By Patrick Godwin, M.D., Mark Reisbig, M.D., and Jacob Walter, M.D.  
(Creighton University)

ArthroStim

The Arthrostim is seen in some circles as the next generation activator. This device is more user specific as it can be adjusted to deliver from a few ounces of force up to 40 pounds of force. The force is adjusted depending on the initial pressure placed upon the patient's body by the practitioner. The commercial ArthroStim instrument produces twelve thrusts a second. Twelve hertz is a higher frequency than that achieved with more traditional adjustment devices. This frequency is known as "the low beta somatomotor rhythm." This frequency is said to more correctly reverberate through the joint and into more distant tissues, which in turn releases more distant trigger points. The ArthroStim commercial product is manufactured by Impac Inc., a company based out of Oregon.

Philosophy of the Arthrostim:

By delivering a 12-14 hertz impulse, the ArthroStim divides the energy of a single chiropractic adjustment into “rapid successive inputs.” In this way, the ArthroStim maintains a consistent peak force, allowing the practitioner to administer a more comfortable, effective adjustment. This is touted as the secret of the instrument. The total impulse of a chiropractic adjustment is divided into equal, smaller impulses known cumulatively as the “controlled repetitive input.” This leads to an aggregate effect on neural receptors and extensive neurological feedback to the brain while simultaneously using a greatly reduced single impulse. Thus, the ArthroStim, with its less forceful method stimulates only mechano- and proprio-receptors without activating pain receptors. This is known as a “neurological assist” technique and allows the practitioner to manage and treat more conditions than he/she could with a more traditional chiropractic approach. Because the ArthroStim does not use a single, forceful thrust, larger and stiffer individuals can be more safely adjusted.

Low Beta Somatomotor rhythm definition
The beta rhythm is a term that most commonly refers to a frequency of brain activity above 12 Hz. Beta waves are divided into three sections. High beta waves, greater than 19 Hz, beta waves, 15-18 Hz, and low beta waves, 12-15Hz, comprise these sections. In terms of conscious states, beta waves are usually found during the awake consciousness. Somatomotor is a term referring to an area of the brain that initiates movement.