

## TOMDEC VA



# Scanner – antenna – system for locating magnetic and non-magnetic metal objects

- > Totally new developed electronic circuit
- > Drastically enhanced search-performance
- > Programming via "plug –in "-modules
- > Line-laser for optimal positioning by night

#### The search with the TOMDEC V4

The scanning system TOMDEC V4 does not search - as metal detectors do - for the metal, (e.g. gold or silver) but for the electromagnetic fields from ionic motions (positive or negative charged particles), which build up around metals. The internationally used term for locating such fields is "human radar" or radiasthesis.

The TOMDEC V4 is an advanced development and registered exclusively for DTI.

Via the dual-antenna transmission-system, electromagnetic frequencies are transmitted to locate the radiation of certain materials like gold, silver, bronze or iron.

Here now some limitations: only metal-objects can be located and detected which have developed their own electromagnetic field that is so large that it reaches the ground surface. That means, that these objects have to be buried for a long time in the ground or in caves, in walls or in water. The time-span of 50 - 100 years is therefore rather short if the locating shall be done in a very high depth (15m (50ft) and more). Metal-objects which have been buried only a few years can only be located if they are not laying too deep (max.2m(7ft))in a distance of not more than 100m (330ft). Objects, which have been buried in the ground for only a few months, cannot be located; the ionic reaction (electromagnetic field) is too small.

An influencing factor for the success of searching is the condition of the ground: Electromagnetic fields build up relatively fast in moist, natural soil. In rock formations and dry sand the reaction of the ions is slowed down. The build up of electromagnetic fields (ionic reaction of the metal) may take up to 50% longer.

**Summary:** Objects, which have been in the ground for only a short time, can only be located within short distances and they should not be buried to deeply. Objects, which have been in the ground for a long time, can be located across great distances and at great depths.

#### The Device

The TOMDEC V4 is an entirely new device of the "Electronic Generation 2000". By using an especially new developed electronic circuitry that generates different burst signal frequencies, the performance is highly advanced.

Carrying-handles on both sides of the unit for compact usage. The weight is reduced to 1,1 Kg.

The programming of the TOMDEC V4 is done via programming-"plug-in" –modules for objects made from gold, silver, bronze and iron. The modules can be changed without delay.

#### The TOMDEC V4 comes with:

A – Basic unit with three operating-elements:

- 1 Volume
- 2 Intensity
- 3 Sensitivity
- 4 Dual-antenna

Extendable and with ball-bearings with built in line-laser for optimal positioning by night

5 Socket for program-modules

6 Four Colour-LED's

To acknowledge the transmitter-function of the chosen program-module

7 Levelling-control-system

8 Two 9V batteries

### B – Four Program-modules for the different transmitter frequencies to locate:

9 Gold 10 Silver 11 Bronze 12 Iron

#### C - ALU-case for a secure storage and a protected transport



#### Operating Controls

#### Program - module

The TOMDEC V 4 can be equipped with programming-"plug-in" –modules for gold, silver, bronze and iron. By plugging the programming module in, the following functions will be started:

- ◆ The device is turned on automatically and operational (pulling the module out of the device turns the unit off)
- The search-frequency is automatically transmitted, the transmitter operational
- ◆ The corresponding LED lights up: yellow = gold, blue = silver, green = bronze and red = iron



If you want to change the program during a search (for another type of metal), remove the used "plug-in" –module and simply insert the new "plug-in" –module for the new program. You can continue the search without delay.

#### NivCon - Niveau Control

With antenna-systems it is very important to hold the device in a horizontal position. The TOMDEC V 4 niveau-controlsystem is equipped with a green and two red LED-check-lights. If the green LED-signal is light up, it shows the user that the device is in the ideal horizontal position.

NivCon has no impact on the searching **performance**, but the search **result** is significantly influenced.

## Sensitivity Adjustment of the depth-performance

By changing the searchfrequency-pulserate (click!) with this potentiometer, the transmission power and by this the performance of the device is determined.

A high puls-rate is used if the maximum depth-performance for large and small objects is required.

If a very low pulse-rate is used, the transmission power is slightly reduced and small parts like coins or jewellery are filtered out automatically – they cannot be located.

Monitoring the pulse-rate and the adjustment is done acoustically and via the flashing LED in the program module.

## Intensity Adjustment of the search distance

With this control the output amplitude (transmitting-intensity) of the radiated search signal can be adjusted. So you can determine how far the device shall transmit. Example: If an area shall be searched with the largest possible surface, the "Intensity" has to be turned up fully and the antennas have to be extended to their full length. But if e.g. a house in a distance of 10-20m (30-70ft) shall be checked, the "intensity" has to be adjusted to minimum and the antennas have to be pushed about half – way in.

#### Volume

This potentiometer controls the volume of the search-frequency, continuously. "Volume" has only adjusting character and has no influence on the performance of the system.

#### **Turning the unit OFF**

Just pull the program-module out of the socket. The device is now turned off.

#### Searching technology

The TOMDEC V 4 can be used during night and day. During daytime the best results will be reached if the weather is warm and sunny. The max. Temperature should not exceed 25°C – so it should not be too hot; the minimum temperature should not go under 15°C.

The person who is searching and other accompanied persons should not wear anything made from gold, silver etc. if searching for these metals.

The maximum search performance of the TOMDEC V 4 that is theoretically about 500m depends so as the max. Searching depth of 15m (50ft) on the size and the burying-time of the object.

If you are searching for unknown objects, start at the highest searching sensitivity: Fully extend both antennas and set 'Intensity' and 'Sensitivity' to '10'. You can locate with this setting very large, metallic object, which have been buried in the ground for about 100 years up to a depth of 15 m (50ft.)

With half extended antennas and the 'Intensity' and 'Sensitivity'-setting reduced to '5', the performance of the device is reduced by 50% in distance and depth. That means if the object is buried in a distance of 200 to 300m (600-1000ft) and at a depth of 8 m (26ft), can still be located.

Remark: All stated values and data are only in regards to metal objects with a minimum size of appx. 40 x 60 x 30 cm (16" x 24" x 12") and being buried at least 50 years in the ground, in caves, in water etc. For smaller objects or shorter times-times the stated values are less.

During the search the device will be held horizontally. This can be done with the aid of the NivCon – system. Only if the antennas are exactly positioned horizontally forward, the green control-LED will light up.

To search a certain area the device is panned slowly from one side to the other. As soon as the antennas have located a metal object – which has been programmed - they remain in this position, even if the device is kept moving. This direction shall be marked (1. marking-line).

Since with this first measurement only the direction but not the exact position is located, a second measurement from another starting-point is necessary. If the antennas are pointing again in a certain direction, also this direction will be marked (2. marking-line). As a result of both measurements the cross point is found. By measuring then at this endpoint the strongest ion-reaction will be found and located.

#### **Technical data:**

Weight: 1,1 Kg

Dimensions (w x l x h): 31cm x 22 cm x 13 cm (12,2" x 8,7" x 5,1")

Power-supply: 4 AA Batteries or Accumulators

Operation time: 15 - 20 hours

Transmitter frequencies: 5,0 kHz for gold, 8,7 kHz for silver, 11,8 kHz for bronze,

17,0 kHz for iron

Warranty : 2 years

Delivery and technical data are subject to change without notice. All data is based on information provided by the manufacturer and test-results.

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