



PROFESSIONAL SERIES



User Guide

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Golden Mask Virtus User Guide - ver. 1.0 (last updated: July 2026)

Virtus Overview

The Golden Mask Virtus brings the power of Golden Mask's revolutionary Binary Sinus Pulse (BSP) technology to a wider range of detectorists. Designed as the more affordable companion to the flagship Altus, Virtus focuses on what hobby users value most—speed, simplicity, sensitivity, and reliable performance in the field.

Optimized for coin shooting, jewelry hunting, and everyday detecting, Virtus features an exceptionally fast recovery speed (faster than the one of Golden Mask 4Xtreme), allowing it to separate closely spaced targets with ease, even in heavily contaminated sites. Its improved sensitivity to small targets and low-conductive metals makes it an excellent choice for finding coins, and other valuable small objects.

Despite its compact size and attractive price, Virtus retains the outstanding depth, stability, and discrimination that BSP technology is known for. Whether you are searching parks, fields, forests, or archaeological sites, Virtus delivers professional-level performance in a lightweight, easy-to-use detector that is ready for hours of comfortable detecting.

The Virtus is WS-ready. This means even if you purchase the detector without the proprietary wireless headphones, you can always add a pair later.

Coils and Compatibility

The Virtus operates exclusively with its proper Golden Mask BSP-V series search coils. These coils are specially tuned for the Virtus platform to deliver the best possible performance on the detecting field.



Using non-Virtus or third-party coils will damage the electronics of your detector and void warranty.

Control Panel Overview

1. Power & Audio – ON/OFF VOLUME

Powers the unit and adjusts speaker/headphone volume. Rotate clockwise to switch on and increase volume.

Higher volume makes target signals easier to hear in noisy environments, but it does not increase detection depth or sensitivity. Always use the lowest comfortable loudness to avoid ear fatigue and signal distortion.

2. Discrimination – DISC. LEVEL

The discrimination setting determines how strongly the detector ignores iron and other ferrous metals.

- Low settings allow more target signals through and provide maximum depth. You may hear iron responses.
- Medium settings balance depth and iron rejection for general searching.
- High settings reject most iron and low-conductive metals, but reduce overall depth and may eliminate small, thin, or low-conductive targets such as small gold items.

Higher discrimination always = more filtering and less depth.

3. Threshold Level – THRESHOLD

Threshold sets the faint background hum of the detector when no metal is present. This hum acts as a reference point:

- A low, stable threshold allows you to hear weak, deep targets more clearly.
- If set too high, the constant noise will mask faint signals and cause listening fatigue.
- If set too low or silent, you lose sensitivity to very deep or tiny targets.

Proper threshold setting improves both depth perception and response speed.

4. Ground Balance – GROUND BALANCE

Essential for stable operation in mineralized soils.

- Normal Range: Precise manual balancing for standard soils
 - HR (Hot Rocks): Universal setting for highly mineralized or variable ground conditions
- Ground Balance Steps

1. Locate soil spot free of metal.
2. Pump the coil 15–20 cm above the surface.
3. Adjust GB until coil movement produces minimal or no response.

For difficult ground, reduce sensitivity and repeat the process.

5. Iron Volume – IRON VOLUME

Determines the volume of the sound response from ferrous targets. At the higher setting (full right), the sound from ferrous targets has the same volume as the one from non-ferrous targets. Usually you want to lower the ferrous targets sound response, especially on sites with lots of iron contamination.

6. Sensitivity switch - SENSITIVITY

The sensitivity switch has two positions: LOW and HIGH

LOW - used for better performance and easy ground balancing on high mineralized soils and areas, where the HIGH position causes instability or false signals

HIGH - for normal and low-mineralized soils, most people will run this position.

Operating Warnings

Outdoor Use

The Virtus is designed for open terrain. In urban areas, electrical noise and metallic structures may cause instability, false tones or reduced depth.

For accurate performance testing, operate the detector outside populated areas.

Nearby Metal Detectors

When two metal detectors run close together on similar frequencies, interference tones are normal. Increase distance or adjust the THRESHOLD and the SENSITIVITY to reduce the interference.

Mobile Phones

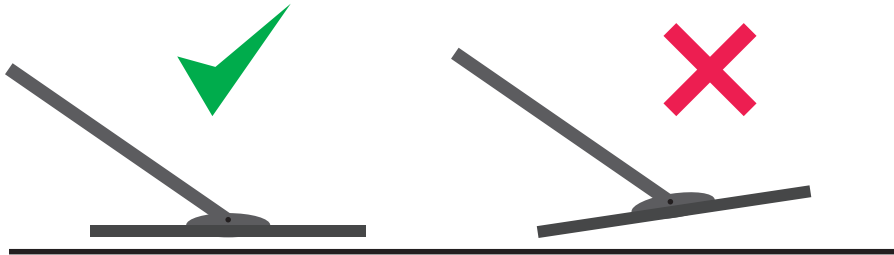
Mobile phones with weak network reception periodically increase transmission power, potentially causing strong EMI, resulting in false signals. In normal conditions, phones do not interfere with the Virtus, but better switch your off of to airplane mode to ensure best performance of your detector.

Searching for Metal Objects

The Golden Mask Virtus detector operates in MOTION mode, meaning it can identify a target only when the search coil is in motion. To perform an effective search, sweep the coil left–right just above the ground surface while moving forward at a steady pace. Maintain an overlapping, snake-like coil pattern to ensure complete ground coverage and avoid missing potential targets.

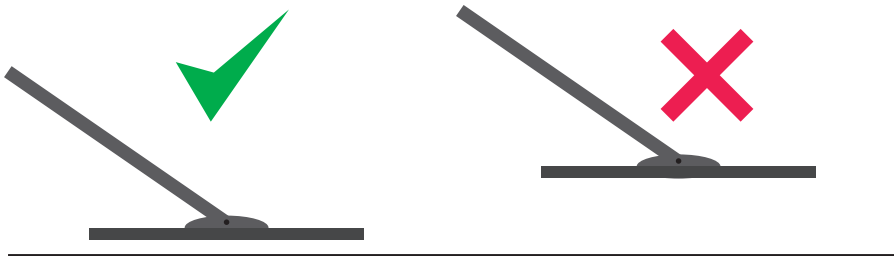
For optimal performance:

- Keep the coil parallel to the ground throughout the sweep. This guarantees the best stability and maximum detection depth.
- Maintain a consistent sweep speed—not too fast and not too slow. With practice, you will determine the ideal pace, although slightly slower sweeping generally produces better results.



- Keep the coil as close to the surface as possible without touching it. Lifting the coil too high will significantly reduce detection depth.

When a metal object enters the detection field, the detector emits an audio response. The type of sound depends on the selected audio mode.



Using Wired Headphones

The Virtus has a standard 6.35 mm | 1/4" headphones jack to plug-in wired headphones, located on the front side of the battery box.

The sound module of the detector is engineered to use a large gamut of contemporary **STEREO** headphones **with impedance of 50Ω or higher**.

We recommend using headphones with volume control, the sound volume shall be set by the headphones volume control. Of course, metal detecting dedicated headphones will work and are preferred because of their built quality, they are usually of high impedance, so will work properly on the Virtus



WARNING!

Never use headphones with MONO jack! Never use non-standard headphones, for example military equipment - this could damage the sound module of the detector.

Using headphones with 3.5 mm jack + adapter is not recommended - most adapters are junk and may cause malfunctions on your detector. Some adapters may cause short circuit on the sound output module and damage the detector sound amplifier.

Using Wireless Headphones

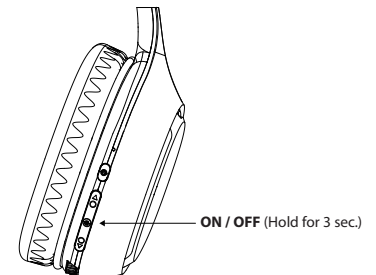
Your Golden Mask Virtus may be equipped with optional low-latency WS wireless headphones. The detector is fully WS-ready, so headphones can be purchased and paired at any time.

Important: The Golden Mask Virtus does not include a port for wired headphones.

To use the wireless headphones:

1. Set the switch on the detector's battery box front side to WS HEADPHONES.
2. Turn on the headphones by holding their ON/OFF button for approximately 3 sec.
3. When ready, the headphones will begin to blink blue, indicating active wireless connection.

Volume is controlled by the detector's VOLUME knob, exactly as when using the built-in speaker.



Pairing the WS Headphones

The latest WS headphone models (starting from WS107) support automatic proximity pairing. When both the detector and the headphones are powered on and placed close together, pairing is completed automatically.

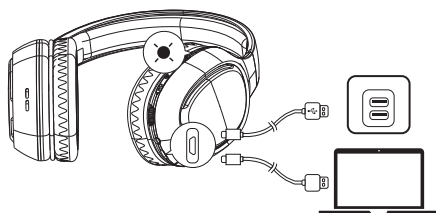
Recommended pairing procedure:

1. Switch on the detector and set it to WS HEADPHONES mode.
2. Turn on the wireless headphones.
3. Keep them within a short distance to establish the connection.

Charging the Wireless Headphones

The WS headphones contain an internal, non-removable rechargeable battery. Charge them using the supplied USB cable and USB wall charger (or any USB power source providing at least 2A).

- A red LED light indicates active charging.
- When the light turns off, charging is complete and the cable can be disconnected.



	Flashing Red Light Twice Every 30 Seconds	Low battery
	Steady Red Light	Being charged
	Light Off	Fully charged

Charging the Detector Battery

The Golden Mask Virtus includes a factory-installed 8.4V 5500 mAh Li-Ion battery. Under normal conditions, the battery provides approximately 6 hours of continuous operation, depending on the sound volume level.

If you use the detector with the wireless headphones, this could increase the working time with approximately 1 hour and even up to 2 hours in ideal temperature and usage conditions.

Temperature Considerations

- At temperatures below 10°C, actual battery capacity decreases.
- Near or below 0°C, capacity may drop by up to 50%.
- As temperature rises again, the battery returns to normal performance.

Before First Use

The detector is shipped with factory charged battery at around 20% charge. You must charge the battery at 100% before operating the detector for the first time.

Charging Frequency

Recharge the detector before every search day to ensure sufficient power. Li-Ion batteries do not suffer from memory effect—charging at any level is safe for the battery.



When the battery reaches a minimum level, a continuous sound is emitted (sounds like an old mobile ring tone). You must charge the battery to continue using the detector.

Charging Procedure

1. Locate the charging socket on the front side of the battery box.
2. Connect the charger to the charging port.
3. Plug the charger into a power socket.
4. The charging LED will turn RED during charging and switch to GREEN when charging is completed.

The detector charging system automatically disconnects charging once the battery is fully charged. Although not required, unplugging the charger afterward is recommended for energy efficiency.

At room temperature, the battery is charged from 5 to 100% in approximately 3.5 h.

Battery lifespan is approximately 1000 charge cycles with proper use and storage.



WARNING: Do not turn on the detector while charging or while connected to the charger. This could damage the detector electronics.



WARNING: Use ONLY the supplied charger! Using a different charger will damage the detector battery and/or electronics and may cause fire!

Battery Care Guidelines

Follow these recommendations to maximize battery health and lifespan:

- Do not charge the battery below 5°C. Allow the detector to reach room temperature for 3–6 hours before charging.
- Store the detector between 5°C and 25°C.
- Do not leave the battery unused for long periods. Check charge level every 6 months and recharge if necessary.
- Before long-term storage, charge or discharge the battery to about 50%.
- Recharge to 50% at least every 6 months during storage.
- Monitor older batteries closely. Typical Li-Ion life expectancy is 2–3 years or 300–500 cycles.
- Battery self-discharge increases at temperatures above 20°C.

Li-Ion Battery Safety Rules

- Do not disassemble, crush, or puncture the battery.
- Do not short the external contacts.
- Do not dispose of a battery in fire or water.
- Do not expose to temperatures above 60°C (140°F).
- Avoid excessive shock or vibration.
- Do not use a damaged battery.
- If the detector has been stored long-term and the battery is completely depleted, consider it damaged—do not attempt to recharge. Contact your dealer for replacement.
- Replace the battery if runtime drops below 70% of original or charging time increases significantly.
- If battery fluid contacts the eyes, flush thoroughly with water for 15 minutes and seek medical attention.
- Follow all local regulations regarding transportation and recycling of Li-Ion batteries. Transporting damaged or end-of-life batteries may be restricted.
- For recycling: follow local guidelines or contact your regional battery recycling organization.

Maintenance and Care

Coil Protection

The Virtus search coils have protection covers attached to the bottom to protect the coil from dirt and scratches.

Avoid bending or pulling the coil cable, especially where it enters the coil housing. Mechanical stress may break internal wires and cause malfunction.

Cleaning

Use a soft, damp cloth. Do not use detergents and solvents. A drop of soft hand soap on a wet cloth is quite enough and will not harm the detector surface.

Temperature Precautions

After sudden transitions from hot to cold environments—or vice versa—allow 5–10 minutes for the electronics to stabilize before switching on.

Physical Impact

Use your detector with care to not strike the coil on stones, rocks, or hard surfaces.

Helpful Advice

- Do not test the detector indoors—houses contain numerous electromagnetic interference (EMI) sources that will cause instability and false signals.
- Sweep the coil close to the ground without touching it. Avoid overly fast movement. Practice will help you find the optimal speed.
- Always respect private property and obtain permission before detecting. Unauthorized detecting can result in legal and financial consequences.
- Follow all national laws regarding cultural heritage and archaeological sites. In all European countries, metal detecting on or near archaeological sites is strictly prohibited.

Good Luck!

TECHNICAL SPECIFICATIONS

Operating principle	BSP (Binary Sinus Pulse)
Operating frequency	BSP Multi-Frequency
Audio tones	Bi-Tonal
Audio output	Speaker, Wired or Wireless Headphones
Wireless headphones	Optional WS107, WS-ready
Wireless technology	Real time audio (Low Latency 12ms), 2.4Ghz
Discrimination	Yes, high-fidelity discrimination at any depth
Ground balance	Manual
Search Coils	Golden Mask Virtus (BSP-V)
Weight	1.4 kg with 13x11" search coil
Shaft	Adjustable length, carbon fibre telescopic shaft
Battery (main)	Li-Ion 5500 mAh
Power Autonomy (detector on speaker)	Minimum 6 Hours (temperature and sound volume depending)
Power Autonomy (detector on WS headphones)	Up to 7 Hours (temperature depending)
WS107 Power Autonomy	Up to 45 Hours (temperature and sound volume depending)
Warranty	5 Years Warranty - the electronics 2 Years Warranty - the battery and the coil(s)
Charger	Dedicated charger
Operating Temperature Range	-10°C to +40°C (+14°F to +104°F)

