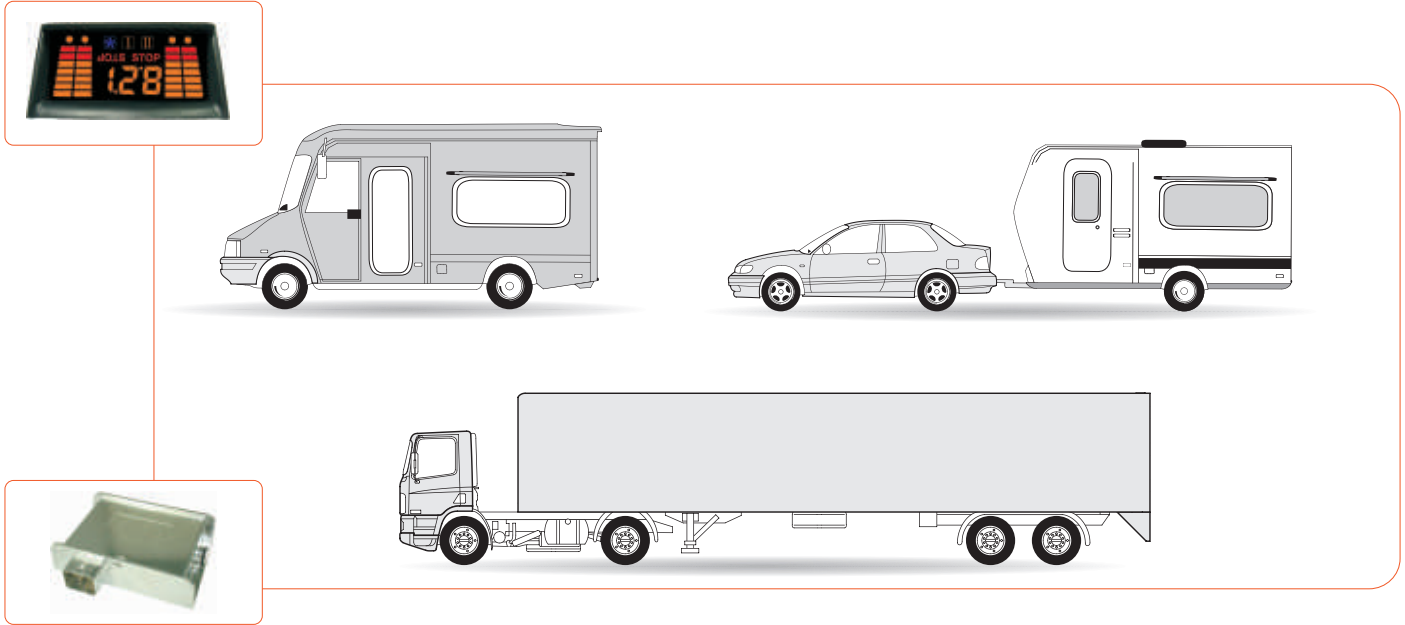
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File	Product Specification	Description	Parking Sensor System

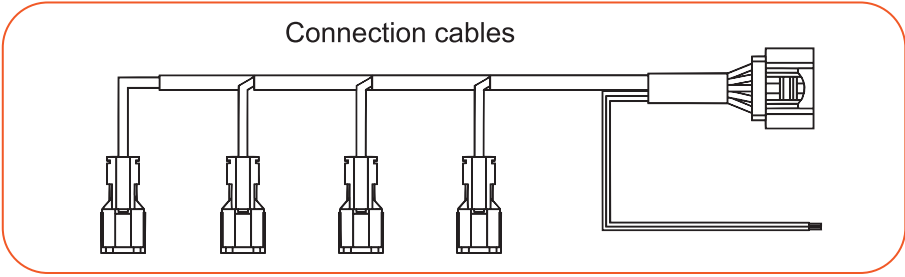
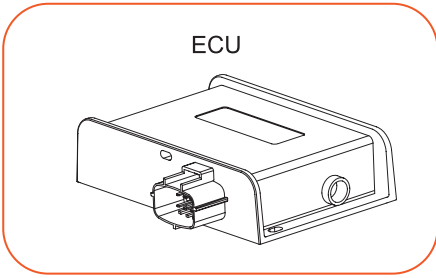
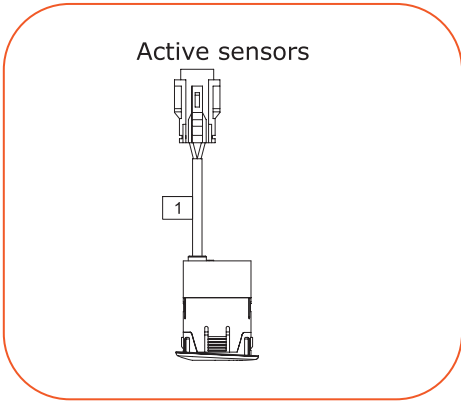
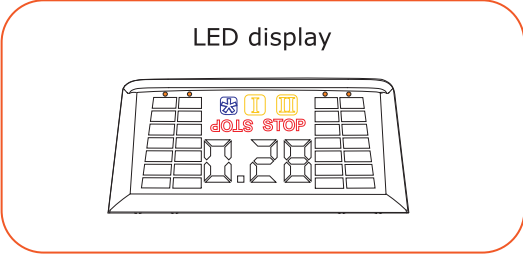
1 Summary


6924(LE9BP804-4) is a parking sensor system with waterproof aluminum case, active sensors and transmission of DC Power Line.




2 Composition

- ECU
- Active sensors
- LED display
- Connection cables



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3 Features

- No need of cables between ECU and display with DC Power Line transmitting the data.
- Waterproof metal case: high strength, waterproof, outside installation.
- Active sensors: high SNR, high ability of anti-interference, on-board professional connectors with unshield cable and connector.
- Last zone adjustable (no matter what the last zone is, the display shows the real distance, when it reaches the last zone). (Actualized through LE9 button)
- Parking line setting function. (Actualized through LE9 button)
- Hole for sensitivity adjustability (4 grades).
- Trailer/Caravan recognition function:
Two systems uses same display. If caravan/trailer hooked to the vehicle display automatically recognizes and shows the caravan parking sensor information while reversing.

4 Specification









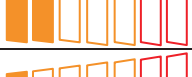
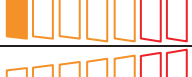



Item	Description
Sensor type	Active sensor , 40KHz
Transmission mode	DC Power Line Carrier
Detection range	0~2.5m
Warning mode	LED & Sound
Power supply	Reverse light
Working voltage	10.5~28.0 VDC
Rated voltage	24.0 VDC
Rated current	≤400 mA
Operation Tem.	-30~+80 (°C)
Storage Tem.	-40~+90 (°C)
Waterproof code	IP67 (LED display excluded)


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5 Warning mode


Last Zone = 22cm

Distance(cm)	Zone	Audible warning		STOP icon	LED display (m)	LED bar
		S2,S3	S1,S4			
$d < D_{min}$	Danger	T1	T1	STOP	- P	
$D_{min} \leq d \leq 30$	Danger	T1	T1	STOP	0.2~0.3	
$30 < d < 50$	Danger	T2	T2	---	0.3~0.5	
$50 \leq d < 70$	Caution	T3	T3	---	0.5~0.7	
$70 \leq d \leq 90$	Caution	T4	T4	---	0.7~0.9	
$90 < d \leq 110$	Caution	T5	T5	---	0.9~1.1	
$110 < d \leq 130$	Safety	T6	T7	---	1.1~ 1.3	
$130 < d \leq 150$	Safety	T6	T7	---	1.3~1.5	
$150 < d \leq 180$	Safety	T6	T7	---	1.5~1.8	
$180 < d \leq 200$	Safety	T7	T7	---	1.8~2.0	
$200 < d \leq 220$	Safety	T7	T7	---	2.0~2.2	
$220 < d \leq 250$	Safety	T7	T7	---	2.2~2.5	
$d > 250$	Safety	T7	T7	---	--	














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Last Zone = 50cm


Distance(cm)	Zone	Audible warning		STOP icon	LED distance(m)	LED bar
		S2, S3	S1, S4			
$d < D_{min}$	Danger	T1	T1	STOP	- P	
$D_{min} \leq d \leq 30$	Danger	T1	T1	STOP	- P	
$30 < d < 50$	Danger	T1	T1	STOP	- P	
$50 \leq d < 70$	Caution	T2	T2	---	0.5~0.7	
$70 \leq d \leq 90$	Caution	T3	T3	---	0.7~0.9	
$90 < d \leq 110$	Caution	T4	T4	---	0.9~1.1	
$110 < d \leq 130$	Safety	T5	T5	---	1.1~ 1.3	
$130 < d \leq 150$	Safety	T6	T7	---	1.3~1.5	
$150 < d \leq 180$	Safety	T6	T7	---	1.5~1.8	
$180 < d \leq 200$	Safety	T6	T7	---	1.8~2.0	
$200 < d \leq 220$	Safety	T7	T7	---	2.0~2.2	
$220 < d \leq 250$	Safety	T7	T7	---	2.2~2.5	
$d > 250$	Safety	T7	T7	---	--	

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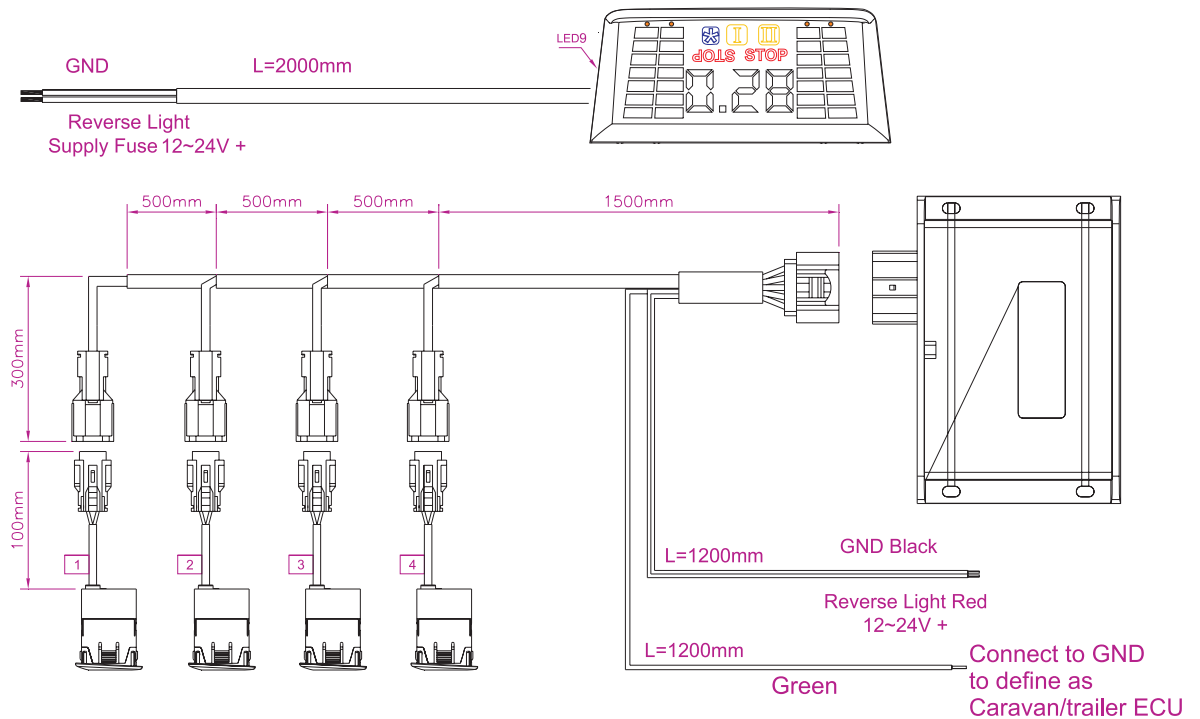
Last Zone = 70cm

Distance(cm)	Zone	Audible warning		STOP icon	LED distance(m)	LED bar
		S2, S3	S1, S4			
$d < D_{min}$	Danger	T1	T1	STOP	- P	
$D_{min} \leq d \leq 30$	Danger	T1	T1	STOP	- P	
$30 < d < 50$	Danger	T1	T1	STOP	- P	
$50 \leq d < 70$	Danger	T1	T1	STOP	- P	
$70 \leq d \leq 90$	Caution	T2	T2	---	0.7~0.9	
$90 < d \leq 110$	Caution	T3	T3	---	0.9~1.1	
$110 < d \leq 130$	Safety	T4	T4	---	1.1~1.3	
$130 < d \leq 150$	Safety	T5	T5	---	1.3~1.5	
$150 < d \leq 180$	Safety	T6	T7	---	1.5~1.8	
$180 < d \leq 200$	Safety	T6	T7	---	1.8~2.0	
$200 < d \leq 220$	Safety	T6	T7	---	2.0~2.2	
$220 < d \leq 250$	Safety	T7	T7	---	2.2~2.5	
$d > 250$	Safety	T7	T7	---	--	

D_{min} means the last zone value (blind zone).

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File	Product Specification	Description	Parking Sensor System

6 Configuration




7 How to use


- System start-up

When the reverse is engaged, the system is powered on. When detecting the trailer, the system phonate with "Bi – Bi - Bi". When phonating with "BI"(the sound lasts for 0.5s, the time can be reduced to 0.2s via setting), and then the system enters the diagnostics mode.

- Diagnostics mode

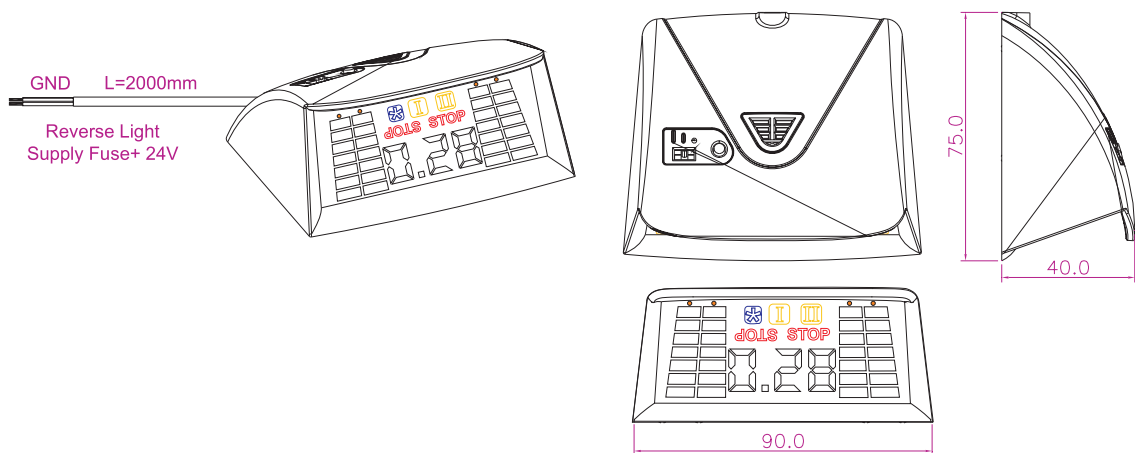
1. Once there is the defective sensor, the system will phonate with audible warning "Bi", the LED display will also show **Ex** in sequence according to the serial number, such as S2 and S4 are defective, the display will show "E2" "E4" in sequence.
2. When system is powered on, the display does not show the direction of defective sensor.
3. If none of the sensor works, "EE" will be displayed, and the system can not work..
4. When the diagnostic is finished, the system enter working mode.

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File	Product Specification	Description	Parking Sensor System

8 Warning unit

- Appearance and dimension (Unit : mm)





- Specification

Item	Parameter
Distance displayed	0.22~2.5(m)
Warning mode	LED & Sound
Transmission mode	DC Power Line
Operation voltage	10.5~28 VDC
Rated voltage	24.0 VDC
Rated current	≤300 mA
Operation Tem.	-30~+80 (°C)
Storage Tem.	-40~+90 (°C)

- Installation

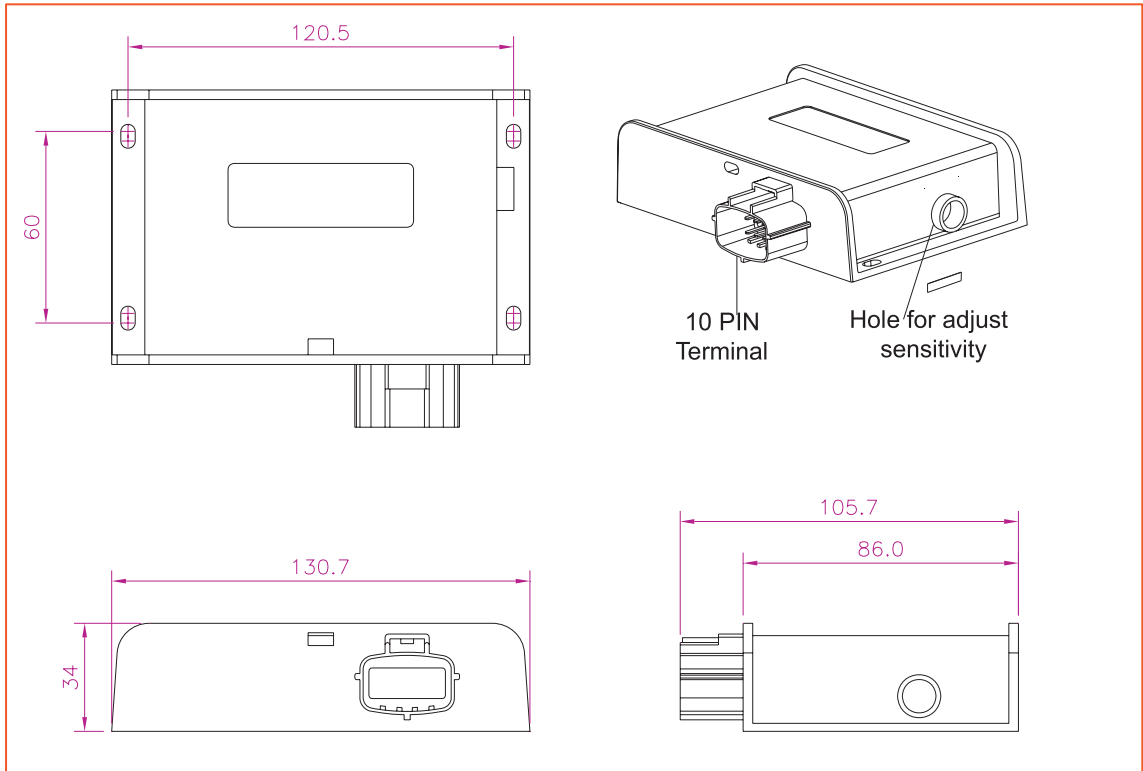
On dashboard or roof installation available.

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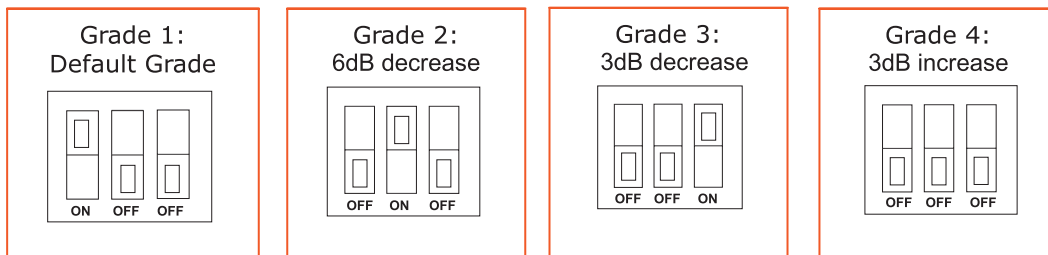
9 ECU


- Appearance and dimension (Unit : mm)




- How to adjust the sensitivity

The programming switch is applied. There are 4 grades, the default grade is Grade 1; Grade 2: sensitivity decreases by 6dB; Grade 3: it decreases by 3dB; Grade 4: it increase 3dB.



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- **Specification**

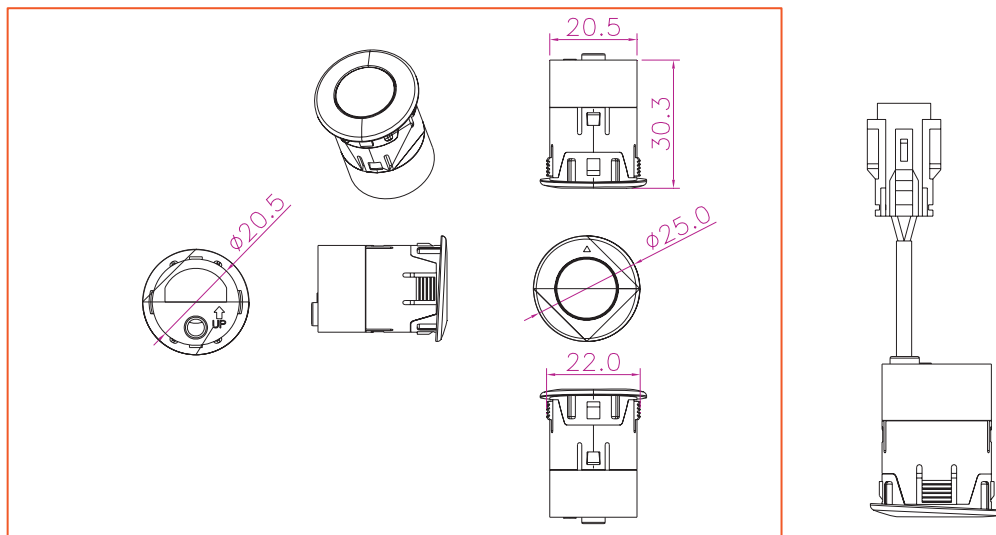
Item	Parameter
Operation voltage	10.5 ~28 (VDC)
Rated voltage	24.0 VDC
Rated current	≤100 mA
Operation Tem.	-30~+80 (°C)
Storage Tem.	-40~+90 (°C)
Waterproof code	IP67
Transmission mode	DC Power Line

- **Installation**

It is installed under the vehicle rear with screws.


10 Active sensors


- **Appearance and dimension (Unit : mm)**



- **Installation**

It is fixed on the rear bumper with sensor bracket and screws.

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File	Product Specification	Description	Parking Sensor System

- Detection zone

Fig.A: Horizontal Detection Envelope

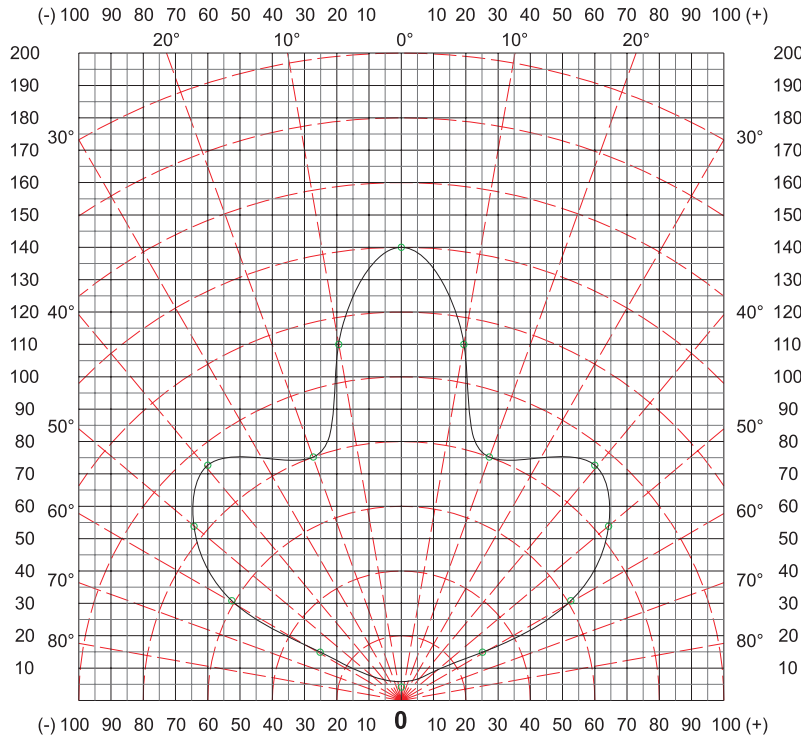


Fig.B: Vertical Detection Envelope

