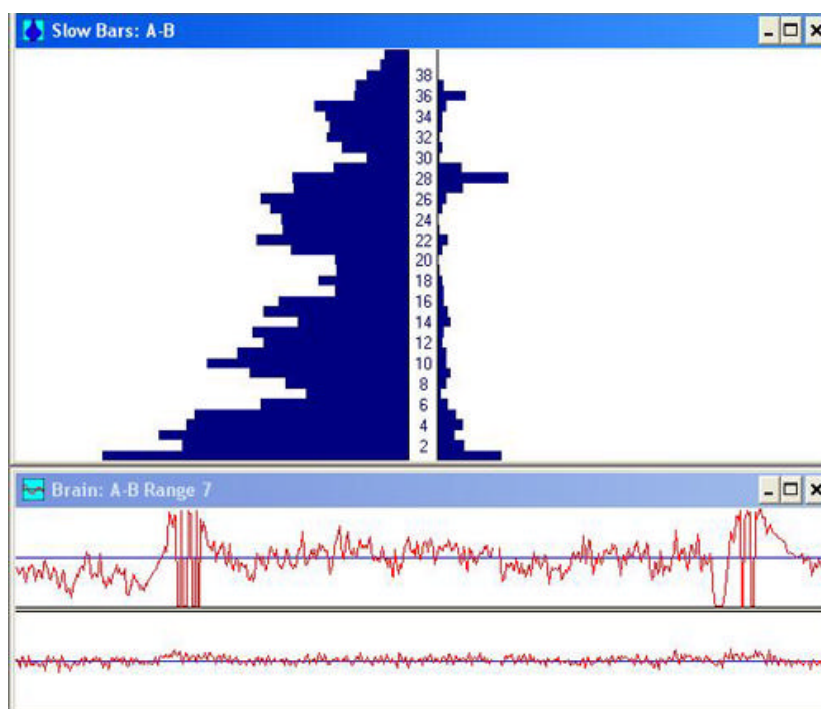
When you write, do you feel satisfied that you communicated your exact thoughts and meaning (+), or are you not satisfied that the words you wrote fairly represent what you wanted to say (-)?	When you see, hear or read many details or isolated parts or events, are you able to quickly see or understand the overall pattern or “big picture” (+), or do you have to search hard and think about it for a long time (-)?
In your native language, do you use and understand a large vocabulary, or do you speak any foreign languages (+), or do you feel uncomfortable with large words and don’t use them, or were not able to learn any foreign languages (-)?	After you meet somebody for the first time, are you able to easily recognize their face (name is not important) later as somebody you already met (+), or are you often unsure whether you met them before or not (-)?
When you read text, are you able to understand the meaning and many details the first time (+), or do you find that you have to read it several times until the meaning and details become clear (-)?	When you go to a new city for the first time, do you quickly understand the general direction of how you got there and where things are located after seeing it once (+), or do you get lost a lot or have to ask often for directions (-)?
Do you feel you have a well-developed sense of rhythm or timing (dance, music or video games) (+), or is rhythm or timing a frustration for you (-)?	Do you have well developed “hand-eye coordination” (precision driving and parking, video games, target shooting) (+), or are you better at describing how to do physical tasks than successfully doing them (-)?
When you answer the telephone, do you recognize the person’s voice very quickly (+), or do you have to ask who it is, or hear them by telephone many times before you learn to recognize the voice (-)?	When being creative, imagining or meditating, are you able to clearly visualize a detailed or realistic picture in your mind (+), or do you see only the symbolic or general form of identifiable objects, without detail (-)?
Total Score: _____ (Count No. of + & -)	Total Score: _____ (Count No. of + & -)

If the left brain receives more points than the right brain (for example, Left = +8 and Right = +4), then the left brain is “dominant”, and the brain can be best synchronized by adding more electrical

charge energy to the right brain (such that both = 8), or by moving “2 points” of energy from the left to the right side (such that both = 6). Likewise, if the right brain gets more points than the left brain, then the right brain is “dominant”, and the hemispheres can be synchronized in the same way, but switching sides or direction.

If either the left or right hemispheres receive negative (-) points as the end result of the questions (for example, Left = +6 and Right = -2), or if one hemisphere has a much lower score (less than 50%) of the other one (for example, Left = +8 and Right = +2), then that side of the brain is considered “dormant”, and will require more extensive synchronization work.

If you have ordered an EEG machine from ITEM with your BOSS table, then follow the instructions contained in the EEG manual to evaluate brain hemisphere dominance. One set of electrodes should be placed on either side of the head and connected to the EEG and laptop. The data are viewed in real-time within the EEG software. A typical data chart will look like this (although actual chart will be dynamic, not static):



The left brain, shown on the left in the bar chart and on top in the strip chart above, is dominant in this example, as there is very little right brain activity.

There are other ways to evaluate hemispheric dominance. If you are trained in kinesiology or hypnosis, you may be able to “question the body” directly to find the answer quickly. If you have ITEM's Resonant Field Imaging™ system (see [www.item-bioenergy.com/rfi/index.html](http://www.item-bioenergy.com/rfi/index.html)), you can take measurements on both sides of the head (0 to 4 inches from head) with the frequency counter. The side of the head with the higher frequency is generally considered to be “dominant”.

After evaluating brain hemisphere dominance, you should decide on the number of steps, the directions, and the time for the subsequent **BOSS™** session, and discuss your assessment with your client. You should give your client some idea of what to expect with the session. Ask them what they hope to get out of the session. Many people are simply interested in “experiencing the ride” the first time, and this is okay. Long-term users are usually interested in self-improvement. You should let your clients know that the results of **BOSS™** sessions are not guaranteed, and that their expectations may or may not be met. Oftentimes people will experience things that they did not expect during a session.

ITEM recommends that you ask your client the following prior to a session:

- Are you pregnant?
- Do you have a low blood pressure condition?
- Do you have any diagnosed health condition that would preclude your involvement in a session?

As a precaution, ITEM recommends that the client consult his or her physician for advice on whether or not to participate in a **BOSS™** session if he or she is pregnant, has low blood pressure,

or any other serious health condition. While ITEM believes that **BOSS™** motion therapy induces health overall, ITEM cannot assess every case and general precautions are warranted. **BOSS™** sessions generally lower blood pressure, so those with already low pressures should talk with their doctor about whether or not to participate. Finally, you should let people know that it is okay to fall asleep during a session – in fact, research at ITEM indicates that it is more beneficial to be sleeping or be in a mid-sleeping state during **BOSS™** sessions than to be wide awake.

### 2.3.2 **BOSS™ Therapy Recommendations**

Following the pre-session evaluation, you should ask the subject to lie on the **BOSS™** table in a way that they are comfortable. Normally people will choose to lie on their backs. ITEM currently has no evidence to suggest that lying on the back is any more effective than lying on the stomach. There is some evidence that lying on the side may be the most effective technique; however, this is generally considered to be uncomfortable for the deep relaxation desired for the process. This manual will be updated with additional data as further research is conducted.

You may want to consider using music to help relax your client. Preliminary research at ITEM indicates that certain types of music or sound amplify the beneficial effects of **BOSS™** motion therapy. If you offer music, you should consider the following:

- The best method to employ music is to provide headphones to clients. The headphones must, however, be capable of receiving wireless signals from a transmitter, as wires will get tangled as the table moves.
- If you do not use headphones, then speakers should be mounted in all corners of the room. If music was set up to transmit from one source alone, it would distract your client's relaxation and prevent brain wave stabilization.

- Do not use fast-paced music unless it is soft-toned, without percussion instruments. In general, classical and instrumental music is best. Again, you do not want to distract your client during the relaxation process. The music should be played softly.
- Inaudible sound waves, or tones orchestrated for a specific healing purpose, may be used and have been shown to be effective, but we recommend that you experiment with these on your own before subject clients to them, as some can be distracting.
- How people respond to music and sound is frequently specific to each individual. It may be prudent to evaluate responses to sessions with and without music or sound to gauge how the specific client will be best served in the future. **BOSS™** sessions generally lead to a deep Alpha brain state – a state where the physical senses get tuned out. If you offer music or sound, it should not prohibit the person from reaching this state, which he or she would reach without the music or sound.

As mentioned previously, a pillow for the head and neck and possibly the lower back is important for the comfort of the client.

The lights should be dimmed or turned off for the session, unless the client indicates that he or she can become deeply relaxed with the lights on. You may also wish to offer a cloth or patch to place over the client's eyes.

In which directions should the subject be turned? There are three different scenarios, as discussed below:

- 1) **Left-Brain Dominant** – If the left hemisphere is dominant in the subject, as determined in the pre-session evaluation, experimentation at ITEM suggests that initial rotation in a **CLOCKWISE** (CW) direction at **2.5 to 3.5 RPM** will lead to brain synchronization. Clockwise motion will tend to depolarize the left hemisphere. A minimum duration of 15



minutes is recommended for Step 1 to achieve synchronization with a left-brain dominant subject; depending on the degree of dominance, the practitioner may want to increase the duration of Step 1 for up to 30 minutes. Theoretically, the brain will be synchronized after Step 1. Then, to ensure that the brain remains synchronized and stable throughout the remainder of the session, in which brain activity and energy systems throughout the body are optimized, two additional steps of equal duration and alternating direction should be used.

For example:

A pre-session evaluation leads you to the conclusion that your client is left-brain dominant. It appears that the right brain is not, however, dormant. Therefore, we prescribe a **BOSS™** session of 15 minutes CW at 3.0 RPM (Step 1), then 15 minutes CCW at 3.0 RPM (Step 2) and finally 15 minutes CW (Step 3). This would be considered a typical session for a left-brain dominant person.

The recommended optimal speed of 2.5 to 3.5 RPM is discussed further in Chapter 3. You should feel free to explore other rotation speeds, as 2.5 to 3.5 is a recommendation only. However, less than 2.0 RPM may be “too slow” to effectively synchronize the brain, and the maximum speed of 5.0 RPM may cause dizziness or be distracting to certain people.

- 2) **Right-Brain Dominant** – If the right hemisphere is dominant in the subject, as determined in the pre-session evaluation, experimentation at ITEM suggests that initial rotation in a **COUNTERCLOCKWISE** (CCW) direction at **2.5 to 3.5** RPM will lead to brain synchronization. Counterclockwise motion will tend to depolarize the right hemisphere. A minimum duration of 15 minutes is recommended for Step 1 to achieve synchronization with a right-brain dominant subject; depending on the degree of dominance, the practitioner may want to increase the duration of Step 1 for up to 30

minutes. Theoretically, the brain will be synchronized after Step 1. Then, to ensure that the brain remains synchronized and stable throughout the remainder of the session, in which brain activity and energy systems throughout the body are optimized, two additional steps of equal duration and alternating direction should be used.

For example:

A pre-session evaluation leads you to the conclusion that your client is right-brain dominant. It appears that the left brain is dormant. You could prescribe a **BOSS™** session of 30 minutes CCW at 3.0 RPM (Step 1), then 30 minutes CW at 3.0 RPM (Step 2) and finally 30 minutes CCW at 3.0 RPM (Step 3). This would be considered a typical session for a right-brain dominant person with a dormant left brain. If the person is only slightly right-brain dominant, then each step may only need to be 15 minutes in duration.

You are free to experiment with different times and speeds, using the general rule of thumb that CW motion synchronizes left-brain dominance and CCW motion synchronizes right-brain dominance. However, this general rule may not always yield synchronization results. If so, you may also want to try reversing directions to see what effect it may have.

- 3) **Brain Already Synchronized** – There may be times when your pre-session analysis in leads you to the conclusion that the subject's brain is already synchronized. Why then, would one have a **BOSS™** session? In short, because of the additional benefits gained through the use of **BOSS**. These benefits may include, but are not limited to: increased relaxation, improved blood circulation, lowered blood pressure, increased immune and endocrine system balance, improved motor coordination, improved cognitive functioning, and increased memory. All of these are the result of a synchronized brain, but brain synchronization alone does not result in vast improvement in physiology – the

other important factor in improving and maintaining health is the circulation of cerebrospinal fluid (CSF) through the nervous system.

The field of cranial osteopathy and the practice of craniosacral therapy focus on ensuring the adequate flow of CSF to the brainstem, which controls the autonomic nervous system through the medulla oblongata. Cranial osteopaths massage the back of the skull to innervate CSF, but generally lack any mechanism to induce the pulsing of this fluid to the brain. Use of **BOSS™** can replace craniosacral therapies as the rhythmic motion of the table and magnetic moments established through this motion cause natural pulsations of CSF. Many cranial osteopaths believe that the adequate flow of CSF from the spine to the tailbone is the most fundamental health-promoting mechanism that exists, and numerous deleterious health conditions result from inadequate CSF flow; **BOSS™** is designed to enhance this flow.

In order to maintain brain synchronization, and to promote improved circulation of CSF, you simply need to alternate directions twice for the session for equal durations. For example, you could have 30 minutes CW at 2.5 RPM for Step 1, and 30 minutes CCW at 2.5 RPM for Step 2. If you had 3 steps, there is a greater possibility that the brain will be “polarized” upon the completion of the session. A two-step session is also recommended for those cases where the client is just interested in relaxation and not necessarily brain synchronization (one CCW and one CW). It is recommendation that you start with CCW rotation for Step 1, and then switch to CW rotation for Step 2.

If you are using an EEG machine during the session to monitor brain waves, you generally will not have the opportunity to review data during the session unless you have a wireless transmission from the EEG to a laptop for real-time analysis. If this is the case, you can stop and reprogram the session based on your judgment of the results, and you would not have to wait until the end of the session to make these decisions. For those without wireless EEG systems, you will generally need to make your best judgment about the session and then wait until the end to review the EEG

data.

### 2.3.3 Post-Session Activities

When the session is over, ITEM offers the following considerations and recommendations:

- Give the person a period of time to become accustomed to physical reality again. The person most likely was in mid to deep Alpha brain state, and was likely “sleeping” to some extent. Allow at least 10 minutes for the person to become acclimated to his or her environment (unless you would like to ask questions that would be answered better in a relaxed state; see below).
- Even if you are not a researcher, and are offering **BOSS™** sessions as part of your therapy and practice, it is very important that you take notes on your observations. Ask the client about the subjective experiences he or she just had. Some people report that they do not remember anything, and some have reported out of body experiences. The experiences do vary widely. The client may also be able to offer good suggestions for future sessions. Sometimes a client is so profoundly moved by what he or she experienced during a session, that he or she will not voluntarily talk about it. You should not press a client to talk about something they believe is personal.
- ITEM recommends that you perform a brain dominance assessment after the session using the same method as before the session, to determine how effective the session was in balancing the brain (or keeping the brain in balance). If you asked the questions in Section 2.3.1 before the session, then you can ask these questions again after the session. However, if we would recommend that you ask the questions immediately following the session, when the person is still relaxed. If the person was fully awake and conscious when the questions were asked, thinking about the questions may actually start to reverse the brain synchronization results. Ideally the person should be relaxed when answering the

questions so as to prevent experimental bias (client remembers what he said before session, and thinks about how to answer the questions based on expectations, not based on how he or she really feels).

- Make sure that you maintain records of your sessions. If you have a repeat client, it will be important to examine a file containing the results of prior sessions, so you can make decisions in your therapy. ITEM's goal in developing client-therapist relationships is to work toward the client having continuous brain synchronization. Your goals as a therapist may be different. Once you reach your goal, however, there is no reason to end BOSS sessions, since, as discussed above, the brain (and body) is optimized further through CSF pulsation and full-body stimulation.
- **Important** – the feedback from your clients will not always be positive. They may become very aggravated following a session. This does not mean that **BOSS™** doesn't work or isn't working. Do not panic. In all likelihood, the aggravation is due to new energies being experienced by the client that he or she have not experienced before, or have experienced before but have repressed. For example, it is not uncommon for a client to sense or mentally re-experience traumatic events during **BOSS™** sessions. This is due to the fact that **BOSS™** allows a person to remain mentally alert while in deeply relaxed states – or, put another way, **BOSS™** allows a person to “dip into the dream state”, and bring back to normal waking consciousness that which was otherwise “buried” psychologically. It is usually a good idea to explain this phenomenon following a session, if a person becomes aggrieved. It may not be appropriate to explain this phenomenon before a session, as it may cause the client to think too much, preventing the deep relaxation that would otherwise result.

#### 2.3.4 Case Study

Presented here is a case study example of a client-therapist relationship and the use of **BOSS™** therapy.

John is a 30-year old man who works as a stock broker in New York City. He generally works 50 hours per week, and he characterizes his level of stress as “High”. John is seeing a therapist named Mike to deal with his stress. Mike requests permission to test John’s brain dominance and John agrees. Using ITEM’s **RFI™** system, Mike quickly determines that John is left-brain dominant, and the right brain is largely dormant. Mike offers John a test session on the **BOSS™** table and John agrees. Mike informs John that he should not think about anything and just enjoy the relaxation of the slow, rhythmic motion. He asks John if he would like to listen to music and John indicates yes. Mike offers him a sample of “New Age” music, and John agrees to this music. Mike places a set of wireless headphones on John’s head and informs John that he can turn the music off at any time by pressing a button on the headphones. Mike now requests that John take off his shoes, coat and tie and lie down on the table. Mike asks John if he would like a pillow to become more comfortable, and John says yes, he would like a pillow beneath his head, which Mike provides. Mike then shows John where the emergency stop lever is located and how to use it to stop rotation if Mike needs to end the session for any reason.

Mike turns on the **BOSS™** table and programs the hand control panel as follows: Step 1 – 20 minutes CW at 3.5 RPM; Step 2 – 15 minutes CCW at 3.0 RPM; and Step 3 – 15 minutes CW at 3.0 RPM. Mike presses the Start button, dims the lights in the room, and, one minute later, the table starts Step 1 rotation. Mike stays in the room for the entire session since this is John’s first experience (in the future, Mike will leave the room to provide John with a greater sense of privacy). During the session, Mike takes notes of John’s preferences for the session and of the pre-session brain dominance analysis. Mike also observes John during the session to see if there are any unusual reactions from John, either conscious or unconscious. With one minute left in the

session, the beeper alerts John and Mike. When the table completes its rotation, Mike informs John that the session is over and that he can relax there for as long as he needs. John says thank you, and rests for another two minutes before sitting up. Mike requests permission from John to check brain dominance again using RFI, and John agrees. The RFI™ measurement indicates that the left brain is radiating a frequency of 350 MHz, while the right brain is radiating a frequency of 280 MHz. Mike concludes that John's brain has not been synchronized, but significant progress has been made, as John's right brain was only at 220 MHz before the session.

Mike recommends to John that he make another appointment for the next session, and John agrees. When John returns three days later, the left brain frequency is 330 MHz and the right brain frequency is 225 MHz. Mike decides to increase the duration of the **BOSS™** session to 90 minutes (30 minutes for 3 steps beginning with CW rotation). Mike also decides to slow rotation to 2.5 RPM throughout the session, to see what effect this may have. At the end of the session, John's left brain is 370 MHz and his right brain is 315 MHz. A third session is scheduled three days later. John returns and his right brain frequency is 275 MHz, and John reports that he is feeling a little better and a little less stressed. You are receiving positive feedback, and you decide to again conduct a 90-minute session at 2.5 RPM. Two weeks and three more sessions later, John's left and right brain frequencies are 370 and 380 MHz, respectively, which is effectively a synchronized brain.

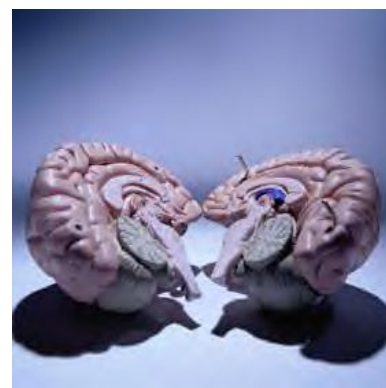
Please keep in mind that in some cases, you will find brain synchronization success after the first session. The goal is for the client to be able to come back at a later date and still have a synchronized brain. This is often difficult because of the daily stresses of life – but it is the natural, healthy and optimal state of being.

Once a client has had a few sessions, the person will often remain a client for an extended period of time – sometimes for physiological reasons (i.e., “the sessions make my headaches go away for awhile”) and sometimes for subjective reasons (i.e., “the sessions make me feel good about myself”).

### 3.0 HOW BOSS™ WORKS

#### 3.1 BRAIN HEMISPHERES AND SYNCHRONIZATION

The key to mental and physical health and well being of human beings is the most central and complex organ of the human body - the brain. The human brain is a biologically based “super-computer”, sensing, responding and reacting based upon nerve-based electrical charges and impulses, and electromagnetic fields. Its dual function as a central organ controlling the body (both sensations and motor movement) as well as an electroneurological center of thought (both mental perception and processing), makes the brain the vital connection and channel between mental consciousness and physical being.



The concept that explains the functioning of the human brain in fulfilling its many diverse roles is traditionally called “**right-left brain theory**”. The popularized description of this theory is that the right side of the brain concentrates on creative and artistic functions, while the left side of the brain concentrates on logical and linear analytical functions. This explanation, however, is more of a convenient generalization than a technically accurate reality. The modern term for this concept in neurobiology is “**selective lateralization of hemispheres**”, and the current state of brain science offers much more **detailed information about the distribution (or “lateralization”) of functions to the left and right hemispheres of the brain**. (See: *Henry Gleitman et.al., Psychology, 3<sup>rd</sup> Ed., University of Pennsylvania, pp.49-55 (1991).*) Laying out the precise functions of each hemisphere, as determined from surgical and patient testing experiments, gives us a deeper understanding of which abilities are in fact primarily “right brained” or “left brained”, as well as a more clear and accurate conception of the resulting generalized specialties of each hemisphere:



### Hemisphere Functions and Resulting Abilities

<p><b><u>Left Hemisphere Functions:</u></b></p> <ul style="list-style-type: none"> <li>• Auditory &amp; Listening Skills</li> <li>• Concentration on Details</li> <li>• Formulating Spoken Responses</li> <li>• Formulating Written Words</li> <li>• Language Knowledge &amp; Understanding</li> <li>• Reading Comprehension</li> <li>• Recognition of Voices &amp; Music</li> <li>• Sense of Timing or Rhythm</li> <li>• Sequential Organization</li> <li>• Temporal Organization (Perception of Time)</li> </ul>	<p><b><u>Right Hemisphere Functions:</u></b></p> <ul style="list-style-type: none"> <li>• Comprehension of Space &amp; Form</li> <li>• Hierarchical Organization</li> <li>• Perception of Complex Shapes &amp; Forms (Maps, Puzzles &amp; Mechanics)</li> <li>• Perception of Overall Pattern or System (Objects, Facts, Circumstances or Events)</li> <li>• Recognition of Faces &amp; Locations</li> <li>• Sense of Direction</li> <li>• Spatial Processes (Hand-Eye Coordination)</li> <li>• Visualization Capabilities</li> </ul>
<p><b><u>Resulting Left Hemisphere Abilities:</u></b></p> <ul style="list-style-type: none"> <li>• Logical and Sequential Operations</li> <li>• Communication Skills</li> <li>• Comprehension &amp; Learning Skills</li> <li>• Processing of Experiences</li> </ul>	<p><b><u>Resulting Right Hemisphere Abilities:</u></b></p> <ul style="list-style-type: none"> <li>• Analytical and Conceptual Operations</li> <li>• Orientation and Awareness Skills</li> <li>• Performing Complex Physical Tasks</li> <li>• Technical Skill for Precise Physical Actions</li> </ul>

This technical description of the specific hemisphere functions, as determined through medical experiments, breaks many of the common misconceptions about right and left-brain specialization. As a result, we begin to see the **critical and essential need for coordination and integration of the functions of both hemispheres of the brain**, in order for a person to effectively perform tasks in the real world, regardless of whether those tasks are commonly considered primarily “logical” or “creative”.

For example, performing creative tasks such as musical composition, traditionally considered “right brain only”, actually require many left brain functions, such as sequential organization, perception of timing, attention to detail, and formulation of expressions in the form of ordered musical notes. In this example, the right brain contributes mostly perception of the overall pattern of the

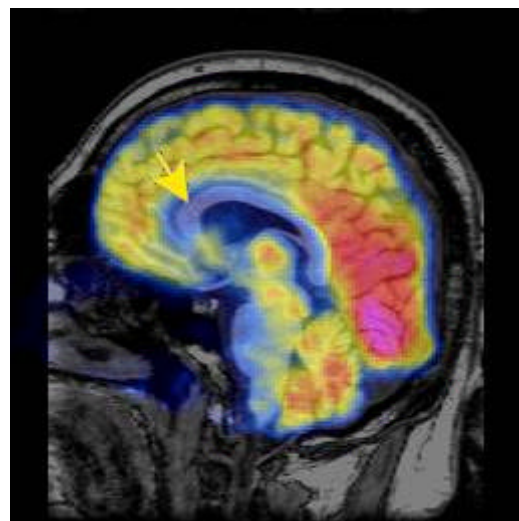
developing composition, and a sense of direction about what the hierarchy of the parts of the musical composition should be. Also, while the right brain is working on the overall concept of the composition, and envisioning the desired outcome as it should be played on the piano, the left brain spatial organization skills are needed to enable the musician to have a spatial “feel” for the layout of the keyboard and to form the right finger position shapes on the piano keys to make chords.

Similarly, performing expressive tasks such as writing poetry, also typically considered purely a “right brain” activity, require many left brain functions such as formulating written words, temporal organization for rhythm of phrases, and auditory or language skills to generate rhymes. In this case, the right brain contributes mostly visualization capabilities to make the poetry more expressive, so that the reader or listener experiences a certain image or perception from the poetry.

As another example, logical analysis of a complex set of facts (such as a detective investigating a crime), traditionally considered “left brain only”, actually requires many right brain functions, such as hierarchical organization and perception of an overall pattern or scheme of facts or events. In this example of the detective, the left brain mostly helps him to sequentially organize a time-line of facts, and put his analysis into words, while the right brain actually does much of the “logical / analytical” work.

The two hemispheres of the brain are interconnected by the “corpus callosum” - a thick group of nerve fibers that serve as a neurological “bridge” for electrical impulses of information (see arrow in picture on right). This allows the left and right hemispheres to function together in cooperation, integrating the information and functions from each into an effective and fully operational whole.

Whenever performing a task requires functions from both hemispheres, the hemisphere lacking a



certain function sends an electrical signal to the other hemisphere which can perform that function, stimulating a coordinated supporting reaction, such that both hemispheres are being used, and the full range of functions and abilities are available and can be applied to the task at hand.

For example, a person performs the apparently left-brained task of reading directions to his friend's house, consisting of written instructions such as "go five miles to the gas station, turn left, and turn right at the large oak tree, and you will see my friend standing there waiting for you." For the person to memorize the directions or avoid the necessity to look at the written instructions several times while driving, some right-brain functions are also needed. In this case, while the left brain is applying its reading comprehension skills to the task at hand, the left brain sends signals to the right brain through the corpus callosum, and then the right brain contributes its additional functions of spatial comprehension (how long is 5 miles?), recognition of appearances (what does a gas station and the friend's face look like?), and overall sense of direction (getting the "feel" for how to get there). In technical terms, in this case it can be said that a left-brain reading comprehension task requires right-brain visualization and spatial-directional comprehension functions, all of which must be applied in coordination, simultaneously, to accomplish the task at hand.

Whenever the brain is required to refer all or part of a task to a hemisphere that is currently less active, or not currently the primary hemisphere processing the overall task, this requires an **extra step of forwarding electrical impulses through the corpus callosum to the other hemisphere**, to be received as a message and stimulus to generate a response. Experiments have proven that this "forwarding" process causes an **additional time delay, resulting in a slowed or delayed thinking process** of the person while performing the mental or physical task. (Geffen, Bradshaw & Wallace, "Inter-hemispheric Effects on Reaction Time to Verbal and Nonverbal Visual Stimuli", *Journal of Experimental Psychology*, Vol. 87, pp.415-22 (1971).) The length of this time delay, and how frequently the "forwarding" process must be performed for the hemispheres to work together, has a great impact upon many general skills and abilities of the person, including learning ability, overall mental concentration and memory, physical reaction time,

and the general amount of effort (“hard thinking”) required to perform a given task.

As established by electroencephalogram (EEG) technology, **activity in the hemispheres of the brain is caused by, and accompanied by, electrical activity**. As shown by regional Cerebral Blood Flow (CBF) technologies, this neuroelectrical activity in turn **stimulates increased blood circulation in the sections of the brain where electrical activity is present**, thus activating the blood-based biological functions of that region of the brain in addition to its electrical functions. Accordingly, whenever integrated left-right brain functions are required to accomplish a task, every time a signal is sent to activate an additional region of the brain in the other hemisphere, the time delay resulting from the “forwarding process” is more than the 1 or 2 seconds during which the electrical impulses travel through the nerve synapses of the corpus callosum. An **additional several seconds of delay can result** as the corresponding blood flow is concentrated in the desired brain region, and then some electrical signals must be sent back to the first hemisphere for coordinated or integrated joint activity.

As a result, even in a brain of normal condition, reaction time for each multi-hemisphere step in a complex brain process can be approximately 8-10 seconds for each step. If a person is significantly “right-brain dominant” or “left-brain dominant”, such that one hemisphere is more active and ready while the other one is mostly dormant, the reaction time for each step can be slowed down to as much as approximately 30 seconds for each step. The overall reaction time of the person for multi-step complex tasks can therefore be delayed by as much as approximately 1 or even 2 minutes.

When the person is, for example, a law enforcement professional, the necessary reaction sometimes consists of the motor response of drawing his service weapon, simultaneously accurately taking aim in three dimensional space (right brain), concentrating on details of objects and persons in view (left brain), recognizing faces to distinguish “good guys” from “bad guys” (right brain), accurately assessing the timing of when is best to pull the trigger (left brain), perceiving from memory the surrounding walls, buildings, windows or street layouts which could help or

hinder him (right brain), and yelling an intelligible command or warning to his partner (left brain). If one hemisphere of the officer's brain is too dominant, or the other too dormant, performing this complex task in full could possibly take as long as 3 minutes, while FBI statistics indicate that the average gunfight is finished within only 5 seconds. Law enforcement training and practice will certainly reduce the response time of even an unbalanced brain to no more than 1 minute, and the officer himself can further reduce the time to only 30 seconds - but only if he does not pay attention to many of the critical factors or does not correctly take aim. An officer with a normally functioning and reasonably conditioned brain could fully react in about 15-20 seconds, but this is not an "optimized" condition, and does not meet the criteria of less than 5 seconds. For effective performance in such a situation, the necessity and great benefits of "tuning" and "balancing" the brain hemispheres is abundantly clear. Only with the help of a brain integration technology and methodology can that person's brain be ready and prepared to react and respond within only 1 second, while fully performing all steps of a simultaneous complex task.

A more common situation is that of a high-school, college or graduate student taking a multiple-choice exam, where only 1 minute or less is allotted to answer each question (such as on "bar exams" for lawyers to be licensed to practice law), and the person's brain takes approximately 2-3 minutes to process and answer each question. Clearly, this is another practical situation in which prior balancing and integration of the brain hemispheres gives a major advantage, making the difference between a failing grade and a near 100% score.

These examples and explanations highlight the need for - and benefits of - what is called "brain synchronization". **Synchronization is a process which conditions and enables both hemispheres of the brain to function more equally and simultaneously, in coordination, by making both hemispheres ready to contribute their share of the brain's complete list of functions, with dramatically improved response times.** Since the level of activity, and thus the level of "response readiness" of each hemisphere is determined by its level of electrical activity, **synchronization can be most effectively and reliably accomplished by applying electrical field or neuro-electrical methods to regulate and balance the electrical activity level of each**

hemisphere.

**BOSS™** is designed to provide a professional and reliable method of effective synchronization of both hemispheres of the brain, to optimize a person's abilities, capabilities and performance of diverse tasks in the real world. The scientific basis for this method, and the procedures for effective brain synchronization, are developed and explained in the following sections of this manual.

### 3.2 **BIOPHYSICAL BASIS OF BOSS™ THERAPY**

According to Dr. Larry Shultz, inventor of the Integrated Motion System, "Numerous studies have demonstrated the importance of movement to many aspects of human development and behavior. From the time of conception, the developmental process takes place in a fluid medium where movement occurs in a gentle flowing manner. During this process, special receptors are developed that are specifically designed to sense changes in motion. These receptors are located throughout the body and they continuously send [and receive] signals to the brain that provide necessary information that enables us to function properly. The gentle wave-like motion of [motion therapy systems] provides natural stimulation to these receptors and consequently provides an efficient form of neurological 'exercise' for the nervous system."

According to Walter Russell, a vortex of centripetal force generates a gravitational thrust. When the centripetal force is applied horizontally, perpendicular to the Earth's natural gravitational pull, the result is generation of an opposing anti-gravity force. Maintaining this controlled centripetal motion as a sustained gyroscopic force effectively simulates "weightlessness", facilitating complete muscle relaxation. The horizontal centrifugal motion itself induces a partial, temporary "sensory deprivation", causing the conscious mind to "tune out" sensations of the physical body, and focus on sub-conscious thoughts and mental or emotional processes.

The benefits of centrifugal motion in synchronizing the brain hemispheres, and optimizing mental

alertness and coordination to enhance performance, are recognized as a reality in many martial art forms. Similarly, many advanced law enforcement special forces training programs incorporate various spinning and rolling exercises to accomplish some of these results.

Vertical spin and standing horizontal spin, however, is not as effective as reclining horizontal spin where the base of the spine is the rotational axis. This is because during vertical and standing rotations, the cerebrospinal fluid must overcome the downward force of gravity to reach the brain, and the speed and duration of rotation cannot be as precisely and reliably controlled. **BOSS™** allows controlled, measured, reclining horizontal rotation, enabling the cerebrospinal fluid to easily and naturally flow to the brain, providing maximum beneficial results.

Accordingly, **BOSS™** is a valuable tool in enhancing overall balance, hand-eye coordination, and body movement coordination. Its brain optimization and synchronization effects enhance mental calmness, emotional stability, intellectual sharpness and alertness, more rapid information processing, and improved reflexes and controlled reactions.

### **3.3 ELECTROMAGNETIC BASIS OF BOSS™ THERAPY**

Water-based liquids function as a carrier of electrical charge. The water-based liquids in biological cells allow them to hold charge, and enable them to exchange charge between cells, as a form of energy-information transfer.

Such water-based liquids also function as a transducer. Fluids in the eustachian canal and vestibular canal convert sound-energy vibrations into neurological signals, inducing the perception of sound in the auditory regions of the brain. Similarly, fluid in the vitreous humor - an amount less than the size of a teaspoon of water - converts light-energy vibrations into neurological signals, inducing the perception of sight in the visual regions of the brain. Fluid in the craniosacral canal - approximately one cup in measure - is the largest body of brain-related fluid, which is capable of carrying other charges and converting other vibrations into neurological signals, having various

beneficial effects upon otherwise inaccessible regions of the brain.

Accordingly, these water-based biological fluids serve as Analog to Digital Converters (ADC), converting analog mechanical and electromagnetic vibrations into digital nerve signals that can be used by the nervous system and the brain. By understanding the mechanics and physics applicable to the process of electrification of biological fluids, ITEM was able to engineer specific procedures for using **BOSS™** to achieve specific results and benefits for optimizing and synchronizing the brain, and strengthening and balancing the nervous system.

There are 3 separate sets of physics which simultaneously act both independently, and in combination, to achieve optimization, synchronization and overall enhancement of a person's physical and mental capabilities and performance: (1) Magnetic Mechanics, (2) Piezoelectric Mechanics, and (3) Electrofield Mechanics.

### 3.3.1 **Magnetic Mechanics**

When the human body is positioned horizontally on a centrifuge table, each time the head and feet pass magnetic north, a magnetic pulse is induced into biological water-based fluids, activating the electrolytes contained within them. This process serves to alternate the north and south polarities, generating a rhythmic electrical charge in the bio-fluids. This results in recharging and rejuvenation of these important fluids, very much the same way that the rotating bipolar alternator in your car recharges and maintains the fluids in your car battery.

The magnetic field of the Earth has an induction strength of generally 50 microTeslas (uT), or 0.5 Gauss. While this is a powerful magnetic field, its potential activating and stimulating effects are generally not experienced, as the majority of human activity and movement is limited to vertical positions, or non-rotating horizontal positions. Controlled, rhythmic horizontal rotation causes natural magnetic induction of a sine wave of (-) 0.5 to (+) 0.5 Gauss.



Sustained, regulated horizontal motion in 360-degree rotation establishes the periodic polarity switching necessary to create opposing magnetic moments which generate electrical charge. This rhythmic magnetic induction process effectively initiates electrical current in biological water-based fluids, thereby charging, recharging, stimulating, and rejuvenating biological cells, neurological synapses, and even associated regions of the brain.

### **3.3.2 Piezoelectric Mechanics**

The modern term “piezoelectric” is derived from the Greek word “*piezein*”, which means “to press”. Mechanical pressure applied to crystal or liquid crystal substances has been proven to increase the electrical charge of such materials, causing them to generate electrical charge which can induce current. This phenomenon is the basis for many modern technologies involving “piezo-crystal elements” which naturally power “piezo-electric microcircuits”.

The electrolyte components of the water-based cerebrospinal fluid are capable of piezoelectric activity. Accordingly, mechanical motion action upon this fluid creates pressure, and therefore generates piezoelectric energy. The result is that mechanically induced centrifugal motion achieves electrical invigoration of the spinal fluid. In addition, laying flat horizontally changes the distribution of gravity, allowing the natural wave action movement of the cerebrospinal fluid to increase, naturally generating piezoelectric charge within this brain-stimulating fluid.

According to retired NASA engineer Alan Pope, “In electricity E represents voltage or electromotive force or pressure. It is a MOTIVE force. . . . Now think about the spine. That would equate with E-spin or the spin of E. It could be that the E-force or E-motion in the spine operates in a spiral, that very fundamental vortex motion found throughout nature.”

According to *Normal Laboratory Values in Massachusetts General Hospital* (See *The Merck Manual*, 16<sup>th</sup> Ed.), cerebrospinal fluid pressure has the normal pressure value of between 70- 180 mm of water volume. According to *The Merck Manual* Section *Neurologic Diagnostic Procedures*,

cerebrospinal fluid has the normal pressure value of between 100 - 200 mm of water volume. In cases of encephalopathy (brain activity dysfunction), meningitis and viral infections related to the spine, this pressure increases to above the normal value, apparently as a natural reflex to increase piezoelectric pressure and stimulate healing or protection of the spinal fluid.

These official medical statistics show that the cerebrospinal fluid is designed to naturally expand and contract, and pressure values ranging all the way from 70 to 200 mm are considered normal in a healthy spine. This conventional medical data documents a very wide range of natural pressure fluctuations of the cerebrospinal fluid, with a normal compression factor as low as 35%, and normal expansion factor as high as 286%. This medical data also proves that the principle of piezoelectric stimulation of the cerebrospinal fluid is realistic, effective, safe, and natural.

During controlled, centrifugal rotation, the piezoelectrically charged cerebrospinal fluid carries this increased charge in an energy-information format that is compatible with that of nerve signals, and is naturally propagated upwards through the craniosacral canal. It first comes into contact with the reticular formation of the brain, providing biological nourishment and increased charge to the pineal body region of the brain, facilitating induced deep meditation and enabling the subject to access deeper brain states and otherwise hard-to-achieve advanced brain functions. The cerebrospinal fluid then travels further into the brain, making its beneficial properties available to the 5 senses.

Sustained, regulated horizontal motion in 360-degree rotation establishes the centripetal force necessary to stimulate increased piezoelectric charge in the cerebrospinal fluid within the craniosacral canal. This charged fluid is then naturally pulsed to the “pleasure centers” and critical function integration centers of the mid-brain.

The piezoelectric principle plays a major factor in motion therapy procedures related to the spinal fluid. The human biological organism maintains itself largely on piezoelectric principles. For example, the production and delivery of neurotransmitters in the brain is stimulated and directed

by electric signals, the charge for which is primarily supplied by the piezoelectric properties of the cerebrospinal fluid.

It is well known that laughter has a healing effect, which is most likely caused by the subtle compression and release of the inner spine during the subtle muscular movements associated with laughter. When any type of matter - including a biological organism - experiences dramatic reductions in temperature, it loses most of its electrical charges. When the temperature of the human body drops below acceptable levels, the hypothalamus of the brain stimulates “shivering” of the body, causing the subtle contraction and expansion of the spinal fluid necessary to increase its piezoelectric charge, in an attempt to increase the body’s overall electrical resources to maintain and stimulate immune system function, and muscular coordination functions necessary for survival activities and responses.

The piezoelectric principle is also a scientific basis for the ancient practice of “acupressure”, strategically placing manual pressure on one or more of approximately 365 “pressure points” which are associated with various parts, organs and systems of the human body. By placing manual pressure on strategic points, the practitioner is taking advantage of the piezoelectric effect, stimulating related fluids in cells, lymphatic structures or other biological systems connected to each point, thereby increasing electrical charge at that point for therapeutic effect. According to Michael Reed Gach, Ph.D., author of “Acupressure’s Potent Points”, these methods piezoelectrically “trigger the release of endorphins, which are the neurochemicals that relieve pain. As a result, pain is blocked and the flow of blood and oxygen to the affected area is increased.”

Centrifugal motion, and the accompanying centrifuge pressure, mechanically generates an even level of pressure on all fluid-based points throughout the human body. As a result, use of the centrifuge table, according to the procedures developed for the **BOSS™** system, additionally serves as a natural form of acupressure, automatically stimulating many pressure points while the subject is in an induced deeply relaxed state.

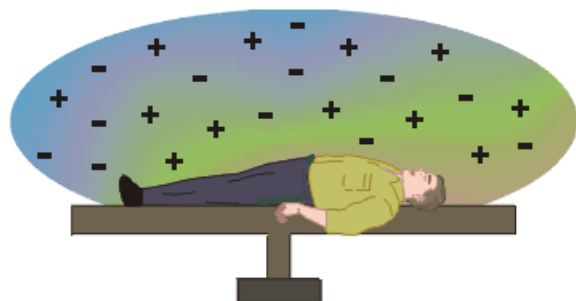
Because of the encompassing nature of centrifugal force, the **BOSS™** system not only acts upon acupressure points, but the sustained compression and periodic release (which switching directions of rotation) increase the piezoelectric charge of each cell in the body, effectively rejuvenating cells. The overall effect is a comprehensive, multifaceted, natural therapy for general improvement of physical and mental health.

### **3.3.3 Electrofield Mechanics**

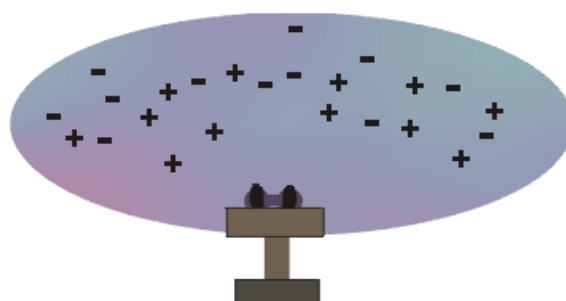
During the process of controlled 360-degree rotation, the movement through ambient ions (present in any room) establishes charged electromagnetic fields of opposing polarity, generating an additional electromagnetic charge that is applied during horizontal rotation. Also during this process, the centripetal force generated by a properly engineered centrifuge table causes ions within a person's biomagnetic electrofield to become aligned above the base of the spine.

When a person is moving counterclockwise (CCW) (in the same direction as the spin of the Earth), negative charges align at the top of the electromagnetic field (north pole), and positive charges align at the bottom of the field (south pole) near the base of the spine. Once the electromagnetic polarities reach a certain threshold, an electrical current is generated along the vertical axis (along the spinal column). Through magnetic induction, this current is drawn into the body at the base of the spine, additionally increasing the electrolytic charge and motion of the cerebrospinal fluid. This fluid is then naturally pulsed to the brain, causing the highly desirable effects.

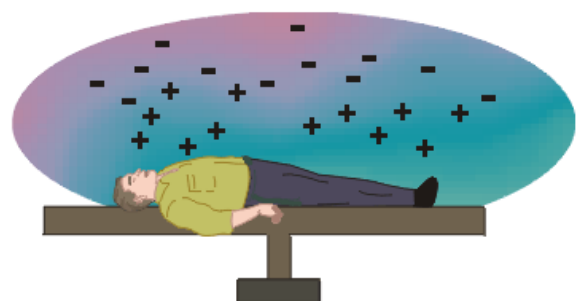
When a person is rotating clockwise (CW) (against the spin of the Earth), the opposite electromagnetic charges are arranged - a "south pole" is created at the top of the field, and a "north pole" at the bottom near the base of the spine. This causes a "de-gaussing" effect, removing excess charges related to over-stimulation in parts of the brain, and transferring those charges to the other side of the brain to activate under-stimulated brain regions in the other hemisphere.



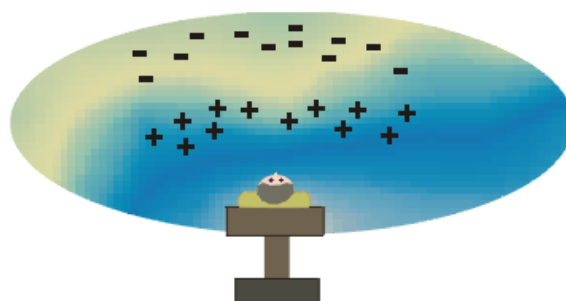
Head Facing: North  
Counterclockwise Motion



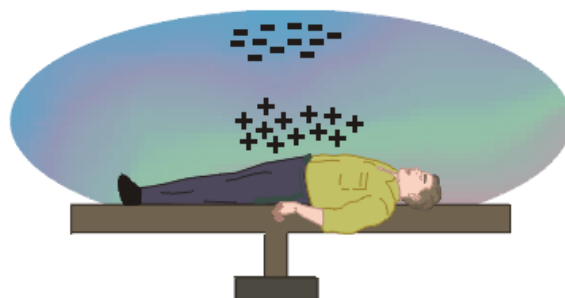
Head Facing: West  
Counterclockwise Motion



Head Facing: South  
Counterclockwise Motion



Head Facing: East  
Counterclockwise Motion



Head Facing: North  
Counterclockwise Motion

Through an established method of strategic alternation of CW and CCW rotations, **BOSS™** reliably and effectively achieves synchronization of the left and right hemispheres of the brain, as well as enhanced integration of hemispheres, and improved functioning of mental processes.

The electromagnetic field and induction physics which operate during the rotation process cause balancing changes in the frontal lobe and pineal body regions of the brain. This causes deep relaxation, or induced meditation, which can adjust the person's brain state to the levels desired for therapeutic purposes. By controlling the speed, direction and duration of rotation, you can guide the person from Beta state, to the desired brain state, including Alpha, Delta, and even the extremely hard-to-achieve, deep-level Theta state. This makes **BOSS™** a powerful system for induced, deep meditation using high-technology methods.

#### **4.0 SCIENTIFIC VERIFICATION OF BOSS™ RESULTS**

The immediate beneficial results provided by **BOSS™** are fully verifiable by objective, classical scientific methods. The primary technology used in the development of this unique technology is the EEG, the technology used by the largest hospitals and world-class research facilities to fully and accurately document the precise conditions and activities of specific parts of the human brain.

The scientific basis for the therapeutic procedures for effective use of the **BOSS™** system was investigated and confirmed by a series of experiments led by Dr. Harold Cober, founder of the Theodynamics Institute and an internationally recognized expert in the field of vibrational medicine, and Sean Furjanic, ITEM's President. Using EEG supplemented by other bioelectrofield measurement systems, Dr. Cober and Sean Furjanic laid the empirical foundation for scientific evidence of the effectiveness of **BOSS™** procedures and results of use. Those results were then processed at ITEM for interpretation, analysis and development of precise procedures for effective use of the **BOSS™** system.

The main supplementary research technologies used to conduct these experiments are the following:

- Resonant Field Imaging™ (RFI™) by ITEM. RFI™ is an external type of magnetic resonance imaging (MRI) technology, which detects, identifies and analyzes external biomagnetic electrofields radiating from the human body, including brain waves. The RFI™ computer software translates the detected electrofield frequencies into reference colors, based upon the frequency's resonance in the optical spectrum, and automatically generates computerized images of energies in specific regions of the brain.
- Aura in Motion™, another technology that detects and analyzes bioenergy radiations, creating images of the human aura. The feature of Aura in Motion™ that was used here was its creation of small color charts which also show the approximate frequency of right

and left brain bioenergies, displayed as reference colors. While not comprehensive with respect to brain analysis, it does simply and accurately show fundamental changes in the balance between the hemispheres of the brain.

- The Egely Wheel - A biofield meter designed by Buryl Payne, Ph.D., which is constructed based upon instructions in his book "The Body Magnetic". This biofield meter indicates a "Bioenergy Quotient" (BQ), showing the relative strength of the left and right bioenergy fields of the body, and indirect indicator of brain hemispheric dominance.

The following key experiments conducted by Dr. Cober and Sean Furjanic. Analyses and interpretations of these results and findings were developed by ITEM in cooperation with Dr. Cober.

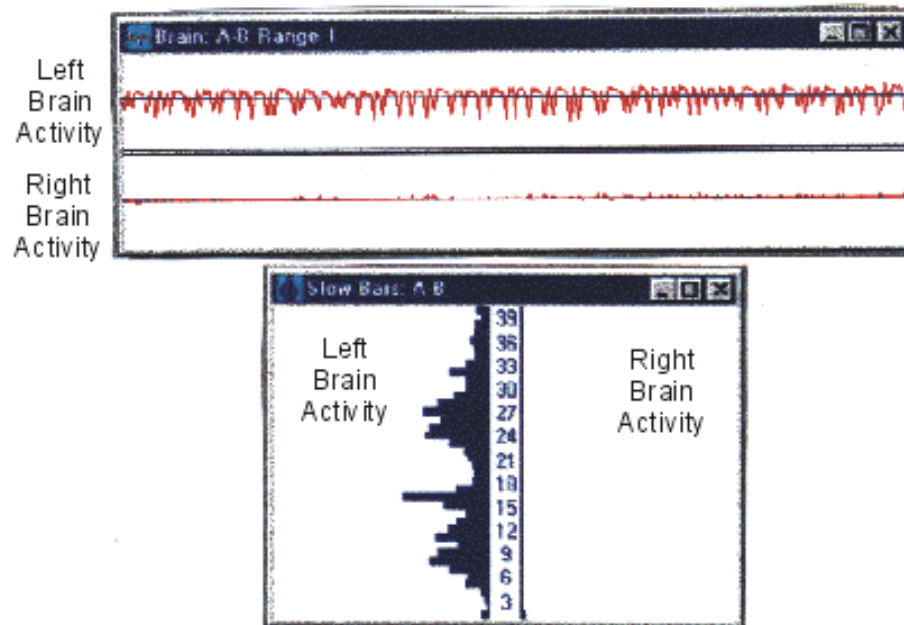
#### **4.1 Experiment # 1 – Achieving Hemispheric Synchronization**

In one case, a subject came to ITEM's researchers complaining of excessively left-brained mental processing, accompanied by severely inhibited right-brain activity. The subject felt that in this condition, his sense of humor and ability to relax and play with family and friends was diminished, and he could not stop his constant mental processes of analyzing and planning for projects from his professional job. In a sense, this caused him to always "take his work home" with him, whether he liked it or not. This also led to chronic insomnia, constant high levels of stress and accompanying high blood pressure. Of greatest concern, to him, was that the under use of his right brain functions prevented him from finding creative, new and innovative solutions and approaches to the most important challenges of his professional work.

An Electroencephalogram (EEG) analysis revealed highly active brain waves in the left hemisphere, with a severe deficiency of brain waves in the right hemisphere. ITEM's RFI™ technology brain chart showed a significantly higher frequency in a key region of the left brain than in the same region of the right brain.



## EEG RESULTS

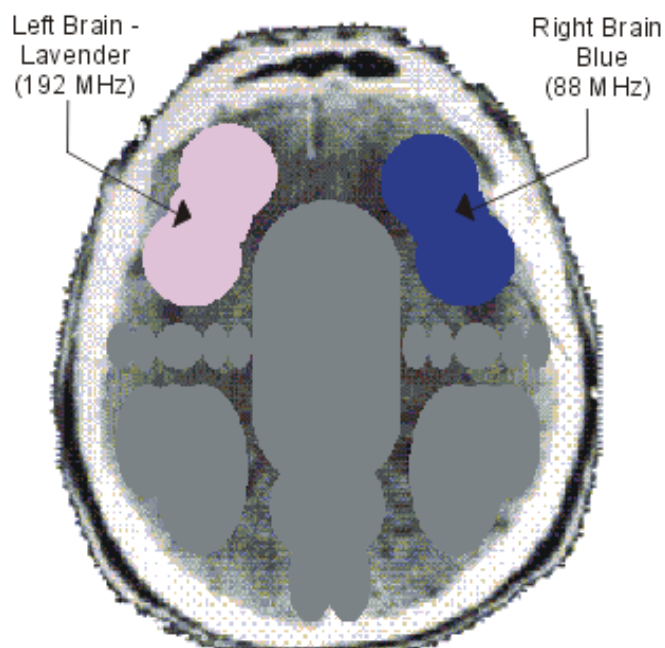


## Aura-in-Motion Results



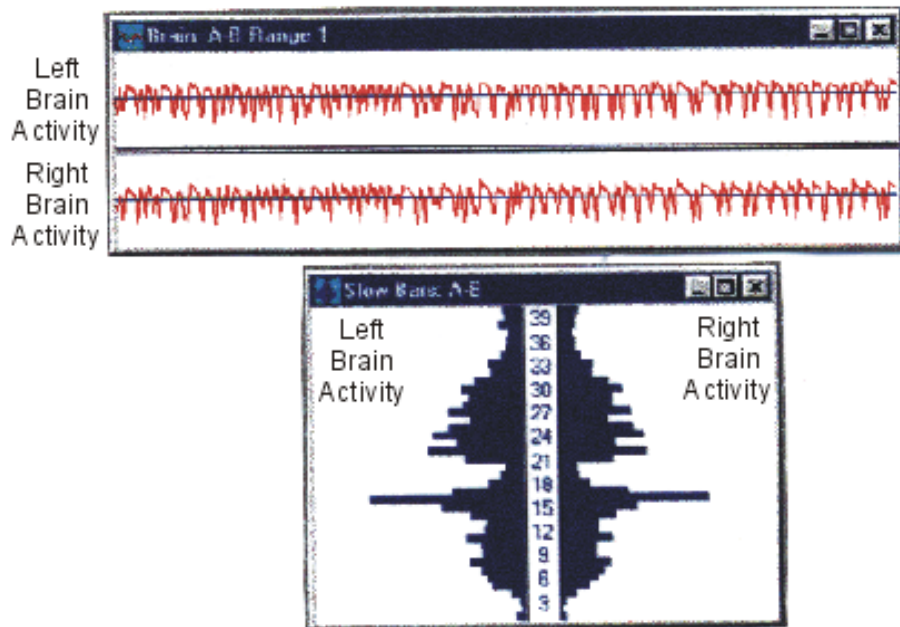
Result - right bioenergy field is at higher octave - left brain dominant

**Resonant Field Imaging™ Results**

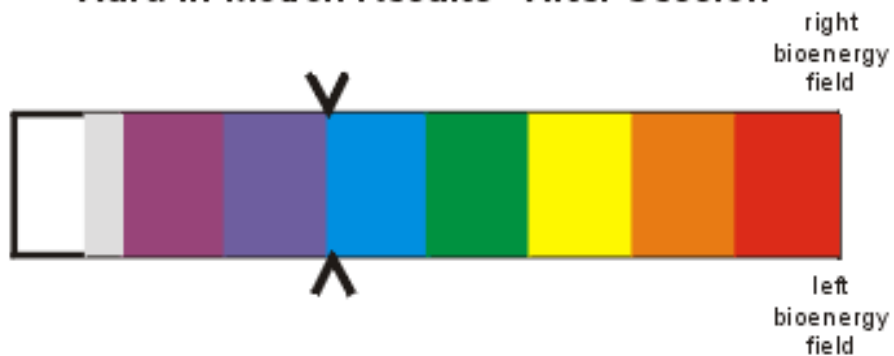


Following these “control” measurements and analyses to determine the most effective use of **BOSS™**, the subject reclined on the table, and enjoyed 20 minutes of relaxation on the rotating equipment. After this first session, additional measurements were taken to determine the “after” results.

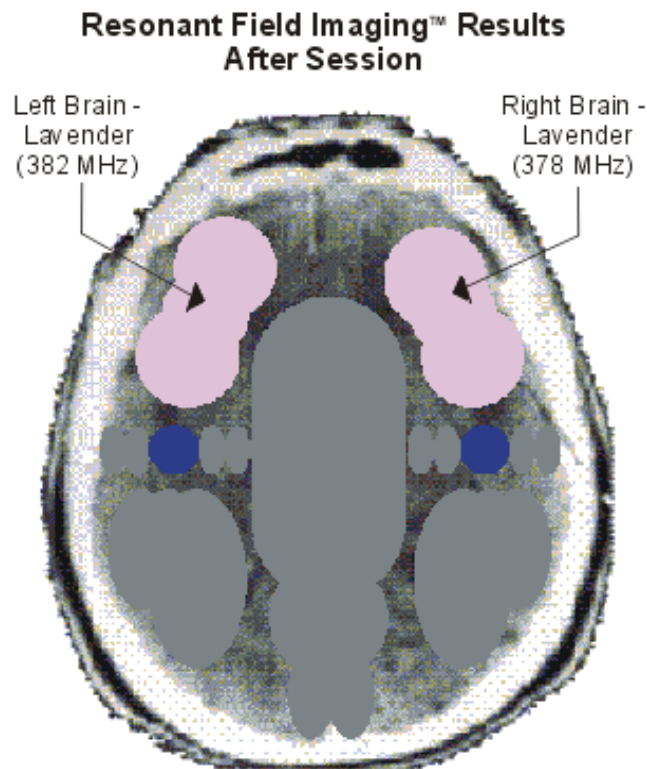
### EEG Results - After Session



### Aura-in-Motion Results - After Session



Result - right and left bioenergy fields synchronized, meaning left and right hemispheres synchronized.



During counterclockwise (CCW) motion of the centrifuge table, the activity in the 2 hemispheres temporarily reversed, but following the session the hemispheres came into perfect synchronization. In this first investigation, hemispheric synchronization (“hemi-sync”) was achieved only after the session, not during the session as expected.

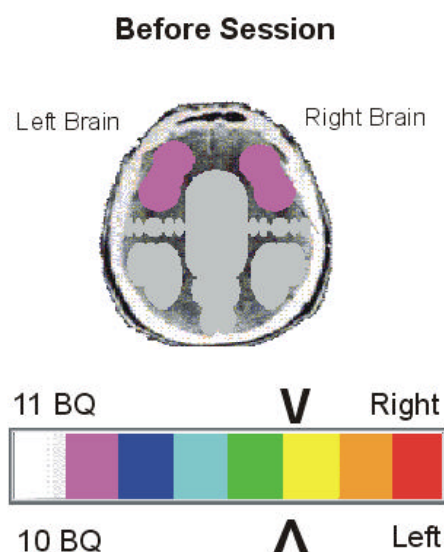
The bar graph on the bottom part of the EEG reading, taken after the session, indicates that the subject was able to enter a mid-range Alpha brain state (of deep meditation), while simultaneously maintaining a light level of Beta range (waking consciousness) brain activity.

While these first objective scientific measurements confirmed that **BOSS™** can be highly effective in balancing and synchronizing the activity of both hemispheres of the brain, they also suggested a new goal for improvement of the procedures for use of the system. In particular, it became evident that it would be more effective to help the subject achieve hemi-sync towards the beginning of the

**BOSS** session. This would optimize the subject's brain in advance, to derive maximum benefit from all of the physics and mechanics that come into play during the table sessions. Another related goal was to enhance the depth of brain states that the subject could achieve during a session, by inducing hemi-sync from the outset.

On the basis of this first experiment, further investigations were conducted, which showed that left-brain dominant subjects generally best and most rapidly achieve hemi-sync when the initial rotation direction is clockwise (CW).

#### 4.2 Experiment # 2 – Achieving Brain Optimization

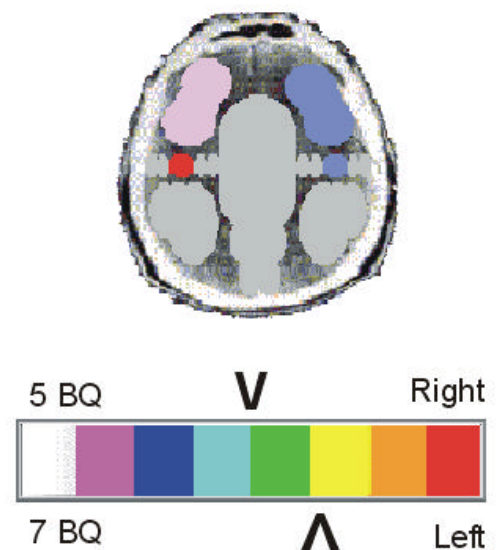


Another key experiment involved a subject with both hemispheres already in synchronization prior to the **BOSS™** session. The subject's bioenergy field frequencies are both a reference color of purple (same frequency) as measured by ITEM's RFI™ system, the Bioenergy Quotient (BQ) readings from the "Egely Wheel" biofield radiation detector are very close to each other, and the computerized Aura in Motion device shows that bioenergies in the right and left hemispheres are also the same color (approximately same frequency).

Following a counterclockwise (CCW) twenty-minute session on the **BOSS™** table, the hemispheric brain activity begins to become unbalanced. This shows that CCW rotation tends to have the effect of activating, or stimulating, the Left hemisphere of the brain. This result was also confirmed with EEG readings during similar sessions.

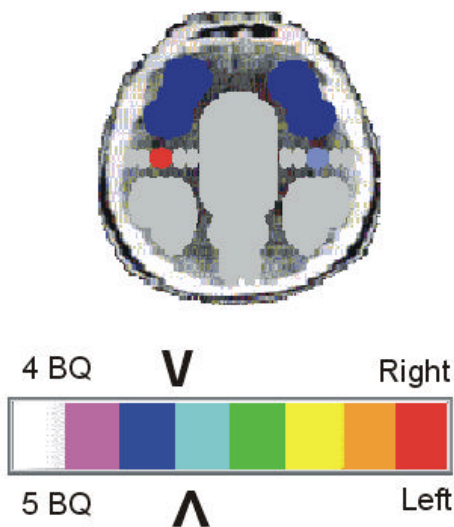
In order to complete the optimization process and maintain synchronization, we then immediately rotated the subject clockwise (CW) for an equal 20-minute duration. Following the balancing rotation session, the subject's frontal lobe frequencies balanced in perfect synchronization, having a lowered frequency compared to before beginning the **BOSS™** session. The subject's external biofield energy radiations, however, had increased in frequency and intensity, showing a noticeable strengthening of the person's overall physical health.

Following CCW Motion



This investigation confirmed the desirability of supplementary equipment or analytical procedures to determine the brain hemisphere dominance of the subject prior to using the **BOSS™** system. It also established that **BOSS™** sessions have enhancement and optimization benefits even for subjects who already have integrated or synchronized brain functions.

Following CW Motion



This indicates that when used according to ITEM's procedures, **BOSS™** achieves highly beneficial results to improve a person's overall functioning, regardless of their original level of fitness or performance. This also suggests that there is no limit to the improvements and enhancements in the physical and mental performance of the subject, and that it is safe to use **BOSS™** in a repeated manner, for continual progressive development and ever-increasing optimization.

This experiment also demonstrated the importance in alternating and balancing the directions of rotation in order to maintain the subject's hemi-sync after initial synchronization and integration, or

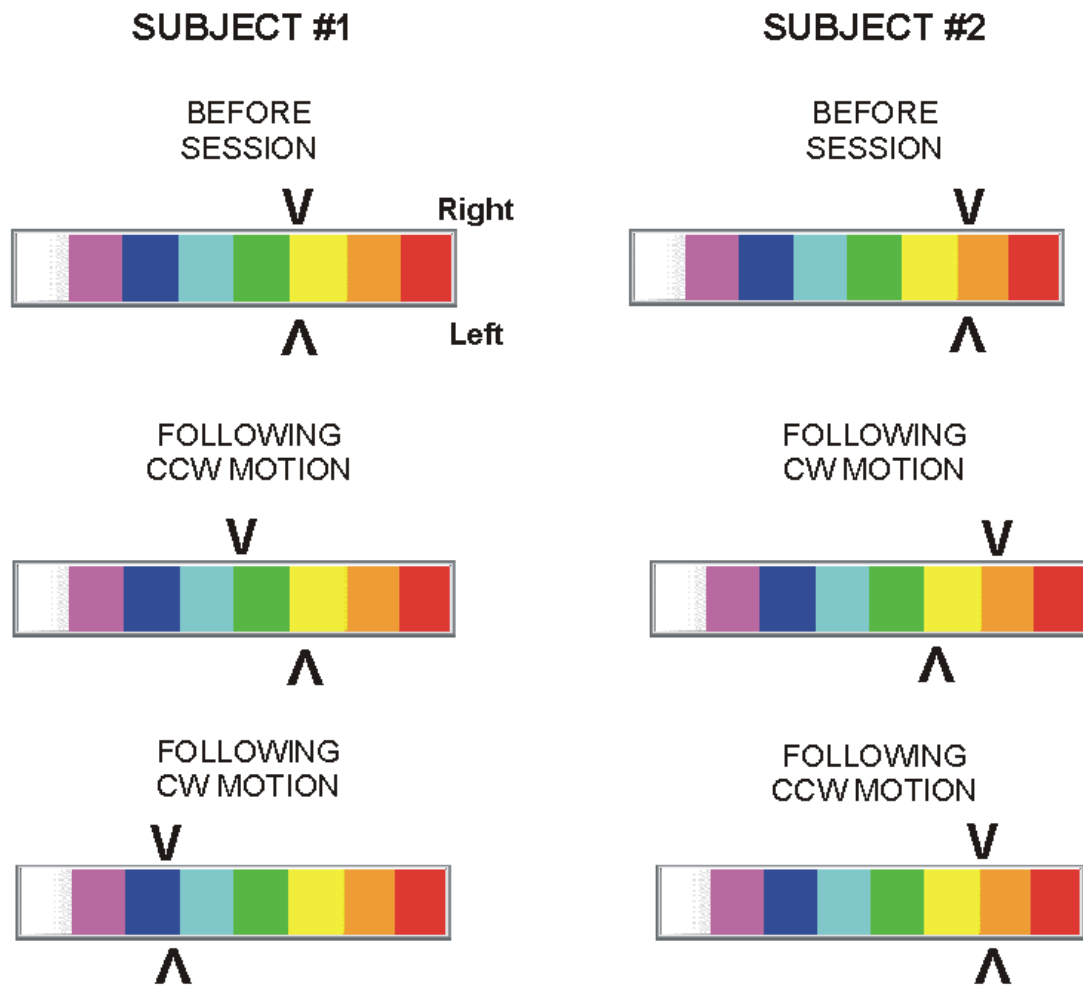
in cases where the subject is balanced prior to the session.

#### **4.3 Experiment # 3 – Maintaining Prior Synchronization**

Since the Aura in Motion™ external biofield energy measurement device had demonstrated consistency in accordance with the EEG readings and RFI™ brain images in previous experiments, ITEM's researchers conducted an additional experiment using only the Aura in Motion™ charts. The purpose of the experiment was to further explore alternated CW and CCW rotation in order to maintain hemi-sync, to preserve optimal brain function integration while simultaneously optimizing the performance and speed of brain functions.

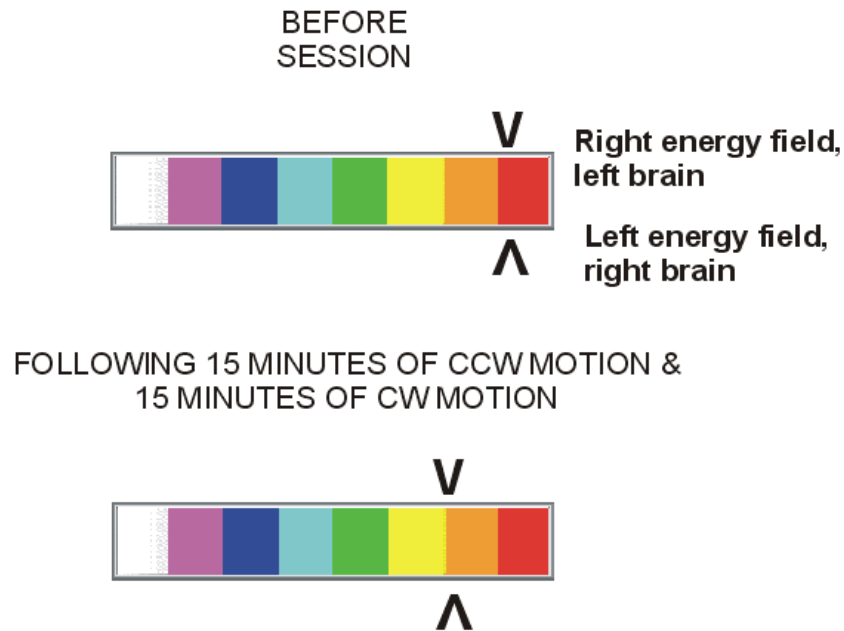
In this experiment, two subjects, (# 1 and # 2), both had synchronized hemispheres prior to the **BOSS™** session. Subject # 1 was initially rotated CCW, and subsequently rotated CW for an equal period of time. Conversely, Subject # 2 was initially rotated CW, and subsequently rotated CCW for an equal period of time.

Subject # 1, who was initially rotated CCW, remained synchronized, and experienced results of significantly increased bioenergy field strength and frequency. Subject # 2, who was initially rotated CW, also remained synchronized, but the bioenergy field strength and frequency returned to its original level, not evidencing any measurable improvements. In both pre-synchronized subjects, after the first rotation the brain hemispheres shifted out of sync, but after the second counter-rotation (reversing direction) both immediately returned to a hemi-sync state.



The conclusion drawn from this experiment, and supported by subsequent experiments, is that subjects who are already in hemi-sync prior to the **BOSS™** session should initially be rotated CCW on the table, to maximize optimization and improvement effects. Subjects rotated according to this method all had readings very similar to the following chart (taken from the results with a 14 year old male subject):





Subsequent repeats of this experiment with other subjects produced the same results, indicating that initial CCW rotation of pre-hemi-sync subjects followed by an equal CW rotation not only maintains hemi-sync, but also optimizes brain performance as evidenced by the increased brain operating frequencies.

#### 4.4 Experiment # 4 – Achieving Synchronization

The next key experiment was designed to correlate spin direction on the **BOSS™** table with hemispheric dominance and related brain synchronization. For more concise presentation, only the results of the Egely Wheel Biofield Meter are shown here, as the Bioenergy Quotient (BQ) was in proportion to the overall hemispheric brain activity indicated by EEG. The BQ readings are measured on a scale from 0 to 25, representing the electrofield strength of each of the hemispheres of the brain, as those electrical signals radiate outwards through the nervous system to the corresponding hands (left brain - right hand, right brain - left hand).

**Subject # 1:**

Measurement Time	LEFT Brain	RIGHT Brain
Before Session	10	3
After CW Rotation	2	7
After CCW Rotation	9	2
Next Day - Before Session	7	3
10 min. After Session	3	5

**Subject # 2:**

Measurement Time	LEFT Brain	RIGHT Brain
Before Session	6	0
After CW Rotation	5	8
10 min. After Session	2	2

**Subject # 3:**

Measurement Time	LEFT Brain	RIGHT Brain
Before Session	0	1
After CW Rotation	1	1

**Subject # 4:**

<b>Measurement Time</b>	<b>LEFT Brain</b>	<b>RIGHT Brain</b>
Before Session	5	2
After CW Rotation	10	7
After CCW Rotation	7	11
10 min. After Session	4	4

Analysis of these results, in the context of the applicable principles of physics, led to the conclusion that in order to achieve hemispheric synchronization and brain function optimization, left brain-dominated subjects should be rotated CW, and right brain-dominated subjects should be rotated CCW.

#### **4.5    Experiment # 5 – Optimal Speed of Rotation**

According to Dr. John E. Upleadger, and osteopathic physician (D.O., O.M.M.) and founder of the Upleadger Institute, the optimum healthy rhythmic pulsation of the cerebrospinal fluid in the craniosacral canal is 10 pulses per minute (see *Your Inner Physician and You*, by Dr. Upleadger). Scientifically, this is described as 10 Cycles Per Minute, indicated by the abbreviation “CPM”. One “cycle” is literally a cycle consisting of compression leading to a pulse of pressure, followed by decompression leading to an anti-pulse of depressurization. In the most optimized therapeutic process, the cerebrospinal fluid experiences this cycle of pulsed compressions and subsequent decompressions 10 times per minute, thus referred to as 10 CPM.

The purpose of therapeutic rhythmic compression would be to apply the piezoelectric effect to restore, revitalize and rejuvenate the cerebrospinal fluid, thereby having the same effect on the desired regions of the brain. Since the end goal is to stimulate or induce a healthy electrical charge, there are two separate mechanisms which can accomplish this result. The first is

therapeutic motion of the cerebrospinal fluid. The second is natural electromagnetic field stimulation to increase the charge of the cerebrospinal fluid, even without motion. Therefore, the desired result can be accomplished by either one or both of motion, or electrofield charge, either separately and independently, or working together in combination.

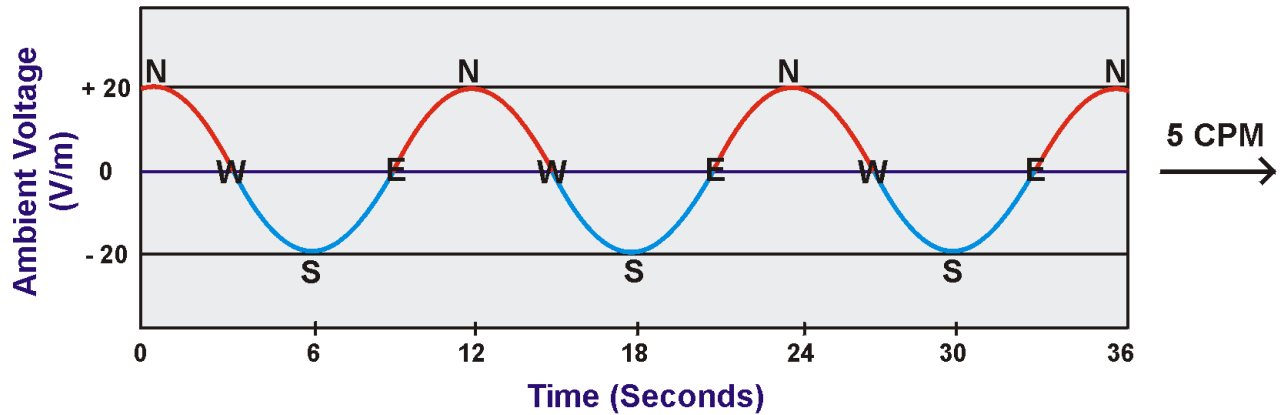
The experiment, designed to provide ITEM with an empirical basis for determining and refining the procedures for correct use of the **BOSS™** table, resulted in data that helped suggest the optimal speed of rotation of the table.

The experiment involved taking biomagnetic field voltage readings of the area immediately surrounding the cerebrospinal canal, using an Ambient Field Voltmeter, during subjects' rotation on the **BOSS™** table.

For consistency, all measurements were taken during CCW rotation periods. As the subject's head passes north, a voltage pulse of approximately (+) 20 V/m is detected, which drops to zero when rotation reaches the west point. As the head passes south, a voltage counter-pulse of approximately (-) 20 V/m is detected, which then increases to zero at the east point. Control measurements of the ambient voltage of the table rotating for 30 minutes without any subject on it did not show any significant increases in field voltage. This finding confirmed that the (+/-) 20 V/m measurements were purely the result of various principles of physics operating with respect to human subjects during the **BOSS™** sessions.

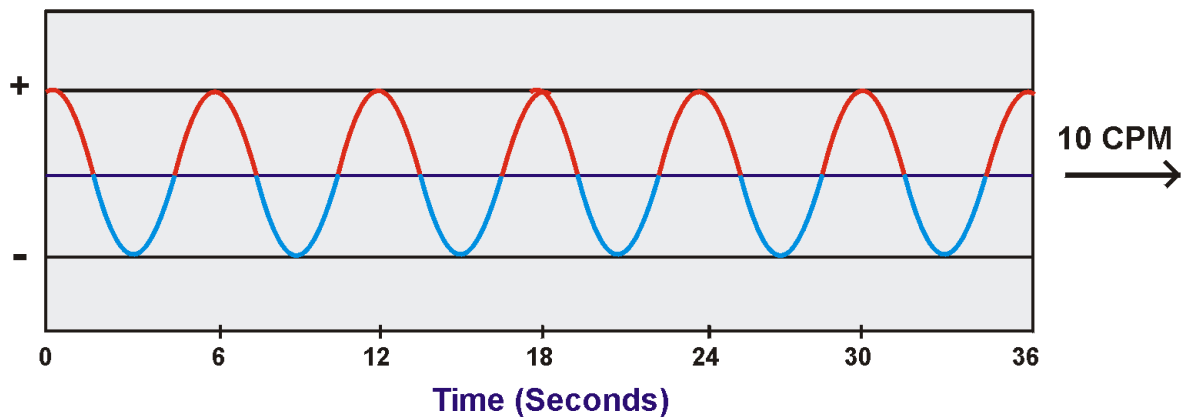
Through in-depth analysis and calculation of the applicable physics, ITEM was able to conclude that during a session on the **BOSS™** table, both motion-based piezoelectric effects and induced magnetic charge principles operate during the process, acting both independently, and in combination.

### Magnetic Induction Sinewave Pulsation



**Note:** This graph shows the experimental electromagnetic induction that occurred as a person's head passes North (N), West (W), South (S), and East (E) when rotating on the table in a counterclockwise manner. The measurements were taken with an ambient voltmeter above the person's head during rotation.

### Optimal Cerebrospinal Fluid Wave Pulsation



As the cerebrospinal canal is rotated horizontally, the subtle magnetic charge induced as it passes through the positions of parallel alignment with the magnetic north and south poles creates a momentary pulse of gravitational pull. The centrifugal motion enhances the effects of this subtle horizontal gravitational force between the north and south poles, by sustaining a vertical anti-gravity force, allowing the cerebrospinal fluid to freely move in response to the magneto-gravitational stimulus. In accordance with the applicable physics, every time the subject's head passes through the north pole, the cerebrospinal fluid experiences a gentle momentary pulse of "pull" gravitation, pulling the fluid upward towards the brain. Likewise, every time the head passes through the south pole, the fluid experiences a momentary pulse of "push" gravitation, pushing the fluid downwards into the cerebrospinal canal. This process results in the effective delivery of two motion-therapy pulses per rotational cycle, and each of the two pulses consists of a complete cycle of compression and decompression for a complete piezoelectrical pulse.

The basic data - indicating an electrofield pulse of (+/-) 20 V/m at the north and south poles - led ITEM to the conclusion that independent and apart from the gravitational motion physics utilizing the piezoelectric effect, electromagnetic stimulation physics also operate separately to additionally increase the charge of the cerebrospinal fluid.

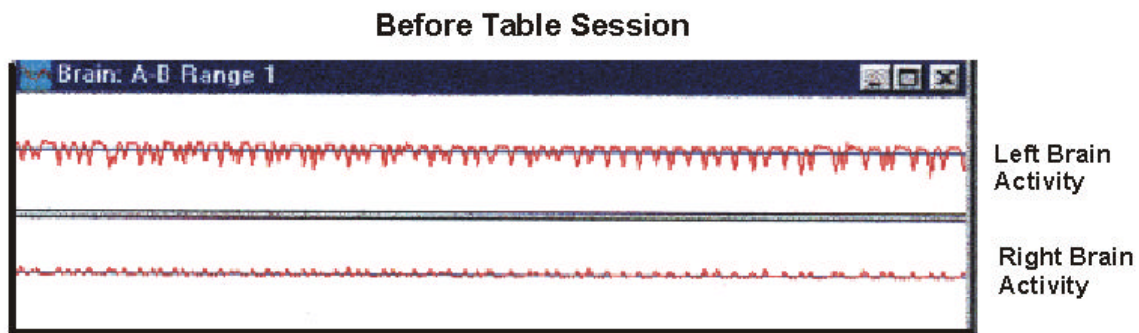
The technically correct terminology for electrically "charging" the cerebrospinal fluid is to say the **BOSS™** process "increases voltage potential" in the fluid. The scientific term "voltage potential" is used to describe a packet, or pulse, of voltage, as defined by the difference between its base voltage and peak voltage. Whether the base or peak voltage is the higher of the two determines whether the voltage is classified as having positive (+) or negative (-) charge. Whether the voltage packet is plus or minus, however, does not have any relevance with respect to the fact of that voltage as a quantity. In other words, both plus (+) and minus (-) voltage packets still deliver a pulse of a certain quantity of energy. Since the goal in charging the cerebrospinal fluid is adding quantity of charge, and stimulating the presence of more charged particles, both plus and minus, voltage of any polarity applied to this fluid is effective as a complete "pulse" delivering charge.

During horizontal rotation on the **BOSS™** table, every time the head passes through the north pole or the south pole, the cerebrospinal fluid receives a packet of magnetic charge. Therefore, one complete revolution on the **BOSS™** table results in the effective delivery of two electrofield pulses per rotational cycle, and each of the two pulses consists of a complete packet of electromagnetic energy that contributes the desired additional charge.

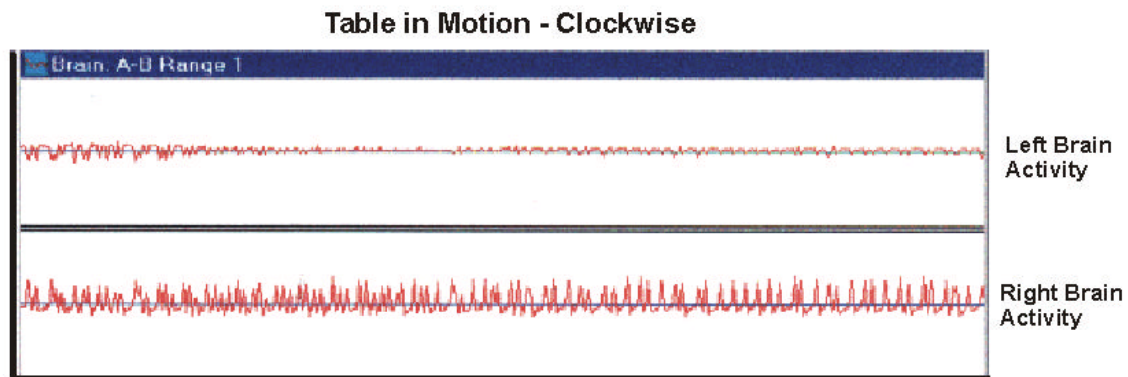
Based upon ITEM's above analysis of the applicable physics, since both the piezoelectric and electromagnetic principles each operate to effectively deliver exactly two complete energizing pulses to the cerebrospinal fluid during one complete rotation, the following conclusion can be drawn: in order to fully optimize and most effectively recharge the cerebrospinal fluid, considering that one full rotation delivers two pulses, and the optimal pulsation of the cerebrospinal fluid is 10 cycles per minute (CPM), the optimum speed of rotation of the **BOSS™** table is theoretically 5 CPM or RPM. However, it is believed that 5 RPM is generally too fast and could cause disorientation or dizziness in some people, which is not productive in terms of brain synchronization. Accordingly, ITEM recommends that one-half the optimum speed (2.5 RPM) be utilized for sessions, or a range of 2.5 to 3.5 RPM. This range has been experimentally confirmed by ITEM as effective.

#### **4.6 Experiment # 6 – Brain Function Integration**

The final key experiments to establish empirical data for designing the most effective methodology for **BOSS** sessions focused on brain function integration, in particular, coordination and resulting optimization of the hemispheres of the brain as they function together. These experiments were straightforward, using EEG to document the shifting and transfer of electromagnetic brain waves and biomagnetic energies between the left and right hemispheres of the brain.



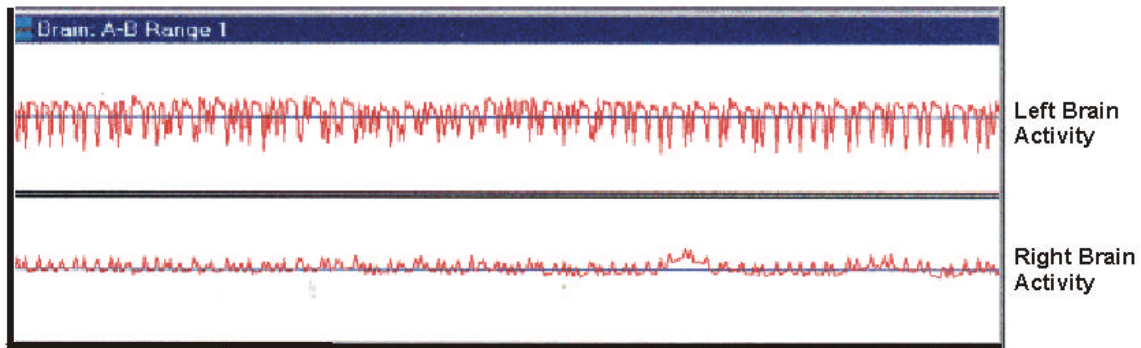
The following EEG image from one session demonstrated the general principle that when rotating CW, brainwave bioenergies and electrofield activity in the brain is transferred from the Left hemisphere to the Right.



The following EEG image from the same session likewise demonstrated the general principle that, conversely, when rotating CCW, brainwave bioenergies and electrofield activity transferred from the Right hemisphere to the Left.

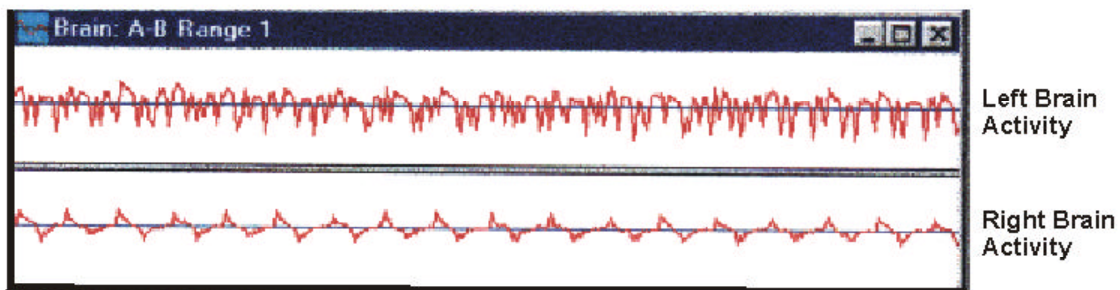


Table in Motion - Counterclockwise



Notwithstanding the prior left-brain dominance of the subject, even after the counter-balancing equal duration of CCW rotation for this session (which was not necessary except for the purposes of the present experiment), the subject achieved a noticeably enhanced synchronization and integration of hemispheric brain waves, as evidenced by the EEG image from after the **BOSS™** session.

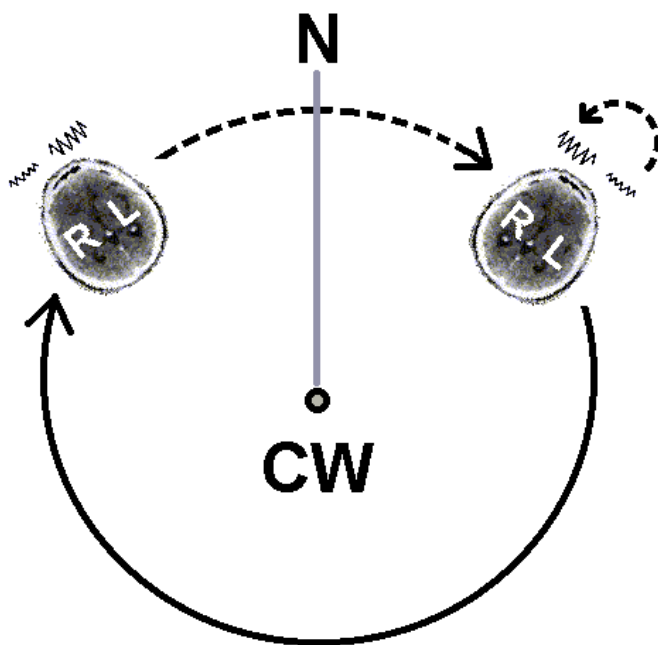
After Table Session



This final experiment proved a central general rule governing the choice of rotation directions for the table for effective **BOSS™** sessions, a rule which is consistent with and supported by the raw data and conclusions from the other 5 key experiments. The general rule is as follows:

The side of the brain which is leading the movement towards the magnetic north pole is generally partially discharged, and its charge is transferred to the opposing hemisphere which is following behind the movement.

**Hemispheric Induction Transfer Left -> Right**



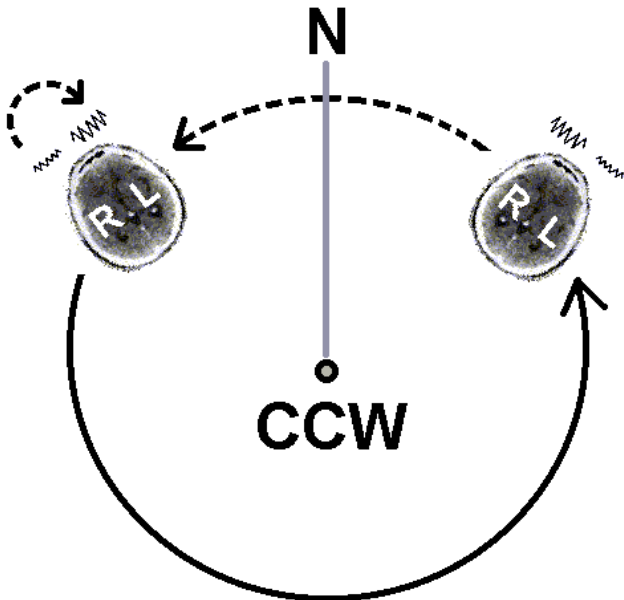
In accordance with the principle behind this general rule: CW rotation, where the Left side of the brain is leading the movement towards magnetic north, results in energy-activity transfer from Left to Right hemispheres. Conversely, CCW rotation, where the Right side of the brain is leading the movement towards north, results in energy-activity transfer from Right to Left hemispheres. This general rule provides the empirically proven scientific methodology for reliably and accurately controlling the inter-hemispheric transfer of electrical charge, in a controlled process engineered to

effectively accomplish optimization, synchronization and integration of mental processes and brain activities.

This general rule does have some exceptions, mostly short-term exceptions related to delayed reaction times in certain subjects, or variations in the unique characteristics of each subject. Nonetheless, this general rule does establish a reliable and scientifically supported approach to determine the most effective methodology for **BOSS™** sessions, to achieve specific desired

results.

**Hemispheric Induction Transfer Right -> Left**

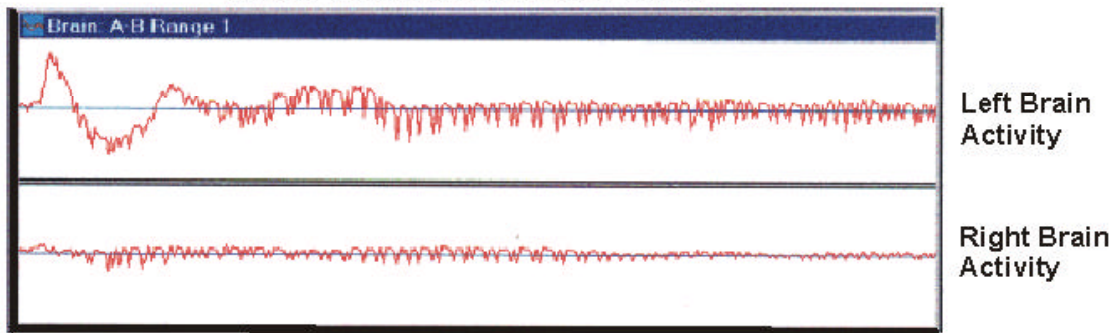


Most of the exceptions to the general rule of CW induction Left to Right, and CCW induction Right to Left, are caused by various isolated events which can occur during the session, some of which may have the effect of stimulating the subject's conscious mind, partially distracting the subject from the sensory deprivation and induced meditation effects of the process. Such events can temporarily alter the reaction of the subject's brain waves and hemispheric activities, causing delayed reactions, or other unexpected apparent inconsistencies with the basic scientific

principles. These events and related exceptions, however, do not undermine the overall effects of the sessions, and do not change the effectiveness and reliability of the general rule of rotational direction.

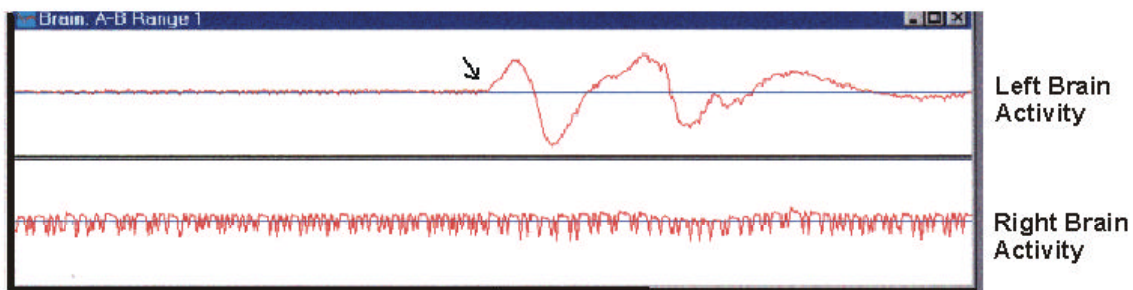
For the purposes of clarification and scientific interest, two examples of such events are illustrated below by the EEG measurements taken during the corresponding events.

**Reversing Counterclockwise to Clockwise in progress  
at the beginning of this strip.**



While this situation was not a distracting, or unexpected, event, it is a very clear example of exactly how procedural or environmental distractions - in this case, the practitioner stopping rotation and switching directions - can “wake up” the conscious mind, stimulating logical thinking as the subject’s left brain processes and adapts to its conscious knowledge of the interruption of rotation and switch in direction.

**A facilitator walked by a blindfolded  
client turning counterclockwise.**



The EEG chart above better illustrates the same phenomenon. This strip shows the subject’s brain waves during even rotation on the centrifuge table, where the subject’s conscious mind was relaxed and subconscious mind dominant. Beginning at the arrow (added by ITEM for illustration),

the sudden noise and sensory stimulus of the practitioner walking close to the subject had the effect of temporarily stimulating conscious mental activity, as evidenced by the dramatic shifts in left brain activity.

## **5.0 SUPPLEMENTARY INFORMATION ON BOSS™**

### **5.1 WARRANTIES**

All parts have a one-year warranty from the date of shipment from ITEM to the **BOSS™** Investigator. This includes all electrical components and any parts fabricated by the manufacturer such as the mattress, control panel mount post, and table base. Labor is not included in the warranty because, at this time, ITEM does not have an agreement with a local service provider. If such an agreement is made in the future, labor may be covered under the warranty.

If you believe that any part of your **BOSS™** table is malfunctioning or is damaged, contact ITEM at 1-888-304-ITEM or [Central@item-bioenergy.com](mailto:Central@item-bioenergy.com) immediately. Please describe all relevant details leading up to your discovery of the damage or malfunction. In addition, digital pictures of the part(s) are appreciated, as it helps ITEM to diagnose the problem. If the part is under warranty and there is no evidence of misuse, the part will be replaced in its entirety. Shipping is the responsibility of the **BOSS™** Investigator.

### **5.2 TECHNICAL SUPPORT**

You receive Lifetime Technical Support with your order of the **BOSS™** table. You also receive access to the **BOSS™** technical support website, <http://www.item-bioenergy.com/password/boss.asp>. A user name and password are needed to access the technical support page – ITEM provides these in the cover letter accompanying this manual. In addition, you can call 1-888-304-ITEM or email [Central@item-bioenergy.com](mailto:Central@item-bioenergy.com) for an immediate response to your questions. If you live outside the US, in order to call this number you may need to go to ITEM's website, and enter your phone number into the instant call-back function at the bottom of each web page.

ITEM serves as the primary point of contact in resolving troubleshooting problems or claims of

damage. Please describe your particular problem in detail to ITEM, along with your unique serial number as provided on the base of your table, for prompt customer service.

If a part is damaged or not working properly in your opinion, ITEM will make an initial assessment as to the possible sources of the problem. If a defective part is the problem, follow ITEM's instructions on where to ship the part for replacement or repair if the product is under warranty. No charges shall apply. If the defective part is not under warranty, then ITEM will inform you of the possible charges that may apply. Shipping will be the responsibility of the **BOSS™** Investigator for replacement parts after the warranty period.

ITEM does not expect that you will have any problems – however, situations do arise where errors are made by the manufacturer, courier or user. In these cases, ITEM is committed to resolving the matter at the least possible expense to you and in the quickest and most effective manner available. ITEM expects that your **BOSS™** table will last from 10 to 15 years based on experience from other tables manufactured in accordance with similar standards.

### **5.3 COMMON QUESTIONS AND TROUBLESHOOTING**

As ITEM's experience with **BOSS™** continues to grow, we will add to this section. For now, we present you with some of the common questions and troubleshooting scenarios you may have or encounter while using **BOSS™**. Our answers to these questions are subject to change based on further experience. If your question or scenario is not addressed, please contact us.

**Is there any routine maintenance required for my BOSSä table?** If you have the standard stationary height model table, the answer is no. If you have the adjustable height model, then the only maintenance we recommend is that once every two years you tip the table over so the bottom is exposed, and open the “grease fitting” that is visible at the bottom of the table's actuator, and shoot a small amount of grease using a grease gun into the opening.

**I hear a metallic noise – what is this?** It may be the “gear reducer” within the motor. This noise, which only occurs occasionally, is currently under investigation. If you hear a “metallic noise”, please contact ITEM.

**I feel a “wobble” in the mattress as I am rotating – what is this?** It is possible that the floor is not perfectly level. Ideally you should find a location where the floor is level but if this is not possible, it may be necessary to place “shims” or heighteners under one side of the table base. If floor unevenness is not the source of the problem, then the wobbling effect may be due to the mattress not fitting perfectly into the motor shaft. Lift the mattress out of the shaft and try to obtain a snug fit.

**There is a “jerking” effect every time the table stops and changes direction– why does this happen?** If you feel a “jerk” or “tug” whenever you change direction with the table, we believe that this is a surface-to-surface friction problem. We are continuing to investigate this issue. It may help to lift off the mattress and spray silicone or WD-40 inside the shaft.

**The table stalls after a few minutes of rotating – it continues to rotate, but not at the selected speed – why did this happen?** This has occurred once to an Investigator, but we did not have the opportunity to learn the reason. If you encounter this problem, please follow these steps: 1) obtain a digital multimeter with positive (red) and negative (black) test leads, 2) take off the table base panels by removing the screws, 3) remove the front cover of the blue Eurotherm motor controller by pressing against it and pushing down, 4) program the table and press Start, 5) when the table is in motion, press the black test lead against the bottom right hand terminal and the red test lead against the second from bottom right hand terminal, and read the voltage on the multimeter. If the voltage is approximately 2 times the speed of the table in RPM, then a proper signal is being transmitted from the hand control, and the stalling problem is due to a problem with the motor. For example, if the table was programmed to rotate at 3 RPM, you should read approximately 6 V.



This manual will be updated as we continue to identify issues and solutions – please check ITEM's website at [www.item-bioenergy.com/password/boss.asp](http://www.item-bioenergy.com/password/boss.asp) for the latest manual updates.

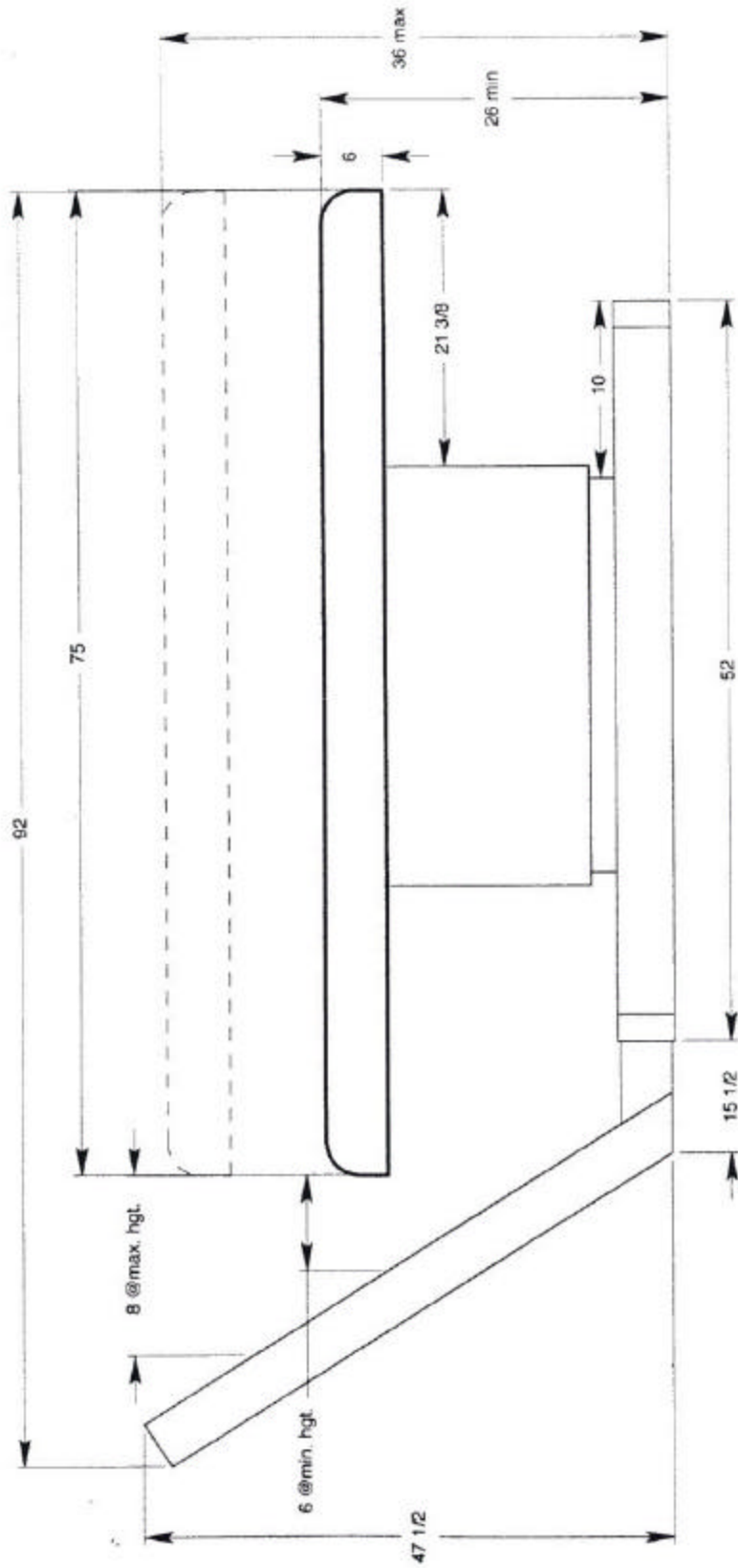
Attachment B presents the troubleshooting section of the User Manual for the Eurotherm motor controller device, which receives signals from the hand control and transmits signals to the motor. ITEM may ask you for the display reading on the controller when troubleshooting with you.

#### **5.4 INCOME OPPORTUNITIES**

Would you like to become a “dealer” of **BOSS™** tables in your territory or a “franchisee” of **BOSS™** healing centers? ITEM is in the process of setting up its worldwide distribution network, the details of which are currently under development. We recommend that you contact ITEM and express interest as soon as possible so we can reserve your territory. In general, it is believed at this time that authorized dealers, who sign agreements with ITEM for a minimum quantity of sales, will receive 25% discounts on ITEM's published retail price.

# **ATTACHMENT A**

BOSS Table Profile				SCALE:	DRAWN BY:	CHECK:	APPROVED:	DATE:	REV	DATE	DESCRIPTION
				NTS	BR			1/24/03			
DRAWING NO:				NOTES:							



# B.O.S.S. Platform AC Controller Mounting

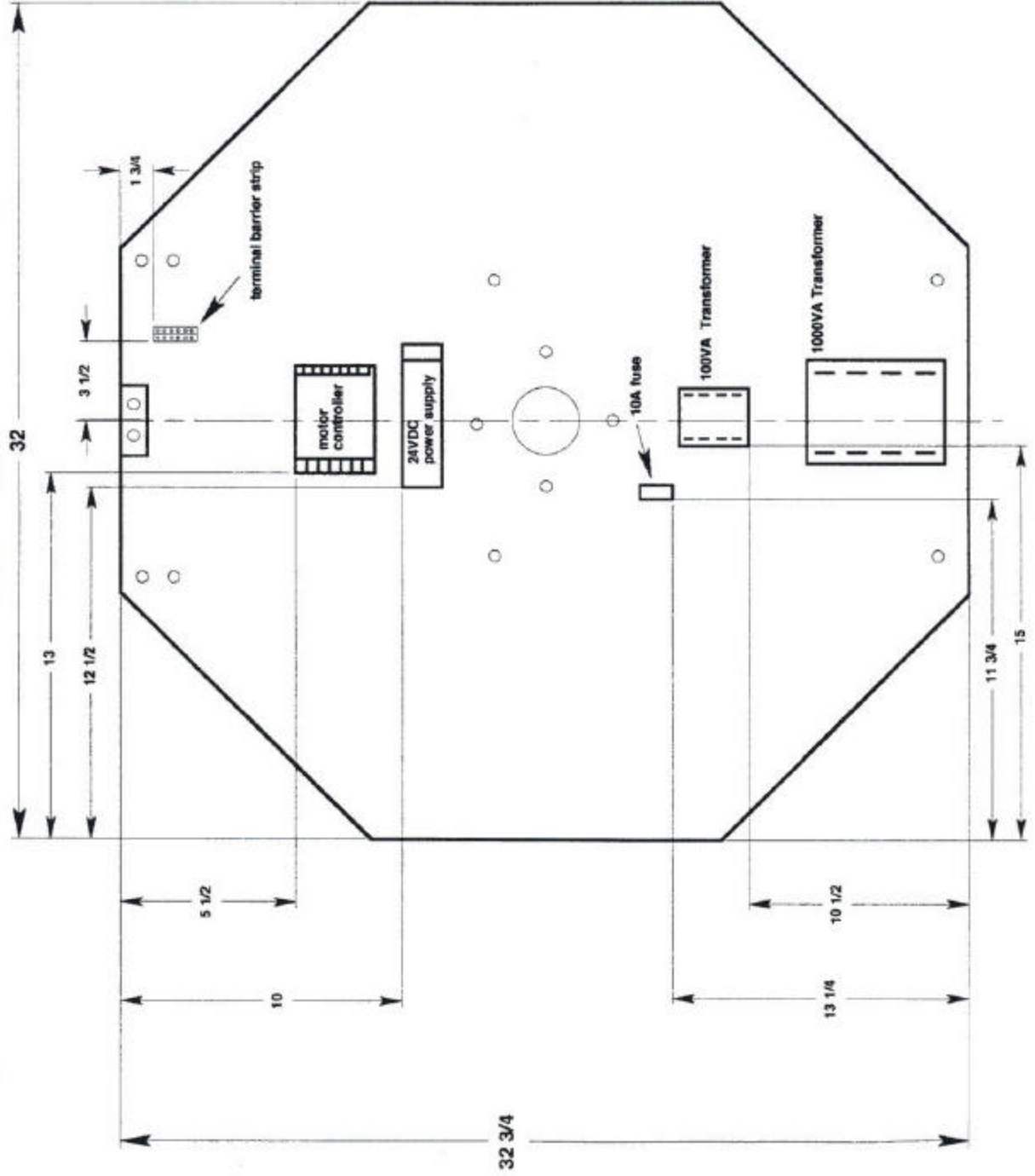
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1/23/03

NOTES:



# **ATTACHMENT B**

## Hexadecimal Representation of Trips

The tables below show the possible parameter values for the AUTO RESTART TRIGGERS and AUTO RESTART TRIGGERS+ parameters, <sup>S</sup>ST23 and <sup>S</sup>ST24 respectively. Refer to the 650V Software Product Manual, "Trips Status" (on our website: [www.eurothermdrives.com](http://www.eurothermdrives.com)) for additional trip information that is available over the Comms.

Each trip has a unique, four-digit hexadecimal number number as shown in the tables below.

<b><sup>S</sup>ST23 : AUTO RESTART TRIGGERS</b>				
ID	Trip Name (MMI 6901)	Trip Name (MMI 6511 & 6521)	Mask	User Disable
1	OVERVOLTAGE	DCHI	0x0001	
2	UNDERVOLTAGE	DCLO	0x0002	
3	OVERCURRENT	OC	0x0004	
4	HEATSINK	HOT	0x0008	
5	EXTERNAL TRIP	ET	0x0010	✓
6	INVERSE TIME		0x0020	✓
7	CURRENT LOOP		0x0040	✓
8	MOTOR STALLED		0x0080	✓
9	ANIN FAULT		0x0100	✓
10	BRAKE RESISTOR		0x0200	✓
11	BRAKE SWITCH		0x0400	✓
12	DISPLAY/KEYPAD		0x0800	✓
13	LOST COMMS	SCI	0x1000	✓
14	CONTACTOR FBK	CNTC	0x2000	✓
15	SPEED FEEDBACK		0x4000	✓

<b><sup>S</sup>ST24 : AUTO RESTART TRIGGERS+</b>				
ID	Trip Name (MMI 6901)	Trip Name (MMI 6511 & 6521)	Mask +	User Disable
17	MOTOR OVERTEMP		0x0001	✓
18	CURRENT LIMIT	I HI	0x0002	
21	LOW SPEED OVER I	LSPD	0x0010	
22	10V FAULT	T 4	0x0020	✓
25	DC LINK RIPPLE	DCRP	0x0100	
27	OVERSPEED		0x0400	✓
28	ANOUT FAULT	T 5	0x0800	✓
29	DIGIO 1 (T9) FAULT	T 9	0x1000	✓
30	DIGIO 2 (T10) FAULT	T 10	0x2000	✓
31	UNKNOWN	TRIP	0x4000	
32	OTHER	TR32	0x8000	
34	MAX SPEED LOW	ATN1	0x8000	N/A
35	MAIN VOLTS LOW	ATN2	0x8000	N/A
36	NOT AT SPEED	ATN3	0x8000	N/A
37	MAG CURRENT FAIL	ATN4	0x8000	N/A
38	NEGATIVE SLIP F	ATN5	0x8000	N/A
39	TR TOO LARGE	ATN6	0x8000	N/A
40	TR TOO SMALL	ATN7	0x8000	N/A
41	MAX RPM DATA ERR	ATN8	0x8000	N/A
42	TRIP RESET TIMEOUT	ATN9	0x8000	N/A