Parking Guidance System

**PGS2000**

With LED information panels to provide driving direction guidance started right from the entrance, and plus a lamp indicator on top of every parking space for a clear visual of overall vacant status even from a far distance, PGS2000 Parking Guidance System help guiding parkers to find a free space with no extra turns or driving around!

The detector lamp installed on top, in the front of each parking space is an LED lamp indicator with an inbuilt ultrasonic sensor (lamp/sensor separated model available upon request) for vehicle detection. It continuously checks vacant status of parking space and interacts with a zone controller, managing the indicators. The standard LED lamp is in two colors, red and green (red for “occupied” and green for “vacant”).

A zone controller is allowed to connect and collect data from up to 40 ultrasonic detector lamps. Required LED information panels installed are configured to display information according to the zone controller connected. And a central control unit can connect up to 50 zone controllers and process all the data gathered from all zone controllers to the PGS2000 parking guidance software running on the server.

An optional floor space counting system can be easily integrated and installed. Simply connect a loop detector controller to the central control unit, the central control unit will control the LED floor counting displays according to the signals from the loop detector respectively. A loop detector controller has 8 signal contact points.

The PGS2000 parking guidance software provides a full graphic interface for managing the parking guidance system and monitoring the entire parking facility remotely.

**Features:**

- Detector and lamp are combined into one unit.
- Bi-colored vacancy lamps with 360° emitting angle provides the best visibility.
- Full graphic interface for a real time monitoring and remote management.
- Guiding system can be operated standalone without management server.

**Your Benefits:**

- Reducing traffic for finding a parking space means:
  - Less air pollution in the parking facility.
  - Safer environment for people walking and driving in the parking facility.
  - Trouble and time saving for drivers.
- Increase revenue - Faster turnaround and better utilization of each parking space results more income!
- Reduce operation cost - No more manual floor counting and less supervision required gives a dramatic time and labor saving on management operation.
- Minimize maintenance cost - Self-diagnostics and plug & play repair to minimize system maintenance.

**System diagram:**
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## Functional specification of PGS2000 parking guidance system:

**PGS2000** parking guidance software and server provides a management interface allows the operator to monitor and remotely control the entire parking guidance system.

- Server station hardware specification: (suggested to purchase locally)
  - CPU: Multi Core 2.0 GMHz or above.
  - Memory: 2GB RAM or above.
  - HDD: 160GB HDD or above.
  - CD-ROM or DVD-ROM: DVD-Dual drive (DVD+/-RW).
  - Interface: 100/1000 Mbps Ethernet, USB2.0 * 2, Audio out * 1.
  - Display: 17” color TFT LCD or above.
- Software application interface:
  - A program menu allows easy access to all function pages.
  - To remotely manage, and monitor the guidance system via a graphic interface of the entire parking facility layout.

## LED Information Panel

Three digits to show available parking spaces and an arrow for direction. There are indoor and outdoor types to select for a LED information panel according to installed location. LED information panels are normally installed at entrances or intersections of a parking facility to provide guidance information to drivers.

- work temperature: -20~ +80°C
- rate voltage: AC 110~220V
- frequency: 50~60HZ
- communication: RS-485
- baud: 4800bps
- distance: ≤1000m

## Ultrasonic detector lamp

The ultrasonic detector lamp combines ultrasonic sensors and LED lamp indicator into one device. Each parking space requires one ultrasonic detector lamp installed in front of the parking space. The LED lamp indicator has two colors standard red/green as red indicates “occupied” and green indicates “vacant”.

- Dimension: 14 x 14 x 7 cm
- Weight: 113g
- Work temperature: -40°C ~ 80°C
- LED lamp color: Red/Green
- Voltage rating: DC 24V
- Max. Detection Distance: 2m
- Installation Height: 2.0~3.0m
- Max. Distance Error: 0.1m
- Communication Distance: ≤1000m
- Communication Interface: RS485
- Baud Velocity: 4800bps

## Central control unit

One parking facility requires one Central Control Unit. It can connect up to 50 Zone Controllers the maximum. The Central Control Unit gathers and forwards information from all the Zone Controllers to the PGS2000 parking guidance server for management operation. It can also provide vacancy information to additional level or area vacancy LED display boards connected.

- work temperature: -20~ +80°C
- rate voltage: AC 110~220V
- frequency: 50~60HZ
- communication:
  - RS-232 serial port
  - (RS-232-NODE RS-232-PC)
  - baud:
  - distance: ≤1000m

## Zone controller

One Zone controller can connect up to 40 ultrasonic detector lamps. It gathers and forwards vacancy information from all the detectors to the Central Control Unit, and also forwards commands from the Central Control Unit to the LED information panels connected to it for displaying proper vacant information.

- Dimensions: 30 x 24.5 x 6(CM)
- Work temperature: -20~+80°C
- Rate Voltage: DC 24V
- Rate current: 70mA
- Communication:
  - RS-485 serial port (sensor/sensor/CCU)
- Baud:
  - RS-485-B: 4800bps, RS-485-C: 9600bps
- Distance: ≤1000M