

Accessible Pedestrian Systems (APS)

An Accessible Pedestrian System is an audio and tactile system that gives you Accessible crosswalks and helps to make your city pedestrian friendly.

This APS provides much of the information already available to sighted pedestrians to vision impaired pedestrians. An APS provides the vision impaired pedestrian with the following information:

- That an intersection is Accessible
- The location of the button and the need to actuate the button to get a walk cycle
- Which button applies to which crosswalk
- Indicates to the user that they have placed a call to the controller for a "walk" cycle
- Whether the crosswalk is in a "walk" or "don't walk" phase
- When the "walk" phase begins
- When the clearance or "don't walk" phase begins



There are many features, advantages and benefits to using an APS at your city's intersections.

Audio Tactile Driver Unit



The driver unit provides all of the necessary electronics to drive an audio tactile transducer (located in the push button). This system creates the "don't walk" and walk audible and tactile signals as specified in the above standards to assist sight and/or hearing impaired pedestrians.

The output level of the audible signals generated by the module automatically and instantaneously increases or decreases depending on the ambient noise level.

There are three different audible tones:

- The locating tone: (Don't Walk) is 1000Hz \pm 50Hz with a repetition rate of 0.55Hz \pm 0.05Hz
- The transition tone: (Walk) starts with a burst at 3500Hz \pm 500Hz and then decreases exponentially to 700Hz \pm 100Hz
- The crossing tone: (Walk) is 500Hz \pm 25Hz and the repetition rate is 8.5Hz \pm 0.5Hz.

It is simple to upgrade standard push button facilities to full audio and tactile systems.

Pedestrian Push Button



The push button has an audible output that consists of three tones. The locating "don't walk" tone, the transitional and "walk" tone.

There is also the option with the Braums push button to have an LED indicator which signals to the hearing impaired that they have placed a call to the controller for a "walk" cycle.

Reliability

The Braums audio and tactile system is extremely reliable. Thousands of Braums pushbuttons are helping pedestrians cross their roads in Australia and countries of South East Asia, Europe and the US. In the period of nearly twenty years of supply no single driver unit or a pushbutton has been returned faulty.

The Braums product has an excellent history of reliability. You can rest easy when you install a Braums product.

Microprocessor Driven

Increases flexibility in design and creates the ability to customise features.

You get a customised product that meets the specific needs of your community.

Tactile Arrow

Points to the direction of the intersection. Indicates to a pedestrian to which intersection the button relates.
Assists the vision impaired person align themselves with the crosswalk.

Location of Speaker (transducer)

The sounds are emitted from a transducer located in the push button, not in the pedestrian head.
Increases usability.

The location of the transducer increases the localizability of sounds for users.

Pulsating Action of the Transducer

The push button pulsates simultaneously with the emitting sounds providing vibro-tactile information.

Assists hearing impaired users.

Microphone and AGC (Automatic Gain Control)

Constantly measures the ambient noise. The driver responds by adjusting the volume of the audible output for both the "walk" and "don't walk" tones.

AGC ensures that pedestrians can hear the APS without unnecessary noise. AGC reduces noise pollution and therefore increases product acceptance within the community.

Locating Tone

Allows users to find the push button and informs the pedestrian that the crosswalk is currently in a "don't walk" phase.

Increases usability of the crosswalk and the APS.

Transitional Tone

Alerts pedestrians to the walk cycle.

By increasing the speed at which pedestrians step off the curb it gives them greater time to cross.

Demand Indicator

Assures the sighted person that they have placed a call to the controller for a walk interval.

Gives the sighted greater confidence with the APS and will encourage the user to wait for the "walk" phase.

Demand Tone

Assures both sighted and vision impaired pedestrians that they have placed a call to the controller for a "walk" cycle.

Gives both sighted and vision impaired pedestrians greater confidence with the APS.

Large Button

The actuating button is very large: 50mm in diameter.

Makes it easier to actuate the button.

Positive Feedback

With or without either the demand indicator or tone, the button gives users positive feedback.

Positive feedback reassures pedestrians that the button is working.

Minimum Voltage Cut Out

If the voltage on the intersection falls below a minimum level as the result of an intersection fault or accident, the APS will divert back to the locating tone (if in the middle of a "walk" phase) and or continue to emit a locating ("don't walk") tone.

It is a simple process to set this at any required voltage level.

Increases the safety of the intersection and the APS for vision impaired pedestrians.

Stainless Steel Push Button

Unlike our opposition's button, the Braams actuator button is solid stainless steel.

This is in line with the Singapore

LTA Specification clause II.2.f. (The opposition's button is plastic coated with a thin cover of stainless steel.

Reduces the effects of vandalism and increases the life of the button.

Quality

The entire product is produced to the highest standards of quality.

To protect and maintain the quality, the module has a conformal coating.

Increased life of the entire system and reduced cost of maintenance.

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