Fozgometer Testing and Calibration Procedure (revised, 4/12/2017)

All Fozgometer units are pre-calibrated at the factory and are double checked for accuracy prior to shipping. To calibrate the unit in the field follow the procedure below. You will need:

-a small slotted screwdriver

-a cable (1/8" Stereo mini-jack to RCA stereo splitter cable or RCA to RCA stereo cable)

-fresh 9v battery.

If using a splitter cable, attach the 1/8" plug to your computer's headphone output jack and attach the corresponding left and right RCA plugs to the Fozgometer. Make sure your computer's output volume is set to max level. Play the tracks using your computer's audio playback software. On some systems you may be able to play the tracks directly from your web browser.

If burning a CD, make sure that the CD is burned to audio format (which will play in any standard CD player) and not as a data CD. You may need to consult your computer's audio software instructions to confirm the correct process for burning an audio CD. Once this is done, connect your CD player's outputs to the Fozgometer with a standard RCA cable and play the CD.

Before proceeding with the calibration procedure, ensure that the battery in your Fozgometer is fresh and is generating a full 9 volts. Rechargable batteries are not recommended.

Test tracks:

1) Track One: 1 kHz sine wave, L channel 0 dB, R channel 0 dB

2) Track Two: 1 kHz sine wave, L channel -20 dB, R channel 0 dB

3) Track Three: 1 kHz sine wave, L channel 0 dB, R channel -20 dB

Here are links for both MP3 and .WAV versions:
http://musicalsurroundings.com/audio/fozgometer-test-tones/Track-1.mp3
http://musicalsurroundings.com/audio/fozgometer-test-tones/Track-2.mp3
http://musicalsurroundings.com/audio/fozgometer-test-tones/Track-3.mp3

http://musicalsurroundings.com/audio/fozgometer-test-tones/Track-1.wav
http://musicalsurroundings.com/audio/fozgometer-test-tones/Track-2.wav
http://musicalsurroundings.com/audio/fozgometer-test-tones/Track-3.wav

Calibration Procedure:

1) Remove Fozgometer from case and set the unit on a flat surface and install a fresh 9v battery. Ensure that the left and right RCA plugs are connected to the Fozgometer and to your audio sorce (CD or computer). Turn the Fozgometer ON.

2) Play track 1; locate potentiometer RW1, a small metal screw in a blue plastic housing located on the **right** edge of the main PCB when looking down on the face of the unit. Adjust RW1 until the meter reaches the lowest point possible. If you continue to turn the screw, you will notice the needle will begin to rise again. If this happens, turn the screw in the opposite direction until the needle once again reaches the lowest point possible. Only the middle (green) LED should light during this test.

3) Play track 2 and observe the position of the needle on the front of the unit. Only the red "right" light should be lit during this test. Then play track 3. Observe the needle position again. Only the red "left" light should be lit during this test. Confirm that the needle readings for tracks 2 and 3 are the same, or at least within 1 tick mark of each other. It doesn't make a difference what the meter reads, only that both tracks 2 and 3 are the same. If this is the case, move on to step 4. If the readings for tracks 2 and 3 do not match, go back and repeat step 2.

4) Setting mechanical zero: Play track one again. Adjust the black plastic screw on the face of the unit located at the base/middle of the VU meter until the needle points to zero.

5) Setting the reference level of the unit: While playing track 2, locate potentiometer RW2, a small metal screw in a blue plastic housing on the **left** edge of the PCB when looking down on the face of the unit. Adjust RW2 until the needle points to 20 on the face of the meter. Then play track 3 and confirm that it also gives a reading of 20 on the VU meter. If it does, the calibration procedure is complete.

After completeing cablibration, your Fozgometer should give a reading of zero when track 1 is played, and identical readings of 20 when tracks 2 and 3 are played. Once this is confirmed, your unit is ready to use to test your azimuth.

Note: When the unit is turned off, the needle may settle slightly above zero. If the unit is on and not receiving a signal, the needle may settle sightly above zero and the right or left LED may partially illuminate. This is normal and can be disregarded. Only when the unit is on and receiving a signal will it give meaningful readings.

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