# User Guide For

# **Rhythmedics<sup>®</sup> Pendulum<sup>™</sup> Plus**

By NuTesla Corporation



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# 1. Introduction

Rhythmedics Pendulum Plus by NuTesla represents the most powerful, advanced and wearable wellness instrument for continuous interruption of unwanted electromagnetic radiation (EMR) and circadian pacing. The Pendulum Plus features an extended life, eco-friendly Lithium Polymer rechargeable battery to operate it for 7 to 10 days before needing to be charged.

Pendulum Plus generates Bio-Pulses; (US Patents 8,088,057 and 8,167,784 and other patents pending) Fibonacci number derived Rife, Solfeggio and wellness frequencies delivered in ultradian sequences. Pendulum Plus is self-learning and adjusts to you and your lifestyle automatically through its internal position and motion sensor. Multiple preset programs are dynamically adjusted and activated day and night. Pendulum Plus also includes the ability to detect sources of EMR.

Pendulum Plus should be fully charged prior to being used. To charge it, remove the black rubber protective plug from the Mini-B Charging connector at the bottom. Connect the USB mini-B connector to the included USB Power Adapter and plug the adapter into a working AC wall power outlet. Alternatively, Pendulum Plus may be connected to your computer's USB port or any standard USB charger using the USB Type A to min-B cable supplied with your instrument. When initially connected to a power source the Spectrum LED (SLED) may illuminate White before it begins its start-up process. If the SLED fails to illuminate immediately it may indicate the battery is completely discharged and it may take up to 30 minutes for sufficient charging to occur to allow it to respond normally. During this time the SLED may initially illuminate dimly as Red and then begin to flash later. After completing its self-test the SLED will transition from Red to White and then flash four colors representing its serial number, then two flashes for its version number followed by two White flashes for the primary daytime preset and a Green flash to indicate it is charging. After seeing the Green charge indicator flash, read the remainder of this User Guide while your Pendulum Plus charges. The SLED will illuminate a single Green flash every ten seconds while recharging when Pendulum running. When the battery is fully recharged the SLED will flash Green three times every ten seconds. When the charger is removed Pendulum Plus does an internal reset and goes through its normal start-up sequence. You may now begin using your Pendulum Plus.

# 2. How Pendulum Plus Works

Just as a mechanical pendulum regulates a clock, so Rhythmedics Pendulum Plus helps regulate your internal clock. Known as the Suprachiasmatic Nucleus (SCN), this tiny

region on the midline of the brain is located just above the Optic Chiasm. Pendulum Plus's Bio-Pulses help to re-entrain the SCN to keep it running on time. While the SCN is only the size of a grain of rice, the neuronal and hormonal activities it generates helps to regulate many critical body functions over a 24 hour period. Strong forms of EMR can affect this sensitive organ and disrupt the body's essential biological processes. Pendulum Plus produces Bio-Pulses, precise pulses of energy that help by sending ultradian time queuing signals towards your body and outward to interrupt unhealthy interference from manmade and natural sources, including coronal discharges and changes in the earth's magnetic fields.

Our bodies run a daily cycle called the Circadian Cycle. This 24 hour cycle is comprised of shorter ultradian cycles such as our sleep cycles. During the day we have natural cycles of increased energy and activity and decreased activities and needs to relax. Taking stimulants can upset this balance and disturb our natural cycles and interfere with our internal clock. EMR from the myriad of electrical and electronic devices around us can also affect our cycles. Pendulum Plus's internal motion sensor allows it to adjust to you and your routine produce Bio-Pulses in response to your activities and help keep your clock on time.

Like all Rhythmedics instruments, Pendulum Plus uses a Fibonacci Number Quartz Crystal as its fundamental timing element. Because Pendulum Plus is battery operated it uses a lower frequency crystal to reduce power consumption by the same USB capable processor that is in other Rhythmedics instruments. This lower frequency crystal is very accurate and oscillates at a frequency within 0.03% of its Fibonacci Number of 75,025. This allows Pendulum Plus to use the bulk of its battery charge to produce wellness enhancing Bio-Pulses to keep your clock running on time.

# 3. Using Your Pendulum Plus

Your Pendulum Plus is intended to be worn or placed near the body on a continual basis, day and night. While it has an extensive array of features and capabilities, Pendulum Plus can simply be worn during the day and charged while sleeping at night and it will automatically adjust to your activity and use.

# A. When Awake

When you are awake Pendulum Plus should be worn as a pendant around your neck or carried next to your body, as in a pocket. You may use the accompanying beaded chain necklace, or may substitute it with any appropriate necklace of your choice. Regardless of how you wear or carry Pendulum Plus, during waking hours it should be kept in a

nearly upright position to allow its motion sensor to evaluate your activity level and adjusts its Bio-Pulses accordingly.

## B. When Sleeping

Pendulum Plus should be placed lying flat on its front or back under your pillow when sleeping. The internal motion and position sensor will detect it is lying down and within 30 seconds switch from the Awake mode to Sleep mode as seen by the SLED changing color when it next flashes the mode status. Never recharge Pendulum Plus when using it in Sleep mode under your pillow.

## C. Controls and Indicator

Pendulum Plus is self-learning and self-adjusting through its internal motion and position

sensor. While the sensor allows for automatic adjustments, there are two white dome pushbutton switches located on the back for manually accessing additional features. In normal use it is not necessary to press the dome switches, they are provided for convenience in accessing special features and capabilities as explained in the following sections.



The white dome switches must be pressed until you feel a slight 'give' in the switch, and a soft click may be heard as well. The dome switches are very resilient and it is not possible to press them too hard.

While the dome switches are very sturdy and rated for being pressed hundreds of thousands of times, they can be dislodged if pushed from the side instead of straight down, or even peeled off. To protect the dome switches from rough handling and moisture the back of the Pendulum Plus has been coated with a special tape. If Pendulum Plus is handled roughly or is in contact with excessive moisture from the skin, the tape can wear off and the dome switches may come loose and move out of place. If this occurs it is recommended to place a small piece of clear tape over the two dome switches to provide this protection.

The upper switch is labeled SELECT and is used to select alternate programs in the currently operating mode, and to select different modes of operation as explained in Section 6, Operational Modes. The lower switch is labeled START and is used to turn

Pendulum Plus on when it's powered off, to indicate the currently running program and battery level and to access additional features explained in the sections below.

Pendulum Plus has an internal position and motion sensor allowing it to 'learn' as you wear it. When Pendulum Plus is worn or carried on your person it senses your motion and activity and produces specific Bio-Pulse sequences in response to these changes. Pendulum Plus can sense when it is upright, lying down and different levels of activity and will automatically change the Bio-Pulse program to support you when awake or asleep.

A Spectrum LED (SLED) on the lower front side of Pendulum Plus provides information about the currently running Bio-Pulse program. Each program has a unique color and flashing sequence to inform you of its status. The following sections 4, 5 and 6 lists the various preset programs and modes and the color of SLED flashing to indicate which is active.

# 4. Bio-Pulse Preset Programs

Rhythmedics Pendulum Plus includes the following Bio-Pulse Preset Programs.

# A. Activate Your Day

Activate your Day is the primary waking Bio-Pulse program that flashes White once a minute when running and provides energies and frequencies for waking clarity and awareness.

## B. Euphoria Plus

Euphoria Plus – is an alternate daytime program that flashes Yellow once a minute and features more relaxing frequencies and is designed to increase your sense of wellness while maintaining wakefulness).

# C. Energize Me!

Energize Me! – is an energy boosting program that flashes purple every 30 seconds and is activated automatically when Pendulum Plus detects a sustained increase in your motion, such as when jogging or exercising. Since this program produces more energy than the other programs, if it runs frequently it will require Pendulum Plus to be recharged more frequently.

# D. Deep Sleep

Deep Sleep is the standard sleep time Bio-Pulse program that flashes an Amber SLED once every two minutes. This program produces REM through Stage 4 Deep Sleep

brainwave frequencies occurring over a 110 minute initial sleep cycle which gradually shortens through the night to support natural awakening after 7 to 8 hours of sleep. Pendulum Plus automatically starts the sleep program when it is lying down for more than ten seconds. It is recommended to place Pendulum Plus under your pillow while sleeping to receive the greatest benefit from its patented entrainment brainwave energies. When you put Pendulum Plus on in the morning it will automatically switch to waking mode.

## E. Deeper Sleep

Deeper Sleep – is an alternate sleep program that flashes Red every two minutes when running and features lower sleep frequencies for persons who have a difficult time falling asleep or wake up frequently during the night.

## F. Higher Consciousness

Higher Consciousness is the primary meditation Bio-Pulse program that flashes Blue once a minute and runs for 90 minutes. It produces sub-harmonic Solfeggio frequencies to expand your awareness. Starting with grounding frequencies it increases in energy to resonate all seven major Chakras, changing the color of the SLED from Red for the Root Chakra to Purple for the Crown Chakra and White for Out of Body and expanded awareness frequencies to help you identify the resonating energy center. The frequencies then reverse bringing you back into the present and grounded before reverting to the waking energies program.

## G. Prana Yama

Prana Yama – is an alternate meditation program that flashes Turquoise once a minute when running and is designed to bring your awareness into the center of your body as you move with the Sacred Breath of Life.

## H. Body Blaster

Body Blaster – is a wellness enhancing program that flashes Green once every 30 seconds and features broad spectrum Rife frequencies to boost your immunity responses and restore balance and homeostasis.

## 5. Operational Modes

Pendulum Plus features multiple operational modes and two non-operational modes:

A. Awake mode (SLED flashes White or Light Yellow once a minute while producing daytime Bio-Pulses)

- B. Sleeping mode (SLED flashes Amber or Red once every two minutes while producing sleep cycle Bio-Pulses)
- C. Meditation mode (SLED flashes Turquoise or Blue once a minute for 90 minutes of awareness expanding Solfeggio frequencies)
- D. Personal Wellness Number mode (SLED flashes Red to measure your Critical Flicker Fusion rate)
- E. EMR Detection mode (SLED indicates relative EMR fields in the immediate vicinity of Pendulum Plus)
- F. Flash-drive mode (SLED flashes Green on and off rapidly when connected to a computer and START is held pressed)
- G. Standby mode (non-operational, no SLED flashing, occurs when there is no activity sensed for an extended time)
- H. Shutdown mode (non-operational, no SLED flashing, occurs if the batteries are discharged)

## A. Awake mode

The Awake mode is automatically activated whenever Pendulum Plus is in a nonhorizontal (not lying down) position, after starting from either Standby or Shutdown, and after completing either Meditation or Wellness Number modes. In Awake mode the Spectrum LED (SLED) will flash White once a minute to indicate the primary awake preset is running, Light Yellow once a minute to indicate the alternate awake preset is running. If Pendulum Plus detects extended motion it starts the Energize Me! Preset to support the wearer's increased activity level and flashes Purple once every 30 seconds to indicate Energize Me! Preset it running.

# B. Sleeping mode

Sleeping mode is automatically activated when Pendulum Plus is placed in a near horizontal position (lying within +/- 15° of horizontal on either its back or front) for more than 20 seconds. In sleep mode the SLED will flash Amber once every two minutes to indicate the primary sleep preset is running, or Red every two minutes to indicate the alternate sleep preset is running.

# C. Meditation mode

Meditation mode is activated manually by pressing and holding the SELECT dome switch for 3 seconds, then releasing the switch. When running in Meditation the SLED will initially flash Blue to indicate the mode has been started and then will flash a unique color to indicate which Chakra energy center is being resonated. The alternate Meditation program flashes Turquoise when selected.

## D. Personal Wellness Number

Personal Wellness Number mode is manually activated by pressing and holding the Start button for 2 to 3 seconds then releasing it to start the program to measure and report your Critical Flicker Fusion based Personal Wellness Number. When this mode is entered the SLED flashes Red 6 times and then appears to be lit continuously. If the START dome switch is held too long on Pendulum Plus models the Pendulum Plus will enter Stealth mode as indicated by the SLED flashing Red once. In either case, release the START dome switch and press and hold it again, slowly counting to 2 and release it and observe the SLED flashing 6 times and then appearing to be lit continuously.

While the SLED appears to be lit continuously it is actually flashing on and off very rapidly, faster than your eye can detect. At this time you should hold the Pendulum Plus with the SLED directly in front of your dominate eye with a finger resting on the START dome switch in preparation for pressing it when you see the SLED flickering. As the SLED slowly begins to decrease its rate of flashing you will see the Red SLED flickering, and no longer appearing to be lit continuously. At this moment press the START dome switch to stop the measurement. When this occurs the Red SLED turns off and you should move the Pendulum Plus away from your face to count the result of this Wellness Number measurement.

After a brief delay the SLED will flash your measured Wellness Number as a series of White flashes to indicate the tens digit and Green flashes to indicate the ones digit. Count the White flashes and multiply that by ten and then count the Green flashes and add that to the multiplied White flashes. For instance, if you counted 7 White Flashes that would be 7 times 10 for 70 and then counted 5 Green flashes that would be added to 70 for a Wellness Number of 75. If the ones digit is a zero the SLED will flash Blue once instead of Green. The Pendulum Plus will now update its internal programming with your personal flicker fusion frequency and then emit this frequency for 20 minutes, flashing the SLED Purple once every 30 seconds.

Since Pendulum Plus uses a different frequency Fibonacci Quartz Crystal as its timing element than is used in other Rhythmedics products, the scale of Wellness numbers has been adjusted. Hence, you cannot compare the reading from a Clarius, Somnius or Tesla Jewels to the Wellness Number results obtained with Pendulum Plus. Pendulum Plus will generally report a higher Wellness number than other Rhythmedics instruments.

Periodically throughout the day Pendulum Plus will re-emit your Personal Wellness Number frequency as part of its regular awake time programming. Every time you measure and update your Personal Wellness Number, Pendulum Plus will update its programming to the new frequency.

## E. EMR Detection mode

Pendulum Plus's Bio-Pulse emitters are also sensitive EMR detectors. To activate this mode, Pendulum Plus should first be in one of the operational modes A through C. While in one of these modes press and hold the START dome switch first, then within two seconds press and hold the SELECT dome switch simultaneously. When the SLED flashes Blue on and off four times, release the START and SELECT dome switches. Your Pendulum Plus is now in EMR detection mode. Pendulum Plus will stay in this mode until the SELECT dome switch is pressed to return to Awake Mode as indicated by two Blue flashes of the SLED followed by a single White flash to indicate the Awake mode is running.

Handle Pendulum Plus by its edges to avoid your body's energy field from interfering with its detection of EMR. To verify the EMR detector is working, place it next to a known EMR emitter such as the video display of your computer or near a plug-in power supply. Place the EMR detector on top of any electronic or electrical devices or appliances in your work or living space to identify specific sources of potentially harmful EMR. Place Pendulum Plus directly on or next to a suspected emitter of EMR, such as a cell phone or power adapter, even power cords and computer cables. Touching the USB mini-B connector on the bottom end of Pendulum Plus will reduce spurious indications.

The color and brightness of the SLED will change in response to detected levels of EMR. Off indicates no measurable EMR and Blue indicates less than 3 milliGauss (3 thousandths of a Gauss) of field strength. If any other color is seen then the immediate area has a greater level of EMR and the source should be identified and possibly eliminated.

EMR fields diminish rapidly as you move further away from its source and the internal EMR detector will usually need to be placed directly in contact with most EMR sources to indicate its presence. The strength of EMR is indicated by different brightness levels within the 7 different colors with no illumination as zero field strength, Blue is the lowest safe level below 3 milliGauss and White indicating the highest level of more than 25 milliGauss. As you move the instrument next to an EMR source the brightness of the SLED will increase first and then the color will change. The table below provides the relative field strength for each color for your reference.

#### Table 1 - EMR Detector Field Strength Colors

Color Field Strength

Off	0-1 mGauss
Blue	1-3 mGauss
Turquoise	3-6 mGauss
Green	6-8 mGauss
Yellow	8-10 mGauss
Red	10-14 mGauss
Purple	14-25 mGauss
White	>25 mGauss

Some extremely strong EMR fields may cause the colors to wrap around and repeat, so if you see the colors changing indicating an increasing EMR field and then the SLED goes off, this is an indication that the field is stronger than the White level.

Our bodies can act like antennas and inductively pass EMR in our space to the sensor. Consequently, it is recommended to hold the instrument by the outside edges near the bottom to reduce interference from our body's field. The internal Bio-Pulse emitters that also act as the EMR sensors are in a matrix configuration centered around the sacred geometry plated on the back of the instrument. This sacred geometry area is the most sensitive to EMR fields and should be placed directly above and in contact with the suspected EMR emitter.

The EMR detector is not a calibrated measuring tool and should be used only as a visual reference to identify potentially harmful EMR sources. The EMR detector does not necessarily indicate the frequency of the EMR emissions and thus it will show EMR levels when placed on top of another active Rhythmedics instrument, even though the Rhythmedics instrument is producing healthy emissions. If you suspect you have a high level of EMR emissions in your living or work space please contact a specialist in this field to make accurate measurements and assess the potential safety or hazard of the source.

The EMR detector feature will stay active until you either press and release the SELECT dome switch or remove the power from the instrument.

## F. Flash-drive mode

Flash-drive mode is used to update Pendulum Plus. It is entered by pressing and holding the START dome switch while Pendulum Plus is connected to an active USB port on a computer. When the Flash-drive is activated the SLED will begin to flash Green on and off rapidly and the START dome switch can be released. The Pendulum Plus will enumerate as Flash-drive named Rhythmedics and may be opened on your computer. You will see one file on the drive named NUTESLA.HTM which can be opened in most web browsers to view the installed presets on the Pendulum Plus. To exit Flash-drive mode either press and release the SELECT dome switch or remove the USB cable from the Pendulum Plus. In either case Pendulum Plus's SLED will illuminate White for several seconds and then go through its start-up process. Performing updates through this mode are covered in the section on Rhythmedics Flash-drive.

# G. Standby mode

Standby mode may be entered either manually or automatically. Standby is manually entered by first holding the SELECT switch and while continuing to hold SELECT pressing the START switch until the SLED illuminates. When the SLED illuminates release both switches and the SLED will transition from white to red and turn off. Bio-Pulses are not emitted in Standby mode. To confirm Pendulum Plus is in Standby mode you may press and release the SELECT dome switch and notice that the SLED does not illuminate. Pressing the START dome switch will exit Standby mode as seen by the SLED illuminating in the Red to White start-up transition followed by the mode indication flashes corresponding to the selected awake mode preset program.

Pendulum Plus may enter Standby mode automatically to conserve the battery if it does not detect any motion for several hours. When Pendulum Plus enters Standby mode automatically any motion will exit Standby mode and activate the Awake mode.

# H. Shutdown mode

Shutdown mode occurs if the internal rechargeable battery is too low for reliable operation. In shutdown mode the switches and motion sensor are inoperable. To exit shutdown mode connect Pendulum Plus's min-B USB receptacle to a powers source to recharge its battery. When this occurs the SLED will illuminate white for several seconds as Pendulum Plus runs its self-tests and then will transition from red to white and resume its normal operation while charging. Allow Pendulum Plus to remain connected to the charger for at least 8 hours before use.

# 6. Identifying Mode and Battery Level

Pendulum Plus will operate for 7 to 10 days when fully charged. The SLED can indicate the remaining charge level when the START dome switch is pressed to identify the currently operating mode and running preset program. Press and release the START button once and the SLED will flash the preset program indicator (White or Light Yellow for Awake mode, Amber or Red for sleep mode, Blue or Turquoise for Meditate mode and Purple for Wellness Number mode), followed by the battery level. If the charger is connected the SLED will flash Green before the charge level to indicate it is charging.

The program indicator color is followed by a single flash to indicate the battery level. The following shows the relationship between color and charge level:

White	- 95% or higher			
Purple	- 85% - 95%			
Blue	- 75% - 85%			
Turquoise	- 65% to 75%			
Green	- 50% to 65%			
Yellow	- 30% to 50%			
- Low Battery Flicker starts at 40% Battery Level				
Amber	- 20% to 30%			

Red - less than 20%

- Pendulum Plus enters Shutdown mode when this level is reached

## 7. Recharging the Internal Battery

Recharge Pendulum Plus's battery once a week for 4 to 8 hours, until the charge indicator flashes Green three times at each interval. This will ensure Pendulum Plus is always active when you need it.

When the battery level is below 40% the operational mode indicator will flutter on and off three times rapidly, instead of its usual single flash, to indicate the battery is low and should be recharged. While low battery condition is in effect the Wellness Number feature and the Energize Me! Preset will not be available. When the battery level reaches 10% Pendulum Plus will automatically enter Shutdown mode and must be recharged before it will operate.

When the charger is attached with Pendulum Plus in Shutdown mode it may illuminate the SLED as White for several seconds then go through its start-up process. If the SLED does not flash either Green or White when the charger is attached disconnect the charger and reconnect it. If SLED still does not light when the charger is reconnected it indicates the battery is very depleted and needs up to an hour to restore it to an operational mode as will be seen by the SLED dimly illuminated in Red. If no SLED indications still occurs after an hour contact support@NuTesla.com.

Pendulum Plus can be left running while charging. When Pendulum Plus is charging the Spectrum LED will flash Green after each time it flashes the operational mode color to indicate charging is occurring. If Pendulum Plus is in Standby or Shutdown mode the Green flash will occur once every two and a half minutes. Pendulum Plus is fully recharged when the single Green flash changes to 3 Green flashes. There is no risk of overcharging Pendulum Plus if left connected to a power source after the fully charge indication occurs.

## 8. Alternate Modes

Pendulum Plus features four additional modes of operation.

- 1. Alternate Awake Period Preset (Yellow SLED)
- 2. Alternative Sleep Period Preset (Red SLED)
- 3. Body Blaster Wellness Preset (Green SLED)
- 4. Stealth mode (no SLED flashing unless START is pressed and released)

# A. Selecting an Alternate Preset

To select an alternate awake or sleeping preset simply briefly press and release the SELECT dome switch while the primary awake or sleeping preset is running. The SLED will then flash the color for the alternate preset. For instance, while running the primary awake preset, which can be verified by pressing and releasing the START dome switch and the SLED flashing White followed by the battery level color, if the SELECT dome switch is briefly pressed and released the SLED will flash Yellow followed by the battery level color. After selecting the alternate awake preset Pendulum Plus will always load this alternate preset whenever it enters the Awake mode. If the primary sleep preset is running as seen by the SLED flashing Amber when the START dome switch is pressed and released, if the SELECT dome switch is briefly pressed and released the alternate sleep is now selected. After selecting the alternate sleep preset whenever it enters Sleep mode.

To revert from an alternate preset to the primary preset, repeat the above steps by briefly pressing and releasing the SELECT dome switch and observing the SLED flashing the color of the now selected primary preset.

# B. Activating Body Blaster Preset

The Body Blaster Wellness Preset is activated while Pendulum Plus is in the Meditate mode. To activate Meditate mode while in Awake mode press and hold the SELECT dome switch until the SLED meditation preset (Blue for primary and Turquoise for alternate) color flashes then release the SELECT switch. Now press and hold the SELECT dome switch a second time until the SLED flashes Green twice to indicate it is now running the Body Blaster Wellness preset. This is followed by the battery level color and the Green for the preset indication. The Body Blaster Wellness preset will run for 90 minutes and upon completion the Pendulum Plus will return to its selected Awake mode preset. To exit Body Blaster Wellness, press and hold the SELECT dome switch for 3 seconds and release and Pendulum Plus returns to the Awake mode.

## C. Stealth Mode

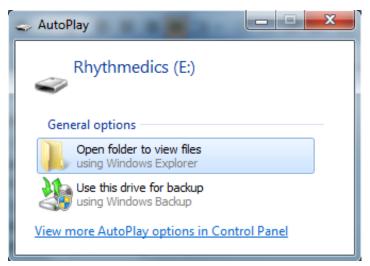
Stealth mode of operation disables automatic flashing of the SLED while operating. This may be desirable when wearing Pendulum Plus at night or in dimly lit environs to avoid drawing attention to you, such as in movie theaters or on aircraft. To enter Stealth mode press and hold the START switch for more than 4 seconds until the SLED flashes Red once, then release the START dome switch. Pressing the START dome switch briefly while in Stealth mode will still result in the SLED flashing the current mode and battery level colors, should you want to confirm its operation. If Pendulum Plus enters either Standby or Shutdown modes while in Stealth mode the SLED will still flash its brief transition for White to Red to indicate it has changed modes. When Pendulum Plus is restarted the SLED will again flash the startup sequence transitioning from Red to White, and will reenter Stealth mode and not flash the automatic mode indications as before. To exit Stealth mode press and hold the START dome switch for more than 5 seconds until the SLED flashes Red 3 times, then release the START dome switch.

On all Pendulum Plus models if the START dome switch is pressed and held for more than 5 seconds while connected to an active USB port, Pendulum Plus will initiate the Flash-drive mode and results in the SLED flashing Green on and off rapidly. If the START button is held longer than 5 seconds when the Pendulum Plus is not connected to a USB power source will result in the Pendulum Plus being reset and the start up SLED sequence being displayed followed by the Pendulum Plus starting your selected Primary or Secondary Awake program.

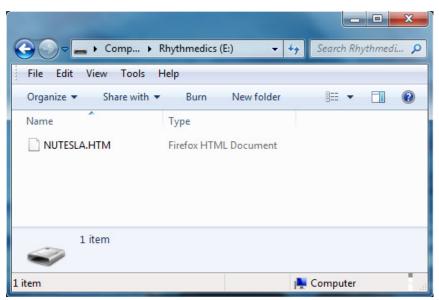
# 9. Rhythmedics Flash-Drive

Pendulum Plus utilizes Rhythmedics flash-drive to display information about your Pendulum Plus and to upgrade it. To display information about Pendulum Plus, connect the mini-B USB receptacle to your computer's USB port using the included USB mini-B to A adapter cable. If Pendulum Plus was powered off due to a low battery the Spectrum LED (SLED) will initially illuminate white for several seconds then it will flash through its start up sequence. Pendulum Plus will begin recharging when connected to the computer's USB port. After the SLED has completed its initial flashing, and while still connected to an active USB port, press and hold the START dome switch by squeezing Pendulum Plus with one finger on the START switch and your thumb in the center of the front side of Pendulum Plus. After five seconds when the SLED begins to flash green or red on and off rapidly, release the START dome switch. If this is the first time you have connected Pendulum Plus to this computer the SLED may flash red or red and green rapidly as the computer loads the standard flash-drive USB driver. Once the computer has loaded its standard driver Pendulum Plus will be flashing green on and off. If Pendulum Plus continues to flash any other color than green after the driver is loaded then it indicates a previously failed upgrade attempt and this is addressed below.

On your computer you may see a pop-up window announcing the new Rhythmedics flash-drive that has been identified and if you want to open the drive or folder to view its contents.



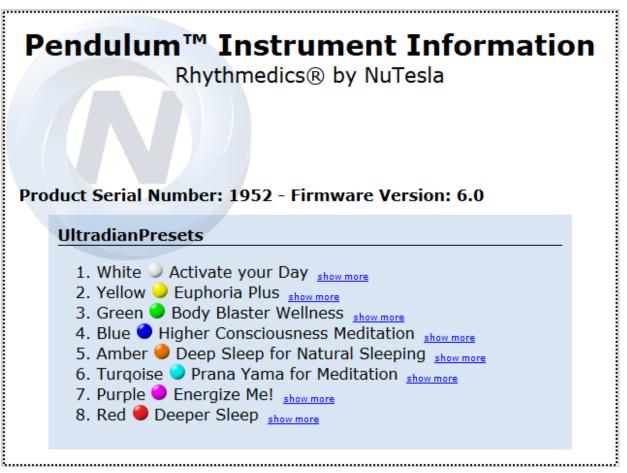
If prompted to do so, then click Open as appropriate to access the Rhythmedics flashdrive. If a pop-up did not occur then open the window or program on your computer that is used to view attached disk drives, and find and open the removable drive called Rhythmedics.



When the flash-drive is opened you should see only one file listed with the name NUTESLA.HTM. Opening this file will open your default web browser and display the contents. If you are connected to the internet your computer will be connected to NuTesla's website and additional information will be displayed as shown.

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You can confirm your instrument's Serial Number and Firmware version on the display contents. The line above the listing of Presets will indicate you have the Plus Pendulum Presets as shown.



Note, Google Chrome and Mozilla Firefox are the recommended browsers to be used to view the file contents. If there are any other files listed on the flash-drive then a previous update has failed and all the files should be selected and deleted at the same time and Pendulum Plus should be removed and reconnected to the computer to restart this process.

The contents will show the type of Instrument, its serial number, e.g. 1957 in the example, its current firmware version, e.g. 5.8 in the example, and the installed preset programs. Each preset program has a short description and clicking on 'More' will display additional information about the preset.

## **10. Updating Pendulum Plus**

Pendulum Plus is easily updated using the integrated Rhythmedics Flash-drive feature. The integrated flash-drive is very small and any non-Rhythmedics files copied to the flash-drive will be automatically removed the next time the drive is loaded. Because of this limited space Apple computer's MacOS requires the updates to be performed with two smaller files. There is a separate update page on NuTesla.com/support that contains the two smaller update files and instructions for Mac's.

Rhythmedics update and upgrade files are identified with an .RMx filename extension, where 'x' is any other character used to identify the specific type of Rhythmedics file. .RMx files are encrypted and can only be opened by the software residing on your instrument. Do not attempt to open or execute the file directly on your computer. Your computer is used only to transfer the update from its source to the connected Pendulum Plus following these instructions.

To use the integrated flash-drive follow the procedures in the previous section to connect Pendulum Plus to your computer and open the Rhythmedics drive to view the single file NUTESLA.HTM. Copy the .RMx file to the Rhythmedics drive using the method normally used to 'drag and drop' a file onto a removable drive on your computer. When the file is copied to the Rhythmedics flash-drive the instruments SLED flashes red and green momentarily while the file is being processed and the update or upgrade is applied to your instrument. At the successful completion of the update or upgrade, the SLED will illuminate green continuously.

If there was an error during the update or upgrade, Pendulum Plus will flash red on and off. Open the Rhythmedics flash-drive to view its contents and delete the .RMx file that was copied to the drive. The SLED should now be flashing green on and off. Attempt the update or upgrade one more time and if it fails again remove the Pendulum Plus, reattach it to the USB port, open the flash-drive to view its contents, copy all the files and send them to <u>support@nutesla.com</u> for assistance. Even with a failed update or upgrade, Pendulum Plus will continue to operate properly.

Once the update or upgrade is completed remove the USB cable from the Pendulum Plus. The SLED will illuminate white for several seconds and then will flash its normal start-up sequence. Pendulum Plus is now updated and ready for use.

## **11. Spectrum LED Indications**

In addition to indicating which preset program has been selected and running, the Spectrum Color LED (SLED) is also used to report internal errors. The following is a summary of SLED indicated errors and corrective steps:

• Color flash once every 60 seconds indicates Pendulum Plus is in Active mode and the color indicates the running preset.

- A single Green flash every 10 seconds while in Active mode or every 2 and ½ minutes while in Standby mode indicates Pendulum Plus is connected to a charging source and the battery is being recharged.
- Three Green flashes every 10 seconds while in Active mode or every 2 and ½ minutes while in Standby mode indicates Pendulum Plus is connected to a charging source and the battery is fully recharged.
- Three Yellow flashes every 10 seconds while in Active mode or every 2 and ½ minutes while in Standby mode indicates Pendulum Plus e is connected to a charging source, the battery is fully recharged, and the battery is nearing the time to be replaced by NuTesla.
- Green and Blue alternating indicates memory checksum error, restart and if it repeats contact NuTesla service.
- Yellow and Blue or Yellow and Red alternating flashing when starting in Active mode indicates Bio-Pulse emitter error, restart and if it repeats contact NuTesla service.
- Solid White, indicates a flash memory update error, which is self-corrected by removing the USB cable and reinserting it without pressing any switches.

The following SLED indications only occur when connecting Pendulum Plus to an active USB port and you are attempting to enter Flash-drive mode by pressing and holding the START switch as explained above.

- Continual Blue flashing on and off indicates an invalid boot attempt, to correct reconnect to your computer with no switches pressed
- Continual Red flashing on and off indicates an invalid boot attempt, reconnect to computer while only pressing START switch. This may also indicate that your computer is missing the standard flash-drive software driver. Rhythmedics Flash-Drive mode works with all Windows (XP or later), Mac (OS 10 or later) and Linux/Unix/Ubuntu computers. If Red flashing occurs after attempting to process an update file then the update failed. Open the Rhythmedics drive and open the ERROR.HTM file to identify the problem. Even if an update fails to process, your instrument will still operate normally, simply delete all the files on the flash-drive and restart your instrument. Further details are in the previous update section.
- Red and Green alternating flashing indicates USB drivers are being loaded by the host computer for the first time your instrument has been identified as a flash-drive; this should change to flashing green on and off when the drivers are successfully loaded, no corrective action required.

- Red and Blue alternating flashing indicates an invalid boot attempt, reconnect power and ensure no switches are pressed.
- Green flashing on and off indicates Rhythmedics is in Flash-Drive mode, no response required, look on your computer for the removable drive named "Rhythmedics".
- Green on solid indicates Rhythmedics Flash-Drive successfully processed the update file that was copied to it, press SELECT once to restart the Instrument.
- Yellow Flashing on and off after processing an update indicates command processed, Open README.HTM file and follow instructions.

## 12. Additional Instrument Information

## A. Manually Resetting

In the unlikely situation Pendulum Plus fails to respond to any button press or recharging connections, there is an internal Reset mechanism that is activated automatically whenever the power is removed after being attached to either the charger or a powered USB port.

## B. More about Bio-Pulses

Bio-Pulses are precise pulses of electromagnetic energy derived from the fundamental frequency of the Fibonacci number quartz crystal used to clock the Pendulum Plus. Bio-Pulse will not interfere with electronic devices or erase magnetic strips or other magnetic media. You can hear Bio-Pulses by wearing a headphone and placing the sacred geometry design on the back of the Pendulum Plus directly against the back of the headphone on your ear. The Bio-Pulses will couple with the coil in the headphones to cause a slight clicking sound to be heard.

## C. Maintenance

When the Battery Level color is Yellow, Amber or Red, or when the operational mode indicator flashes three times quickly instead of once when illuminating, the internal rechargeable battery should be recharged for at least 4 hours using the supplied USB 5 volt Mini-B AC Power Adapter. Any standard USB Power Adapter that provides 5 volts using a mini-B connector may be used to recharge Pendulum Plus. Pendulum Plus may be left recharging for extended periods of time without any damage to the Pendulum Plus or the charger. Pendulum Plus may also be recharged using the included USB A to Mini-B cable and connecting Pendulum Plus to a USB port on a computer or laptop or other standard USB power adapter. When Pendulum Plus is connected to a power source the SLED will flash Green once to indicate it recognizes the power source. If the batteries are depleted and Pendulum Plus is in Shutdown mode, the SLED may illuminate White for several seconds and afterwards Pendulum Plus will startup and charging will commence.

If the SLED does not flash either Green or White when the charger is attached disconnect the charger and reconnect it. If no SLED indications still occur it may indicate the battery is too low, which can occur if the Pendulum has not been used and charged for an extended period of time. If this is the case, then when the charger is connected the SLED will fail to light until sufficient charging has occurred. The SLED will be dark for up to 30 minutes and will then light a solid Red color for up to another 30 minutes and then the Pendulum should go through its normal startup sequence. After one hour of being connected to the charger the Pendulum should respond to a single press of the START dome switch by indicating the current running program then a Green flash to show its charging followed by a third flash for the power level.

If Pendulum Plus fails to hold a charge after several days of operation contact NuTesla Support to have Pendulum Plus returned for service (support@nutesla.com). Never attempt to disassemble Pendulum Plus, there are no user serviceable parts inside. Pendulum Plus contains a rechargeable Lithium Polymer battery which must be disposed of properly.

Keep Pendulum Plus dry at all times. If moisture enters Pendulum Plus allow it dry thoroughly for at least 24 hours in a warm dry location. A hair dryer on the low setting and blowing on the end with the USB connector may be used to facilitate moisture removal. Always keep the black rubber USB connector plug inserted when not charging your instrument.

The white dome switches on the back of the Pendulum Plus may become dislodged if exposed to excessive moisture or handled roughly. If this occurs, clean the gold surface under the switch with rubbing alcohol and allow the area to dry. Replace the dislodged dome switch by centering in the white outline circle and use a piece of transparent tape placed over the switch and surrounding area on the back of the Pendulum Plus to hold it in place. Replacement dome switches are available from NuTesla by contacting support@NuTesla.com.

## D. Aircraft and Screening Procedures

Pendulum Plus's Bio-Pulses will not interfere with aircraft operation or radio navigation. Normal flight crew instructions at the time of this writing are to turn off any electrical or electronic device with an on/off switch. Pendulum Plus does not have an on/off switch. If requested to turn off Pendulum Plus do so by manually entering the Standby mode. This is done by holding the SELECT switch and while holding down SELECT then pressing the START switch until the SLED begins to transition from white to red. Release both switches when you see the SLED start its transition. When instructed it is safe to turn on electronic devices press the START switch briefly to activate Pendulum Plus.

Alternatively, us you may place it in Stealth mode to prevent the SLED from flashing. To enter Stealth mode press and hold the START dome switch until the SLED flashes Red once (about 4 to 5 seconds of holding START). Then release the START dome switch. Pendulum Plus will not automatically flash its mode while in Stealth. You may press and release START briefly to have Pendulum Plus flash its mode and battery level to confirm it is still operational.

Pendulum Plus should be removed from your person when passing through screening points at transportation terminals. Pendulum Plus should not be affected by screening procedures or X-Rays. If asked what Pendulum Plus is, tell the screener it is a personal healthcare device or circadian pacer. The rechargeable batteries used in Pendulum Plus are not restricted from use aboard aircraft. If asked to turn off Pendulum Plus please comply with the request by placing it in Standby mode as described above.

# E. US FCC Part 15 and EU Conformance

Pendulum Plus is a Class B Digital Device and complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. FCC ID YAL-585553SP.

Pendulum Plus conforms to EU requirements for US defined Class B Digital Devices.

# F. Medical Disclaimer

Pendulum Plus is not a medical device. It is not intended to diagnose, prevent, cure, treat or mitigate any illness. Never make any changes in your medications or medical treatment as a result of the use of Pendulum Plus without consulting with the prescribing professional. Never place Pendulum Plus directly over any electronic medical device, such as a cardiac pacer or insulin pump.

Pendulum Plus is a NanoTesla device and is not regulated by the US FDA. Each Pendulum Plus is individually serialized as can be seen in the Flash-drive mode. If any adverse events are suspected with Pendulum Plus please discontinue using Pendulum Plus and contact NuTesla Support immediately (support@nutesla.com). These statements have not been evaluated or approved by the US FDA.

Pendulum Plus is protected by US Patents 8,088,057 and 8,167,784 and other patents pending.