

ECE TYPE-APPROVAL CERTIFICATE



Communication concerning:

Approval granted
~~Approval extended~~
~~Approval refused~~
~~Approval withdrawn~~
~~Production definitely discontinued~~

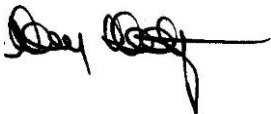
of a type of device for the illumination of rear registration plates of motor vehicles (except motor cycles) and their trailers pursuant to Regulation No. 4

Approval No: **E24*4R00/18*0288*00**



1. Trade name or mark of the device:
2. Manufacturer's name for the type of device: **ZK-01-009**
Variants : **Two:**
Variant 1: ZK-01-009,
Variant 2: ZK-01-008
3. Manufacturer's name and address: **Changzhou Zhongkai Vehicle Parts Co., Ltd.**
Menghe Avenue, Henghe Town, Xinbei District, Changzhou City, Jiangsu Province
P.C.: 213001
4. If applicable, name and address of manufacturer's representative: **N/A.**
5. Submitted for approval on: **10.01.2018**
6. Technical service responsible for conducting approval tests: **TÜV SÜD Auto Service GmbH**
Westendstraße 199
D-80686 München
Germany
7. Date of report issued by that service: **04.01.2018**
8. Number of report issued by that service: **17-01931-CX-SHA-00**

Approval No: E24*4R00/18*0288*00

- | | | |
|-----|--|--|
| 9. | Concise description: | <i>Rear registration plate lamp</i> |
| | Device for illuminating:
(Tall plate, wide plate, agricultural or forestry tractor plate) | <i>Category 1b</i> |
| | Category 1a , 1b, 1e , 2a , 2b ² | |
| | Number and category (ies) of light source(s): | <i>1*R10W</i> |
| | Light source module: yes /no ² | <i>No</i> |
| | Light source module specific identification code: | <i>N/A</i> |
| | Geometrical conditions of installation (position(s) and inclination(s) of the device in relation to the space to be occupied by the registration plate and/or different inclinations of this space): | <i>See manufacturer's information document</i> |
| 10. | Position of the approval mark: | <i>On the lens</i> |
| 11. | Reason(s) for extension (if applicable): | <i>N/A</i> |
| 12. | Approval granted/ extended / refused / withdrawn : | <i>Granted</i> |
| 13. | Place: | <i>Dublin</i> |
| 14. | Date: | <i>29th January, 2018</i> |
| 15. | Signature:  | |
| 16. | The list of documents deposited with the Administrative Service which has granted approval, is annexed and may be obtained on request. | |



Index to the Information Package

Date of issue: *29th January, 2018*

Date of latest amendment: *N/A*

Reason for extension/revision: *N/A*

1. Additional conditions, and advisory notes on legal alternatives.

2. Test report(s)

- numbers(s): *17-01931-CX-SHA-00*

- date of issue: *04.01.2018*

- date of latest amendment: *N/A*

3. Information document

- number(s): *ZK-01-009-00*

- date of issue: *14.12.2017*

- date of latest amendment: *N/A*

Documentation: *11 pages*



Approval No: E24*4R00/18*0288*00

Appendix: **Additional conditions, and advisory notes on legal alternatives**

A: Additional conditions:

1. The device, ZK-01-009 shall be marked as prescribed by the regulation.
2. Fitting instructions shall be supplied with each unit, giving details of any limitations in the use of the device.
3. The device should be fitted in accordance with the fitting instructions.
4. The attached technical report, with any of its attachments, forms part of this Type Approval certificate.
5. Each individual product from series production shall be to the measurements specified in the attached drawings, and shall be manufactured only from the materials specified in the Approval documents.
6. Changes in the product are permitted only with the explicit permission of NSAI. Breaches of this requirement will lead to a withdrawal of the Type Approval, and in addition may be subject to criminal prosecution.
7. This Type Approval will expire when it is surrendered by the holder, or withdrawn by NSAI, or when the approved type of product no longer conforms to legal requirements. The recall of the Type Approval can be issued by NSAI when the conditions required for the issuing or continuation of the Type Approval are no longer current, or when the Approval holder is in breach of the duties attached to the Type Approval, or when it is established that the approved type no longer meets the requirements of traffic safety.
8. NSAI may at any time check the correct performance of the duties imposed by the grant of this Type Approval, and in order to do so, may make tests, or have tests made.
9. Changes in the company name, address or manufacturing site, as well as in any of the sales or other agents specified in the issuing of the approval must immediately be notified to the NSAI.
10. The duties imposed by the issuing of this certificate are not transferable. The legal protection of third parties is not affected by this certificate.
11. When the manufacture or sale of the vehicle, system, component or separate technical unit has not been started within one year of the date of issue of this certificate, then NSAI is to be informed. This requirement also applies when the manufacture or sale has been halted for more than one year, or when it ought to have been halted for more than one year. The initial commencement of manufacture or sale, or the resumption of manufacture or sale, shall then be notified to NSAI within one month of commencement or resumption.

B : Legal Options

Any objection to the requirements set out in this certificate shall be made within one month of the date of issue. The objection shall be made, in writing, to NSAI in Dublin.



Technical Report No.: 17-01931-CX-SHA-00
Manufacturer: Changzhou Zhongkai Vehicle Parts Co., Ltd.
Type: ZK-01-009

TECHNICAL REPORT

No.: 17-01931-CX-SHA-00

Test according to ECE regulation relating to

Devices for the illumination of rear registration plates category 1b

ECE Regulation No.: 4


supplement 18 to the 00 series of amendments

Approvals granted up to now		
ECE	Number of approval	Date
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Technical Report No.: 17-01931-CX-SHA-00
Manufacturer: Changzhou Zhongkai Vehicle Parts Co., Ltd.
Type: ZK-01-009

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I. Technical description

- 0.1. Make (trade name of manufacturer) : 
- 0.2. Type : ZK-01-009
- 0.2.1. Variants : Variant 1: ZK-01-009;
Variant 2: ZK-01-008
- 0.3. Means of identification of type : By digits and letters
- 0.4. Concise description
- Device for illuminating : Category 1b
- Number and category(ies) of light source(s) : 1*R10W
- Light source module : No
- Light source module specific identification code : N/A
- Geometrical conditions of installation and relating variations, if any : See manufacturer's information document
- 0.5. Name and address of manufacturer : Changzhou Zhongkai Vehicle Parts Co., Ltd.
Menghe Avenue, Henghe Town, Xinbei District, Changzhou City, Jiangsu Province
P.C.: 213001
- 0.8. Address of assembly plant : See 0.5.
- 0.9. Location of the approval mark : On the lens
- 0.10. If applicable, name and address of the manufacturer's representative : N/A



Technical Report No.: 17-01931-CX-SHA-00
Manufacturer: Changzhou Zhongkai Vehicle Parts Co., Ltd.
Type: ZK-01-009

II. Test record

1. Test conditions

- 1.1. Technical data of the test samples : Two samples were tested.
Sample No. 1, left side mounting.
Sample No. 2, right side mounting.
For information about the form of the lamp, the position of the reference point and the reference axis, see information document.
- 1.2. Test procedures used : According to ECE Regulation No.: 4.00.
- 1.3. Measuring and test equipment : Full automatic photometric test system for automobile lamps
EVERFINE PHOTO-E-INFO CO., LTD
Type GO-HD5

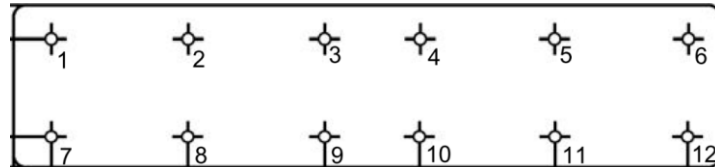
2. Test results

2.1. General Specifications

The devices have been designed and constructed that in normal conditions of use, and notwithstanding the vibrations to which they may be subjected in such use, their satisfactory operation remains assured and they retain the characteristics prescribed by this Regulation.

No light source module or light generator is used.

2.2. Devices for the illumination of rear registration plates, category 1b (520 mm x 120 mm)



2.2.1. Luminance

2.2.1.1. Sample No. 1 and No. 2, test voltage 14.11V

Luminance $\geq 2.5\text{cd/m}^2$ Measurements (B) Sample No. 1	1	2	3	4	5	6
	3.50	5.20	10.20	11.80	5.90	4.10
	7	8	9	10	11	12
	2.90	4.50	6.70	7.50	5.10	3.20
Luminance $\geq 2.5\text{cd/m}^2$ Measurements (B) Sample No. 2	1	2	3	4	5	6
	4.00	5.70	10.60	11.30	6.00	4.20
	7	8	9	10	11	12
	3.10	4.40	7.20	7.70	4.90	3.40

2.2.2. The gradient of the luminance between the values B_1 and B_2 , sample No. 1 and No. 2

	Sample No. 1	Sample No. 2
Requirement	$\frac{B_2 - B_1}{d_1 - d_2 \text{ (cm)}} \leq 2 \times B_0 / \text{cm}$	
Results	Max. of gradient of luminance=0.61 $2 \times B_0 / \text{cm}=5.80$	Max. of gradient of luminance=0.53 $2 \times B_0 / \text{cm}=6.20$
Conclusion	Complies	Complies

2.2.3. Incidence of the light

	Sample No. 1	Sample No. 2
Requirement	According to this regulation paragraph 7.	
Results	The angle of incidence of the light on the surface of the plate does not exceed 82° at any point on the surface	
Conclusion	Complies	Complies

Technical Report No.: 17-01931-CX-SHA-00
Manufacturer: Changzhou Zhongkai Vehicle Parts Co., Ltd.
Type: ZK-01-009

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2.2.4. Colour of the light

	Sample No. 1	Sample No. 2
Requirement	According to this regulation paragraph 6.	
Results	The light of the lamp used in the illuminating device is sufficiently colourless not to cause any appreciable change in the colour of the registration plate.	
Conclusion	Complies	Complies

3. Specimen submitted to test on : 2017-12-14 (YYYY-MM-DD)
4. Place of test : Jiangsu Huachen Vehicle Inspection Co.,
Ltd., Zhenjiang City, P.R. China
- Date of test : 2017-12-19 (YYYY-MM-DD)

III. Enclosures

- Manufacturer's information document : ZK-01-009-00
No.
- Dated on : 2017-12-14 (YYYY-MM-DD)



Technical Report No.: 17-01931-CX-SHA-00
 Manufacturer: Changzhou Zhongkai Vehicle Parts Co., Ltd.
 Type: ZK-01-009

IV. Statement of conformity

The information folder as mentioned under No. III and the type described therein are in compliance with the test specification mentioned above. The worst-case was selected in accordance with document "Preparation of Test Reports".

The test report may be reproduced and published in full and by the client only. It can be reproduced partially with the written permission of the test laboratory only.

München, 2018-01-04
 (YYYY-MM-DD)



Joe Zhou


Test Laboratory / DIN EN ISO 17025

Genehmigungsbehörde/ Approval authority	Land/Country	Registriernummer/ Registration-number	Aktueller Benennungsumfang/ Actual scope list
Kraftfahrt-Bundesamt (KBA)	Deutschland/ Germany	KBA-P 00100-10	www.kba.de
Vehicle Certification Agency (VCA)	Vereintes Königreich/ United Kingdom	VCA-TS-006	http://ec.europa.eu/enterprise/sectors/automotive/approval-authorities-technical-services/technical-services/index_en.htm
Approval Authority of the Netherlands (RDW)	Niederlande/ The Netherlands	RDWT-082-XX	
National Standards Authority of Ireland (NSAI)	Irland/ Ireland	Technical Service Number: 49	
Vehicle Safety Certification Center (VSCC)	Taiwan/ Taiwan	DE04-06-2	http://www.vsc.org.tw/English/Default.aspx

Information folder No. : ZK-01-009-00

First application date : December 14, 2017

1. Specification data

Type		ZK-01-009									
Variant		Variant 1: ZK-01-009 Variant 2: ZK-01-008									
Function		Rear group lamp									
		Rear retro-reflector Device	Side retro-reflector Device	License plate lamp	Rear direction indicator lamp	Stop lamp	Rear position lamp	Rear end -outline marker lamp	Reversing lamp	Rear fog lamp	Side marker lamp
Color		Red	Amber	Colorless	Amber	Red	Red	Red	White	Red	Amber
Rated	Voltage	--	--	24V	24V	24V	24V	24V	24V	24V	24V
	Wattage	--	--	10W	21W	21W	2*10W	10W	21W	21W	10W
Application Regulation ECE		R3.02 Class IB	R3.02 Class IB	R4.00 Cat. 1b	R6.01 Cat. 2a	R7.02 Cat. S1	R7.02 Cat. R1	R7.02 Cat. RM1	R23.00 AR	R38.00 Cat. F1	R91.00 Cat. SM1
Location of marking	Number and category of light source	--	--	R10W	P21W	P21W	2*R10W	R10W	P21W	P21W	R10W
	Trade mark	Marked on housing									
											
	Approval mark	Marked on lens									
Remark		Sequential activation of light sources: No									
		The lamp is only for use on a vehicle fitted with a tell-tale indicating failure: No									

2. Construction and material

Construction	Material	Remarks
Lens	AS	L.P.L.+R.L.: Clear S.D.+R.D.L.+S.M.L.: Amber R.D.+S.L.+R.P.L.+R.E.L.+R.F.L.: Red
Reflector	PP	AL vacuum vapour coating Painting on the inside surface Colour: Metal silver
Housing	ABS	Colour: Black
Electrical Wiring	Copper covered with insulation	--

3. Name and address of manufacturer

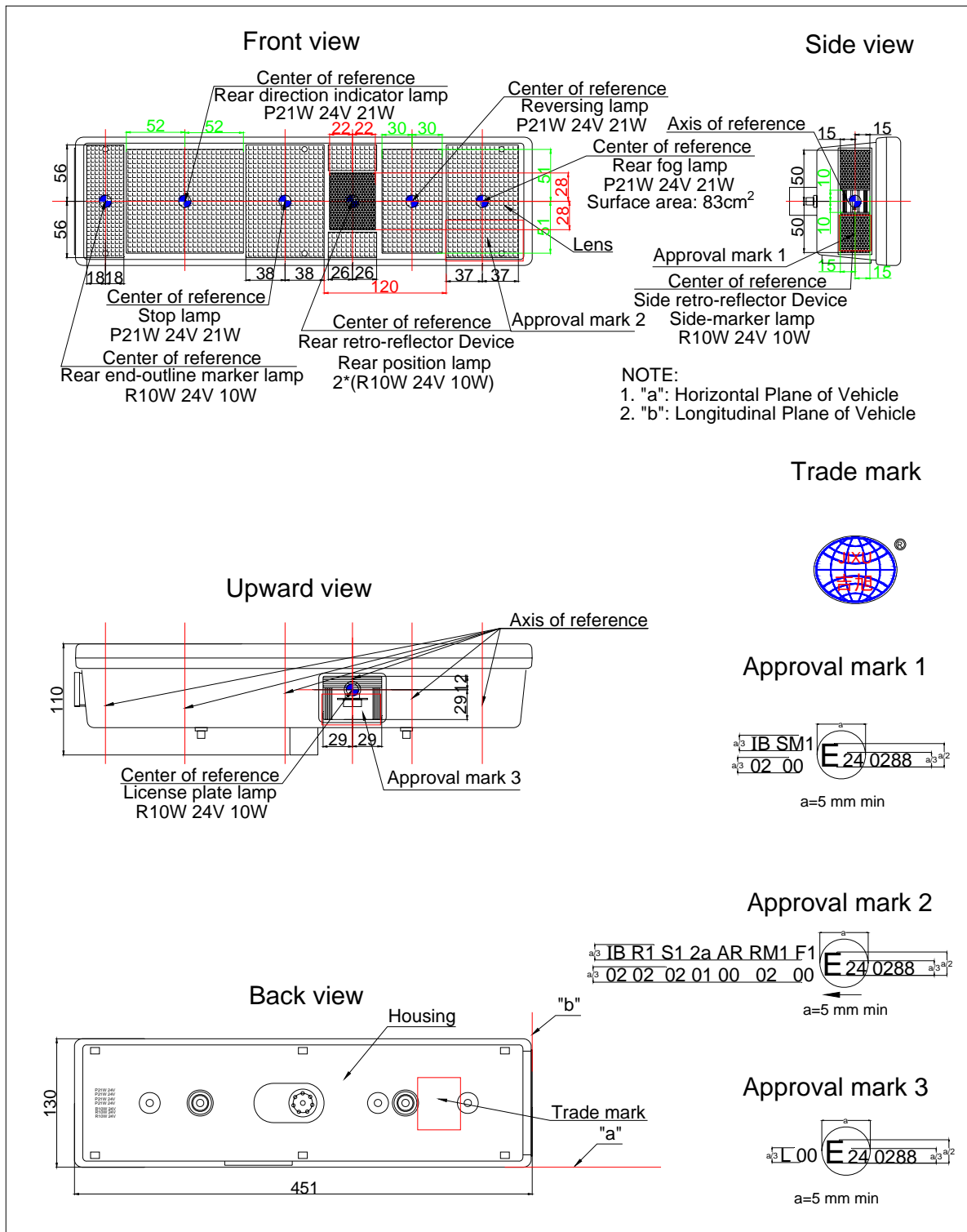
Changzhou Zhongkai Vehicle Parts Co., Ltd.
: Menghe Avenue, Henghe Town, Xinbei District,
Changzhou City, Jiangsu Province P.C.: 213001

4. Name and address of the assembly plant

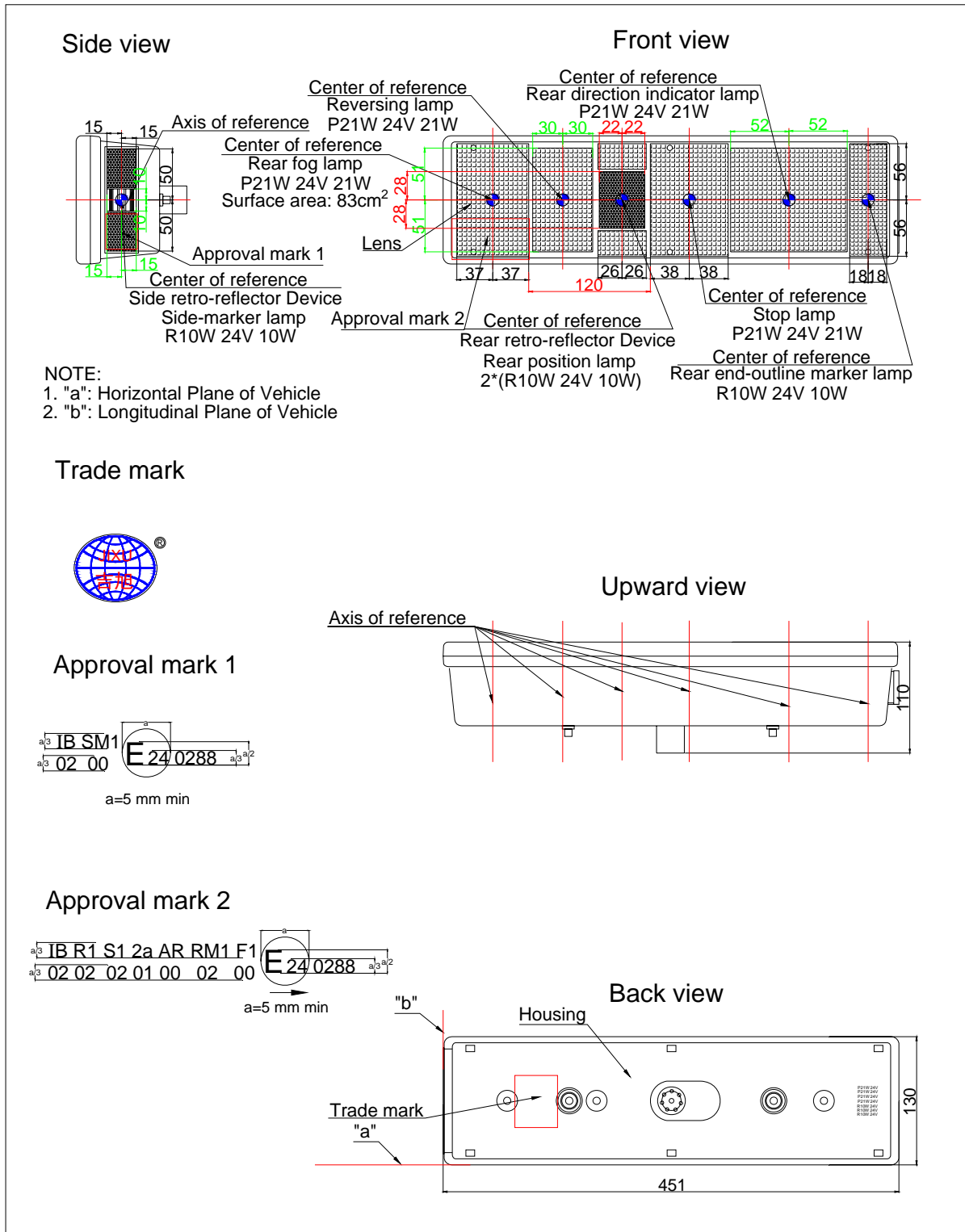
: See 3.

5. Name and address of the manufacturer's representative

: N/A



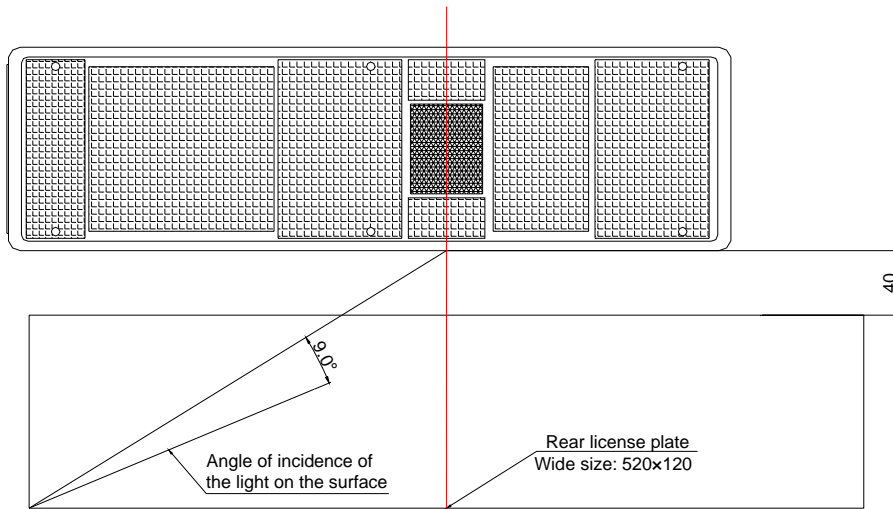
Product Type	ZK-01-009
General assembly drawing (Left side)	
Drawing No.	ZK-01-009-01



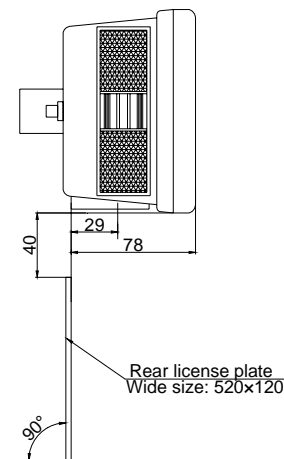
Product Type	ZK-01-009
General assembly drawing (Right side)	
Drawing No.	ZK-01-009-02

Installation requirements of rear license plate

Front view



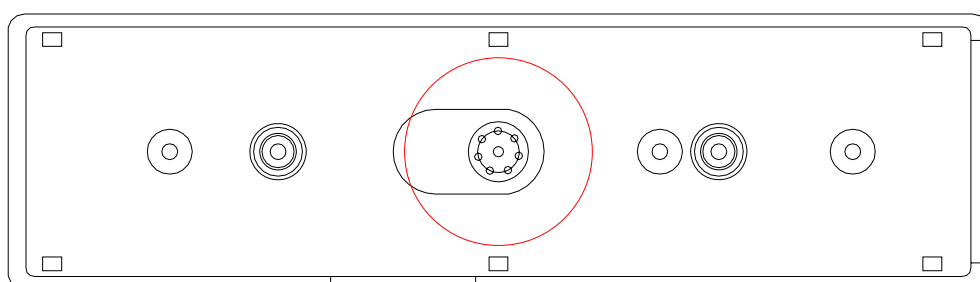
Side view



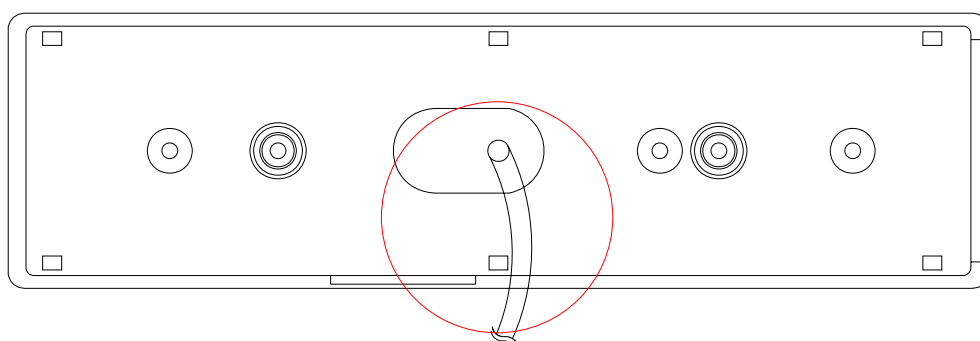
Product Type	ZK-01-009
Installation requirements of rear license plate	
Drawing No.	ZK-01-009-03

Back view

Variant 1



Variant 2



Product Type	ZK-01-009
Variant	
Drawing No.	ZK-01-009-04