



TRAFFIC SIGNALS & ACCESSORIES INTL

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Audio Tactile Pedestrian System



Overview

Traffic Signals can be fitted with audio-tactile devices, which can be easily heard, felt and seen by pedestrians with a vision or hearing impairment. Providing this type facility at signals assists mobility for pedestrians with a vision or hearing impediment to cross roads and intersections safely.

General Description

This system comprises of two separate units, a post mounted weatherproof box, which accommodates the electronic control circuitry, power supply and ambient noise monitor microphone. The push button assembly accommodates the tactile transmitter. Two models are available. The push button assembly accommodates the tactile transmitter and the push-button assembly as illustrated.

Features

- Provides both tactile and audio indication facilities.
- Emits a continuous audio signal to aid push-button assembly location and identification.
- Distinct audio and tactile signal for positive walk (cross) indication.
- Audible signal level controls automatically adjust for ambient noise.
- Only responds to consistent increases in ambient noise, ignoring isolated transient fluctuations.
- 3 levels of audio tone adjustment.
- Reliable proven audio tactile and transducer adjustment.
- Push Button has embossed direction indicator arrow.
- Operationally proven designs.
- Solid state circuitry, proven transducer and signal interlocking to ensure ultimate safety and reliability.

Definitions



Audio-tactile device

A push button system at traffic signals, which when pushed, provides pedestrians with audible signals to indicate when it is safe to cross and not safe to cross the road. The system produces a tactile and audible component. The first audible and tactile component is a slow pulsing sound and vibration, which enables pedestrians to find the push button. The second audible and tactile component is an actuated fast pulse which indicates when to cross.

Audible Component

A continuous slow pulse sound enables persons with a visual impairment to find the button and the fast pulse which indicates when it is safe to cross.

Tactile component

The slow vibrating pulse within the push button enables persons with sight and hearing impairment to find the button which has directional arrow for the direction to cross and fast vibrating pulse when it is safe to cross.

Audio Tactile Pedestrian System Push Button

All pedestrians, including those with sight and/or hearing impairments, are catering for with the ATC pedestrian detection and indication system.

Level Control Selection

Signal Details Audible Location Signal

Standard voltage: 230V, 50Hz

Tone approximately 1250 Hz with a slow repetition rate (0.52 Hz)

Audible Crossing Signals

- **Change Tone:** initial burst of tone (2.KHz) Decaying in frequency to 500Hz
- **Pulse Tone** : A tone of approximately 50 Hz a fast repetition rate (8.3 Hz)

Audio Tactile Signals

The system produces two distinct types of audio signals, and two distinct tactile pulse rates. The functions of these signals are:

1. The audible location signal continuously present for the Don't walk condition. This serves to assist pedestrians with sight impairment to locate the push-button assembly thereby permitting use of both audio and tactile indication facilities available.
2. The audible crossing signal comprises two tone which immediately peaks and then decays followed by a rapid pulsing tone of a fixed frequency. This sequence ensures positive identification by pedestrians with sight impairments and also serves to enhance pedestrian walk indication to all pedestrians at the traffic signal installations.
3. During the Don't walk condition, a tactile signal pulses at the same rate as the corresponding audio signal, thereby giving seconds sensory confirmation of the don't walk condition.
4. During walk (cross) interval the tactile indication pulse rate operates coincident with the distinctive audible walk (cross) signal pulse rate.



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TSA Head Office

84 Columbine Place, Durban North, South Africa

Tel : +27 31 569 4085

Fax : +27 31 569 4025

Email : info@tsa-southafrica.co.za

Box 201635, Durban North, 4016

84 Columbine Place, Glen Anil,
Durban North, South Africa, 4051

