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Producent Nawigatora GPS dla niewidomych

NAVIGATOR 4 english

Navigator is a small device, designed for blind and visually impaired people, which uses the Global Positioning System (GPS) to monitor its user's exact geographic location. Any location can be saved within **Navigator's** memory as a point which has its own number, and which can be given a brief, user-recorded, verbal description. A collection of these points, the device's knowledge of its own current location, and a set of programmed calculations all combine to assist the user in navigating a given area.
Navigator is by no means some sort of miraculous device which holds your hand and leads you from one place to another like a sighted guide would. It's a device which complements your own navigation skills by helping you find out exactly where you are and by giving you instructions regarding how to get to where you'd like to go. Its reliability depends on the accuracy of the data which has been saved in its memory, the quality of the GPS signal reception conditions, and the precision with which the coordinates of the orbiting satellites can be determined. Using a white cane or a guide dog is still necessary - **Navigator** is merely an orientation aid.
Incorporating **Navigator** into your daily routine requires two steps: saving data about the locations you visit and the routes you use, and using the saved data as you travel. Saving sufficient and accurate data is crucial for successful use of **Navigator**. You must collect data for significant 'places' throughout the area. Priority should be given to places where you either have orientation problems or get easily lost.

These may be:

- street intersections,
- bus stops,
- places where you must change direction,
- stores where you frequently shop,
- any other places that you especially love or hate.

There are several ways in which you can navigate an area. You can be guided to a specific place based on information about its distance and direction relative to your current location. You can travel along a 'route' (a selected sequence of places). From anywhere along the route you can go back toward where you started from. You can check your current location at any time – it's the distance and direction from the nearest known place along the route, including from your defined 'destination', to wherever you happen to be at the moment. You can set the nearness at which **Navigator** announces places as you pass by them. You can set the direction you wish to go in, and then be informed regarding any deviations from that direction. You can get reliable information about the length of your route.

Navigator is manufactured in version 4S. **Navigator 4S** is a small box which contains the antenna and the GPS receiver, control systems, recording and reproduction systems for announcements and descriptions, battery and charger systems, a keyboard, and a microphone. The top surface of **Navigator 4S** contains, in addition to the slightly protruding casing of the satellite receiver's antenna, a single universal jack which is used for connecting a mono headphone, a PC interface, and a battery charger.

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The device use a removable memory card which may contain additional sets of places and other data either provided by the manufacturer or, for instance, downloaded by the user himself from many websites on the internet which offer free geographic coordinates for lots of places. So far the manufacturer provides 120000 POI for Poland, but the extent to which this kind of data will be provided in the future will primarily depend on user interest and the interest of GPS map providers. Cards which contain user-supplied data may be freely shared amongst users.
The PC software provided by the manufacturer runs on the Windows® operating system (version 2000 or later). It allows the updating of **Navigator's** internal software from manufacturer-provided files, and the saving of place coordinates gleaned from maps and the like into the device's memory. You can easily manage a saved place collection (copy, delete, edit, etc), as well as create your own larger and/or tayloured collections. You can also back up your place definitions, along with their verbal descriptions, to your computer's hard drive, as well as enter data supplied by other users. The latter two functions are useful for archiving your places, and for exchanging data with other **Navigator** users.
If no commands or functions are entered, **Navigator** continuously (once per second) compares its current location with those places which have been previously saved in its memory. Whenever it's close to a known location (the user can set this threshold), **Navigator** announces that fact. The announcement consists of the distance and direction relative to the user's current position, and is something like: "place two, grocery store, eighty meters, thirty degrees left" (note that the phrase "grocery store" is the user's own verbal description).
Using **Navigator** is relatively simple. Its operations are divided into two groups: commands, and functions. Commands facilitate quick and easy navigation, and are executed by single key presses. Functions, on the other hand, are more complex in that each requires at least one numeric parameter. They are used to select settings, to save and edit data, etc
Navigator's package contains: a mono headphone, a USB cable, abridged documentation, power charger 220-230V 0.5A, a CD with full documentation and the PC software.

Technical details

Number of saved places	10 + 10 sets of 255 places
Maximum number of addresses on a card	2550 – user's own places on a card 60000 - POI 1 60000 - POI 2 2.000.000 - addresses, if they are
GPS receiver architecture	uBLOX5/uBLOX6,
Control unit size	6 x 11 x 2 centimeters
Control unit weight	120 grams
Power supply	lithium batteries, integrated
Operating time	approx. 20-30 hours of continuous operation
Battery charge time	approx 9 hours

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