### Changes in Versa NC 3.7 software

The detection capabilities of very low conductors (ID < 25) in Multi Frequency have been increased, especially under old ceramics and bricks.

The Small Target Boost algorithm has been modified so that it works more versatile.

The Caps filter is available in every program.

The ID graph algorithm has been modified to be more readable for iron objects.

Added display contrast adjustment function.

NOTE: Disconnect the coil before reprogramming the detector. After reprogramming, turn off the detector, connect the coil and turn on the detector.

Below are most important fragments of the manual in which changes have been made.

# DETECTION PROPERTIES PANEL (ADVANCED SETTINGS)



# Type of Multi Frequency

NOTE: After changing the Multi Frequency Type, we recommend performing ground balancing.



FL type operation – Designed to locate 'low conductive' objects (e.g. small, thin silver coin). These are typically small items with ID readings below 25. This type of work will be most effective in conditions of high mineralization and littered with ceramics and bricks.



# **Small Target Boost**

This unique feature of the detector significantly improves the detection of coins in soils with high mineralization, in situations of masking with iron, old ceramics, bricks, etc. In areas with less ground clutter, you can maximize this function (up to a setting

of 30) for better results. However, if you find yourself unearthing too many small iron objects that are ball-shaped or lump-like, it's advisable to lower this setting.

NOTE: This is a very important setting that strongly affects the detection properties. In general, settings lower than 15 should not be used.



### **Bottle Cap Filter**

It is an algorithm based on multi-frequency information, the analysis of which allows for effective identification of steel caps. The filter works if the cap is in close proximity to the coil. Steel caps are identified as objects with ID = -1. The adjustment level

determines the distance from the probe at which the Cap Filter should operate. In the Field and Park programs, this function can be used to partially notch some iron objects that cheat discrimination.

### **IDENTIFICATION GRAPH**

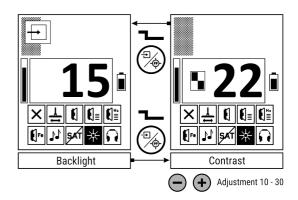
The identification graph is a graphical representation of the data ollected by the identification circuit while moving the search coil over an object and is stored in the device's memory. This feature allows for quicker identification of ferrous objects than any other method. Please be aware that using the ID graph requires extensive experience. It is particularly important to become familiar with the detector so that the user can recognize the depth of the object. For deep objects, the graph will never be perfectly straight.

NOTE: When using the detector, the most important information is always the sound, then the ID number, and the graph is only supporting information.

Basic cases of graph interpretation	Cases requiring extensive user experience
If the object is shallow and the graph is straight or only slightly bent, the object is made of non-ferrous metal.	For deep non-ferrous objects, the origin of the graph will bend towards the iron.
If the object is located shallow and the graph clearly starts with iron and goes into the color range and the ID number is positive, we are dealing with a large iron object cheating discrimination.	Depending on the type of soil, the situation may be the opposite - a deeply located non-ferrous object may form a graph with the lower part bent towards high conductors.
If the graph is in the iron range and the ID number is negative, we are dealing with a iron object.	There is a possible case when the graph is in the iron range and the ID number is low and indicates a low-conducting object. It is a low-conductive object masked with soil, ceramics or bricks.

### CONTRAST

The Contrast function is entered from the Backlight adjustment by pressing and holding the button, exit by pressing and holding the button. We adjust the contrast to suit our needs.



#### FREQUENCY SCREEN

The choice of frequency used has a very big impact on the detector's ability to detect objects. The general rule is: use Multi Frequency type "L" to search for low-conductive objects, i.e. small coins and jewelry; use Multi Frequency type "W" on wet, conductive soils. Single frequencies could be used only when the ground conditions allow it. The rules for selecting a single frequency are as follows: the smaller the object, the higher frequency used. Frequency also influences the quality of Discrimination of flat shaped steel objects. The higher the frequency, the more the properties of the metal sheets resemble those of non-ferrous metals. At high frequencies - above 20 kHz, many steel targets are identified as targets with ID greater than 0 - this is normal. The frequency also has an influence on the power consumption of the device. The operating time at 4.0 kHz is much shorter than at 40 kHz. If you are not sure which frequency to work with – use Multi Frequency type "L".

#### PROGRAMS SCREEN



**Field** – program in motion work intended for operation in conditions of low iron contamination and low mineralization.



**Park** – this program in motion work is optimized for searching in a littered area and mineralized iron compounds. The priority in this program is low masking with iron, ceramics and bricks.