

Basic Setup of the Micro-Pulse

Model B5



Topics:

- 1- Powering up
- 2- Connecting Coils and Arrays
- 3- Understanding the LED Indicators
- 4- Reading the OLED Display
- 5- Adjusting Power (ICES-PEMF Intensity)
- 6- Auto-Run



Basic Setup of the Micro-Pulse **Model B5**

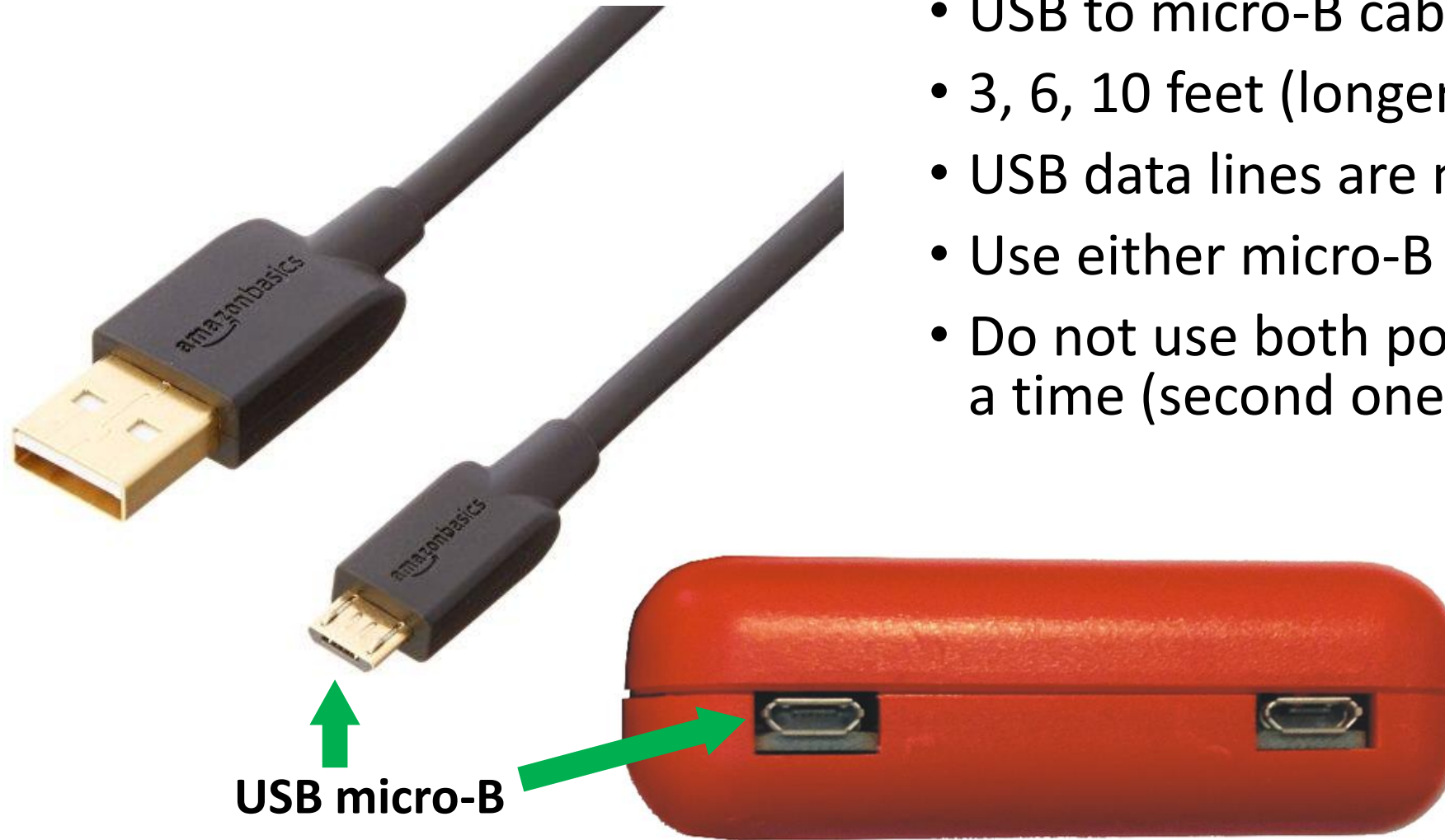
Topics:

- 1- Powering up
- 2- Connecting Coils and Arrays
- 3- Understanding the LED Indicators
- 4- Reading the OLED Display
- 5- Adjusting Power (ICES-PEMF Intensity)
- 6- Auto-Run



Power Input: 5 VDC @ 2 Amps (or higher rating)

- USB to micro-B cable
- 3, 6, 10 feet (longer ~ stiffer wires)
- USB data lines are not used
- Use either micro-B port on the B5
- Do not use both ports, use only one at a time (second one is a spare)



USB micro-B



Power Input: 5 VDC @ 2 Amps (or higher rating)



- USB to micro-B cable
- 3, 6, 10 feet (longer ~ stiffer)
- USB data lines are not used
- Use either micro-B port on the B5
- Do not use both ports, use only one at a time (second one is a spare)



Power Input: 5 VDC @ 2 Amps (or higher rating)



- Laptop USB port may not have adequate power rating (2 Amps)
- Most plug-in or outlet USB power/charger ports work very well. Be sure the rating is at least 2 Amps (10 Watts) per port



Power Input: Battery Packs



Inadequate power: < 10,000 mAh

- AmazonBasics Power Bank (< 10,000 mAh)

- HAME 4000mAh
- Mocreo 2500mAh



Power Input: Battery Packs (some work well, others do not)

Use Battery Packs with
-- > 2.0 Amp rating
-- > 10,000 mAh capacity

✓ Anker PowerCore 10000

✗ KMASHI 10000mAh
with 3.1A Output

✓ Unifun 10400mAh

✓ Polanfo M50000-
12000mAh



Power Input: KNOW YOUR BATTERY



- Battery portable power packs are sophisticated devices. If you choose to use one you must take the time to learn how it works.
- Most battery packs are intended to recharge other devices, so they may not behave well when powering a device like the B5 which draws variable amounts of power as it changes modes and frequencies.
- Most battery power packs will shut off automatically if they detect very little or no power drain. This can be a problem, because the B5 is ultra efficient, so the battery power pack may decide that it is not connected to anything that is using power, and may shut itself off.



Power Input: KNOW YOUR BATTERY

POWER/RESET
Button



- Or, if you draw too much power, such as at POWER UP for the B5 when it draws the most power, 2 Amps, the battery pack may automatically shut down if it detects an over-current error. This protects the battery from self destructing.
- In either case, you may have to reset the device. Every battery pack is different. You need to know how to reset it. This battery pack can be reset by pressing the power switch indicated above.
- If you are using a battery pack and your B5 keeps shutting off, this is probably the problem you are running in to. You may need to try a different battery pack, or change how you are using the battery pack you have.
- Also note: this battery pack has two outputs: 1 Amp and 2.1 Amp. Use the higher one.



Power Input: very short or long USB cable



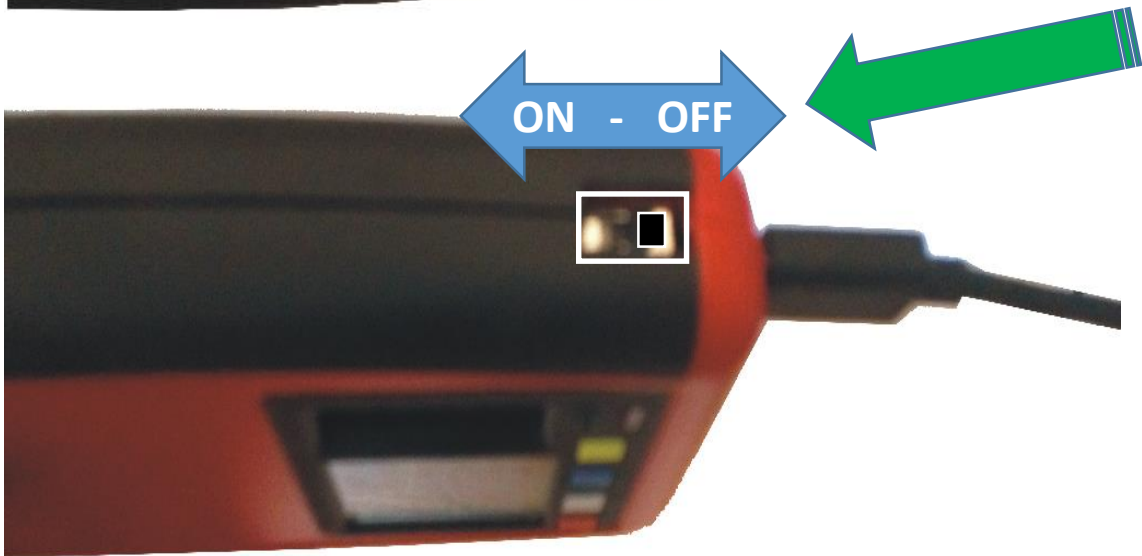
- Use with battery power packs or USB wall power converters
- Any length USB – micro B power cable can be used
- Some cables are better than others: some have unreliable connections while others seem to provide a good, reliable connection.



Power ON



- To power up the B5, first plug into a USB power port, or into an external battery pack.

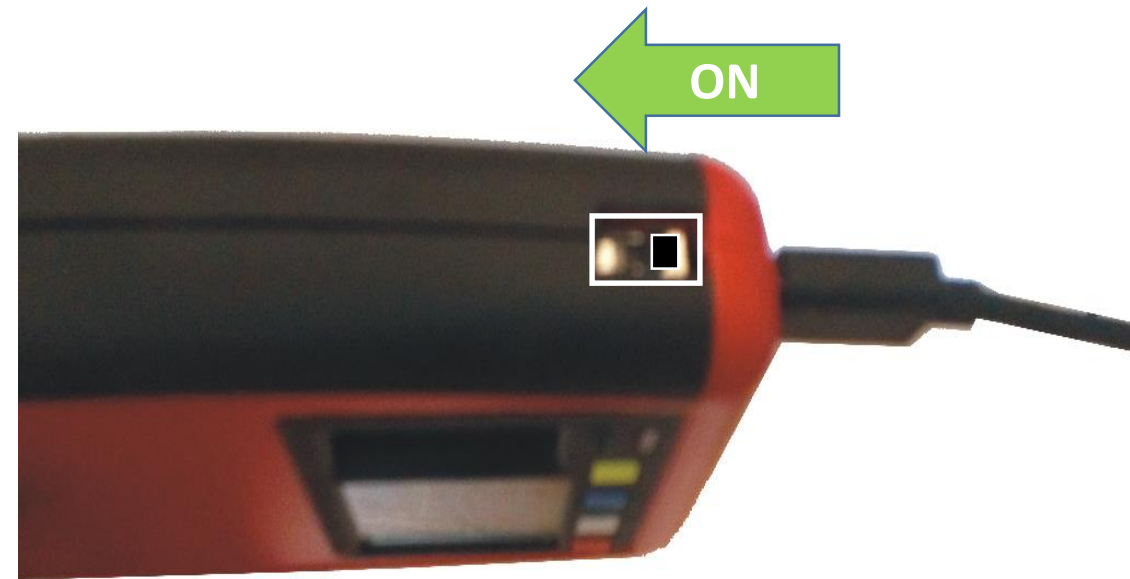


- Then, switch the power ON
- The Power Switch is recessed into the case to prevent accidental switching
- You will use the Power Switch often, to control B5 protocol termination and to reset the device.

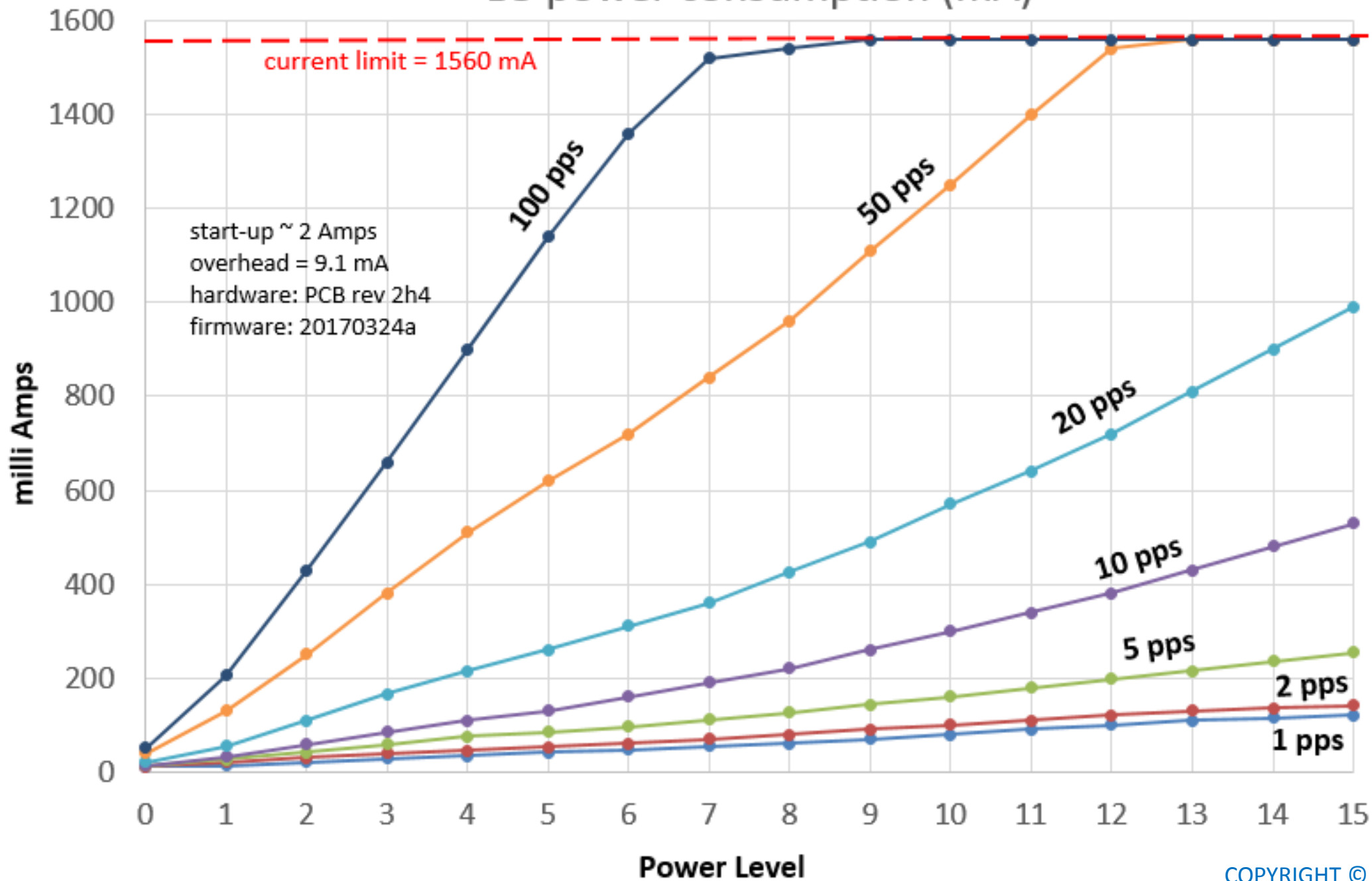


- The B5 can only be adjusted within the first 15 seconds of power-up. After that, it initiates the AUTO-RUN sequence
- Once the B5 is running, you can not adjust the settings. This is to prevent accidental changes to settings if you are wearing the device.
- To adjust the settings, you simply switch the B5 OFF, wait one second, then switch it back ON.
- This feature seems annoying at first, but it prevents unintended changes to the settings on your B5. Once you get used to it, it will make sense.

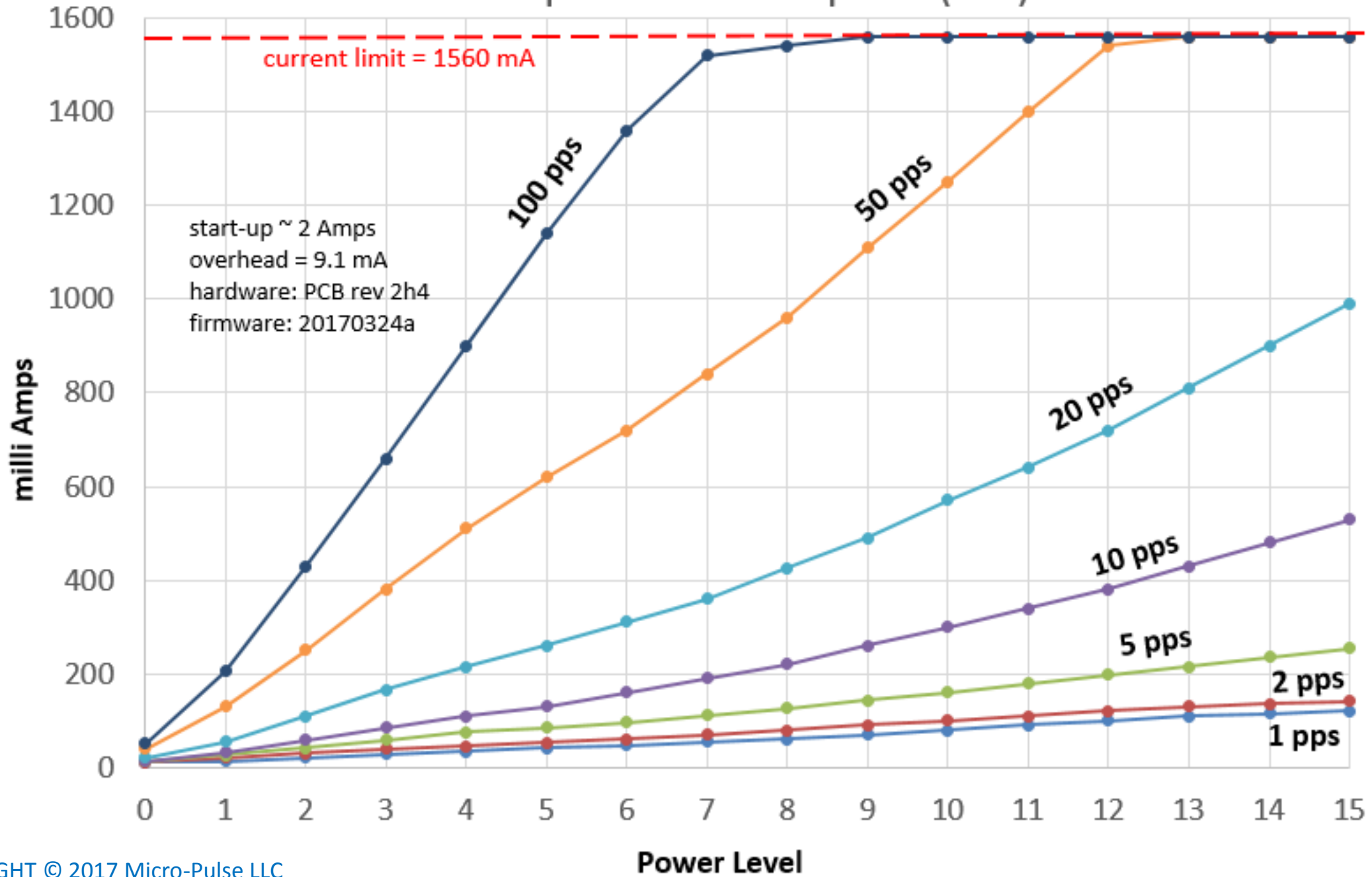
Power ON



B5 power consumption (mA)



B5 power consumption (mA)



NOTE: if current limit is exceeded, the RED LED will light for ~ 1 second, then the B5 will resume function. It will continue at the high power level you have set, but next time, on POWER-UP, it will reset to a safe level, usually POWER = 9. You can increase it again manually.

Connecting Coils and Arrays

ICES COIL OUTPUTS:

Four identical synchronized independently powered and controlled I.C.E.S. output ports to drive 4 sets of original I.C.E.S. coils, or 4 new 2x2 coil arrays, or any combination

Plug each coil in firmly, all the way

Use any or all four ports



Connecting Coils and Arrays

- Any Micro-Pulse coils or coil arrays can be used
- Coils and arrays can be used in any combination and in any port
- We advise against using audio cable splitters



User Interface: A closer look



User Interface

OLED
Display

green
LED

red
LED



yellow button (UP)

blue button (DOWN)

white button (NEXT)

red button (RUN)

The B5 name plate
reminds you of the
button functions:
UP DOWN NEXT RUN



User Interface: Starting at Power-Up

- The B5 takes about 4 seconds to power up.
- First the **red** and **green** LED will switch ON for 1 second. This simply allows you to verify that the LEDs are working, and power is ON.
- Then the OLED screen will swipe WHITE, then BLACK. This is the OLED display resetting itself.
- Then you will see the first screen.
- The first screen will look like this:



ICES model B5a
Rev: B520170324a
© 2017 Micro-Pulse
<NEXT> <RUN>



User Interface: Screen # 1

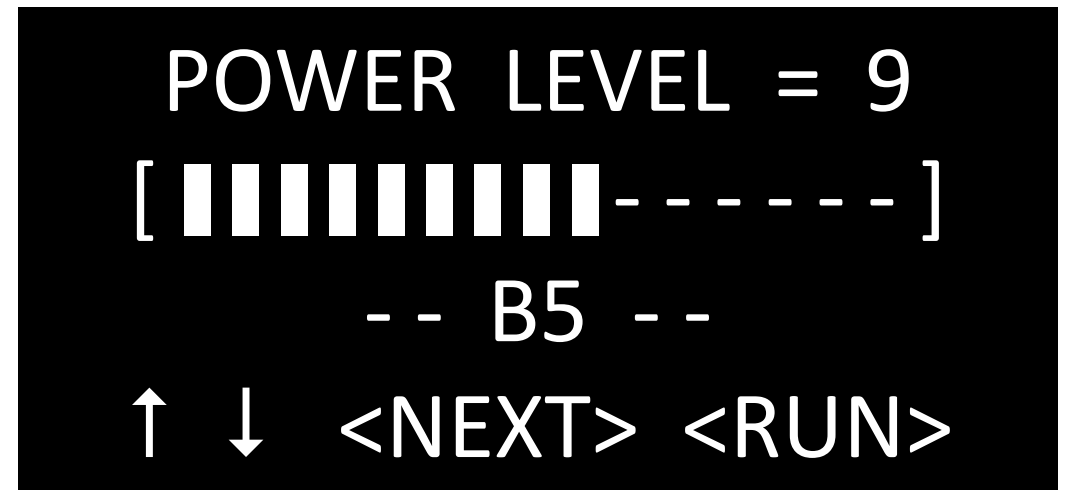
- Every screen has 4 lines
- On this screen, the top line tells you the device hardware version: B5a
- The second line tells you the firmware revision date: 24 March 2017
- The third line is a copyright statement.
- The bottom line tells you which buttons are active for the current screen.
- On this screen you can use 2 buttons:
- WHITE = <NEXT> which means advance to the next screen
- RED = <RUN> which means RUN NOW
- If you do nothing, the B5 will continue on automatically to the next screen in 5 seconds, then on to AUTO RUN.

ICES model B5a
Rev: B520170324a
© 2017 Micro-Pulse
<NEXT> <RUN>



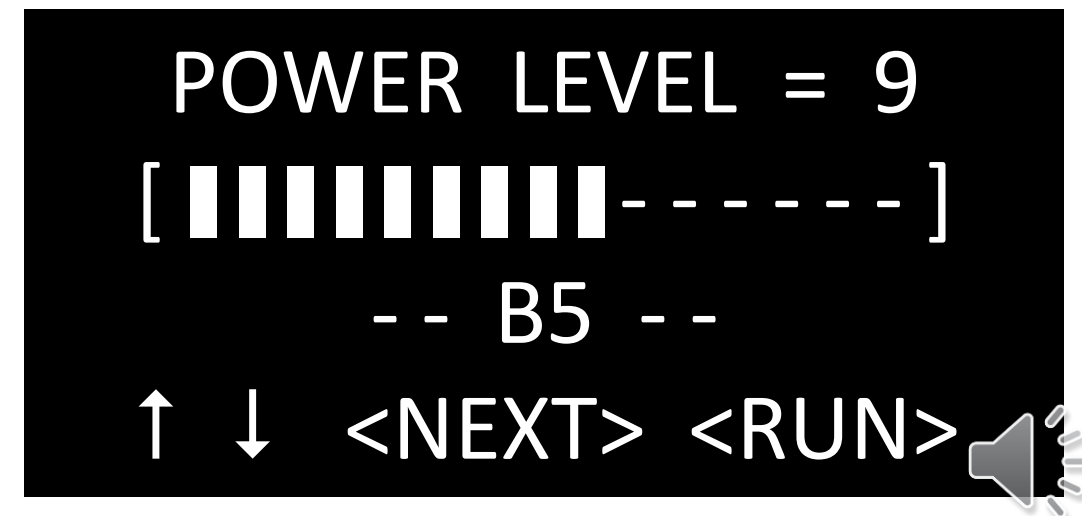
User Interface: Screen # 2

- Screen # 2 is the screen you will use most often
- On this screen, all four switches are active: UP DOWN NEXT and RUN
- To INCREASE the power level, press the YELLOW button which means <UP>
- To decrease the power, press the BLUE button which means <DOWN>
- WHITE = <NEXT> = go to next screen
- RED = <RUN> = RUN NOW
- If you do nothing, the B5 will continue on automatically to the next screen in 5 seconds.



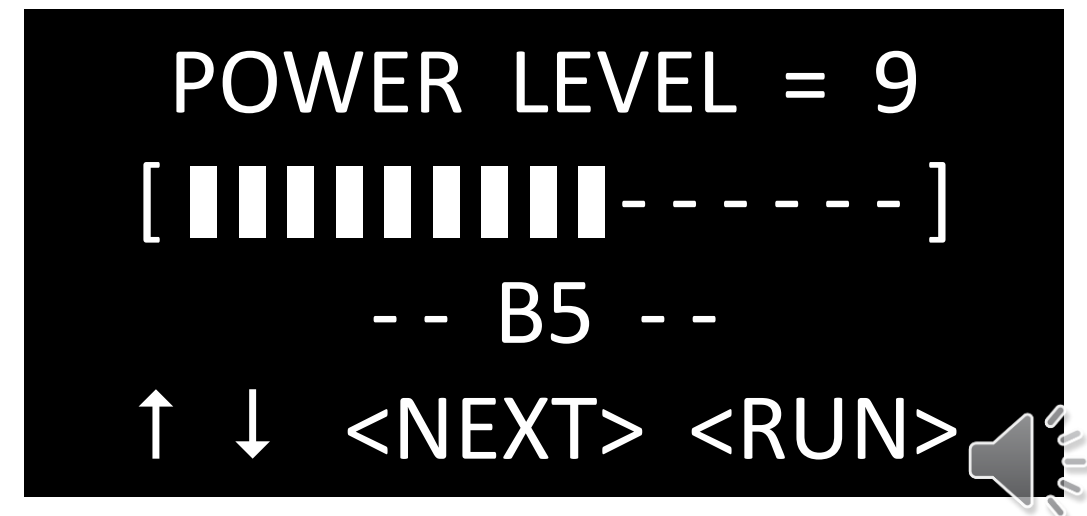
User Interface: Screen # 2

- Screen # 2 at POWER UP is the only time you can adjust the power level.
- To reset the power level, you must turn the B5 OFF, then ON again and wait for this screen which will display about 8 seconds after POWER UP.
- Or you can press <NEXT> on screen #1 to get straight to this screen without waiting
- There are 16 available power levels: 0 to 15
- The current power level is displayed both as a number (0 to 15) and a “power bar”
- Press the YELLOW button once for each level of power increase, BLUE once for each level of power decrease.
- The third line on this screen tells you the currently selected protocol.
- In this case, the protocol is the “B5” protocol. You can select a different protocol on the next screen.



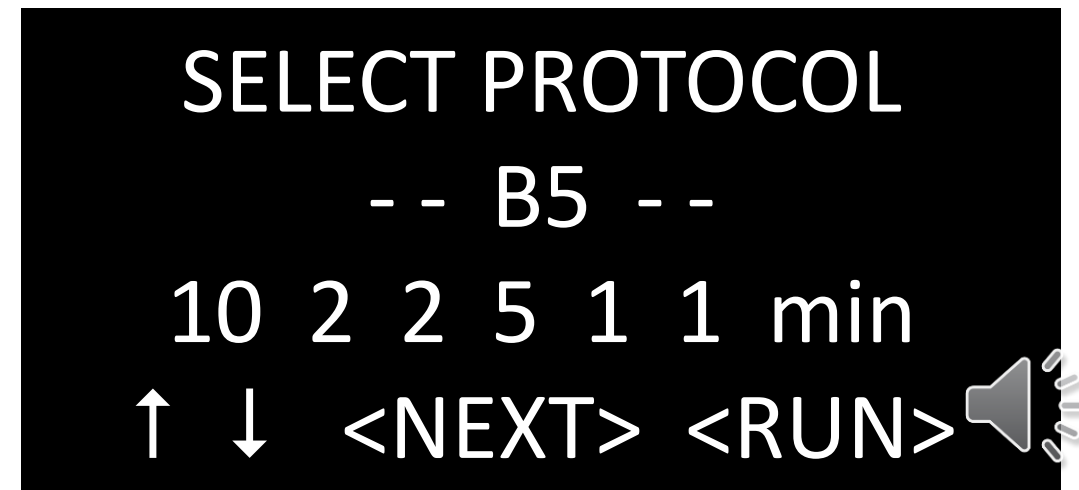
User Interface: Screen # 2

- Once you have adjusted the power level, you have four options:
- Press the WHITE button <NEXT> to go to next screen which allows you to select the protocol that will run.
- Press the RED button <RUN> to jump straight to RUN NOW. The B5 will immediately begin running the selected protocol at the power level you set.
- If you do nothing, the B5 will continue automatically to the next screen in 5 seconds.
- If you continue to do nothing, the B5 will AUTO RUN in about 10 seconds
- Or, you could just turn the B5 off.
- No matter what you do, the B5 will remember the power level you just set and will return to that power level the next time you use the device.



User Interface: Screen # 3

- Screen # 3 allows you to select the protocol you want to use.
- The default protocol is “B5”, which is the new protocol developed for the B5 system, but you can select and adjust any of the protocols on this and the following screens
- I will give details on how to select and adjust the protocols in the next B5 programming video tutorial.
- At this point, you should press the RED button <RUN> to jump straight to RUN NOW. The B5 will immediately begin running the selected protocol at the power level you set.
- If you do nothing, the B5 will continue automatically to the next screen in 5 seconds.
- Then it will automatically RUN in 5 seconds.
- I will explain the information on this screen, and how to select and adjust protocols, in the next B5 programming video tutorial.



Micro-Pulse

Model B5

Narrated by Bob Dennis

