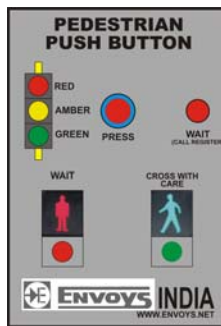




PRODUCT SPECIFICATION SHEET .

Equipment : PEDESTRIAN PUSH BUTTON PANEL .

Push Button control panel for pedestrian actuation traffic signal control - pole mounted type with audio and visual Indication as per selective models . system is also known as Call registration unit for Pelican traffic control with manual Push button switch , Indication for WAIT and Traffic lights ,Panel is specially designed considering safety of pedestrian traffic and works on Low voltage DC operation for safety against voltage shock .



Indications :

Visual indication : **3 indicators for status of Vehicular traffic signals ,**
2 Light Indicators for pedestrian signals .
1 for Call confirmation Indication (call registration /wait)
Audio Indication : Beep buzzer (in selective models)

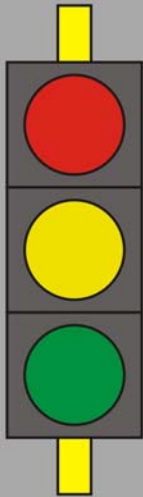
Working voltage : 24 Volts DC or 110/ 220 Volts Ac .

Body material : Plastic / Metal MS Powder coated .

Mounting : Pole mounted with help of brackets .

Application : Pelican Traffic signals , Automatic / Manually / actuated Intersection .

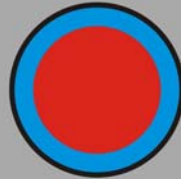
PEDESTRIAN PUSH BUTTON



RED

AMBER

GREEN



PRESS



WAIT
(CALL REGISTER)

WAIT



CROSS WITH
CARE



ENVOYS

INDIA

WWW.ENVOYS.NET

manufactured by :

ENVOYS ELECTRONICS PVT LTD.

Envoys Pedestrian Actuated Controller

PATS 2001

APPLICATION

Pedestrian Actuated Traffic Control Signals are required to be installed at places where a large number of people have to cross the road but on account of heavy vehicular traffic crossing of the road is not safe for the pedestrians most of the time.

Examples are Schools, Hospitals, Shopping Centres, places of worship and similar other establishments located on the side of a main vehicular road.

A width of the Road marked with Zebra Crossing is earmarked for Pedestrian Crossing at a suitable location. Vehicular and Pedestrian Signals are installed on this section of the Road. on each side of the Road, Pedestrian Push Buttons are installed at a suitable height. Pedestrians wanting to cross the Road can register their demand for right of way by pressing these buttons and The Vehicular Traffic is shown Red signal and The Pedestrian are Given a green signal to cross the road. The operating times and the signaling sequence operate in a pre-planned manner as will be explained in next sections.

EQUIPMENT

The essential equipment for the system will comprise following items

Two sets of RED and GREEN Pedestrian Traffic Lights Signals to be installed on the two diagonally opposite corners of the Zebra Crossing.

Two sets of RED, AMBER and GREEN Vehicular Traffic Signal Lights to be installed at the Stop Lines on the Left lanes of the Road before the Zebra Crossing.

Signal posts for the Traffic signal lights

Pedestrian Actuated Stations on both ends

Pedestrian Actuated Traffic Control Unit with micro-controlled Programmer and Pedestrian Call registrations.

Cable and other installation material as required.

TECHNICAL DATA of CONTROL UNIT

1.	Working Supply	24 Vdc or 220 Volts ac as required by client
2.	No. of Pedestrian call stations	2
3.	Controller Outputs	5 (3-aspect Vehicular signal and 2 Pedestrian signal)
4.	Electronic Design	Micro-controller based circuits for sequence programming , pedestrian call registration and timings.
5.	Mode of operations	1.Actuated mode 2.Automatic mode with continuous running cycle at prefixed times. 3. Manual mode with stage advancing at the press of push button 3. Test mode: The stages advance at 3 second interval.
6.	Lamp Switching devices	Solid state Relays
7.	Execution	The control unit with Programmer and Detector units is assembled in a standard cabinet. The Switch-gear, MCBs, and SSRs are mounted in a panel. Both the above assemblies are housed in an outdoor type Pedestal Box .

THE OPERATING SCHEDULE

When initiated , in the ACTUATED MODE, the system will operate as under: -

S.NO	STATUS	VEHICULAR SIGNAL	PEDESTRIAN SIGNAL	EXPLANATION
1	Switch on	Red	Red	For a minimum time T_0 (2 seconds) to indicate working of the signal system
2	Stage 1 Pedestrian clearance Warning	Red	Green Flashing	For a period 5 seconds (Timer T_1) to warn pedestrians to clear the Zebra crossing.
3	Stage 2 Vehicular Green phase	Green	Red	This stage will remain for a minimum period of T_2 (Called vehicular minimum green). After T_2 it will changeover to next stage if a call had been registered from a pedestrian call station. In case no call has been registered, the signal will continue in this state and will change over to the next stage on receipt of a pedestrian call.
4	Stage 3 Inter-phase Clearance period	Amber	Red	Signal to vehicles to clear the Pedestrian zone and not to enter the stop lines. Timer T_3 (Amber time)
5	Stage 4 Pedestrian phase	Red	Green	In this stage the pedestrians can cross the road safely. The pedestrian phase will last for a minimum time of T_4 (Called the Pedestrian Minimum Green). During this phase the pedestrian green time is extended every time on receipt of fresh actuation of pedestrian push button. However the total maximum pedestrian green time is fixed to time T_5 (Called the pedestrian maximum green). On expiry of the pedestrian green phase, the signal will change over to stage 1..
6	Stage 1	Red	Green Flashing	Signal for pedestrian that the safe period is over and that they should clear the road immediately.
The signal follows the sequence of stage 1 to stage 4 as explained above.				

EXPLANATION OF THE TIMINGS

- ❖ T_0 is the All Red starting time fixed at 3 seconds to indicate switch on of the signal.
- ❖ T_1 is the warning time for pedestrian to clear the road as the vehicular signal will go green in the next stage. It has been set at 5 seconds.
- ❖ T_2 is the minimum vehicular time and has been set at 15 seconds.
- ❖ T_3 is the vehicular amber time and has been set at 3 seconds.
- ❖ T_4 is the pedestrian minimum green time . It has been set at 10 seconds. This time is extended if pedestrians keep on pressing the push button . T_5 is the maximum Pedestrian time and is set at 20 seconds.
- ❖ The sequence of operation of the system is prefixed. There are five timers as explained above which have been set at the factory.

MODES OF OPERATION

❖ The Control unit has four modes of operation.

❖ **ACTUATED MODE**

❖ **MANUAL MODE**

❖ **AUTOMATIC MODE**

❖ **TEST MODE.**

❖ In the Actuated mode the signal sequence and timings are controlled by Pedestrian Call detectors as explained in the section OPERATING SCHEDULE.

❖ In the manual mode the signal stage is made stationery and it advances to the next stage on operation of the manual Push Button. A minimum interval of 3 seconds is required between each Push button operation.

❖ In the Automatic mode the system operates as s\ a Fixed time signal . The sequence runs at pre-set time of stages as under:

STAGE	OPERATION	TIMING
Stage 1	Clearance Interval- Pedestrian Green Flashing All Red	T1 seconds
Stage 2	Vehicular green	T2 seconds
Stage 3	Clearance time-Vehicular Amber	T3 seconds
Stage-4	Pedestrian Green	T5 seconds

The Test mode is for quick checking of the sequence and instillation. For this mode, Put the Selection switch in down Manual Position and Keep the Manual Push Button Pressed. The stage will advance at an interval of 3 seconds for each stage.