As cities are becoming urbanized and building proportions are increasing, reducing passenger crowding and shortening riding time are strongly expected. Fujitec’s EZSHUTTLE fulfills these expectations.

EZSHUTTLE optimizes elevator operation control by obtaining passengers’ destinations at elevator floors instead of inside the car. This special feature of EZSHUTTLE enables elevator control to provide uncongested elevator service to passengers.

EZSHUTTLE is a new-generation Destination Floor Guidance System.
During rush hours in urban office buildings, many passengers occupy the lobby in a short period of time and then rush to the elevators responding to their up / down hall call registrations.

Currently, a fully occupied elevator receives many car call registrations and must stop at many floors in order to complete all passenger service in its traveling direction. This elevator operation process causes a long riding time for passengers.

In an elevator operating system with EZSHUTTLE, passengers are required to register their destinations at the elevator floors rather than conventionally registering them inside the elevator. The EZSHUTTLE system then guides passengers to their assigned elevators, which will have been selected to minimize the number of destination stops based on the registered destinations. This passenger guidance and elevator assignment provides passengers with uncongested elevator service and a reduction in passenger riding time by 50%* at peak travel periods.

* Based on comparisons of passenger riding time obtained under a conventional elevator operating system and that under a simulated EZSHUTTLE-equipped elevator operating system.

**Features**

**Riding Time Reduction by 50%** and Uncongested Elevator Service

Speed & Efficiency

Conventional Elevator Operating System

EZSHUTTLE

A B C A B C
Functions

Using EZSHUTTLE

1. Upon registration of your destination, your assigned elevator will be indicated on the entry terminal.

2. Walk to and wait for the elevator that the entry terminal has assigned for you.

3. Make sure that you are waiting for the right elevator by checking the Elevator Indication Panel.

Notes:
While waiting for your assigned elevator, any other early arriving elevator will not be suitable for your destination. You are advised to only take the elevator that the entry terminal had indicated.

At the customer’s request, entry terminals can be installed only at the main floor (or another high-traffic floor); other floors will have conventional up and down hall call buttons. This provision helps increase the efficiency of passenger transportation.

※ For EZSHUTTLE All-Floor Type systems, elevator cars have no car operating boards. If a passenger has mistakenly entered the wrong car, the person is required to leave the car at the next destination floor and register his or her destination again at the entry terminal.

※ For EZSHUTTLE Selected-Floor Type systems, elevator cars have car operating boards. However, the registration of a car call can be made only when the elevator has landed at a floor without entry terminals.
### Functions

#### Lift Operating System with EZSHUTTLE

Before Elevator’s Arrival

Passengers wait in front of their assigned elevators as indicated on the entry terminals.

Riding the Elevator

Each group of passengers takes the elevator bound for their zoned destinations.

#### Conventional Elevator Operating System

Before Elevator’s Arrival

After registering hall calls, passengers wait in front of the first responding elevator.

Riding the Elevator

Passengers going to different zones ride in the same elevator. Some passengers are left behind by the overcrowded elevator.

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#### Predictive Control

- Predictive Control predicts and assesses the waiting and riding time of all passengers. This prediction and assessment will be reflected in the elevator operating system.
- Regarding the waiting time, the predictions and assessments are made based on both already registered destinations and possible future registrations.

#### Energy-Saving Control

- Before an assigned elevator responds to a passenger’s registration, this control calculates the elevator's travel distance in the future. The suitable elevator will be automatically selected to make the travel distance shortest and save energy.

#### Minimizing Long Waiting Time

- Assuming that newly registered destinations are applied to the current operation of elevators, all future passenger waiting time will be assessed. Based on this assessment, any future passenger waiting time will be minimized.

#### Traffic Analysis Service

- Over a month or more, elevator traffic data is stored inside a group control panel. As the need arises, it can be checked and analyzed.
- With the use of Fujitec’s independently designed simulator, an analysis of the stored data and recommendations will be made by Fujitec for the optimal performance of the elevators. This will be done at the customer’s request and at an additional charge.

#### Uncongested Elevator Service

- During the morning rush hours or other up-peak periods, elevators dispatched from the lobby are 30% less congested than conventionally controlled elevators.
- Less congestion allows riding / waiting passengers to smoothly get in/out of elevators at floors.
- In addition, less congestion leads to a decrease in the number of elevator stops, which will reduce riding stress.

#### Decrease of Floor Bypasses

- Based on the number of registered destinations on the entry terminals at each floor, the number of passengers who can ride in the same elevator will be calculated with a high degree of accuracy. Based on this calculated data, elevators bypassing waiting passengers will be reduced to a large degree.

### Specifications

#### Synchronization with Building Security Management System

- EZSHUTTLE can be linked to a building security management system. EZSHUTTLE’s passenger authentication synchronizes with the building security system and restricts access to specific floors. When a passenger presents their ID card at a security gate equipped with an EZSHUTTLE entry terminal, their destination will be registered automatically both in EZSHUTTLE and the building security system.

#### Universal Design and Functions

- For passengers requiring extra time to get in/on, pressing the wheelchair-user button will extend elevator operation time; exclusive service will be provided to those in need.
- Audio guidance can be provided by EZSHUTTLE.

#### VIP Operation

- EZSHUTTLE provides VIP exclusive service to those carrying special ID cards. When a special ID card has been used to register a destination floor, EZSHUTTLE promptly assigns an elevator that can respond quickly in order to minimize the wait time at that floor.
- At a regular floor, when a passenger has registered a special floor as their destination, EZSHUTTLE promptly assigns an elevator that can transport them to that floor as fast as possible.

#### Flexible Building Layout

- Customers and architects can freely plan elevator-served floors in buildings, because they don’t need to connect elevator-served floors in the same service zone and are not constrained by the building’s structure and allocation of public floors. Therefore, no transit floors are required.
- No connection of elevator-served floors increases rentable space in buildings. The reduction of extra parts and labor for elevator hoistway installation results in a reduction of building construction costs.

### List of Specifications

- Standard Specifications
- Optional Specifications (with additional charge)
- Not Available

<table>
<thead>
<tr>
<th>System Functions</th>
<th>All-Floor Type</th>
<th>Selected-Floor Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predictive Control</td>
<td>●</td>
<td>●*²</td>
</tr>
<tr>
<td>Energy-Saving Control</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Traffic Analysis Service</td>
<td>●*²</td>
<td>●*²</td>
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<tr>
<td>Minimizing Long Waiting Time</td>
<td>●</td>
<td>●</td>
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<tr>
<td>Uncongested Elevator Service</td>
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<td>●</td>
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<tr>
<td>Decrease of Floor Bypasses</td>
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</tr>
<tr>
<td>Universal Design &amp; Functions</td>
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<td>●</td>
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<tr>
<td>Destination Buttons inside Car</td>
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</tbody>
</table>

- Entry Terminals: ●
- Destination Floor: ●*¹
- Hall Lanterns: ●*⁴
- Elevator Indication Panel: ●

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*¹ Predictive control is made by the corresponding group control system.
*² Traffic analysis service is made at the customer’s request and at an additional charge.
*³ The wheelchair-user function will be included at an additional charge.
*⁴ Destination Floor Indicator can be chosen from Faceplate Type (standard) and Built-in Type (opt option).
*⁵ Hall lanterns will not be provided at the floors with entry terminals.
*⁶ Destination (Registration) buttons are concealed inside the cabinet of a car operating board.
Fixture Design — Pedestal Models —

LP-01
The slim appearance of this form consisting of multiple semi-translucent surfaces builds a sense of openness.

LP-02
This entry terminal surrounded on three sides with transparent guards is very stylish in appearance.

LP-03
The curved form provides a comfortable feeling and creates a calm atmosphere.

LP-04
The elegant and organic form accentuates a building floor.

LP-05
The Origami (Japanese Paper Folding) shaped motif has a silent presence and creates a high-quality mood.

Faceplate
- Acrylic (non-glare finish)
- Black Metallic

Body
- Painted Steel
- Painted FRP
Fixture Design — Wall Mounted Model —

<table>
<thead>
<tr>
<th>LW-01</th>
<th>LW-02</th>
<th>LW-03</th>
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<tbody>
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<td><img src="image2" alt="LW-02 Image" /></td>
<td><img src="image3" alt="LW-03 Image" /></td>
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<tr>
<td>With Card Reader</td>
<td>With Card Reader</td>
<td>With Card Reader</td>
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<tr>
<td>With Card Reader &amp; ADA Button / Speaker</td>
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<tr>
<td>Acrylic (non-glare finish) Black Metallic</td>
<td>Acrylic (non-glare finish) Black Metallic</td>
<td>Acrylic Pearl White &amp; Black Metallic</td>
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<td>Acrylic Pearl White</td>
<td>Acrylic Pearl White &amp; Black Metallic</td>
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Fixture Design — Others —

PW-01 Type
Entry Terminal with Push Buttons

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<thead>
<tr>
<th>PW-01</th>
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<td>Faceplate</td>
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</table>

Destination Floor Indicator on Car Entrance Column
(Faceplate will be provided if car return panel is fixed type)

Work Done by Others

Construction Work
1. Cutouts and holes for installation of Entry Terminals.
2. Retouching and finishing work of the areas adjacent to Entry Terminals after installation.

Electrical Work
1. Conduits from Entry Terminals to the elevator hoistway.
2. Provide electric power for the installation and adjustment work.
3. Provide card reader system, its power supply, wiring and conduits if required.
4. Provide security gates and inner wiring works if required.
5. Conduits and wiring from security gates to the elevator hoistway if required.