

**MONTAGEANLEITUNG**

90 MM BI LED MODUL

**INSTALLATION INSTRUCTION**

90 MM BI LED MODULE

**INSTRUCTIONS DE MONTAGE**

90 MM BI LED MODULE

**MONTERINGSANVISNING**

90 MM BI LED MODUL

**MONTAGEHANDLEIDING**

90 MM BI LED MODULE

**INSTRUCCIONES DE MONTAJE**

90 MM BI MÓDULO LED

**ISTRUZIONI DI MONTAGGIO**

90 MM BI LED MODULE

**ASENNUSOHJE**

90 MM BI LED MODULE

**DE** Technische Änderungen vorbehalten. Das hier beschriebene System ist belüftet. In seltenen Fällen kann es durch Umgebungsbedingungen zu geringer Kondensation von Luftfeuchtigkeit an der Streuscheibe kommen. Dieses Kondensat löst sich jedoch rückstandsfrei auf und hat keine schädigenden Einflüsse.

**EN** Subject to alteration without notice. The system described here is ventilated. In rare cases, environmental conditions may cause slight condensation of humidity on the lens. This condensation nevertheless evaporates without leaving behind any residue and has no damaging impact.

**FR** Sous réserve de modifications techniques. Le système décrit ici est ventilé. Dans de rares cas, il peut arriver que le diffuseur soit soumis à une faible condensation par l'humidité de l'air dans des conditions ambiantes. Toutefois, ce condensat se dissout sans résidu et n'a aucun effet nocif.

**SV** Vi reserverar oss för tekniska ändringar. Systemet som beskrivs här är ventilerat. I sällsynta fall kan omgivningsförhållanden leda till att fukt kondenseras på spridningslinsen. Kondensen försvinner utan att lämna spår och har inga skadliga effekter.

**NL** Technische wijzigingen voorbehouden. Het hier omschreven systeem is geventileerd. In zeldzame gevallen kunnen omgevingsfactoren ertoe leiden dat er, vanwege de luchtvochtigheid, lichte condensatie op de lichtverstrooiende plaat ontstaat. Dit condensaat verdwijnt echter weer zonder sporen achter te laten en heeft geen schadelijke invloed.

**ES** Reservadas modificaciones técnicas. El sistema aquí descrito está ventilado. En raras ocasiones, las condiciones ambientales pueden hacer que haya una baja condensación de humedad del aire en el cristal difusor. Sin embargo, este líquido de condensación se disuelve sin generar residuos y no tiene efectos perjudiciales.

**IT** Con riserva di modifichitecniche. Il sistema qui descritto è ventilato. In rari casi le condizioni ambientali possono comportare una bassa condensazione dell'umidità atmosferica sul diffusore di luce. Questa condensa si scioglie tuttavia priva di residui e non ha alcuni influssi dannosi.

**FI** Oikeus teknisiin muutoksiin pidätetään. Tässä kuvailtu järjestelmä on tuulettuva. Joskus harvoin suuntauslinssin pintaan voi tiivistyä hieman kosteutta ympäristöolojen vuoksi. Tämä tiivistynyt kosteus kuitenkin poistuu jäämiä jättämättä eikä sillä ole haitallisia vaikutuksia.

**Zeichenerklärung**  
**Explanation of symbols**  
**Explication des symboles**

**Symbolförklaring**  
**Legenda**  
**Aclaración de símbolos**

**Legenda**  
**Piirroksen selitys**



- DE** Richtig
- EN** Correct
- FR** Correct
- SV** Rätt
- NL** Goed
- ES** Correcto
- IT** Giusto
- FI** Oikein



- DE** Falsch
- EN** Incorrect
- FR** Incorrect
- SV** Fel
- NL** Fout
- ES** Erróneo
- IT** Sbagliato
- FI** Väärin



- DE** Positionspfeil
- EN** Location/Position Arrow
- FR** Flèche de Position
- SV** Positionpil
- NL** Lokatie/Positie pijl
- ES** Flecha de posición
- IT** Freccia di posizione
- FI** Paikannusnuoli



- DE** Bewegungspfeil
- EN** Movement Arrow
- FR** Flèche indiquant sens du mouvement
- SV** Rörelsepil
- NL** Richtingspijl
- ES** Flecha de movimiento
- IT** Freccia di movimento
- FI** Liikesuuntanuoli



- DE** Fernlicht
- EN** High beam
- FR** Feu de route
- SV** Helljus
- NL** Groot licht
- ES** Luz de largo alcance
- IT** Luce abbagliante
- FI** Kaukovalo



- DE** Achtung
- EN** Warning
- FR** Attention
- SV** Varning
- NL** Let op
- ES** Atención
- IT** Attenzione
- FI** Huomio



- DE** Abklemmen
- EN** Disconnect
- FR** Déconnecter
- SV** Koppla los
- NL** Demonteren
- ES** Desconectar
- IT** Staccare
- FI** Irrota



- DE** Verbinden
- EN** Connect
- FR** Connecter
- SV** Anslut
- NL** In elkaar
- ES** Conectar
- IT** Collegare
- FI** Yhdistä



- DE** Siehe
- EN** Look/See
- FR** Voir
- SV** Se
- NL** Kijken naar
- ES** Ver
- IT** Vedere
- FI** Katso



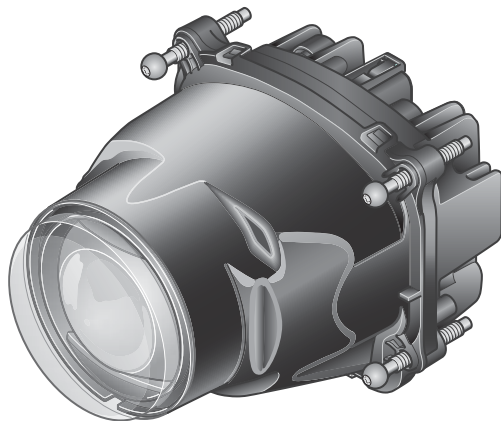
- DE** Abblendlicht
- EN** Low beam
- FR** Feux de croisement
- SV** Halvljus
- NL** Dimlicht
- ES** Luz de cruce
- IT** Anabbagliante
- FI** Lähivalot

Lieferumfang  
Scope of delivery  
Fourniture

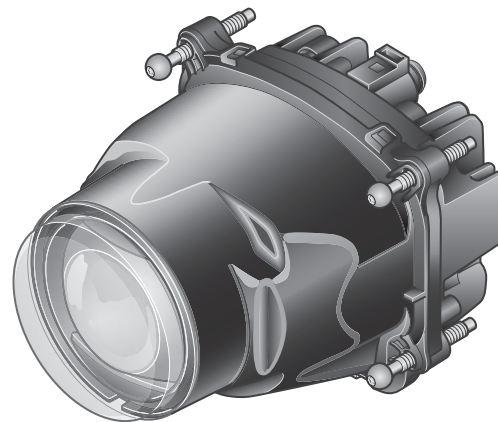
Leveransomfattning  
Leveringsomvang  
Alcance de suministro

Contenuto della confezione  
Toimituksen sisältö

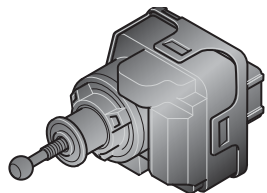
1AL 012 758-XX



1LL 012 758-XX



Zubehör  
Accessories  
Accessories



6NM 208 791-00 (12V)  
6NM 202 791-01 (24V)

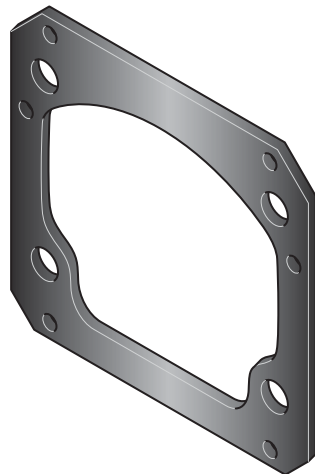


8HG 138 619-007

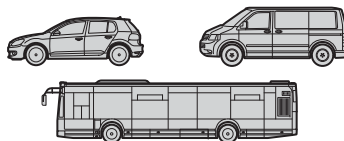


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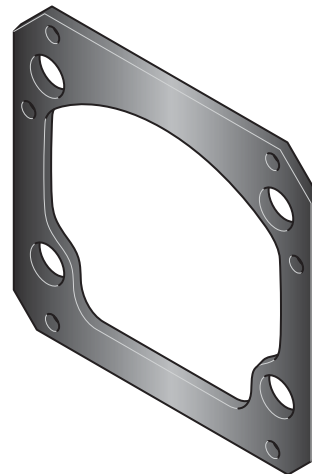
Tillbehör  
Toebehoren  
Accessorios



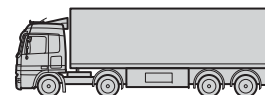
9AH 205 652-01



Accessori  
Lisätarvikkeet



9AH 205 652-11



Zubehör  
Accessories  
Accessories

Tillbehör  
Toebehoren  
Accessorios

Accessori  
Lisätarvikkeet

FEP 4-pin plug



8JA 202 231-002



8KW 863 933-013



9GD 863 952-022  
(0,35 - 0,5 mm)



9GD 863 952-012  
(0,75 mm)



9GD 863 952-002

DEUTSCH Connector 4-pin



8JA 201 022-042



9NB 201 024-042



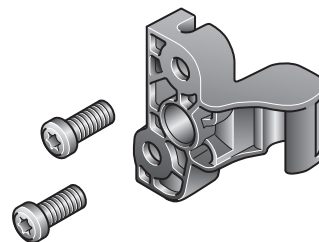
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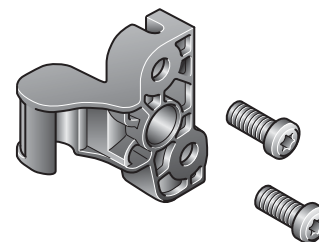
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8JA 201 022-821



208 791-00

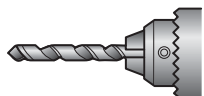
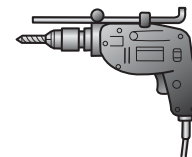
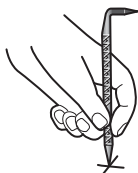
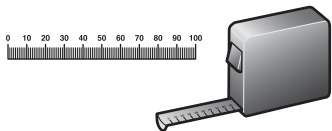


202 791-01

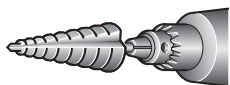
**Benötigte Montagewerkzeuge**  
**Installation tools required**  
**Outillage de montage requis**

**Nödvändiga monteringsverktyg**  
**Benodigde montagewerktuigen**  
**Herramientas de montaje necesarias**

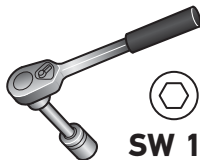
**Attrezzi necessari per il montaggio**  
**Tarvittavat asennustyökalut**



**3,5 mm**  
**5 mm**  
**6,5 mm**



**14 mm**  
**16 mm**  
**17 mm**  
**24 mm**



**SW 10**



**Torx 20**  
**Torx E5**

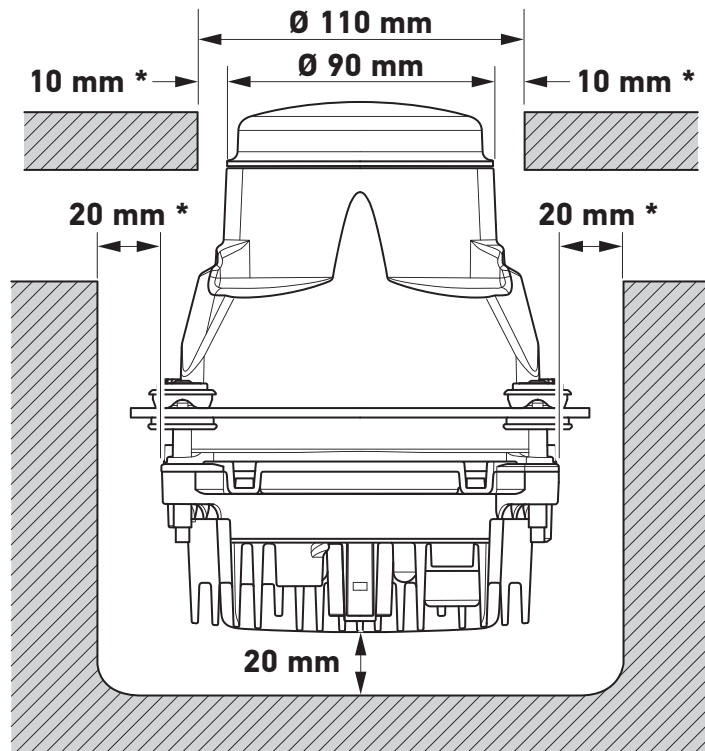


Montage  
Mounting  
Montage Général

Montering  
Montage  
Montaje

Montaggio  
Asennus

- Ⓓ Min. Belüftungsraum sicherstellen.
- Ⓔ Minimum ventilation space to be observed.
- Ⓕ Encombrement minimum pour la ventilation.
- Ⓗ Säkerställ ett minsta ventilationsutrymme.
- Ⓝ Min. ventilatieruimte veiligstellen.
- Ⓔ Garantizar un mínimo espacio de ventilación.
- Ⓘ Garantire uno spazio min. di aerazione.
- Ⓕ Varmista min. tuuletusväli.





**DE** \* kann 1500 mm an N3G Fahrzeugen sein  
 \*\* kann 400 mm sein, wenn Fahrzeugbreite < 1300 mm ist (nicht für M1 & N1 Fahrzeuge)

**EN** \* may be 1500 mm on N3G vehicles  
 \*\* may be 400 mm if vehicle width is < 1300 mm (not for M1 & N1 vehicles)

**FR** \* peut être de 1 500 mm sur les véhicules N3G  
 \*\* peut être de 400 mm, si largeur du véhicule est < 1300 mm (pas pour véhicules M1 & N1)

**SV** \* kan vara 1500 mm på N3G-fordon  
 \*\* kan vara 400 mm om fordonsbredden är < 1300 mm (gäller inte M1- & N1-fordon)

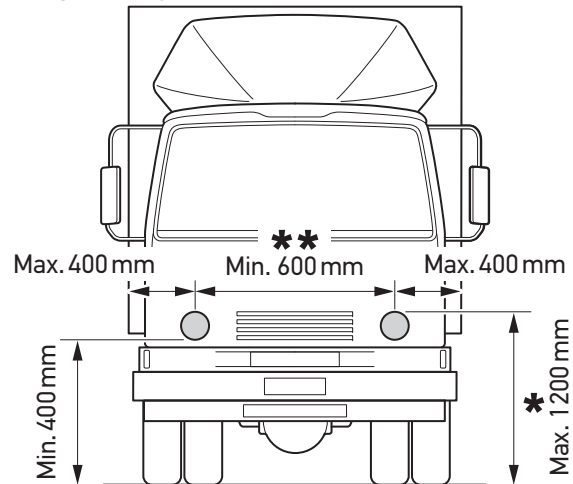
**NL** \* kan 1500 mm zijn aan N3G voertuigen  
 \*\* kan 400 mm zijn als voertuigbreedte < 1300 mm is (niet voor M1 & N1 voertuigen)

**ES** \* puede ser 1500 mm en vehículos N3G  
 \*\* puede ser 400 mm si el ancho del vehículo es < 1300 mm (no para vehículos M1 o N1)

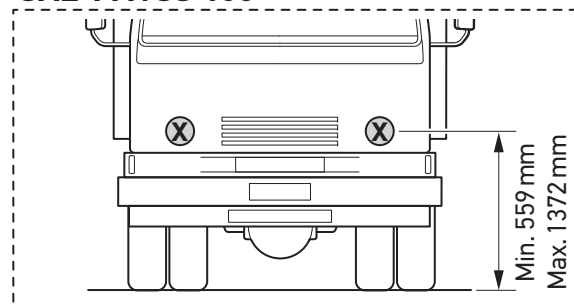
**IT** \* Può essere 1500 mm in veicoli N3G  
 \*\* Può essere 400 mm se la larghezza del veicolo è < 1300 mm (non per veicoli M1 e N1)

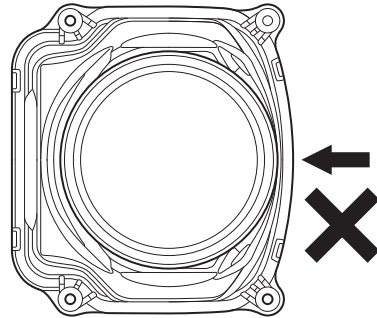
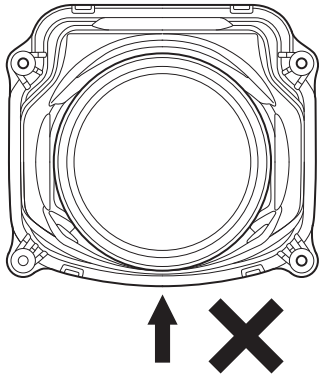
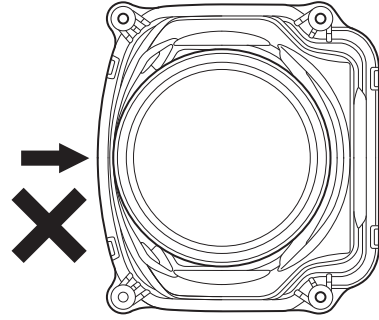
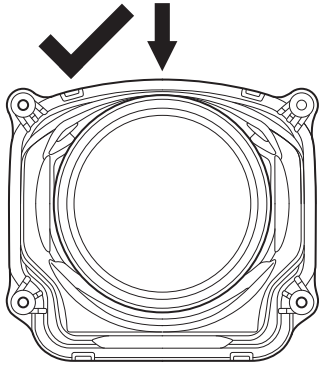
**FI** \* Voi olla 1 500 mm N3G-ajoneuvoissa.  
 \*\* Voi olla 400 mm, kun ajoneuvon leveys on < 1 300 mm (ei koske M1- ja N1-ajoneuvoja).

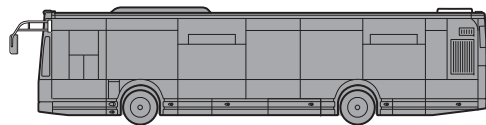
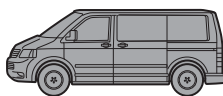
## ECE-R 48



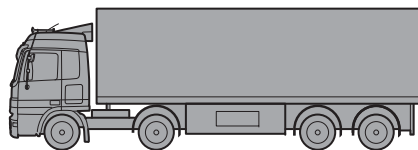
## SAE-FMVSS 108



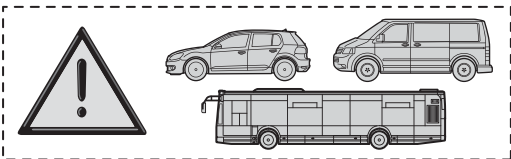




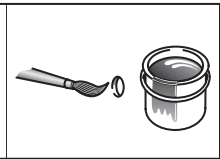
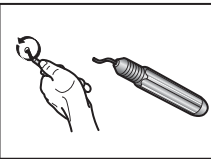
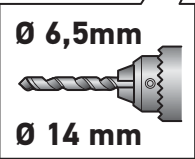
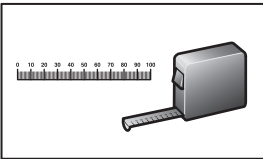
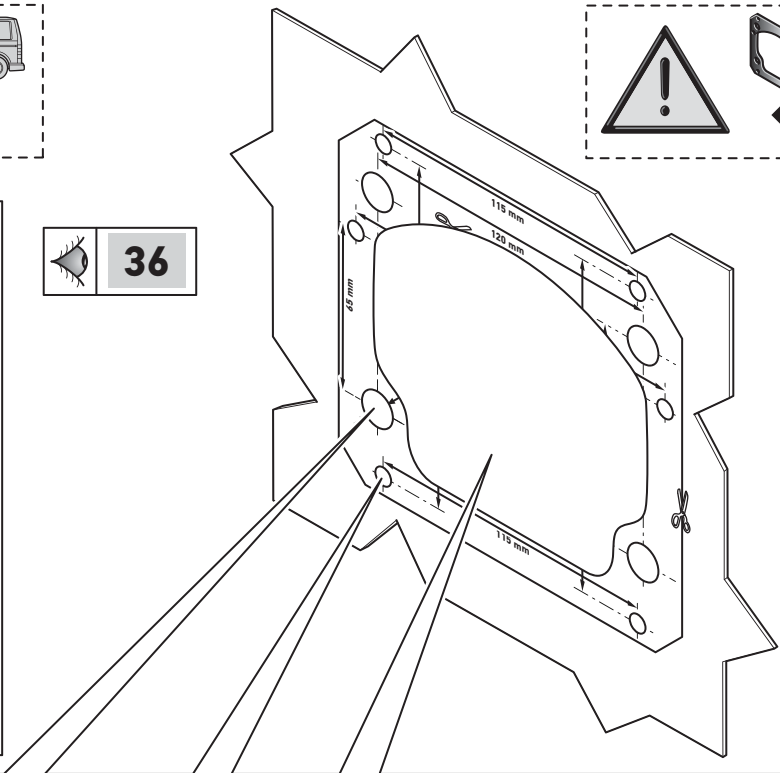
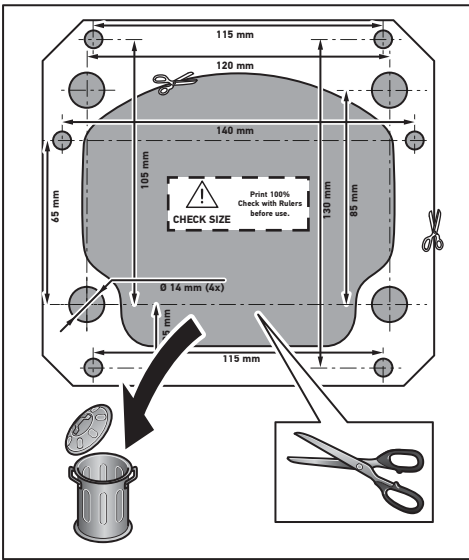
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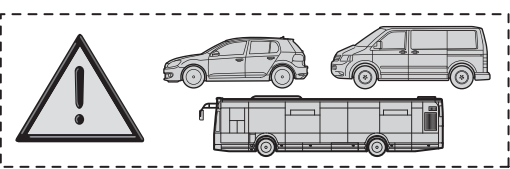


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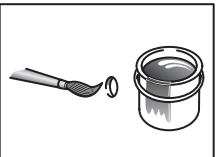
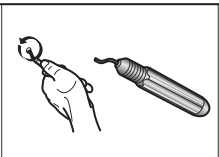
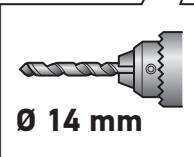
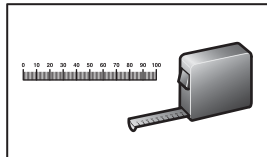
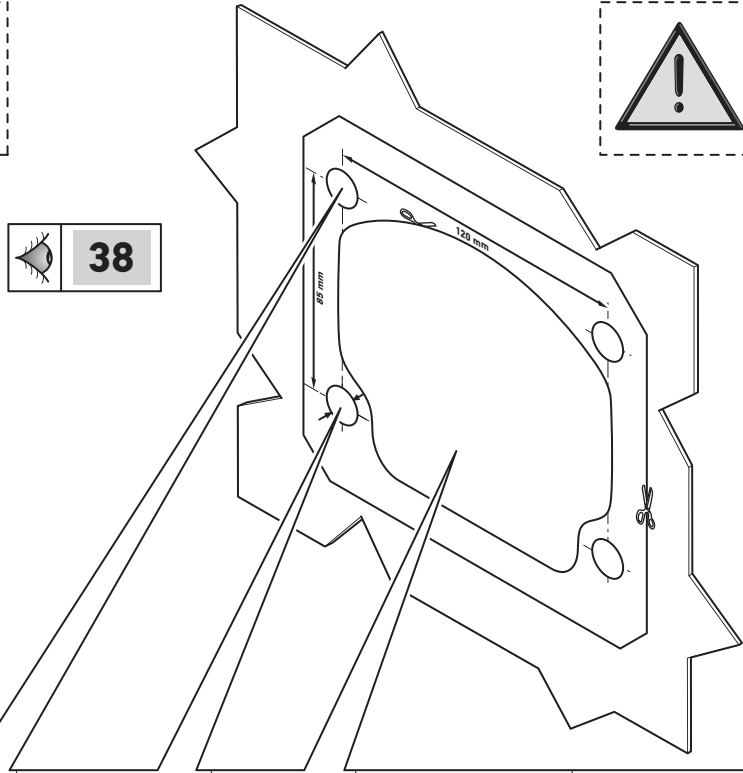
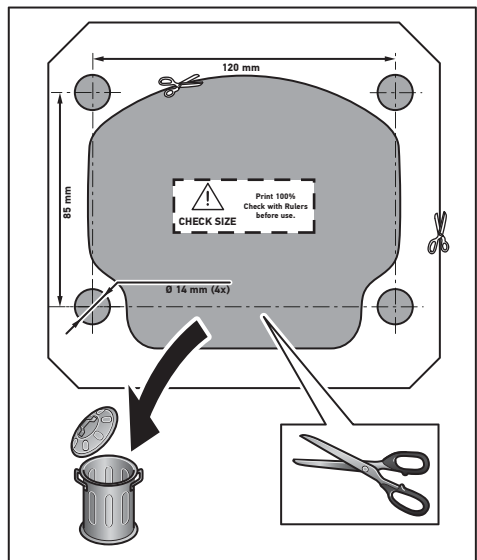


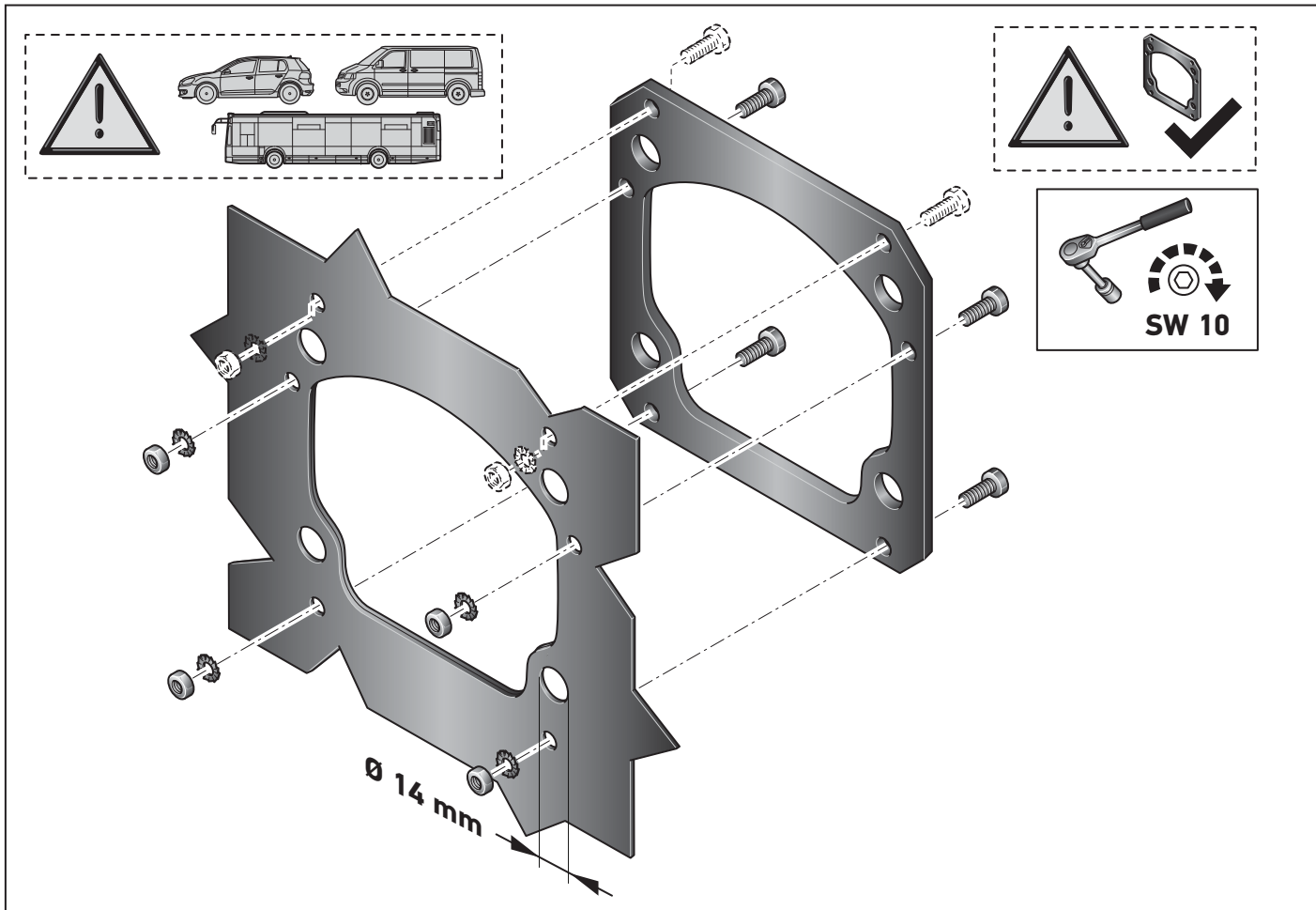
 **36**





 **38**

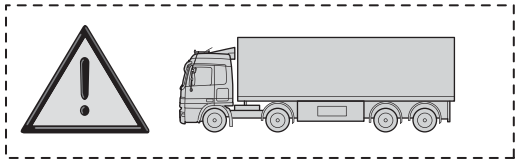




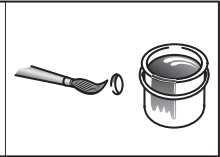
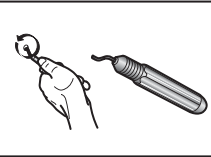
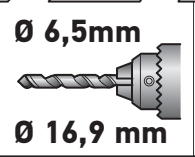
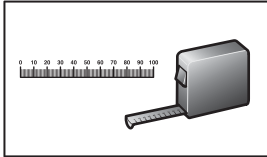
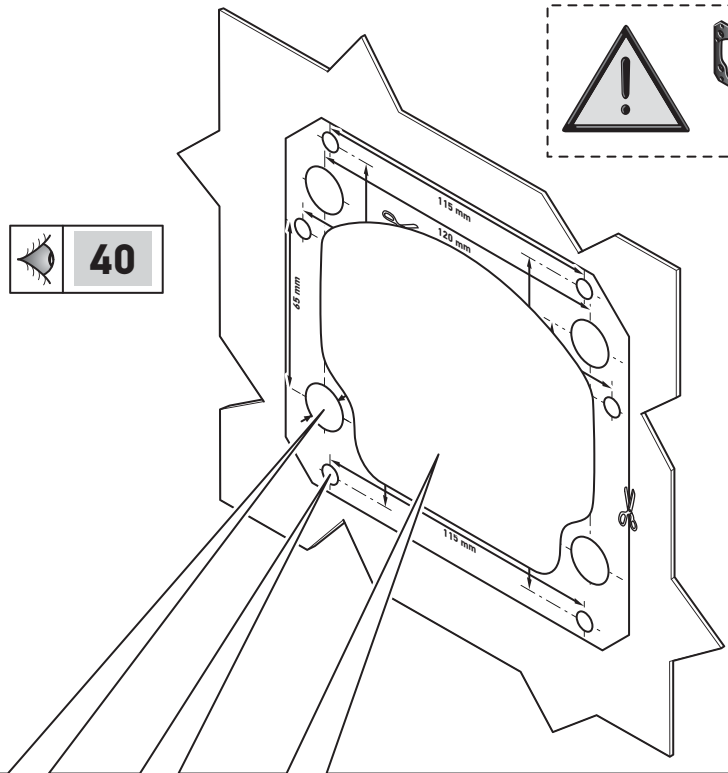
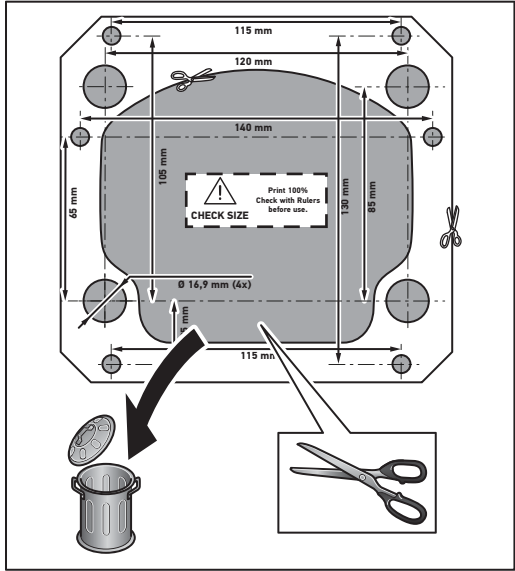


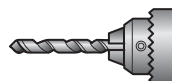
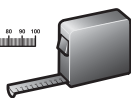
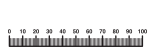
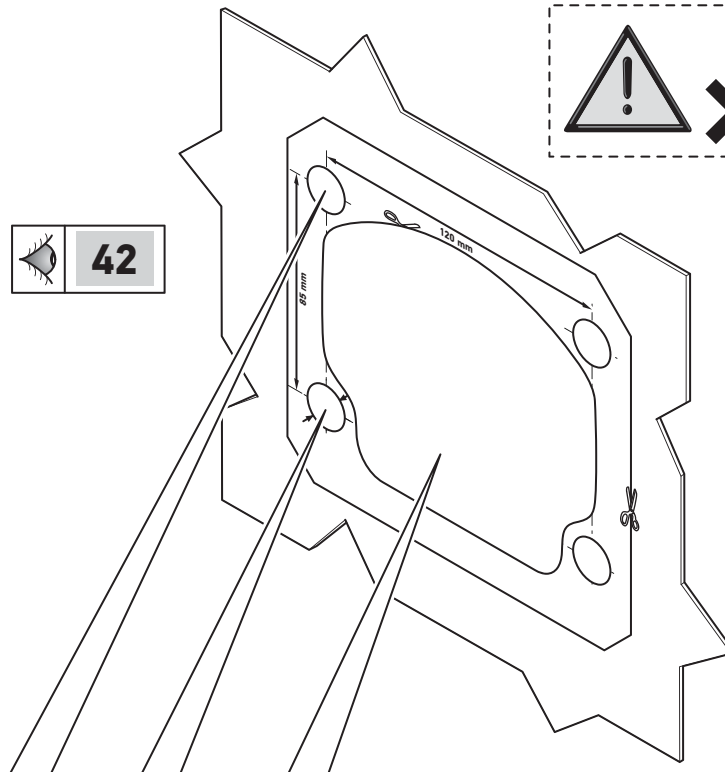
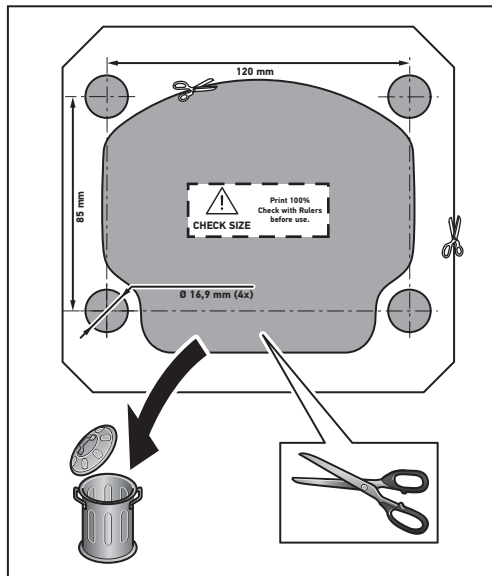
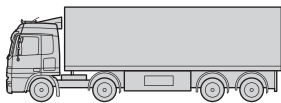






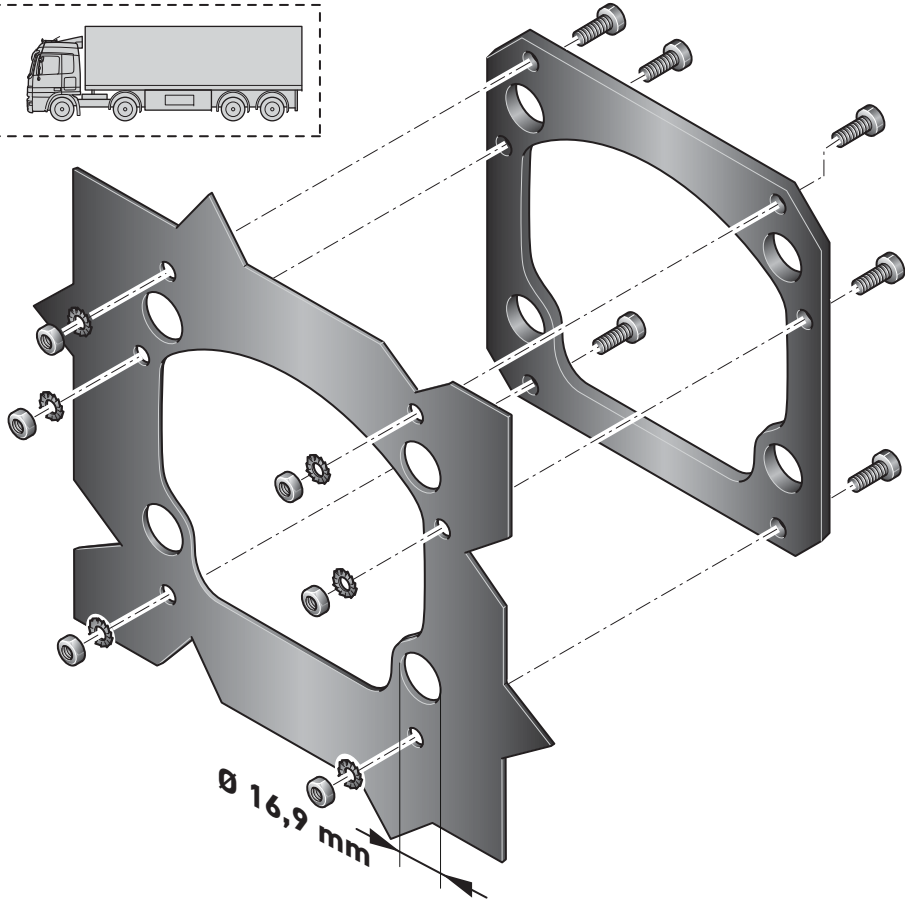
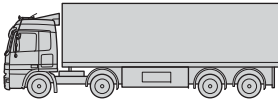
 **40**



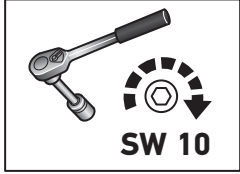


Ø 16,9 mm



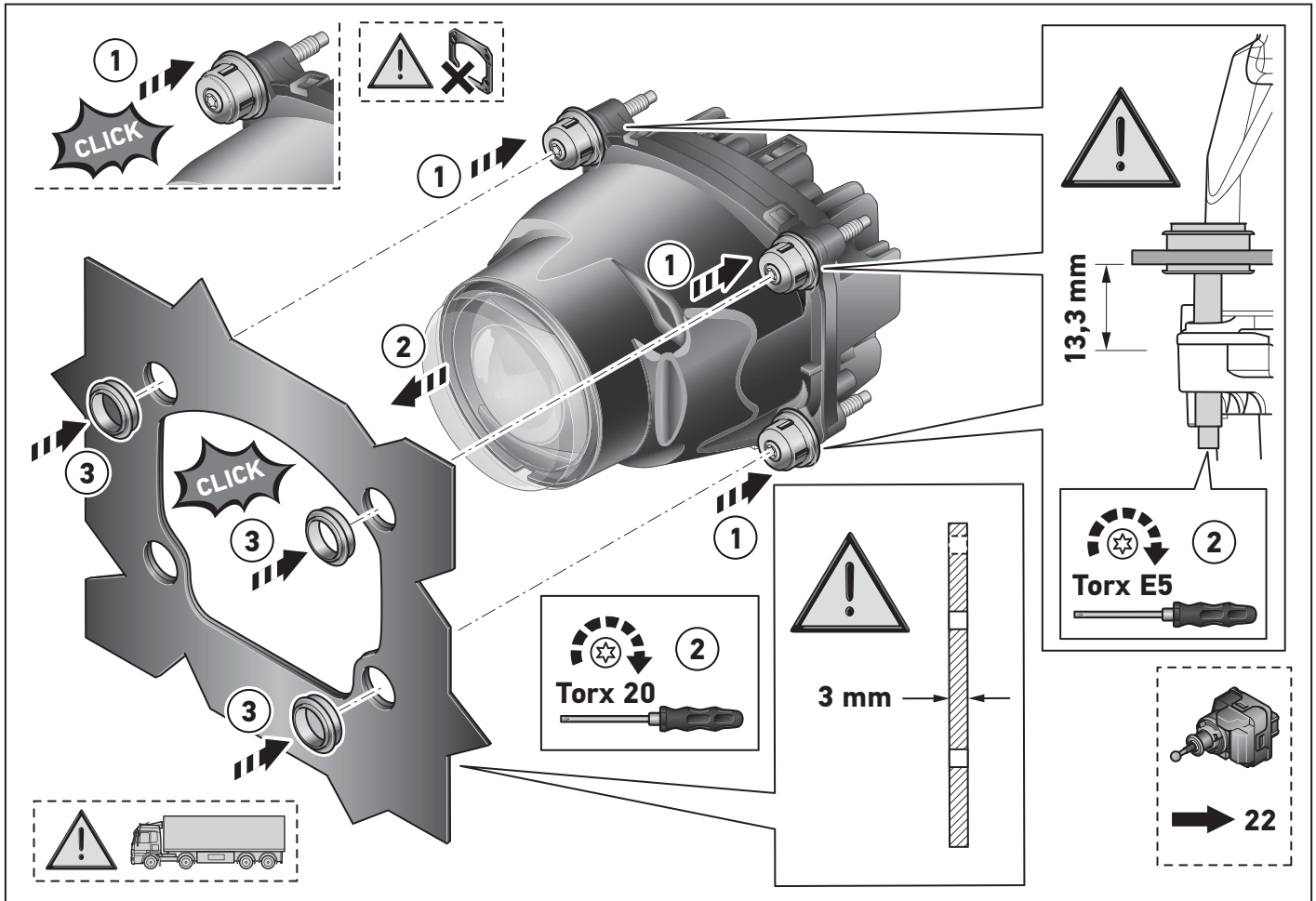


Ø 16,9 mm

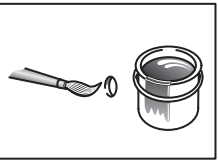
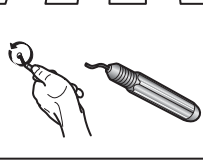
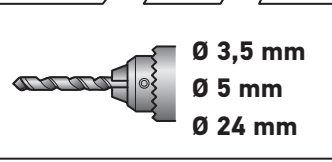
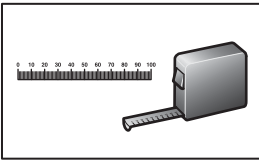
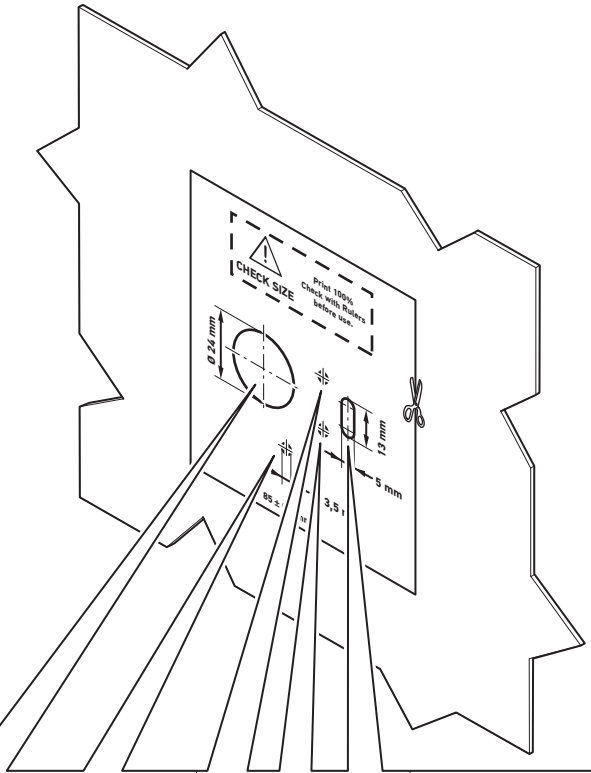
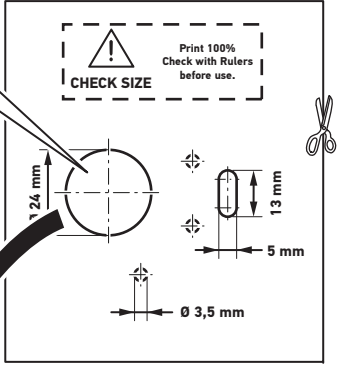
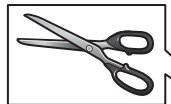


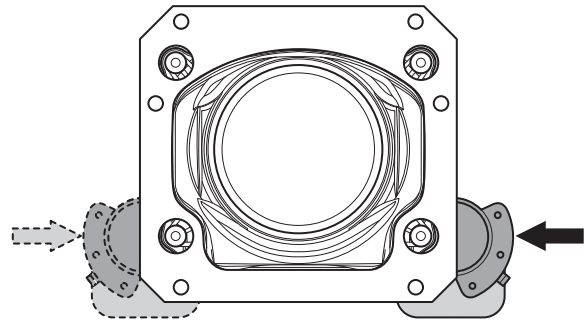
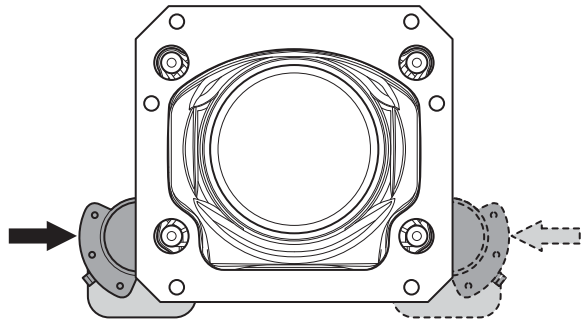
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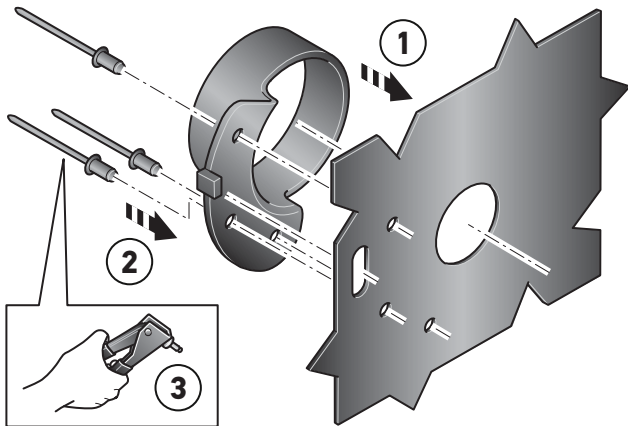


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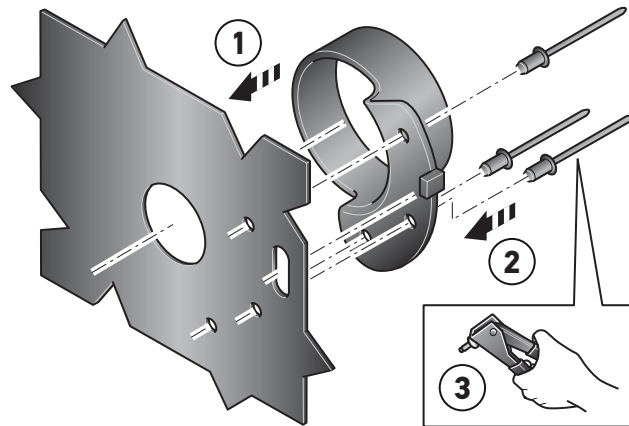


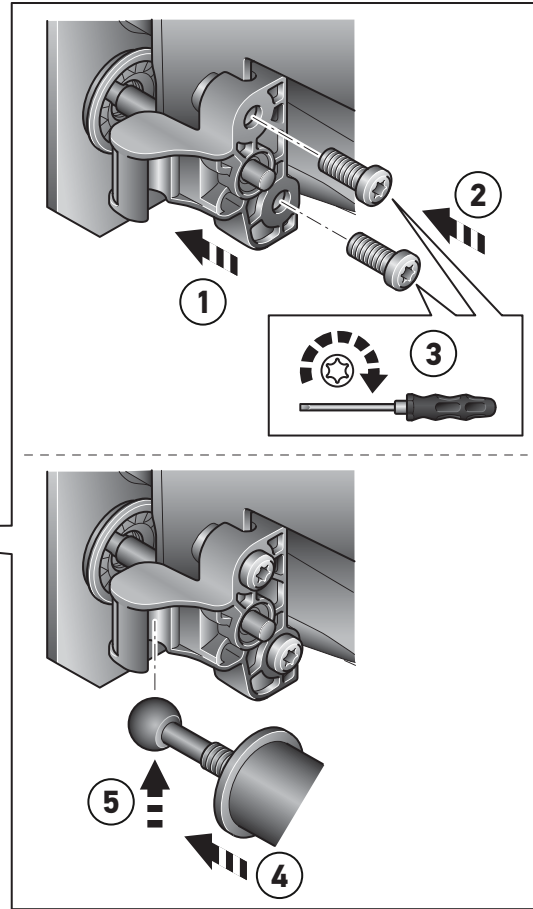
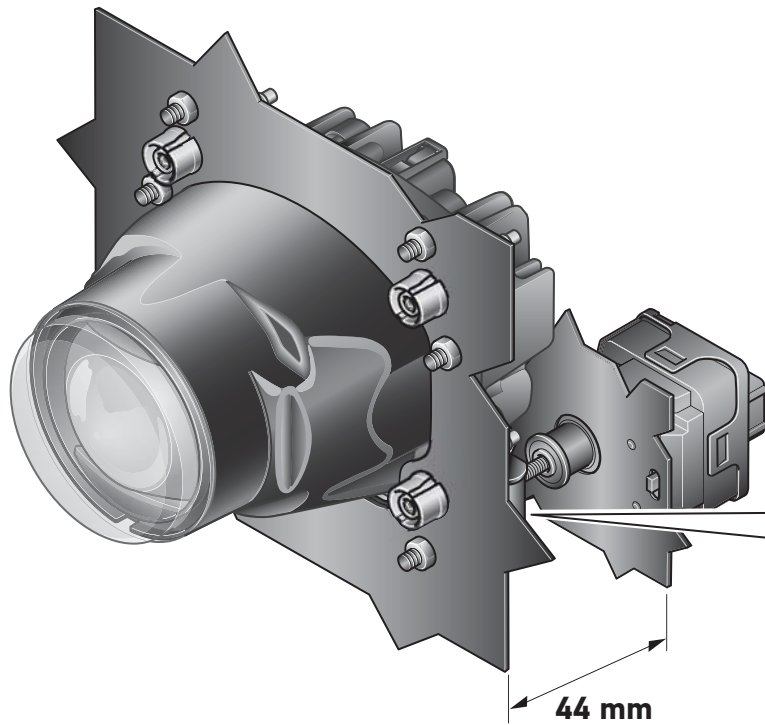


8HG 138 620-007

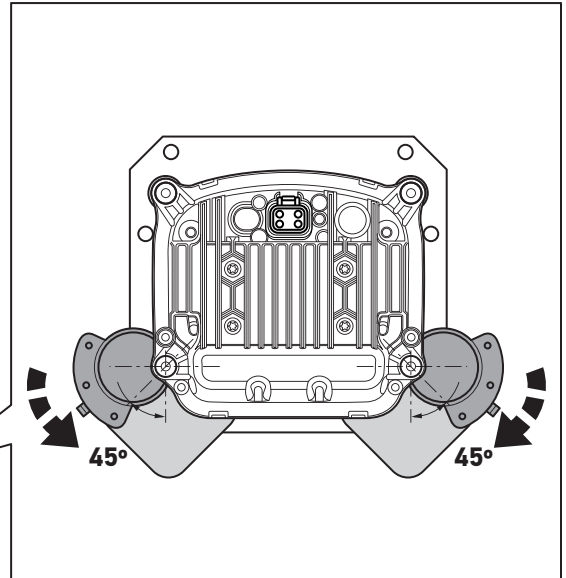
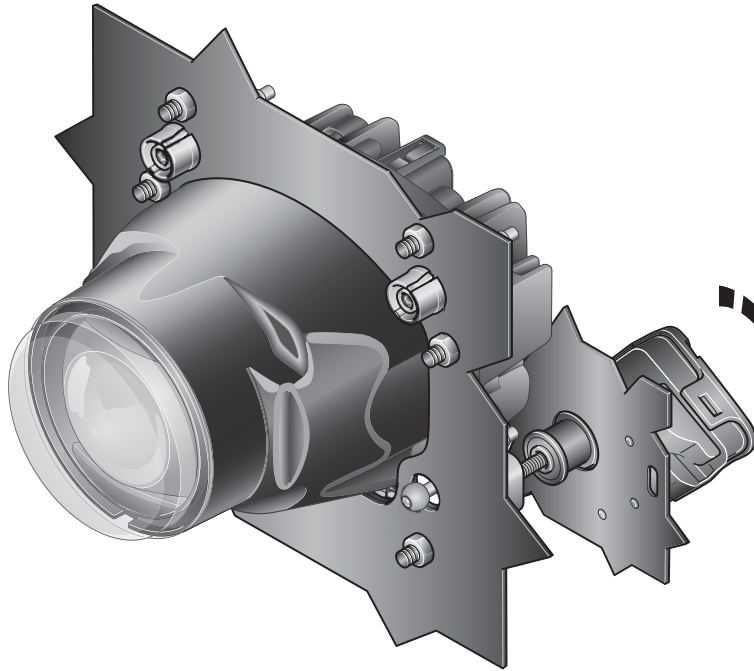


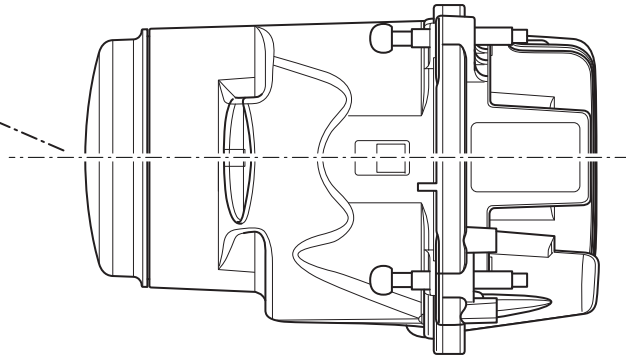
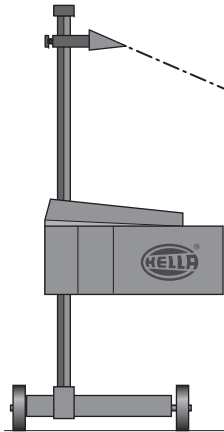
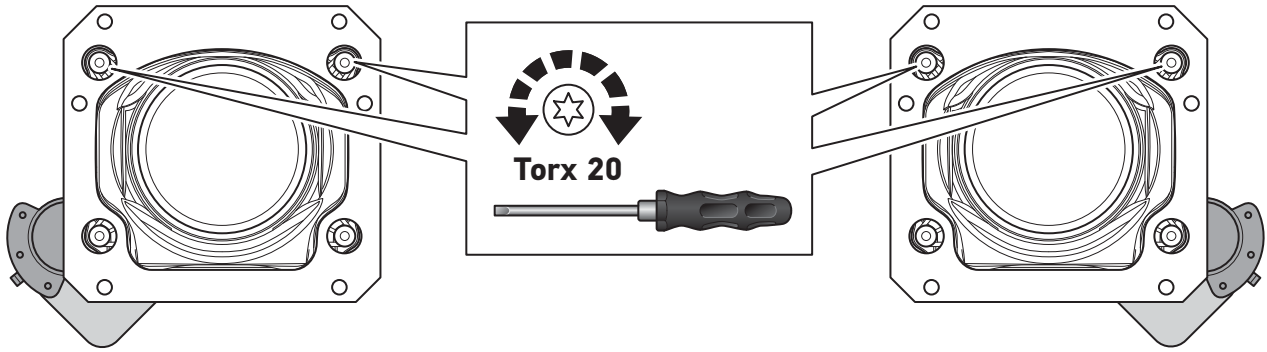
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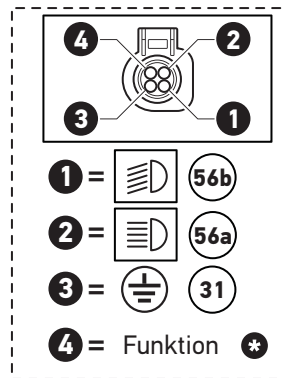
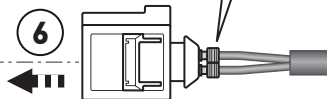
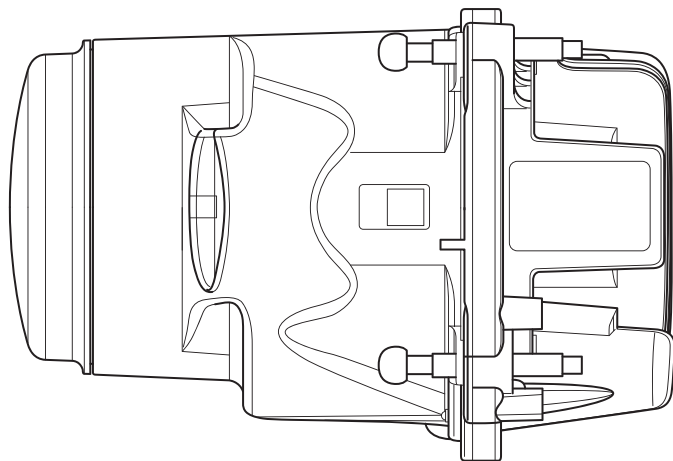
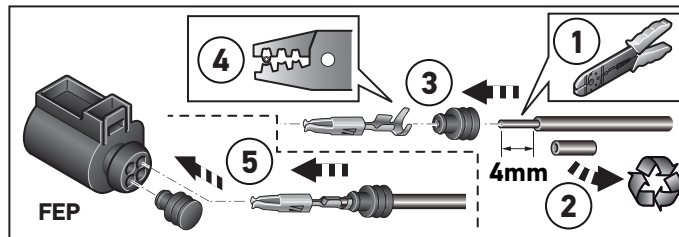


**Elektrischer Anschluss**  
**Electrical connection**  
**Branchement électrique**

**Elektrisk anslutning**  
**Elektrische aansluiting**  
**Conexión eléctrica**

**Collegamento elettrico**  
**Osaluettelo**

- (DE)** Nur wenn vorhanden.
- (EN)** Only if available.
- (FR)** Uniquement si disponible.
- (SV)** Bara om en sådan finns.
- \*** **(NL)** Alleen indien voorhanden.
- (ES)** Solo cuando sea posible.
- (IT)** Solo se disponibile.
- (FI)** Vain jos käytettävissä.

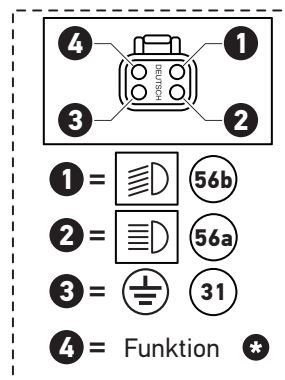
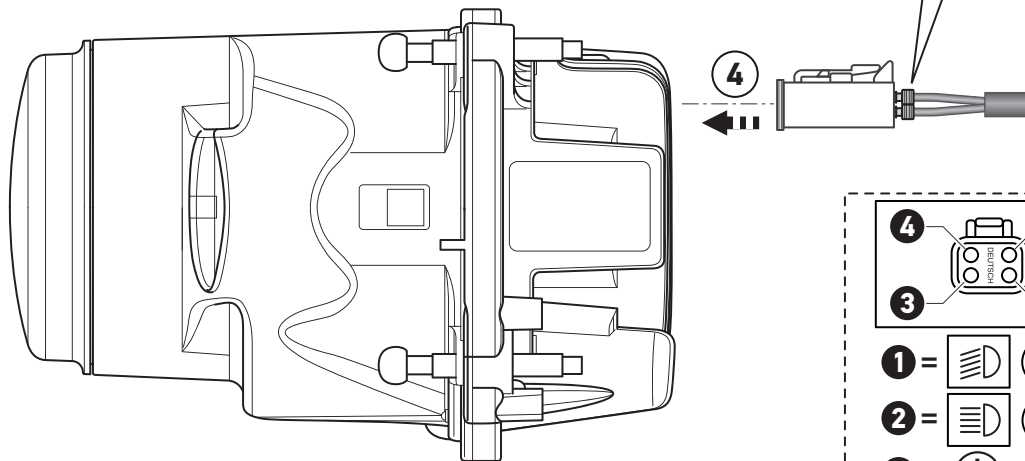
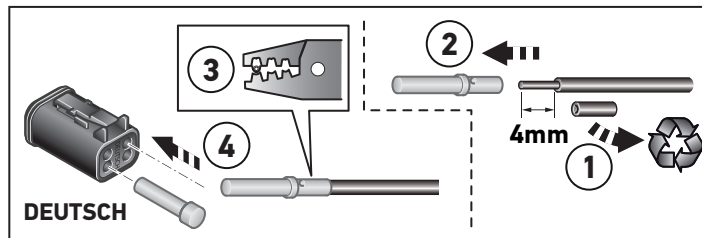


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- FI** Vain jos käytettävissä.



**DE** Für die Lichthupen- und Fernlichtfunktion müssen Ablend- und Fernlicht zusammen eingeschaltet werden.

**EN** To use the headlight flasher and high beam function, the low and main beam lights must be switched on together.

**FR** Pour la fonction appel lumineux et feux de route, le feu de croisement et le feu de route doivent être allumés ensemble.

**SV** För att ljusstuta ska fungera tillsammans med helljus måste halv- och helljus vara inkopplade samtidigt.

**NL** Voor de optische alarmsignaal- en grootlichtfuncties moeten dimlicht en grootlicht beide worden ingeschakeld.

**ES** Para la función de luz de carretera y hacer una señal con los faros, deberán encenderse a la vez las luces de cruce y carretera.

**IT** Per le funzioni dispositivo segnalazione ottica e proiettori abbaglianti, le luci anabbaglianti e abbaglianti devono essere attivate insieme.

**FI** Kaukovalvilkkua ja kaukovalotoimintoa varten lähi- ja kaukovalot on kytkettävä samanaikaisesti päälle.

<b>DE</b> Informationstext	31
<b>EN</b> Information Text	31
<b>FR</b> Texte d'information	31
<b>SV</b> Informationstext	31
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<b>IT</b> Informazioni	32
<b>FI</b> Ohjetekstit	32

**DE DEUTSCH**

Abblendlicht:	max. 20 W
Fernlicht:	max. 30 W
Fernlicht LED:	max. 10 W
Sicherung Abblendlicht:	5 A
Sicherung Fernlicht:	5 A
Betriebsspannung:	9-32 V
Max. Betriebstemperatur:	+50 °C

Die im Geltungsbereich der ECE R48 gesetzlich geforderte Ausfallkontrolle für den LED Scheinwerfer ist im Fahrzeug durch geeignete Maßnahmen sicherzustellen.

\* Das Maß muss umlaufend um das Modul eingehalten werden.

**FR FRANÇAIS**

Feux de croisement:	max. 20 W
Feu de route:	max. 30 W
Feu de route LED:	max. 10 W
Fusible Feux de croisement:	5 A
Fusible Feu de route:	5 A
Tension de service:	9-32 V
Max. Plage de températures:	+50 °C

La norme ECE R48 impose le montage d'un témoin de panne dans le véhicule lors de l'installation de projecteurs à DEL. Prendre les dispositions nécessaires pour satisfaire à la norme.

\* La dimension doit correspondre à la périphérie du module.

**NL NEDERLANDS**

Dimlicht:	max. 20 W
Grootlicht:	max. 30 W
Grootlicht LED:	max. 10 W
Zekering Dimlicht:	5 A
Zekering Grootlicht:	5 A
Bedrijfsspanning:	9-32 V
Max. Temperatuurbereik:	+50 °C

De in het toepassingsbereik van de ECE R48 wettelijk vereiste uitvalcontrole voor de LED koplamp dient in het voertuig door de juiste maatregelen te worden gewaarborgd.

\* De maat moet rondom de module worden aangehouden.

**EN ENGLISH**

Low Beam:	max. 20 W
High Beam:	max. 30 W
High Beam LED:	max. 10 W
Fuse Low Beam:	5 A
Fuse High Beam:	5 A
Operating Voltage:	9-32 V
Max. Operating temperature range:	+50 °C

The legally required failure indicator stipulated in the ECE R48 regulation for the LED headlights is to be mounted in the vehicle. Take the necessary precautions in order that these regulations are met.

\* The gauge must be kept circulating around the module.

**SV SVENSKA**

Halvljus:	max. 20 W
Helljusstrålkastare:	max. 30 W
Helljusstrålkastare LED:	max. 10 W
Säkring Halvljus:	5 A
Säkring Helljusstrålkastare:	5 A
Driftspänning:	9-32 V
Max. Driftstemperaturområde:	+50 °C

Den felkontroll som lagen kräver för området ECE R48 för LED-strålkastare ska säkerställas i fordonet genom lämpliga åtgärder.

\* Värdet måste hållas konstant för hela modulen.

**ES ESPAÑOL**

Luz de cruce:	max. 20 W
Luz antiniebla trasera:	max. 30 W
Luz antiniebla trasera LED:	max. 10 W
Fusible Luz de cruce:	5 A
Fusible Luz antiniebla trasera:	5 A
Tensión de régimen:	9-32 V
Gama de temperaturas de trabajo máx.:	+50 °C

El control de fallos que exige la ley dentro del ámbito de aplicación de la normativa ECE R48 para los faros de LED queda garantizado en el vehículo con las medidas adecuadas.

\* Las dimensiones deben ajustarse al perímetro del módulo.

**IT ITALIANO**

Proiettore anabbagliante:	max. 20 W
Luce abbagliante:	max. 30 W
Luce abbagliante LED:	max. 10 W
Fusibile Proiettore anabbagliante:	5 A
Fusibile Luce abbagliante:	5 A
Tensione di funzionamento:	9-32 V
Campo della temperatura di funzionamento max.:	+ 50 °C

Il controllo dei guasti prescritto per legge nell'ambito di applicazione della norma ECE R48 per il fanale a LED deve essere garantito sul veicolo mediante adeguati provvedimenti.

\* La misura deve essere rispettata sull'intero perimetro del modulo.

**FI SUOMI**

Läihivalot:	enint. 20 W
Asennusohjeita:	enint. 30 W
Asennusohjeita LED:	enint. 10 W
Sulake Läihivalot:	5 A
Sulake Asennusohjeita:	5 A
Käyttöjännite:	9-32 V
Toimintalämpötila:	+ 50 °C

ECE R48 -standardin voimassaoloalueella lakisääteinen LED-valonheittimien toimintahäiriön valvonta on varmistettava ajoneuvoissa sopivien toimenpiteiden avulla.

\* Arvoa on noudatettava moduulin ympärillä.



**DE** Beleuchtungsanlage auf einwandfreie Funktion hin prüfen

**EN** Check that the lighting system is working perfectly

**FR** Contrôler le bon fonctionnement de l'installation d'éclairage

**SV** Kontrollera att ljussystemet fungerar felfritt

**NL** Controleer of de verlichting goed functioneert

**ES** Comprobar que el sistema de iluminación funciona impecablemente

**IT** Controllare la perfetta funzionalità dell'impianto di illuminazione

**FI** Tarkasta valaistusjärjestelmän toiminta

**DE** Bei Fragen oder Einbauproblemen, rufen Sie bitte den HELLA Kundendienst, Großhändler an oder wenden Sie sich an Ihre Werkstatt.

**EN** If you have questions or installation problems, please call the HELLA Service, wholesaler, or turn to your garage.

**FR** Pour toutes questions ou problèmes de montage, merci de contacter le service après-vente HELLA, votre distributeur ou votre garage.

**SV** Vid frågor eller monteringsproblem, kontakta Hella kundtjänst, återförsäljaren eller din verkstad.

**NL** In geval van vragen of montageproblemen verzoeken wij u contact met de HELLA-klantenservice, de groothandel of uw dealer op te nemen.

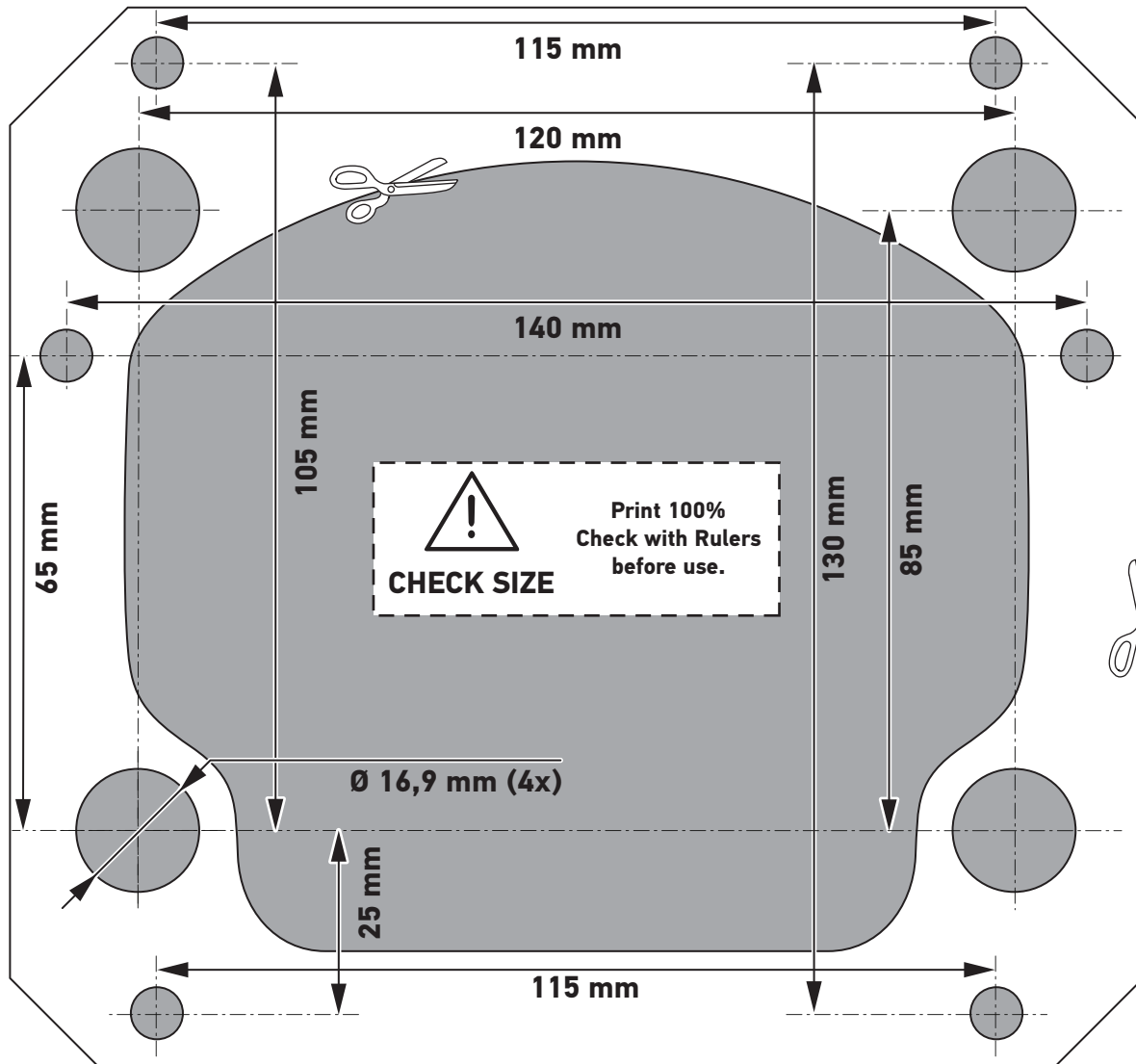
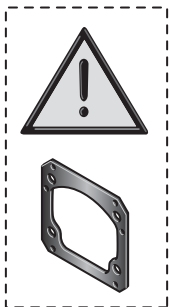
**ES** En caso de dudas o problemas de montaje, por favor, llame al Servicio postventa de Hella o al mayorista, o bien diríjase a su taller.

**IT** Per qualsiasi domanda o problemi di montaggio si prega di contattare il servizio assistenza o il proprio grossista HELLA oppure di rivolgersi alla propria officina.

**FI** Jos sinulla on kysymyksiä tai asennusongelmia, soita HELLA-asiakaspalvelulle tai tukkuliikkeelle tai käänny korjaamon puoleen.

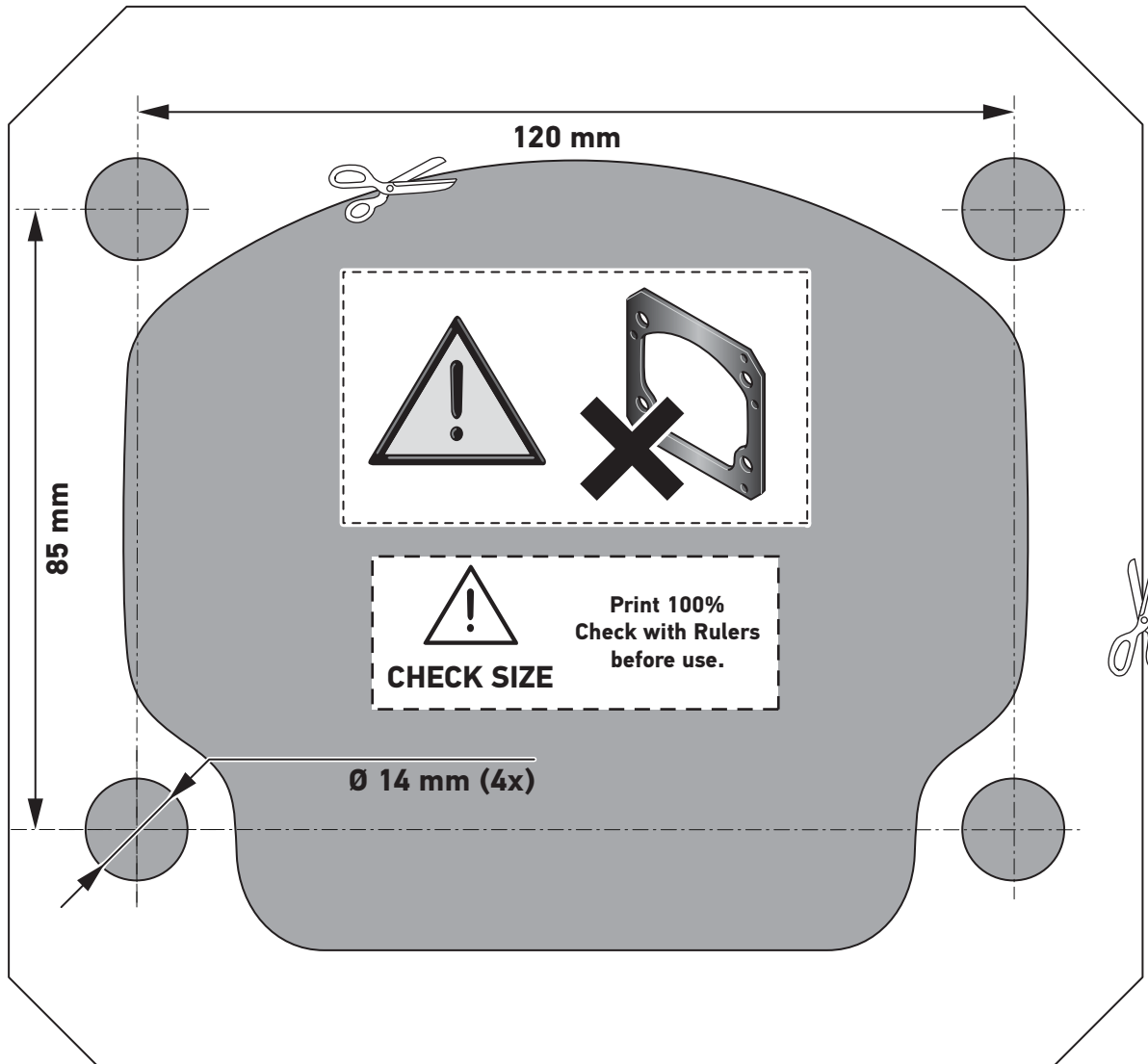


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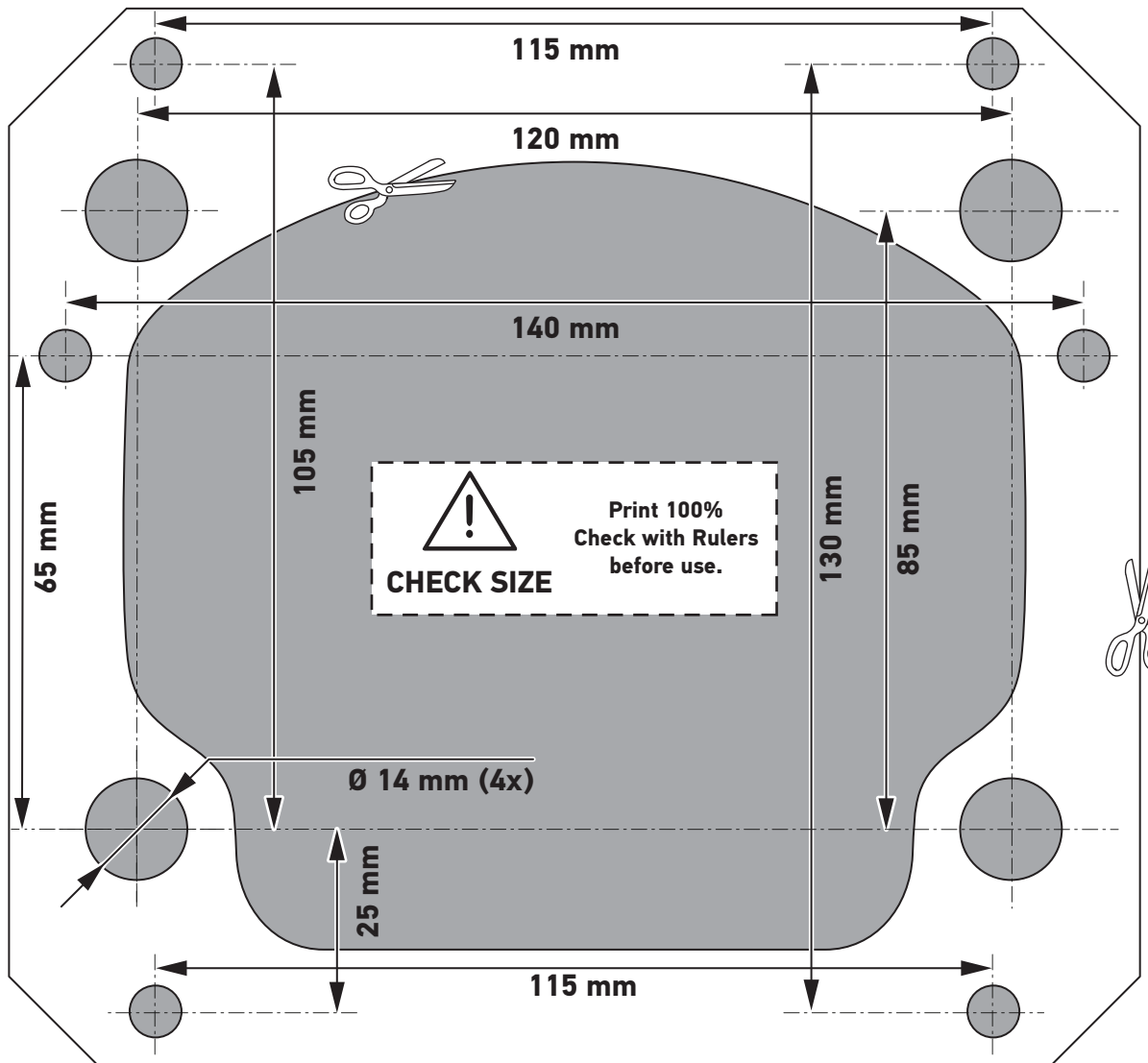
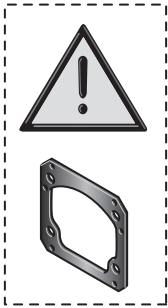


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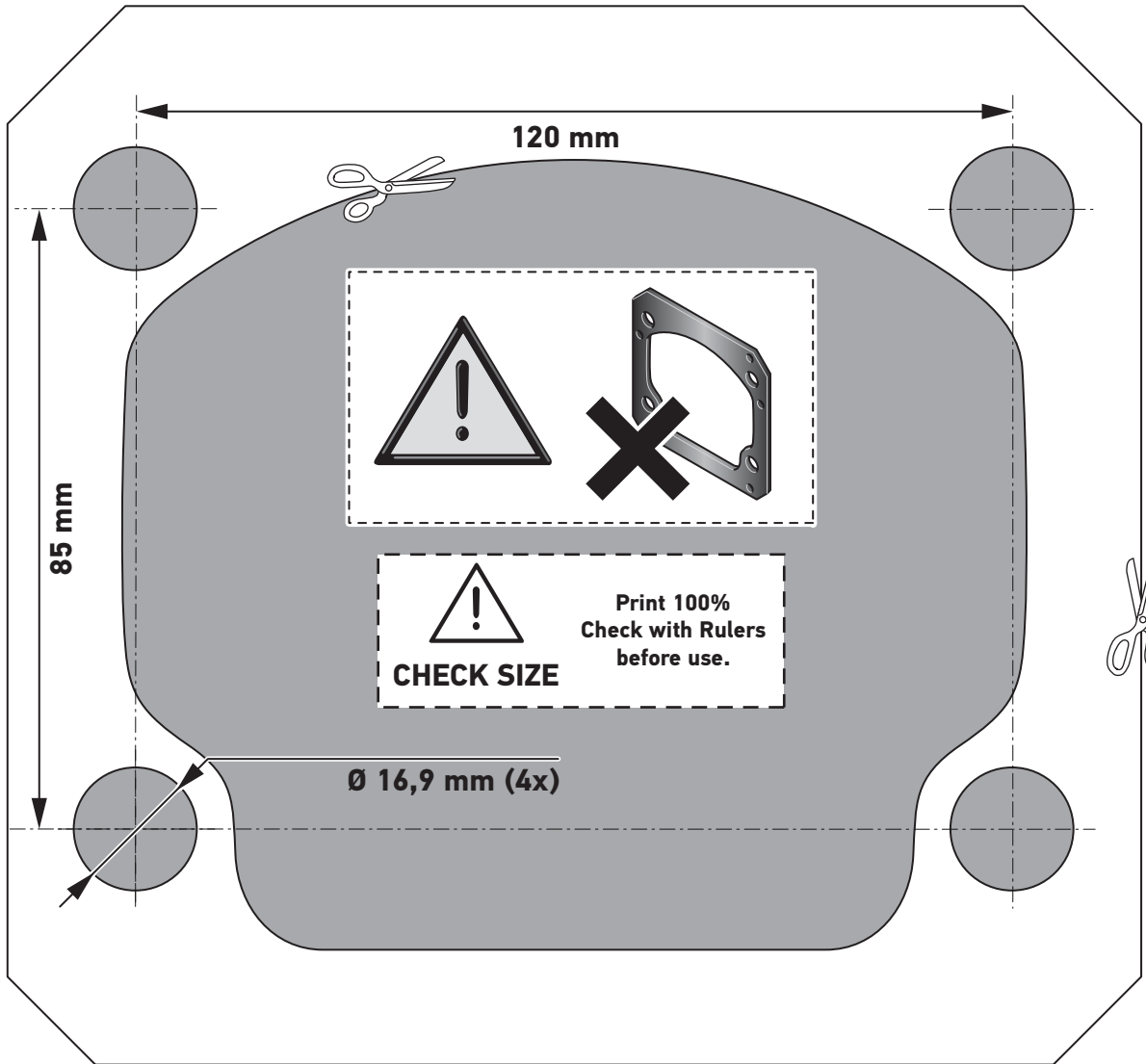
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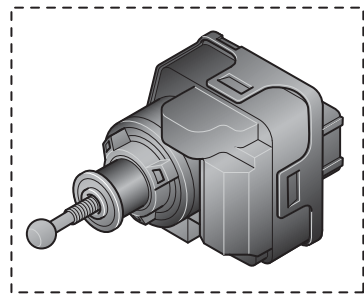
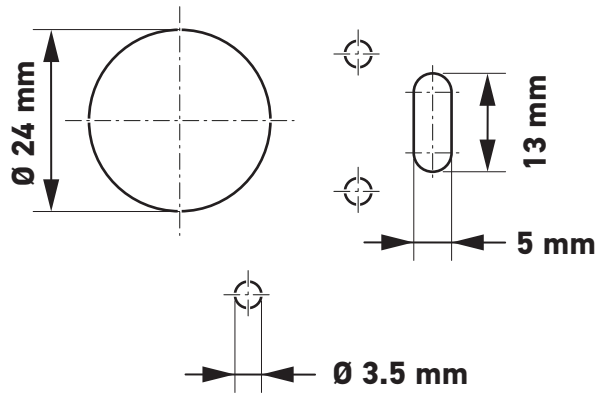




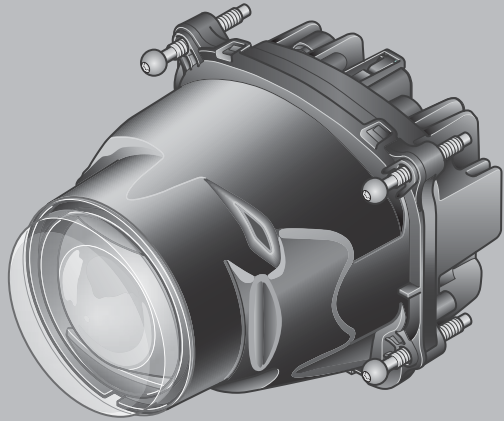
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**CHECK SIZE**

Print 100%  
Check with Rulers  
before use.







**HELLA GmbH & Co. KGaA**

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59552 Lippstadt / Germany

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