

Application for Equipment Certification by Northwest EMC TCB Committee
TCB-412 Item 2: Cover Letter Describing the Product
White's Electronics Bullseye TRX Handheld Metal Detector
January 02, 2014

The subject device, White's Bullseye TRX Metal Detector, is a hand-held transmit-receive metal detector. The primary intended application of this product is in hobby for the detection of buried metallic objects. The detection field is produced by a coaxial coil with dimensions of about 0.5 x 3 inches. The excitation signal is produced by an L-C oscillator having nominal frequency of about 12.5 kHz, and oscillator DC power input of about 3 mW. Detection range for large metallic objects is about four inches. Operation of the detection field is continuous, and the field is not modulated otherwise. Detection is obtained by measurement of field disturbance by a separate receiver coil. Detection is announced by audible and/or vibratory signal. Audio alarm level is typically 85dB at 4 inches. Operating power is obtained from a self-contained battery. The FCC ID is KHS800-0343. The Bullseye TRX is a portable device.

Approval is sought for this equipment as a 47 CFR Part 15 Unlicensed Radio Frequency Device.

Review of Applicable FCC rules:

Reference is made to FCC rules, 47 CFR Part 15: Radio Frequency Devices. Reviewing Subparts A, B, C, D, and E:

Subpart A General This product matches relevant definitions of Subpart A for unlicensed operation.

Subpart B Unintentional Radiators This product contains digital computing electronics, an unintentional radiator. This product is subject to Class B radiated emission limits in order to meet Justice department standards. Therefore, the product will be subject to the Class A radiated emission limits of Part 15, 15.109(a).

Subpart C Intentional Radiators This product contains an intentional radiator operating at nom. 12.5 kHz (acceptance limits are 11.5/13.5 kHz min/max). Operating DC power input to the radiating circuit is typically 3 mW. This product matches definitions of 47 CFR Part 15.3 (l): Field disturbance sensor, and 15.3 (o) Intentional radiator.

15.203 Antenna requirement. The antenna is an internal feature of the product, and no provision is made to permit use of any antenna other than that furnished by the manufacturer.

15.205 Restricted bands of operation. A closest restricted band, 0.090 – 0.110 MHz, is not in the vicinity of the operating frequency of this product. Design and production testing of assembled product ensures compliance with this restriction.

15.209 Radiated emission limits of (a) apply.

Subpart D Unlicensed Personal Communications Service Devices does not apply.

Subpart E Unlicensed National Information Infrastructure Devices does not apply.

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