

## Headlights, servicing

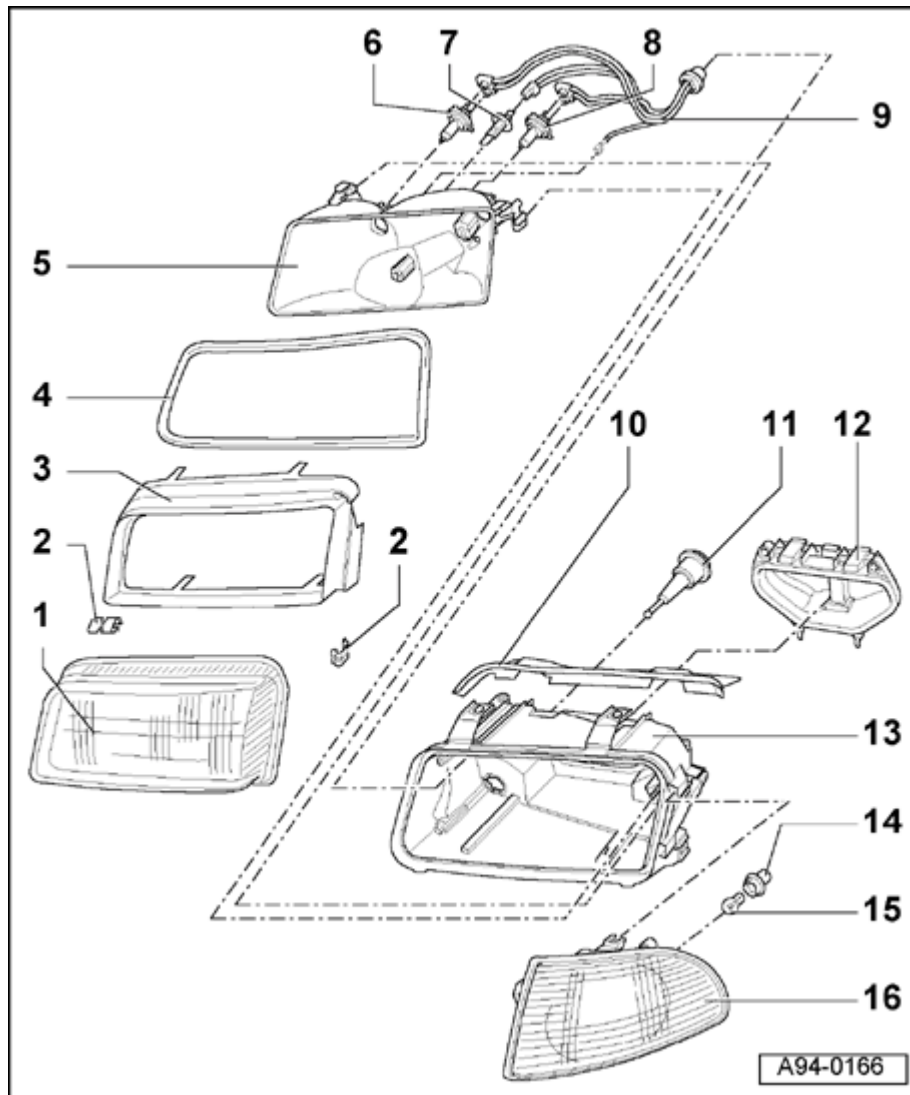
### Three-way halogen headlights, overview

#### **CAUTION!**

***Disconnect the battery Ground (GND) strap before working on the electrical system.***

#### **Notes:**

- ◆ *Before disconnecting the battery, determine the correct coding for the anti-theft radio.*
- ◆ *After reconnecting the battery, check and activate the vehicle's electrical equipment (radio, clock, comfort and convenience features, etc.) as outlined in this Repair Manual or the Owner's Manual.*

**Notes:**

- ◆ Some procedures could affect the headlight beam adjustment, requiring that it be reset ⇒ [Page 94-8](#) .

⇒ [Repair Manual, Maintenance](#)

- ◆ Adjusting spray for headlights washer nozzles ⇒ [Page 92-17](#) .

**1 - Diffuser lens****2 - Retaining clamps (7x)**

- ◆ To remove, carefully pry out using screwdriver
- ◆ To install, press in by hand

**3 - Headlight frame**

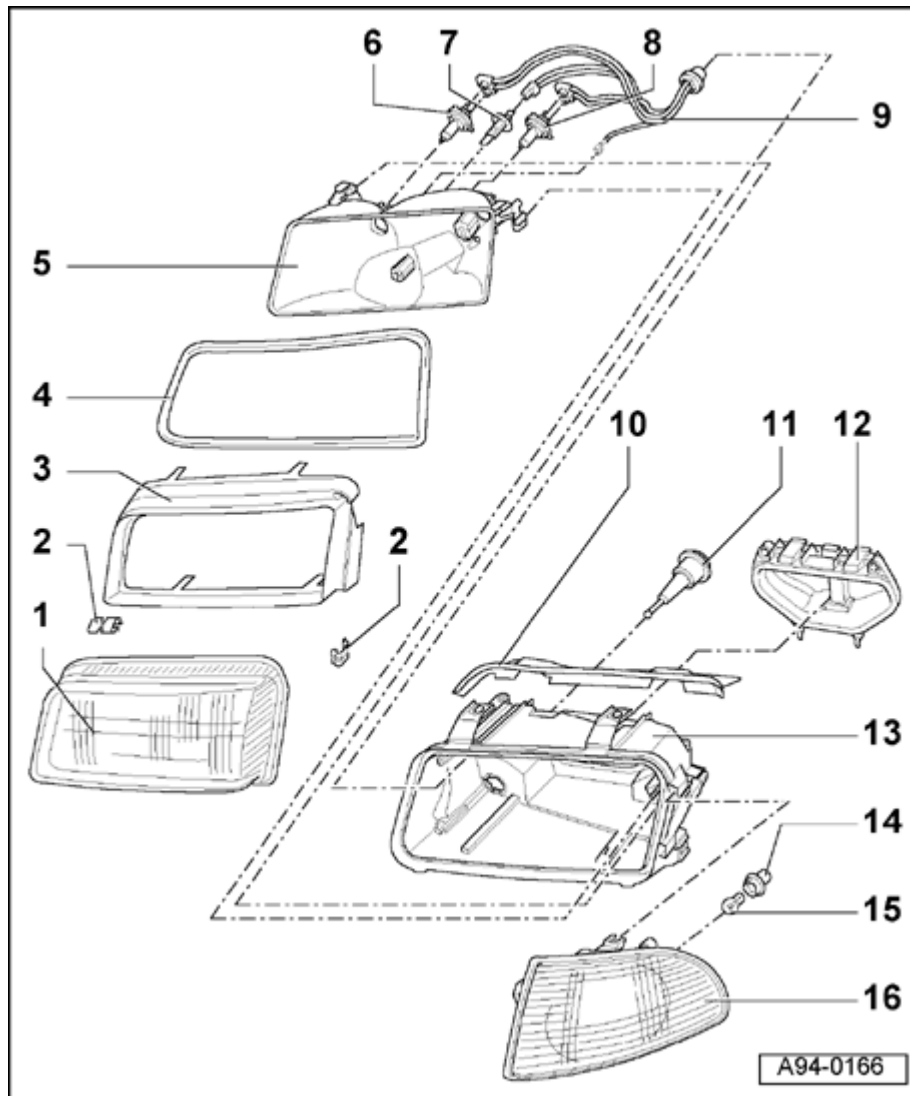
- ◆ Locked within headlight housing

**4 - Seal for lens**

- ◆ Always replace

**5 - Reflector**

- ◆ To remove, clip out of retaining rings
- ◆ To install, carefully press into retaining rings
- ◆ Do not touch inside of reflector

**6 - High beam bulb**

- ◆ 12 V, 55 W (H7)

**7 - Front fog light bulb**

- ◆ 12 V, 55 W (H1)

**8 - Low beam bulb**

- ◆ 12 V, 55 W (H7)

**9 - Wiring with harness connector****10 - Trim strip**

- ◆ Clipped onto headlight housing

**11 - Fixed bearing for reflector**

- ◆ Only on vehicles without headlight automatic vertical aim control

**12 - Cover**

- ◆ Press lock down and remove toward rear

**13 - Headlight housing****14 - Bulb socket****15 - Turn signal bulb**

- ◆ 12 V, 21 W, orange

**16 - Turn signal lens**

- ◆ Removing and installing ⇒ [Page 94-21](#)

## High intensity gas discharge (Xenon) headlights, overview

### **CAUTION!**

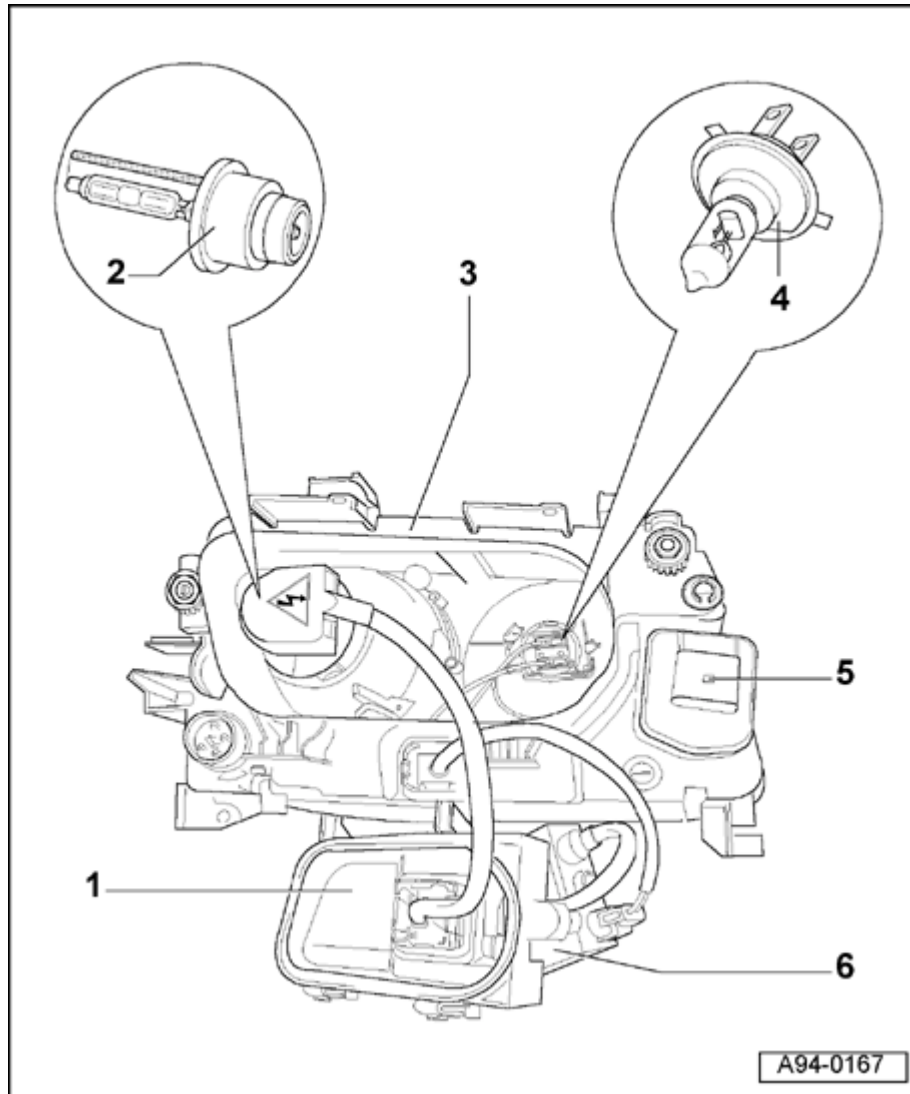
**Disconnect the battery Ground (GND) strap before working on the electrical system.**

### **Notes:**

- ◆ *Before disconnecting the battery, determine the correct coding for the anti-theft radio.*
- ◆ *After reconnecting the battery, check and activate the vehicle's electrical equipment (radio, clock, comfort and convenience features, etc.) as outlined in this Repair Manual or the Owner's Manual.*
- ◆ *Some procedures could affect the headlight beam adjustment, requiring that it be reset ⇒ [Page 94-8](#) .*

⇒ [Repair Manual, Maintenance](#)

- ◆ *Adjusting spray for headlights washer nozzles ⇒ [Page 92-17](#) .*



**1 - Housing cover**

**2 - Xenon bulb**

◆ 12 V, 35 W

◆ Replacing ⇒ [Page 94-12](#)

**3 - Headlight housing**

**4 - High beam bulb**

◆ 12 V, 55 W (H7)

◆ Replacing ⇒ [Page 94-14](#)

**5 - Headlight beam adjusting motor -V48/-V49-**

◆ Removing and installing ⇒ [Page 94-11](#)

**6 - Igniter for gas discharge lamps -N195-(Xenon)**

◆ Removing and installing ⇒ [Page 94-15](#)

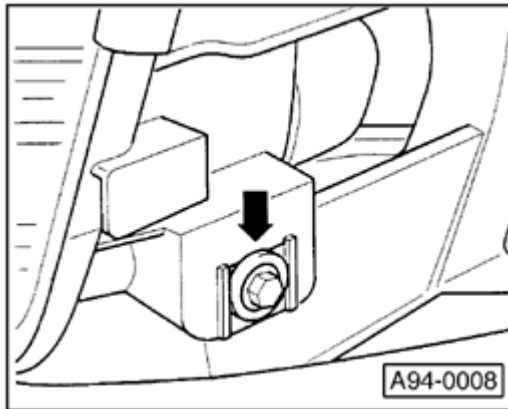
## Headlights, removing and installing

### Note:

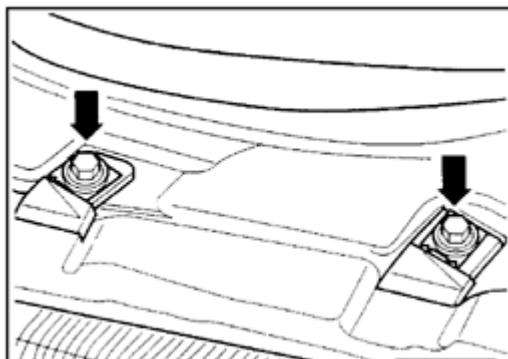
*Protect bumper using cloth backed tape in headlight area to prevent damage to paint.*

### Removing

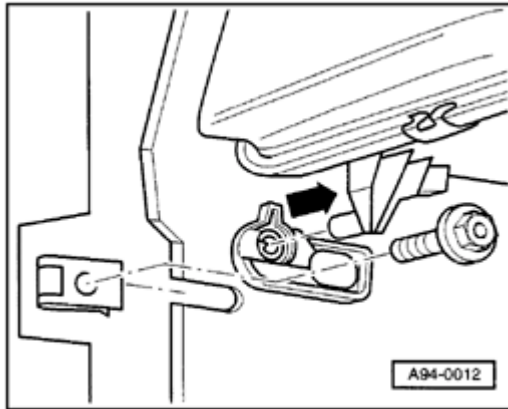
- Remove turn signal ⇒ [Page 94-21](#) .

**A**

- Remove bolt (arrow) 6 Nm (53 in. lb).

**A**

- Remove two bolts (arrows) 6 Nm (53 in. lb).
- Disconnect headlight harness connector.
- Disconnect headlight beam adjusting motor harness connector.

**A**

- Pull headlight out from peg mount at side (approx. 15 mm), lift slightly and then lift out carefully toward front, rotating if necessary.

**Installing**

- Install in reverse order of removal.
- Always align headlights to adjacent body panels (gap clearances) before securing.
- Adjust headlights after assembly ⇒ [Page 94-8](#) .

## Headlights, adjusting

Instructions and specifications on headlight adjustment:

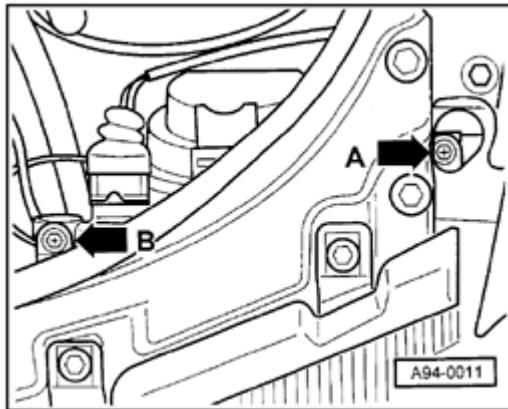
⇒ [Repair Manual, Maintenance](#)

### Notes:

- ◆ *For vehicles with high intensity gas discharge (Xenon) headlights, the Diagnostic Trouble Code (DTC) memory must be checked and erased before each manual adjustment of the adjusting screws. The basic adjustment is then carried out. ⇒ Headlight automatic vertical aim control On board Diagnostic (OBD), initiating, ⇒ [Page 01-217](#) .*
  
- ◆ *The aimer must be used for the adjustment.*

⇒ [Repair Manual, Maintenance](#)

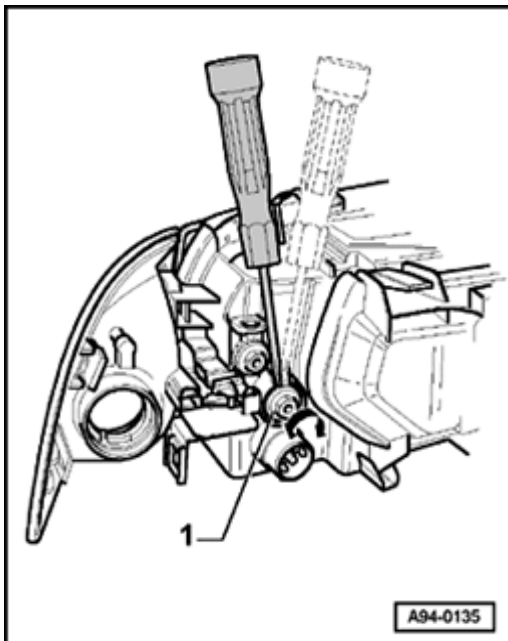




- A**
- Change headlight beam adjustment by turning adjusting screws -A- and/or -B- (use Phillips-head screwdriver or hex-wrench).

The illustration shows the left headlight:

Bosch
A - Lateral adjustment
B - Height adjustment

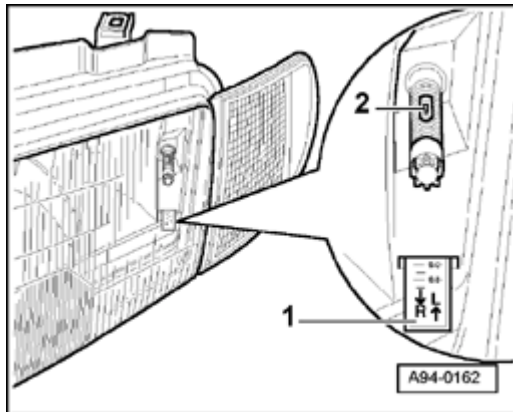


- A**
- Use screwdriver for lateral adjustment -1-.

**Note:**

*The lateral adjustment must be set to "0."*

94-10



A

- Checking lateral adjustment
- 1 - Lateral adjustment indicator
- 2 - Measuring bubble

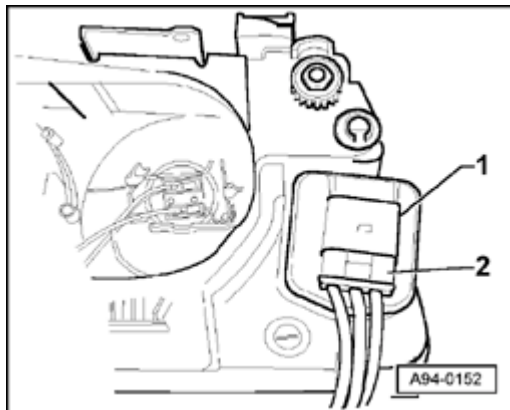
## Headlight beam adjusting motor (high intensity gas discharge -Xenon-headlights), removing and installing

### Note:

*Always adjust headlights after headlight beam adjusting motors are removed, installed or replaced ⇒ [Page 94-8](#) .*

### Removing

- For right headlight, remove back portion of intake air duct.
- Remove cover from headlight housing.
- Release headlight beam adjusting motor -1- on right headlight by rotating clockwise and on left headlight by rotating counterclockwise.
- Release ball joint from its socket by pushing laterally to left on right headlight and push to right on left headlight.
- Disconnect harness connector -2-.



### Installing

- Install in reverse order of removal.

## High intensity gas discharge (Xenon) headlight bulbs, replacing

Replacing Xenon bulb for low beam

Removing

- Remove cover from headlight housing.

**WARNING!**

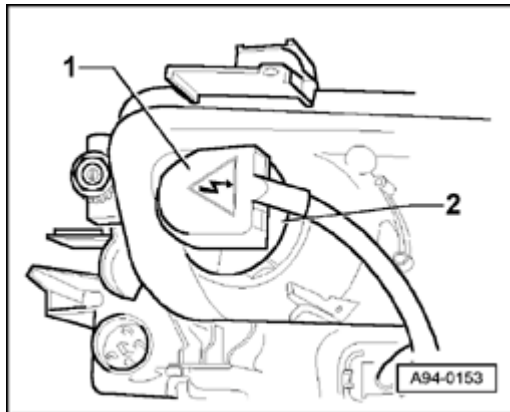
**HIGH VOLTAGE!**

**Disconnect the battery Ground (GND) strap before working on parts of the Xenon headlight which are labeled with the yellow high voltage symbol.**

**Notes:**

- ◆ *Before disconnecting the battery, determine the correct coding for the anti-theft radio.*
- ◆ *After reconnecting the battery, check and activate the vehicle's electrical equipment (radio, clock, comfort and convenience features, etc.) as outlined in this Repair Manual or the Owner's Manual.*

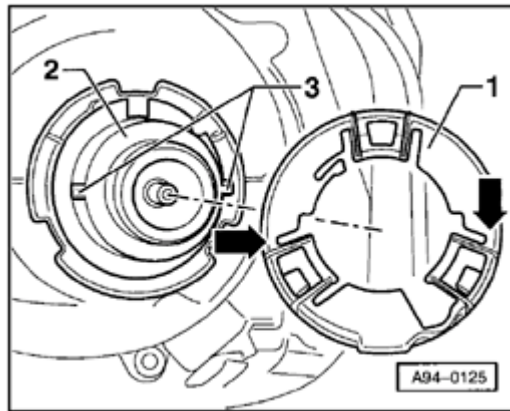
94-13



- A**
- Remove harness connector -1- on Xenon headlight and retaining ring -2- by rotating counterclockwise.

### Installing

- Insert new bulb into housing without touching glass with bare hands.

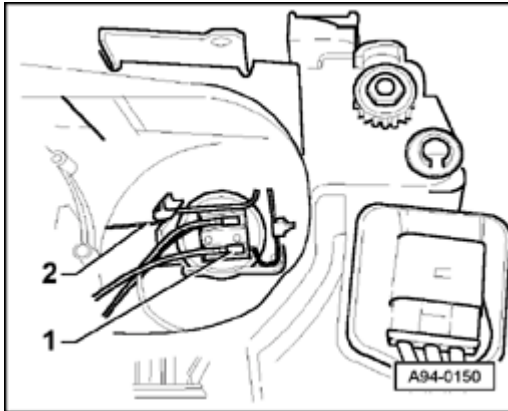


- A**
- Place retaining ring -1- on catches -3- of Xenon lamp -2- with two recesses (arrows) and secure by turning clockwise.
  - Reconnect harness connector and close housing cover.

## Replacing high beam bulbs

### Removing

- Remove back portion of intake air duct on right headlight.
- Remove cover from headlight housing.



- Disconnect harness connector -1-.
- Release bulb retaining spring -2- and remove from housing.

### Installing

- Insert new bulb into housing without touching glass with bare hands.
- Secure bulb with bulb retaining spring.
- Reconnect harness connector and close housing cover.
- Secure housing cover with bulb retaining spring.

## Ignitor for gas discharge lamps -N195- (Xenon), removing and installing

### **WARNING!**

### **HIGH VOLTAGE!**

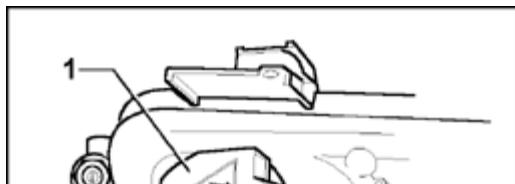
**Disconnect the battery Ground (GND) strap before working on parts of the Xenon headlight which are labeled with the yellow high voltage symbol.**

### **Notes:**

- ◆ *Before disconnecting the battery, determine the correct coding for the anti-theft radio.*
- ◆ *After reconnecting the battery, check and activate the vehicle's electrical equipment (radio, clock, comfort and convenience features, etc.) as outlined in this Repair Manual or the Owner's Manual.*

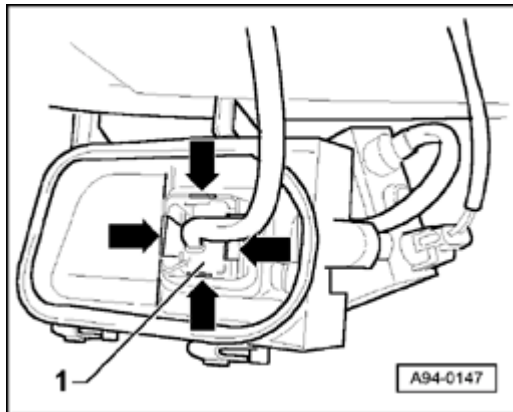
### **Removing**

- Remove cover from headlight housing.
- Remove harness connector -1- on Xenon bulb by rotating counterclockwise.



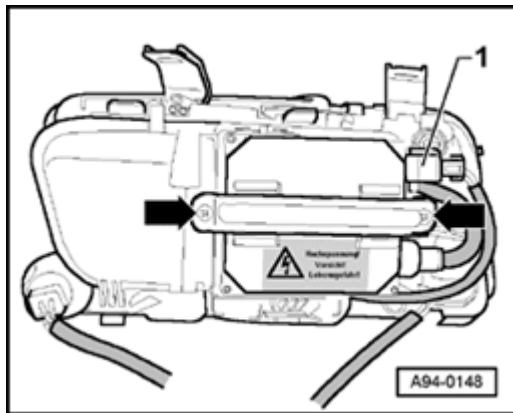
A

94-16



A

- Remove retainer -1- in housing cover by pressing catches (arrows).
- Guide harness connector for Xenon bulb through opening in cover.



A

- Disconnect harness connector -1- from ignitor's harness connector.
- Remove locking plate for ignitor by loosening screws (arrows).
- Remove starter from housing.

### Installing

- Install in reverse order of removal.