



Power Button – To power on the HGpeN, push and hold the **Power button** for 2 seconds. When the device is turned on, the LED light on the end of the HGpeN will illuminate. Once illuminated, this indicates the HGpeN is ready for use. To power off the HGpeN, push and hold the Power button until the light turns off. Test buttons will not operate unless the unit is powered on.

Increasing Volume – When the HGpeN is powered on, push and hold the **SP button** for two seconds. A beep will emit as the volume increases. Release button when you reach desired volume. The factory default volume is set to level three.

Decreasing Volume – When the HGpeN is powered on, push and hold the **MD button** for two seconds. A beep will emit as the volume decreases. Release button when you reach desired volume.

SP Button (Smooth Pursuit) – Once the HGpeN is powered on, push the **SP button** and release to start the test. A single beep will sound indicating the test has begun. Once the initial single beep occurs, move the HGpeN to your right (*checking the subject's left eye first*) smoothly. Two seconds after the initial beep, the HGpeN will emit a double beep indicating you should have reached endpoint. Move the HGpeN back towards center point smoothly at the same speed used to reach endpoint. The HGpeN will emit a single beep when two seconds has elapsed from endpoint back to center point. Continue to check the subject's right eye. The HGpeN will continue for two complete cycles.

MD Button (Maximum Deviation) – Push **MD button** and release to start the test. A single beep will sound indicating the test has begun. Once the initial single beep occurs, move the HGpeN to your right (*checking the subject's left eye first*) smoothly, bringing the subject's eye as far to the side as possible. Two seconds after the initial single beep, the HGpeN will emit a double beep indicating you should have reached maximum deviation. No white of the subject's

eye should be showing in the corner of the eye once you have reached maximum deviation. Once you hear the double beep, hold the HGpeN at maximum deviation. After the double beep, the HGpeN will emit a single beep at 1, 2, and 3 seconds and then a triple beep indicating four seconds has elapsed. Continue to check the subject's right eye by again pushing the MD button beginning at center point. This test requires two passes for each eye.

45° Button (Onset Prior to 45°) – Push **45° button** and release to start the test. A single beep will sound indicating the test has begun. Once the initial single beep occurs, move the HGpeN to your right (checking the subject's left eye first) smoothly at a rate that would require four seconds to reach the subject's shoulder. The HGpeN will emit a single beep at 1, 2, and 3 seconds. At the fourth second, the HGpeN will emit a triple beep indicating you have reached the four second mark. If no nystagmus is observed by the fourth beep (a triple beep) you should be at the subject's shoulder. If you observe the eye jerking prior to reaching the subject's shoulder, stop moving the HGpeN and verify the jerking. The beeps will continue until the final triple beep. This is to help you know how early you detected the jerking of the eye. Move the stimulus back to center point and repeat the test by pushing the 45° button again. Due to the nature of this test, the pen is designed for the user to manually restart the test for each individual pass during the onset prior to 45° evaluation. Two individual passes for each eye is required.

VN Button (Vertical Gaze Nystagmus) – Hold HGpeN horizontally, push the **VN button** and release. A single beep will sound indicating the test has begun. Once the initial single beep occurs, move the HGpeN smoothly upwards. The HGpeN will emit a double beep indicating when two seconds has elapsed and the pen should be positioned so the subject's eyes are elevated. Once you hear the double beep, hold the HGpeN in this position. The HGpeN will emit a single beep at 1, 2, and 3 seconds and then a triple beep indicating four seconds has elapsed. Two individual passes is required.

Resetting HGpeN During Test – If at any time you wish to discontinue a test in progress, simply push and release the test button that is in progress. A triple beep will emit indicating you have ended the test. Press and release the test button you wish to restart and the test will begin. If a test is restarted, the HGpeN is programmed to start at the beginning and complete the full test.

Battery – HGpeN requires 1 AAA battery. Twist bottom cap off, place AAA battery in with negative end inserted first and positive end toward the end cap.

Troubleshooting - Problem: The light will not come on, device powers off during test or the light pulses during test. Solution: The issue is commonly attributed to a weak battery. Replace the battery.

For warranty information & registering your HGpeN visit
www.HGpeN.com