



DNV2000

Acoustic Device for the Visually Impaired

The DNV2000 acoustic device, installed at signal-controlled pedestrian crossings, emits an audible signal to indicate when it is safe to cross, upon specific user request.

It fully complies with D.P.R. July 24, 1996, No. 503 (art. 6.4), the Italian Highway Code (art. 41, paragraph 5), and its Implementing Regulation (art. 162, paragraph 5).

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General Features

The device is designed to operate exclusively in combination with the DNV2000 and TWEETY DNV TOUCH push buttons, sharing functional and electrical connections. Installation requires devices on both sides of the crossing, interconnected and linked to the traffic light controller.

The unit is engineered for audible signaling and consists of:

- Microprocessor-based logic.
- Sensor for measuring ambient noise.
- Acoustic transducer to emit the "walk" signal.

Upon request, the signal is transmitted simultaneously to:

- The acoustic device on the same pole (which stores the request and emits a confirmation sound).
- The pedestrian request device on the opposite side (push button).
- The traffic light controller, which integrates the pedestrian phase into the traffic cycle.

If the request is made during an active green phase, the system stores it and executes it in the next cycle. The walk signal emission is always synchronized between both sides of the crossing and is activated only on request. The volume is automatically adjusted in real time according to ambient noise levels.

Conditions for blocking the audible signal

The sound emission is automatically inhibited in the following cases:

- Traffic light system turned off (power derived directly from the green and yellow lamps).
- Abnormal voltage on the red pedestrian lamp ($> 50\text{ V}$).
- Insufficient voltage on green and/or yellow lamps ($< 160\text{ V}$), as in flashing scenarios.

Construction Features

- Enclosure: high-strength polycarbonate plastic.
- Protection rating: IP55, resistant to dust and water splashes.



DNV2000



TWEETY
DNV TOUCH

Technical Data

Walk Signal

- During Green Light:
 - Pulses: $60/\text{min} \pm 1\%$
 - Duty cycle: $50\% \pm 1\%$
 - Frequency: $800\text{ Hz} \pm 10\%$, modulated at 20 Hz
- During Yellow Light:
 - Pulses: $120/\text{min} \pm 1\%$
 - Duty cycle: $50\% \pm 1\%$
 - Frequency: $800\text{ Hz} \pm 10\%$, modulated at 20 Hz

Sound Level Adjustment

- Automatic adjustment relative to ambient noise:
 - Delta: $+5/+10\text{ dB}$ above ambient level
 - Sound pressure level: $30\text{ dBA} - 60\text{ dBA}$ (in accordance with Table B of DPCM 14/11/1997).