

4CE TYPE-APPROVAL CERTIFICATE

Communication concerning approval granted of a
type of rear fog lamp for power driven vehicles
and their trailers pursuant to Regulation No. 38.



Approval No: **E24 38R-000273**

Extension No: **N/A**

Reason(s) for extension:


- N/A

1. Trade name or mark of the device: **NOREP or SafeRoad or SNV or Togood**
2. Manufacturer's name for the type of device: **ST14 SIGNAL**
3. Manufacturer's name and address: **Ningbo Sinovat Auto Parts Co., Ltd.
No.52 Zhengxing West Road, Yuyao
City, Ningbo, Zhejiang Province,
P.R. China**
4. If applicable, name and address of manufacturer's representative: **N/A.**
5. Submitted for approval on: **16.11.2015**
6. Technical service responsible for conducting approval tests: **TÜV Rheinland Kraftfahrt GmbH
Technologiezentrum Verkehrssicherheit
Am Grauen Stein
D-51105 Köln (Poll)**
7. Date of test report issued by that service: **12.11.2015**
8. Number of report issued by that service: **87-R38-1873/15-00**
9. Concise description:
Number and category(ies) and kind of light source: **15LEDs, non-replaceable light source**
Voltage and Wattage: **12V – 2.4W**



Approval No: **E24 38R-000273**

Extension No: **N/A**

- Light source module specific identification code: **N/A.**
- Geometrical conditions of installation and relating variations (if any): **See manufacturer's information document**
- Application of an electronic light source control gear/variable intensity control
(a) being part of the lamp (**yes/no**): **No.**
(b) being not part of the lamp (**yes/no**): **No.**
- Input voltage(s) supplied by an electronic light source control gear/variable intensity control: **N/A.**
- Electronic light source control gear/variable intensity control manufacturer and identification number (when the light source control gear is part of the lamp but is not included into the lamp body): **N/A.**
- Variable luminous intensity (yes/no): **No.**
10. Position of the approval mark: **On the lens.**
11. Reason(s) for extension (if applicable): **N/A.**
12. Approval granted/~~extended/refused/withdrawn~~: **Granted.**
13. Place: **Dublin.**
14. Date: **26th November, 2015.**
15. Signature: 
16. The list of documents deposited with the Administrative Service which has granted approval, is annexed and may be obtained on request.

Remarks: This approval of a rear fog lamp as part of a lamp device containing:

Rear direction indicator: E24 6R-010273

Rear position lamp and stop lamp: E24 7R-020273

Reversing lamp: E24 23R-00273



Index to the Information Package

Date of issue: ***26th November, 2015.***

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): ***87-R38-1873/15-00***

- date of issue: ***12.11.2015***

- date of latest amendment: ***N/A***

3. Information document

- number(s): ***ST14 SIGNAL-00***

- date of issue: ***06.11.2015***

- date of latest amendment: ***N/A***

Documentation: ***14 pages***



Appendix: Additional conditions, and advisory notes on legal alternatives

A: Additional conditions:

1. The device, Type ST14 SIGNAL shall be marked as prescribed by the regulation.
2. Fitting instructions shall be supplied with each device, 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



Manufacturer : Ningbo Sinovat Auto Parts Co., Ltd.
Type : ST14 SIGNAL

TEST REPORT

according to ECE-Regulation

**Uniform provisions concerning the approval of rear fog lamps
for power driven vehicles and their trailers**

ECE-R38

including all amendments until

**series of Amendments: 00
Supplement 16**

| | | |
|--------------------|---|-----|
| Previously granted | | |
| ECE - certificate | : | --- |

Structure of report:

0. general information
1. Test object(s) and general test information
2. Test minutes
3. Remarks concerning tested object(s)
4. Appendices
5. Statement of conformity

The Test Report shall be reproduced and published in full by the client only. It shall however be reproduced partially with the written permission of the Testing Laboratory only.



Manufacturer : Ningbo Sinovat Auto Parts Co., Ltd.
Type : ST14 SIGNAL

0. General information

- 0.1. Trademark or trade name of the lamp : NOREP or SafeRoad or SNV or Togood
- 0.2. Manufacturer's name for the type of the lamp : ST14 SIGNAL
- 0.3. Name and address of the manufacturer : Ningbo Sinovat Auto Parts Co., Ltd.
No.52 Zhengxing West Road, Yuyao City,
Ningbo, Zhejiang Province,
P.R. China
- 0.4. Name and address of manufacturer's
authorized representative : ---
- 0.5. No. of information folder : ST14 SIGNAL-00
date of issue : November 6, 2015
date of last amendment : ---

1. Test object(s) and general test information

- 1.1. Test object(s)
- Type : ST14 SIGNAL
- Version : ---
- Remark : Non-replaceable light source, 15 LEDs
- 1.2. General test information
- 1.2.1. Order issued by : ---
(if different from manufacturer)
- 1.2.2. Test object / test vehicle received on : not applicable
- 1.2.3. Test date : November 9, 2015
- 1.2.4. Test site : Automotive Component Testing Center of Ningbo
No. 99, Jingu South Road, Yinzhou Investment & Business
Incubation, 315104, Ningbo,
P.R. China
- 1.2.5. Remark : The results of the test refer exclusively to the object(s)
mentioned under point 1.1 of this report.

Manufacturer : Ningbo Sinovat Auto Parts Co., Ltd.
Type : ST14 SIGNAL

2. Test minutes

- 2.1. Test facilities : The test facilities are in compliance with the requirements of the regulation.
- 2.2. Test results : ~~The type has been examined according to the amendments mentioned in appendix O.~~

~~An actual test of the type was not required. The results of the previous tests are still valid.~~
- Markings : The trade mark is marked clearly legible and indelible ~~on the lens and~~ on the housing of the lamp.

The rated voltage and wattage is clearly legible and indelible marked ~~on the lens and~~ on the housing of the lamp.

Space for the approval mark and for additional symbols is provided on the lens (the lens can not be separated from the housing).
- 2.3. General specifications : The lamps are designed and made that under normal use their satisfactory operation is ensured and they retain the required characteristics.

The colour of the light emitted is within the limits of the coordinates for RED as prescribed in Para.9 of the Regulation.
- 2.4. Photometric tests : The light intensity was measured after 1 minute burning period and after 30 minutes burning in reference axis. The distribution of the light intensity after 1 minute burning period was calculated using the ratio of the two described measurements. The light intensity and its distribution are in compliance with the requirement after 1 minute burning period and after 30 minutes burning period.

The light distribution in space required by minimum angles has been measured in accordance with Annex 3 of the regulation, based on the manufacturer's indication of the centre of reference and axis of reference.

The rear fog lamp containing more than one light source complies with the minimum intensity required when anyone light source has failed.



Manufacturer : Ningbo Sinovat Auto Parts Co., Ltd.
Type : ST14 SIGNAL

Results of photometric tests of the **rear fog lamp**

measured after **1 minute** burning period when all light sources lit

| | light intensity of the lamps in reference axis [cd] | allowable maximum | required minimum |
|--------------|--|----------------------|---------------------|
| sample no. 1 | 251.0 | 300 | 150 |
| sample no. 2 | 257.9 | 300 | 150 |

measured after **30 minutes** burning period when all light sources lit

| distribution of the intensity of the lamps in [cd] | | | | |
|--|-----|-------|-------|-------|
| horizontal angle | | L10° | V | R10° |
| vertical angle minimum intensity | U5° | --- | 150 | --- |
| | H | 150 | 150 | 150 |
| | D5° | --- | 150 | --- |
| vertical angle sample no. 1 | U5° | --- | 219.9 | --- |
| | H | 221.5 | 244.0 | 256.4 |
| | D5° | --- | 225.3 | --- |
| vertical angle sample no. 2 | U5° | --- | 248.2 | --- |
| | H | 251.6 | 251.2 | 249.6 |
| | D5° | --- | 278.1 | --- |

| | sample no. 1 | sample no. 2 | allowable maximum | required minimum |
|--|--------------|--------------|----------------------|---------------------|
| maximum intensity [cd] | 273.9 | 275.1 | 300 | --- |
| minimum intensity along the H axes [cd] | 220.0 | 245.0 | --- | 150 |
| minimum intensity along the V axes [cd] | 209.8 | 239.8 | --- | 150 |
| minimum intensity in the fields defined in Annex 3 of the Regulation [cd] | 89.40 | 110.4 | -- | 75 |

The light distribution is substantially uniform. The light intensity is within the limits in the fields described in Annex 3 of the Regulation



Manufacturer : Ningbo Sinovat Auto Parts Co., Ltd.
Type : ST14 SIGNAL

2.5. Heat resistance test : The lamp was subjected to the heat resistance test according to paragraph 8 of the Regulation.

After the lamp had been stabilized at the ambient temperature, no distortion, deformation, cracking or colour modification was perceptible.

2.6. Colour test : The CIE trichromatic coordinates of the light emitted by lamp are within the limits for red prescribed in the paragraph 2.29. of the Regulation No.48.

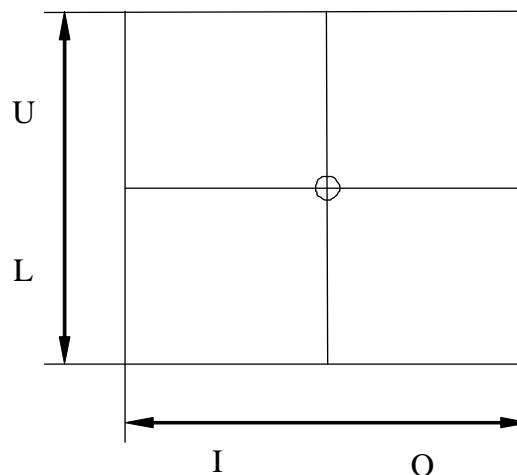
| Chromatic coordinates | Reference axis | |
|-----------------------|----------------|--------------|
| | sample no. 1 | sample no. 2 |
| x | 0.6971 | 0.6967 |
| y | 0.3020 | 0.3023 |

2.7. Illuminating surface : Vertical and horizontal outlines of the illuminating surface of the light-signalling device in relation to the centre of reference and in accordance with Annex 3 of Regulation No. 48.

The illuminating surface is 57.6cm², does not exceed 140 cm².

Definition of the illuminating surface of the device

⊕ centre of reference



| function | upper boundary (U) [mm] | lower boundary (L) [mm] | inner boundary (I) [mm] | outer boundary (O) [mm] |
|---------------|----------------------------|----------------------------|----------------------------|----------------------------|
| rear fog lamp | 40 | 50 | 32 | 32 |

Manufacturer : Ningbo Sinovat Auto Parts Co., Ltd.
Type : ST14 SIGNAL

2.7. Explanatory note : This report describes the examination of the rear fog lamp as a part of a lamp device.

For the examination of the other lamp of the device, refer to the following report:

| | |
|-----------------------------|-------------------|
| Type of lamp | Test Report No. |
| Rear direction indicator | 87-R6-1870/15-00 |
| Rear position and stop lamp | 87-R7-1871/15-00 |
| Reversing lamp | 87-R23-1872/15-00 |

2.8. Variants and components : ---

3. Remark concerning tested object(s)

All versions of the lamps as stated in the information document are covered with the tested version(s) and test object(s) respectively.

4. Appendices

L Technical information about the lamp
type according to Annex 1

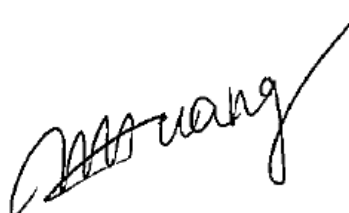
0 List of modifications

1 Information folder no. : ST14 SIGNAL-00

5. Statement of conformity

The above mentioned information folder and the type described in that comply with the requirements mentioned on page 1.

Engineering Centre Shanghai, November 12, 2015
HH



Heng Huang
Expert Technical Service



Manufacturer : Ningbo Sinovat Auto Parts Co., Ltd.
Type : ST14 SIGNAL

**Technical information about the lamp type according to Annex 1
for the communication of the ECE-type approval**

Appendix L

1. Trade name or mark of the device : NOREP or SafeRoad or SNV or Togood
2. Manufacturer's name for the type of device : ST14 SIGNAL
3. Manufacturer's name and address : Ningbo Sinovat Auto Parts Co., Ltd.
No.52 Zhengxing West Road, Yuyao City,
Ningbo, Zhejiang Province,
P.R. China
4. If applicable, name and address of the
manufacturer's representative : ---
5. Submitted for approval on : November 6, 2015
6. Technical service responsible for conducting
approval tests : TÜV Rheinland Kraftfahrt GmbH
Technologiezentrum Verkehrssicherheit
Am Grauen Stein
D-51105 Köln (Poll)
7. Date of report issued by that service : November 12, 2015
8. Number of report issued by that service : 87-R38-1873/15-00
9. Concise description
 - Number, category and kind of light source(s) : 15LEDs, non-replaceable light source
 - Voltage and wattage : 12V, 2.4W
 - Light source module specific identification code : not applicable
 - Geometrical conditions of installation and relating : see information folder for details
variations, if any
 - Application of an electronic light source control
gear/variable intensity control
 - (a) being part of the lamp : ~~yes~~/no⁽¹⁾
 - (b) being not part of the lamp : ~~yes~~/no⁽¹⁾
 - Input voltage(s) supplied by an electronic light
source control gear/variable intensity control : not applicable
 - Electronic light source control gear/variable
intensity control manufacturer and identification
number (when the light source control gear is part of
the lamp but is not included into the lamp body) : not applicable
 - Variable luminous intensity : ~~yes~~/no⁽¹⁾
10. Position of the approval mark : on the lens
11. Reason(s) for extension (if applicable) : ---



Manufacturer : Ningbo Sinovat Auto Parts Co., Ltd.
Type : ST14 SIGNAL

List of modifications

Appendix 0

Correction of : ---

Modification of : ---

Addition of : ---

Deletion of : ---

Application date : November 6, 2015

1. Specification data

| | | | | | | |
|--|---------------------------|------------------------------------|-------------------------|-----------|-----------------------|-----------------------|
| Type | | ST14 SIGNAL | | | | |
| Function | | Rear Direction Indicator | Rear Position Lamp | Stop Lamp | Reversing Lamp | Rear Fog Lamp |
| Emitted color | | Amber | Red | Red | White | Red |
| Rated | Voltage | 12V | | | | |
| | Wattage | 1.8W | 0.2W | 1.8W | 1.1W | 2.4W |
| Applicable Regulation (ECE) | | R6.01 Category 2a | R7.02 Category R1-S1 | | R23.00 Category AR | R38.00 Category F1 |
| Number and category of filament lamp(light source) | | Non-replaceable light source | | | | |
| | | 9LEDs | 9LEDs | | 8LEDs | 15LEDs |
| Location of marking | Rated Voltage and Wattage | Marked on Housing | | | | |
| | Trade mark | NOREP or SafeRoad or SNV or Togood | | | Marked on Housing | |
| | Approval mark | Marked on Lens | | | | |
| Special supply voltage | | | Not applicable | | | |
| Application of additional supply system | | | Yes/ No | | | |
| Light source module | | | Yes/ No | | | |

2. Construction and material

| Construction | Material | Remarks |
|-------------------|--------------------------------|------------------|
| Outer lens | PC | Clear |
| Reflector | ABS | Aluminum Coating |
| Housing | ABS | --- |
| Bezel | ABS | --- |
| Electrical wiring | Copper covered with insulation | --- |

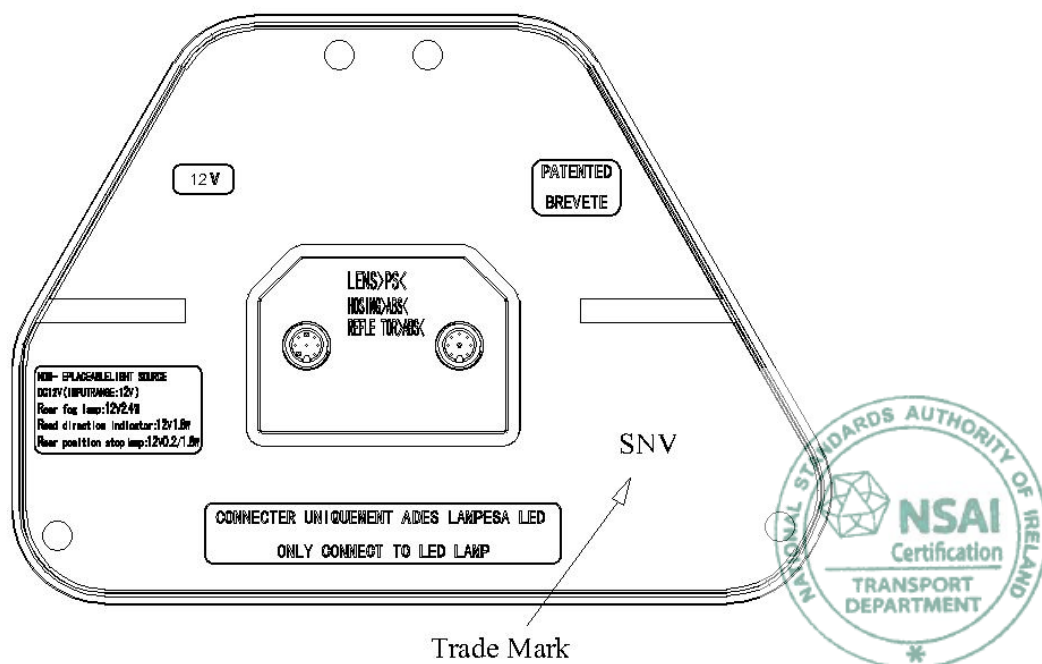
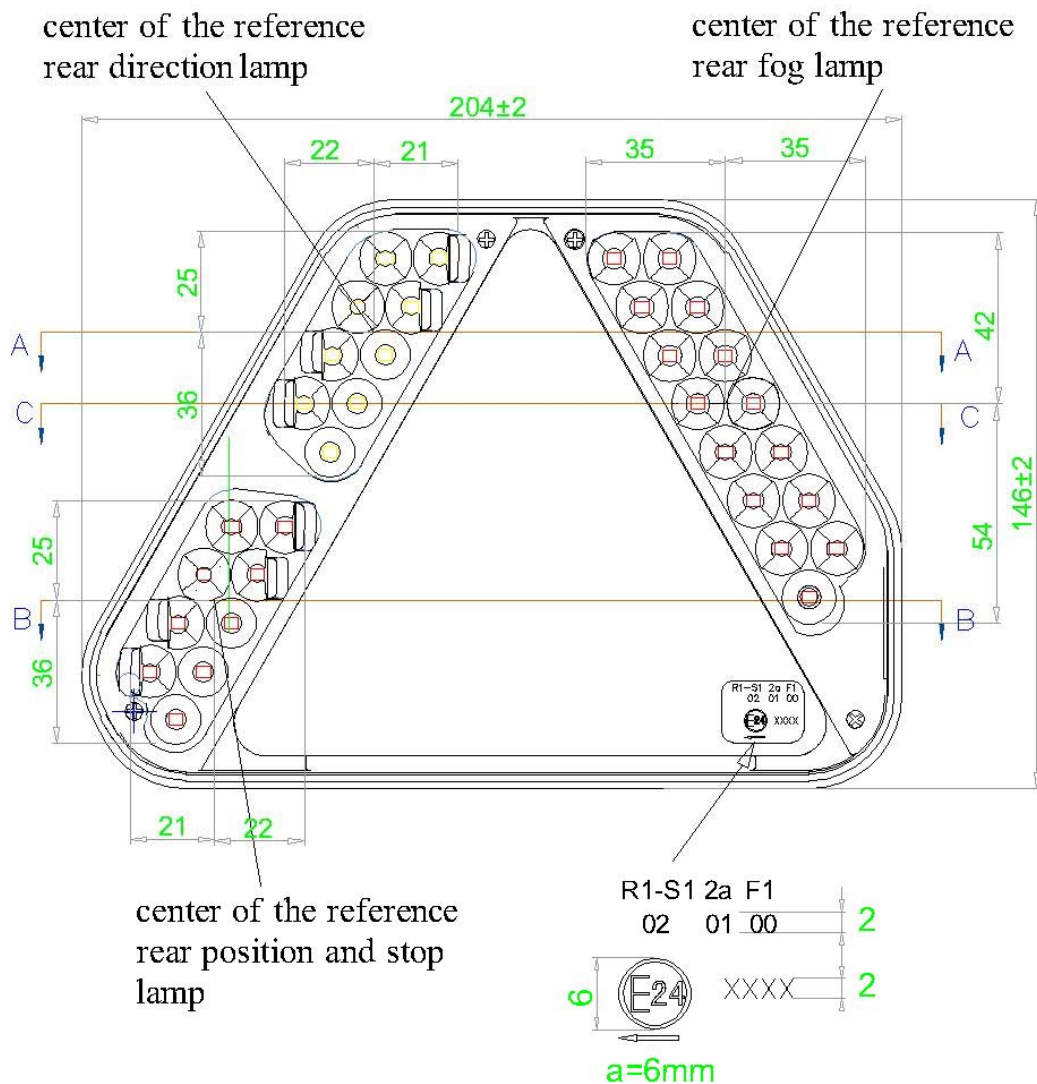
3. Name and address of manufacturer : Ningbo Sinovat Auto Parts Co., Ltd.
No.52 Zhengxing West Road, Yuyao City,
Ningbo, Zhejiang Province
P.R. China

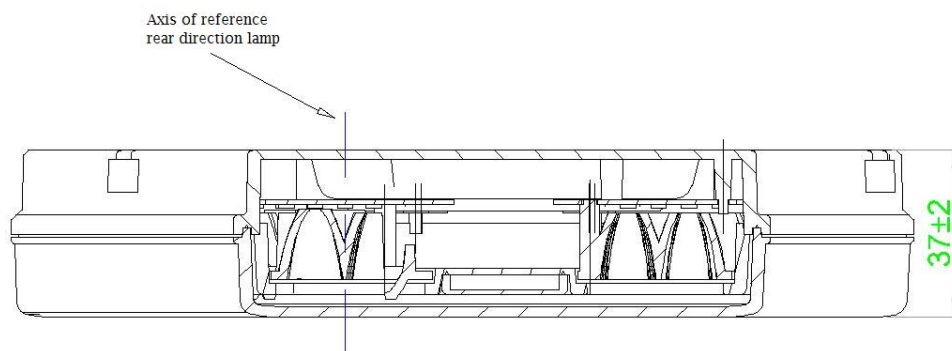
4. Name and address of representative of manufacturer : Not applicable

This information document consists of 6 pages.

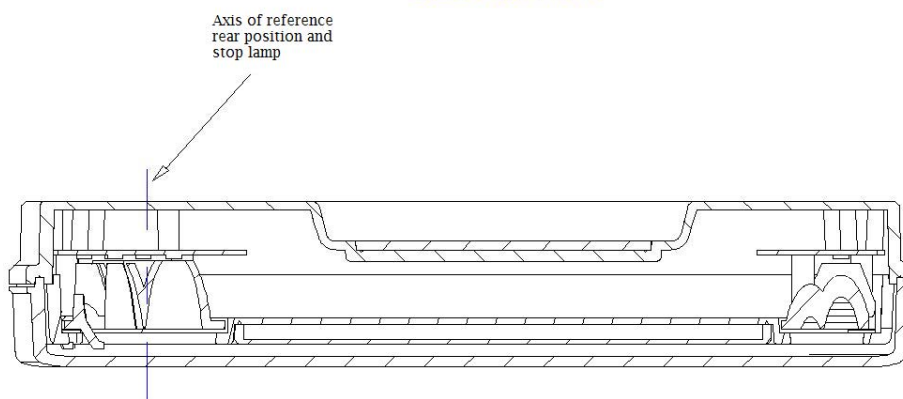


NOTE: THIS DRAWING SHALL BE APPLIED FOR LEFT HAND DEVICE FOR RIGHT-HAND TRAFFIC VEHICLE, AND RIGHT HAND DEVICE FOR LEFT-HAND TRAFFIC VEHICLE SHALL BE SYMMETRIC EXCEPT FOR MARKINGS.

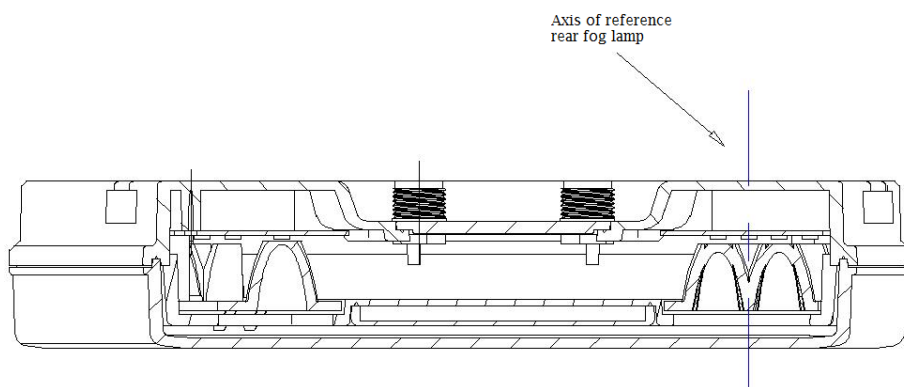




SECTION A-A



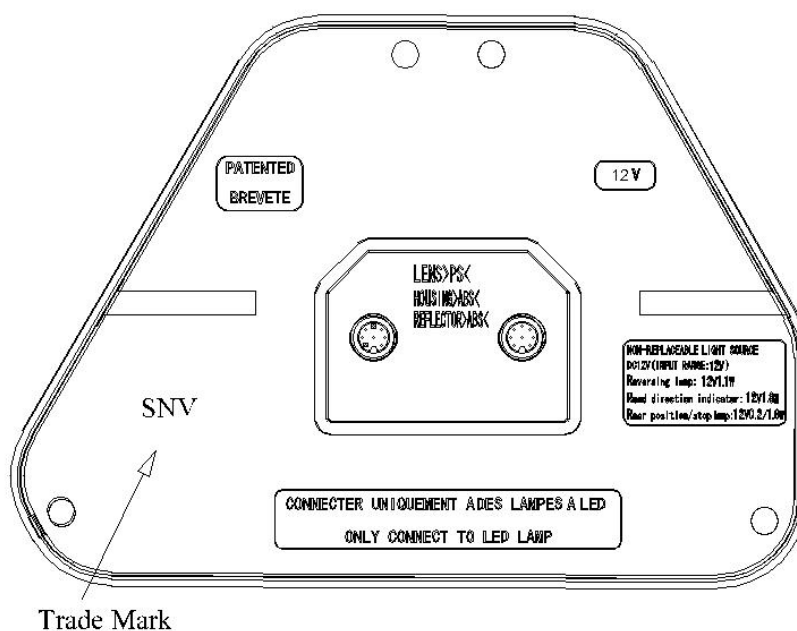
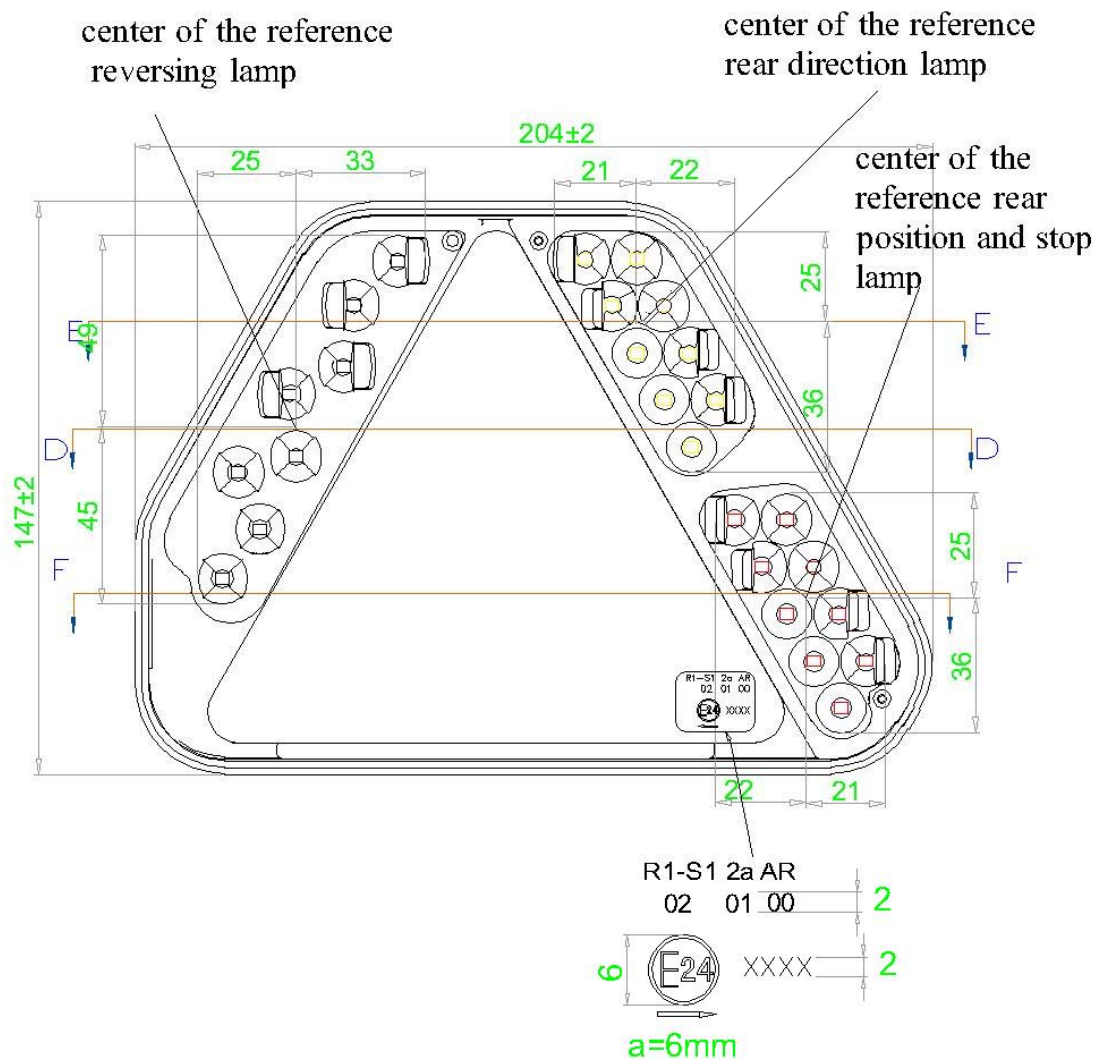
SECTION B-B

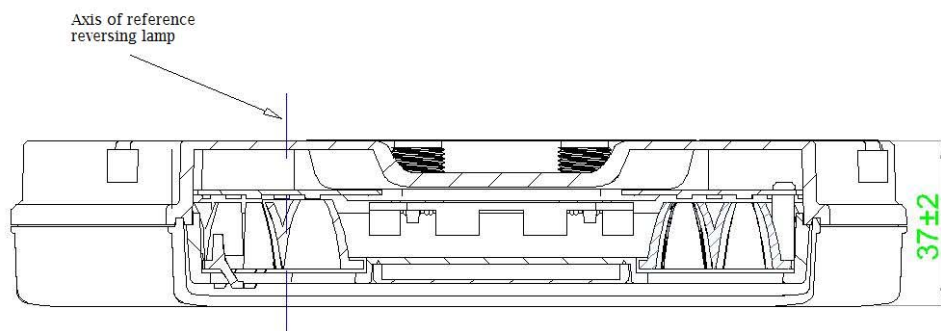


SECTION C-C

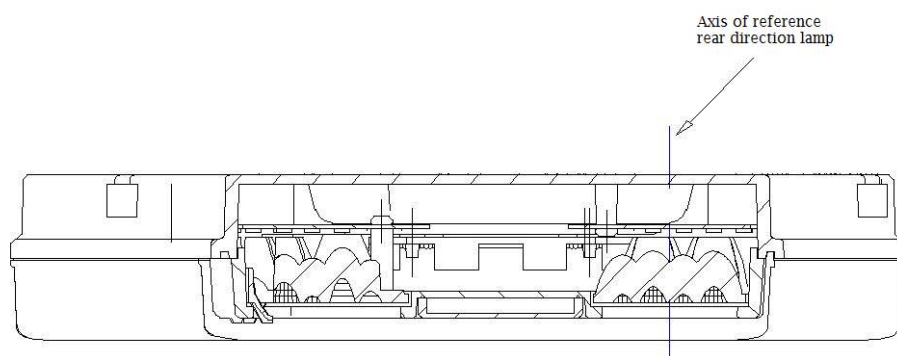


NOTE: THIS DRAWING SHALL BE APPLIED FOR RIGHT HAND DEVICE FOR RIGHT-HAND TRAFFIC VEHICLE, AND LEFT HAND DEVICE FOR LEFT-HAND TRAFFIC VEHICLE SHALL BE SYMMETRIC EXCEPT FOR MARKINGS.

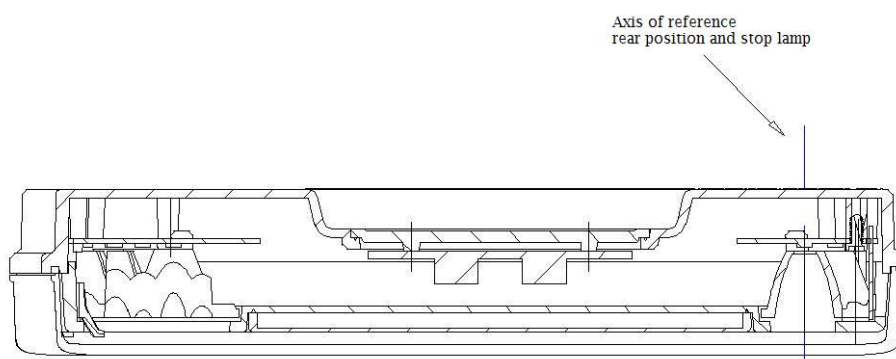




SECTION D-D



SECTION E-E



SECTION F-F

Non-replaceable light source
 DC 12V
 Rear direction indicator: 12V 1.8W
 Rear position/ stop lamp: 12V 0.2/1.8W
 Reversing lamp: 12V 1.1W
 Rear fog lamp: 12V 2.4W



CIRCUIT DIAGRAM

