

## JAPANESE STANDARD SAFETY EQUIPMENT

### Safety in power off

Machines stop by activating electric motor's brake as power is cut off, such as blackout.

### Pallet misalignment detection devices

Pallets stop once they pass by the fixed position.

### Interlock of operation

The parking system does not work unless the front gate is closed, and the front gate does not open unless the pallets get in position.

### Operation verification function

You enter "Verification Number" given by individual pallet on the operation panel when getting the pallet in/out and when closing the front gate after parking your car in/out. It prevents other users from operating accidentally while you are using.

### Unmanned confirmation input devices

You press the button when you confirm no humans remain in the parking system. It does not restart operating unless you press the button.



### Emergency stop button

Operation stops by pressing the button on the operation panel.

### Sensors

They are located inside and outside of the parking system and detect humans intruding to or remaining in the system. Operation immediately stops as soon as they react.

### Pallet receivers

They catch pallets in case of chains break off when the ascent/descent pallets are in the original ascended positions.

### Rear confirmation mirrors

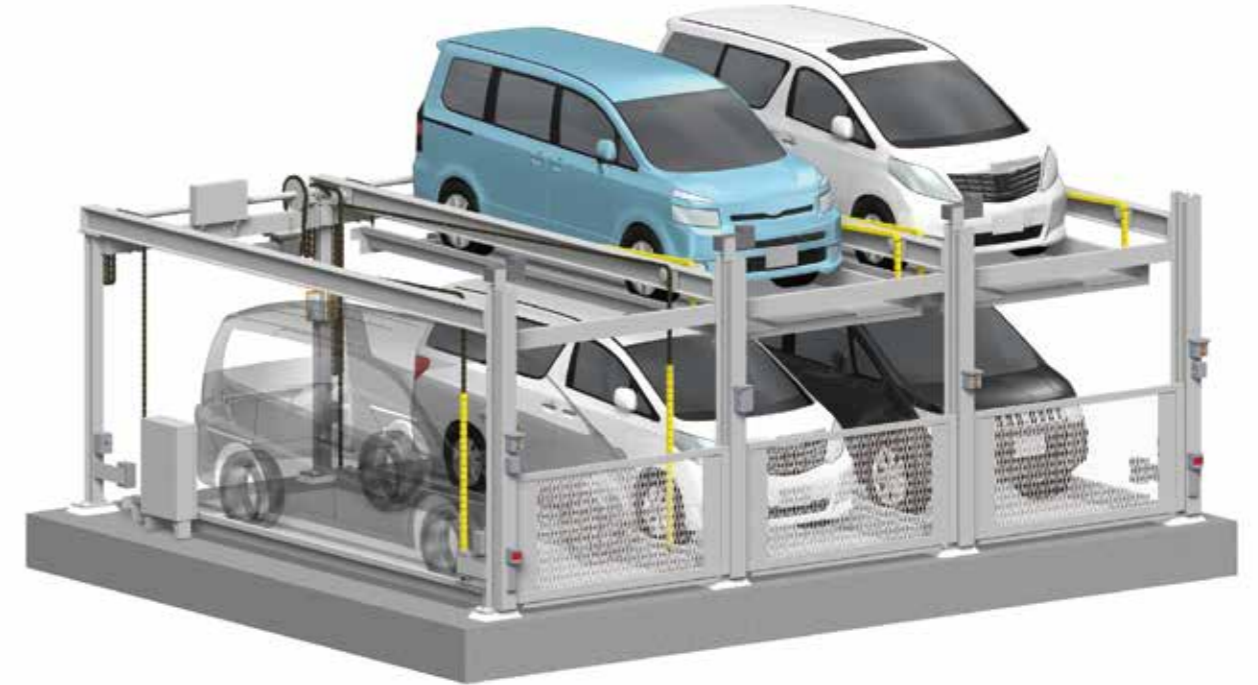
It assists you check the back of the machine where your view is blocked by parked cars.

### Front gates (for each row)

It avoids humans entering the parking system while not operating. Also, because only single gate in front of the retrieved car opens, it prevents non-users from intruding and prevent users from parking in a wrong space.

# TPB

## GROUND 2-LEVEL (PUZZLE TYPE) PARKING SYSTEM



## CAR RETRIEVAL PROCESS (In case of 3 rows)

1 : YOUR CAR

1	2	↑
4	5	3

1. [3] goes up to the top.

1	2	3
4	5	→

2. [4][5] move to the right at the same time.

1	2	3
↓	4	5

3. Your car [1] goes down to ground level, and front gate opens.

	2	3
1	4	5

4. Close front gate after getting your car out.

PRODUCT SELLER

**ShinMaywa Parking Technologies, Ltd.**

### HEADOFFICE :

Tamachi Kiyota building 5, 6th floor, 4-3-4  
Shibaura, Minato-ku, Tokyo, 108-0023 Japan  
Tel. +81-3-5439-1090 Fax. +81-3-5439-1091

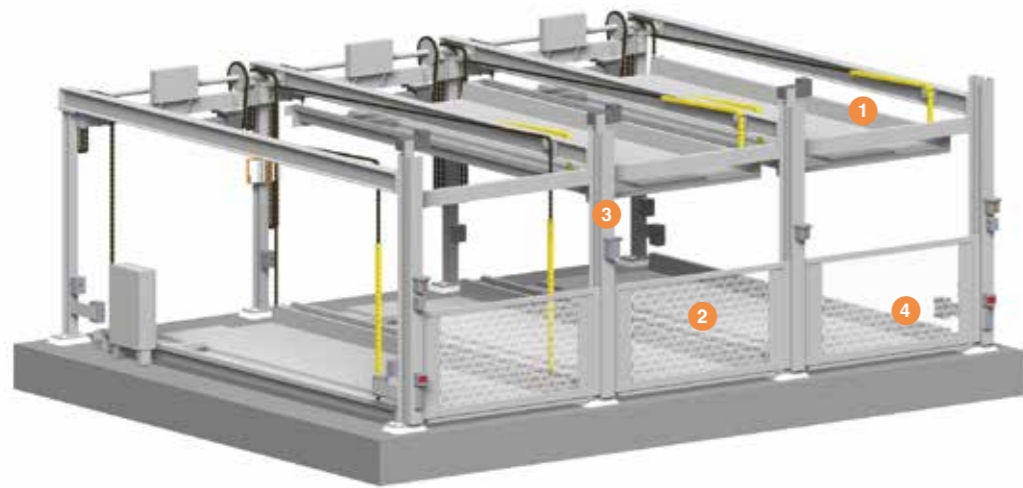
[www.shinmaywa.co.jp/ptec/](http://www.shinmaywa.co.jp/ptec/)

AGENCY

- The illustrations on this brochure includes options.
- The contents are subject to change without notice due to continual improvements.

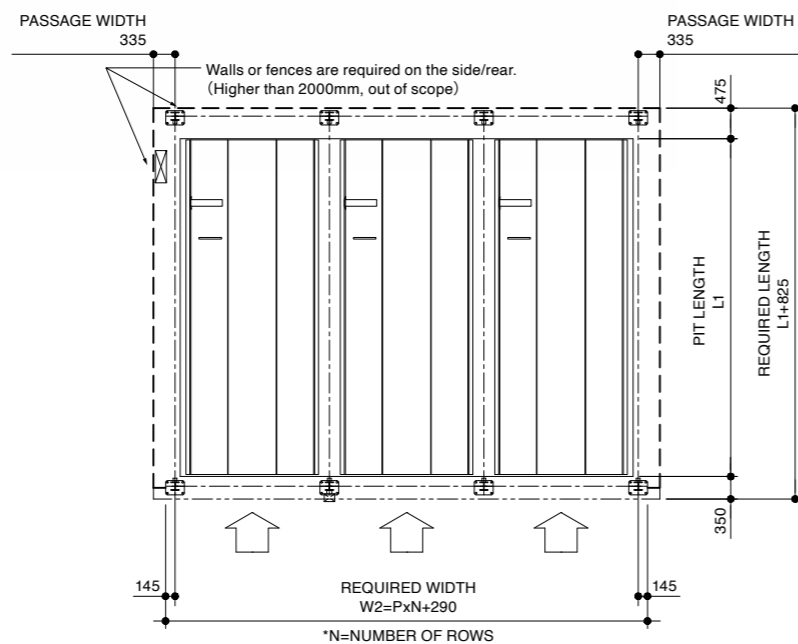


# TPB GROUND 2-LEVEL (PUZZLE TYPE) PARKING SYSTEM

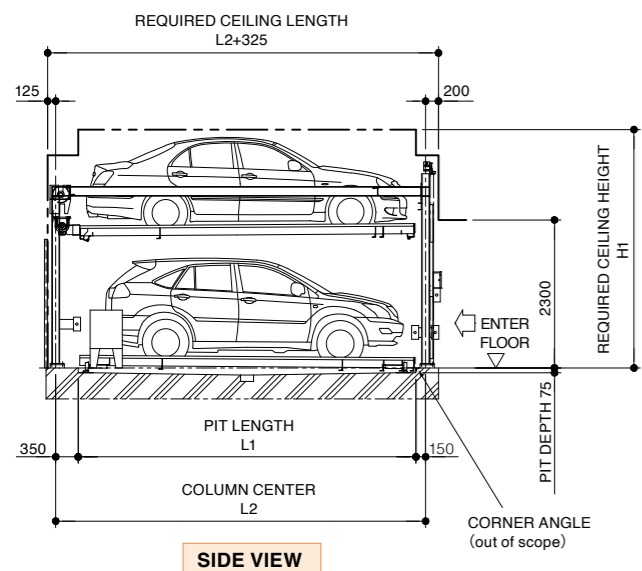


- 1 Upper pallet (Ascent/Descent)
- 2 Front gate for each row
- 3 Operation panel
- 4 Ground pallet (Traverse)

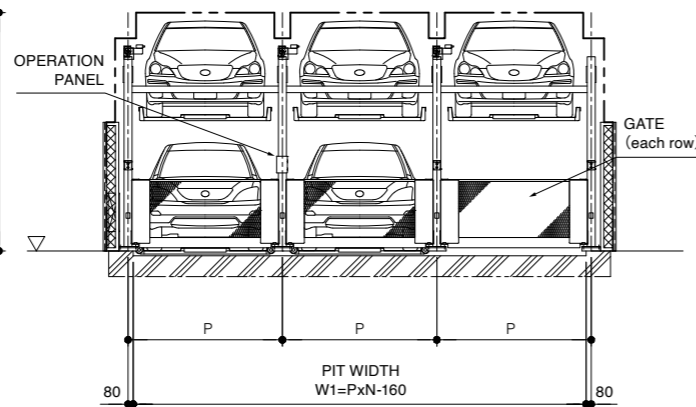
\*From 2 to 8 rows is available.  
Machines on this page have 3 rows.



PLAN VIEW



SIDE VIEW



FRONT VIEW

## CAR SIZES/DIMENSIONS

TABLE1 (WIDTH, LENGTH)

PRODUCT NAME		TPB		
SYSTEM		GROUND 2-LEVEL (PUZZLE TYPE)		
MODEL (REFER TO TABLE 2 FOR **)		EM ** K	LM ** K	GS ** K
CAR SIZES	CAR TYPE	SMALL VEHICLE	MEDIUM VEHICLE	LARGE VEHICLE
	LENGTH	4850	5050	5300
	WIDTH	1850	1850	1950
	WEIGHT (kg)	2000	2000	2300
PITCH : P		2400	2400	2500
REQUIRED WIDTH : W2		$P \times N + 290$		
COLUMN CENTER : L2		5550	5750	6000
PIT WIDTH : W1		$P \times N - 160$		
PIT LENGTH : L1		5050	5250	5500
OPERATION SYSTEM		LIQUID CRYSTAL PANEL		
ASCENT/DESCENT SYSTEM	DRIVE SYSTEM	ELECTROMOTION (with roller chain drive)		
	MOTOR	2.2kW BRAKE MOTER 3-PHASE AC 200/220V (50/60Hz)		
TRAVERSE SYSTEM	DRIVE SYSTEM	ELECTROMOTION (with roller chain drive)		
	MOTOR	0.2kW BRAKE MOTER 3-PHASE AC 200/220V (50/60Hz)		

TABLE2 (HEIGHT)

MODEL (REFER TO TABLE 1 FOR **)		** CBK	** CAK	** AAK
CAR HEIGHT	UPPER LEVEL	1550	1550	2100
	GROUND LEVEL	1750	2100	2100
REQUIRED CEILING HEIGHT : H1		3705	3960	4510

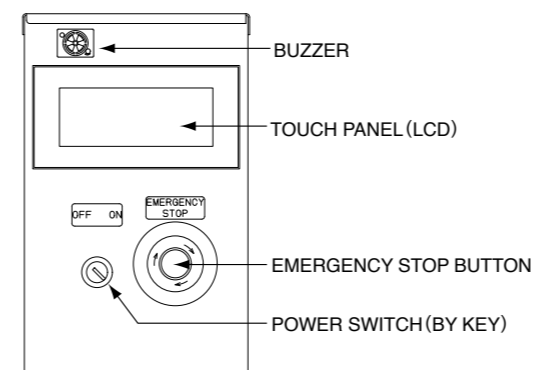
- Reverse parking only. • Other dimensions are available on request.
- Cars with low ground clearance under car doors cannot be accommodated.
- \*Dimensions above are for foundation with a pit. Foundation without a pit is also available. Contact us for further information.

### Exclusion scope of work :

1. Foundation work, concrete work, anchoring work, drainage work, construction of car road, installation of corner angle for parking system
2. Power supply, down transformer (380 → 200V), power line connection and illumination work for parking system
3. Firefighting facilities 4. Construction of safety fences or walls around parking system
5. Acquisition of government licenses and licenses related to any projects, etc.

## OPERATION PANEL

HOW TO USE: Put key in power switch and operate with touch panel



## RUSTPROOF SPECIFICATION

### [ FOR PALLETS ]

- Hot-dip galvanized steel plate & paint coating
- Hot-dip galvanizing

### [ FOR FRAMES ]

- Hot-dip galvanizing

## STANDARD PAINT COLOR



Light gray

\*For paint coated pallets  
\*Actual color may slightly vary from the products.