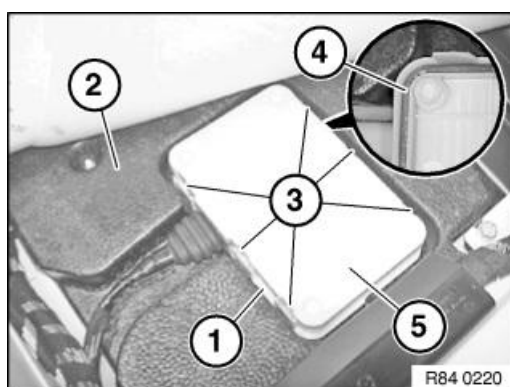


**Important!**

Read and comply with notes on protection against electrostatic damage ([ESD protection](#)).

**Necessary preliminary tasks:**

- Remove [left front seat](#)
- Remove [front left entrance cover strip](#)
- Fold back carpet for passenger compartment at front left in direction of travel



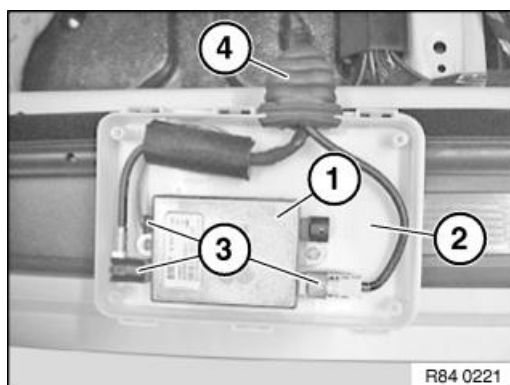
Remove USB hub protective socket (1) from footwell insert (2).

Unlock catches (3) with a suitable tool and remove USB hub protective socket cover (5).

Installation:

Make sure USB hub protective socket cover (5) engages correctly on USB hub protective socket lower section.

Seal (4) must not be damaged; if necessary, replace USB hub protective socket cover (5).



Remove USB hub (1) from USB hub protective socket lower section (2).

Installation:

Make sure rubber grommet (4) is correctly seated on USB hub protective socket lower section (2).

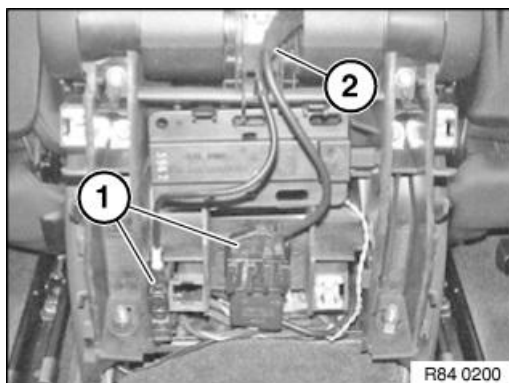
Disconnect plug connection (3).

**Special tools required:**

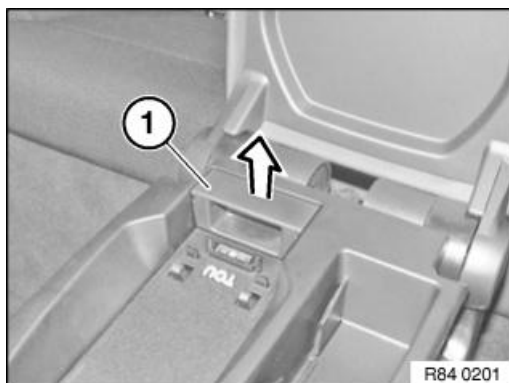
- [00 9 317](#)

**Necessary preliminary tasks:**

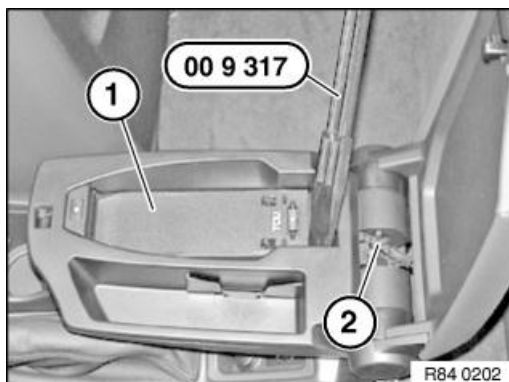
- Remove [trim on storage compartment at rear](#)



Disconnect plug connection (1). *Installation:*
Ensure correct cable routing (2)!



Remove cover (1) in direction of arrow.



Lift eject box (1) with special tool [00 9 317](#) out of centre armrest.
Feed out line (2) and remove eject box (1).

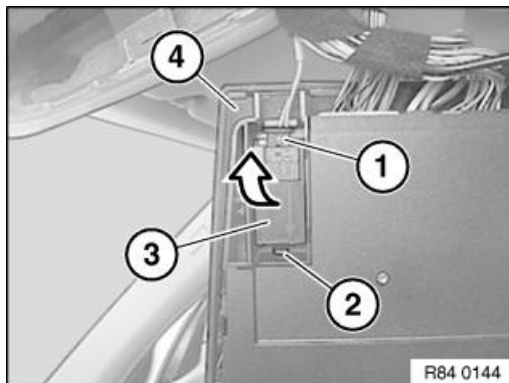
Installation:

Ensure correct cable routing.



Necessary preliminary tasks:

- Remove [roof switch cluster](#)



Disconnect plug connection (1).

Unlock catch (2) and feed hands-free microphone (3) in direction of arrow out of roof switch cluster (4).

Installation:

Arrow on hands-free microphone (2) must point in direction of travel.

84 11 660 Removing and installing/replacing telematics control unit (TCU) (option SA633/SA639)



Important!

Read and comply with notes on protection against electrostatic discharge ([ESD protection](#)).



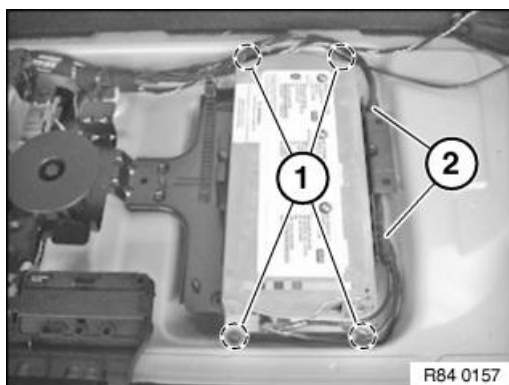
Note:

Comply with notes and notes on [handling optical fibres](#).

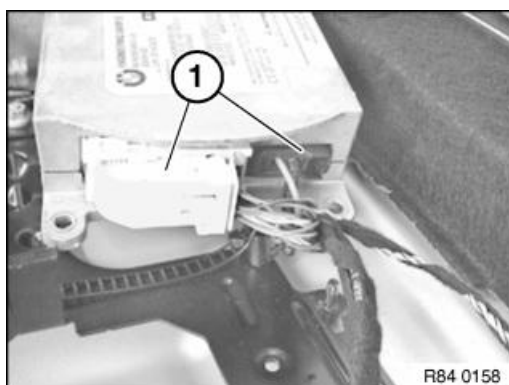


Necessary preliminary tasks:

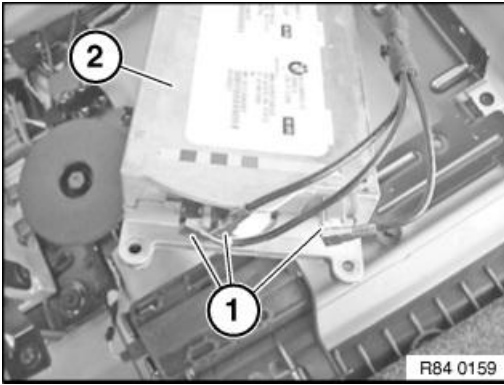
- Disconnect [battery earth lead](#)



Release nuts (1) and unclip cable clips (2).



Unlock plug connections (1) and disconnect.



Unlock and disconnect plug connections of aerial lines (1).
Remove TCU (2).

Installation note:

Observe colour coding of aerial connectors (1).



Replacement with option SA633/SA639:

- Carry out [vehicle programming/encoding](#)
- Via Diagnosis and Information System:
 - Service functions
 - Start subsequent assessment

For vehicles with Teleservices optional equipment:

- Update services via menu in the central information display.



Important!

Read and comply with notes on protection against electrostatic damage ([ESD protection](#)) .



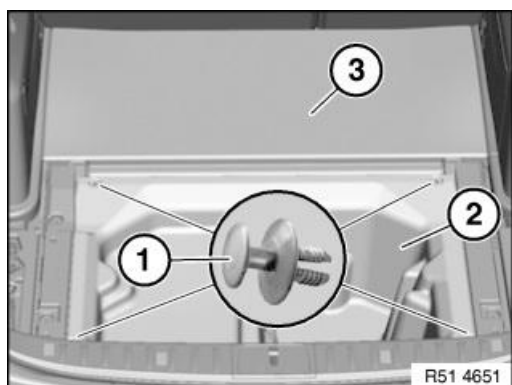
Note:

Comply with notes and instructions on [handling optical fibres](#) .



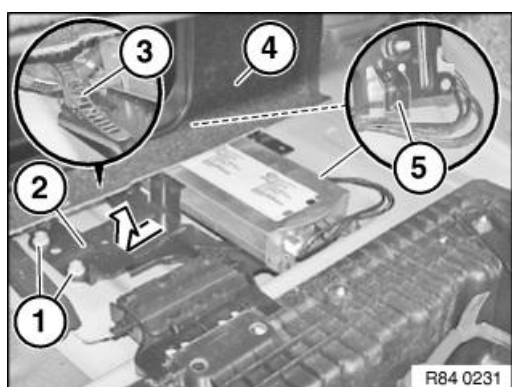
Necessary preliminary tasks:

- Clamp off [battery negative lead](#)
- Remove [luggage compartment floor trim](#)



E91:

Release retaining clips (1) and remove storage pan (2).
Fold panel (3) upwards.



E88/E84/E93:

Unscrew nuts (1).

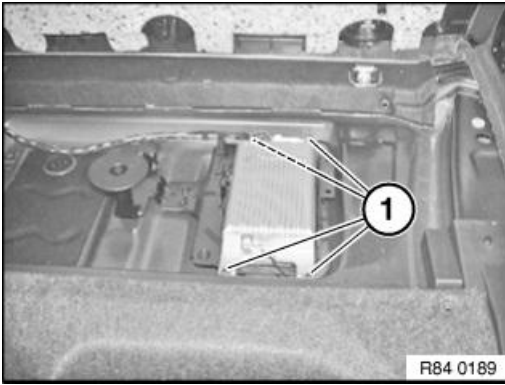
Remove holder for telematics control unit / SES (2) in direction of arrow from body.

Raise panel for luggage compartment partition (4) slightly and feed out holder for telematics control unit / SES (2) in direction of luggage compartment.

Release wiring harness fastener (3) from holder for telematics control unit / SES (2).

Installation:

Make sure guides (5) are correctly seated in associated body holders.
Make sure wiring harness is correctly laid.



Unscrew nuts (1).

Remove charging hands-free electronics and disconnect associated plug connections.



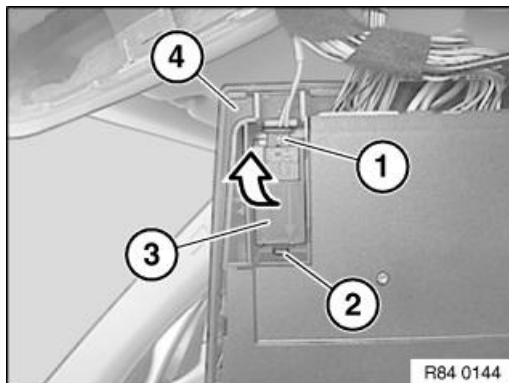
Replacement:

- Carry out [vehicle programming/coding](#)
- If necessary, log mobile phone on to vehicle



Necessary preliminary tasks:

- Remove [roof switch cluster](#)



Disconnect plug connection (1).

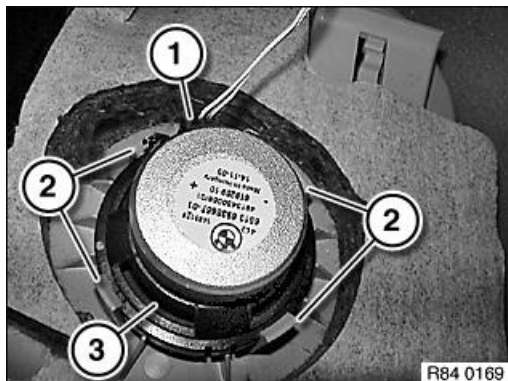
Unlock catch (2) and feed hands-free microphone (3) in direction of arrow out of roof switch cluster (4).

Installation:

Arrow on hands-free microphone (2) must point in direction of travel.

**Necessary preliminary tasks:**

- Remove [trim for pedal assembly](#)



Disconnect plug connection (1).

If necessary, release cable tie from catches (2).

Unlock catches (2) and remove speaker (3) from mounting.

Installation:

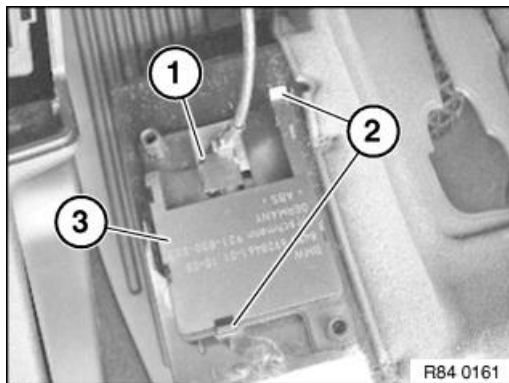
Catches (2) must not be damaged.

Guide lugs of mounting must be seated in grooves of speaker (3).

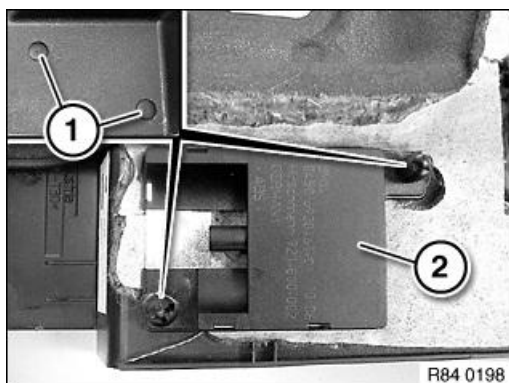
Speaker (3) must snap audibly into place in mounting.

**Necessary preliminary tasks:**

- Remove [pedal assembly trim](#)

**Version A:**

Disconnect plug connection (1) and unclip aerial (3) from mountings (2).

**Version B:**

Disconnect associated plug connection.

Release retaining clips (1).

Installation:

Do not damage pedal assembly panelling in working area.

Replace damaged retaining clips.

Remove Bluetooth aerial (2).

65 20 030 Removing and installing/replacing empty housing for roof-mounted aerial



Special tools required:

- [65 2 010](#)



Warning!

Risk of injury!

Special tool has sharp edges!

Adapt working height to vehicle height with non-tilting and non-slip platform.

Handle special tool correctly and make sure it is positioned without tilting or slipping on the vehicle.

Special tool 65 2 010 is only permitted in conjunction with a suitable stepladder, see Service Information 08 13 08 479.

Risk of damage!

In order to prevent dents in the roof, do not exert any pressure on the roof.

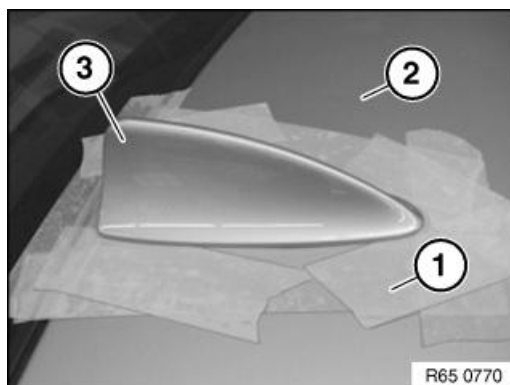


Important!

Note to customer:

In order to guarantee a permanent connection and adhesive curing:

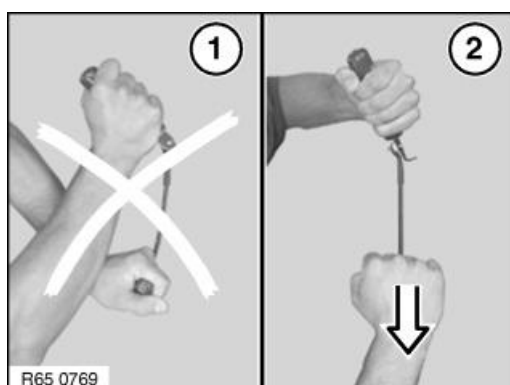
After bonding the empty housing for the roof-mounted aerial, wait 24 hours before driving the vehicle through a car wash.



Note:

Clean roof.

Mask roof (2) around empty housing for roof-mounted aerial (3) with yellow plastic adhesive tape (1). To do so, slide plastic adhesive tape under empty housing (3) slightly.

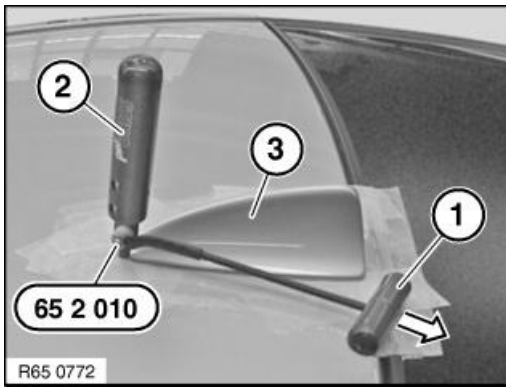


Important!

Risk of damage!

Make sure your arms do not cross over (1) when holding special tool [65 2 010](#).

Pull handle must always be ahead of the guiding hand (2).



Important!

Risk of damage!

To avoid damaging the paintwork on the roof and empty housing (3), do not fit special tool [65 2 010](#) skew.

Cut through adhesive bead all round with special tool [65 2 010](#).

Pull on handle (1) and align blade on handle (2).

Note:

Use sharp blades only. Replace blade if necessary.

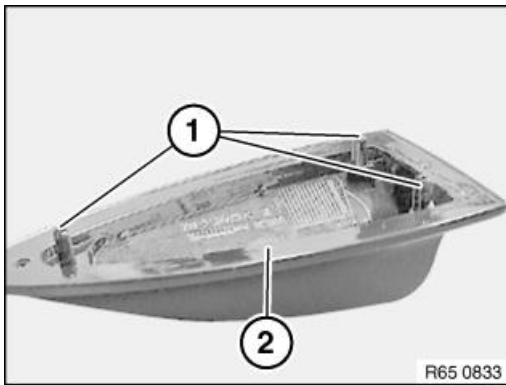
- Refer to Service Information [01 15 08 475](#)

Remove empty housing (3).



Installation

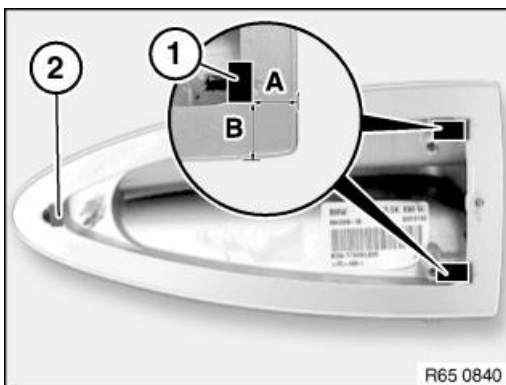
Empty housing for roof-mounted aerial is secured with window glass adhesive. All preparatory operations correspond to the [Window cementing instructions](#).



Note:

Replace empty housing for roof-mounted aerial if centering pins (1) on empty housing are damaged.

Bonding surface (2) must be clean and free from grease.



Position two spacers (1) on cleaned empty housing.

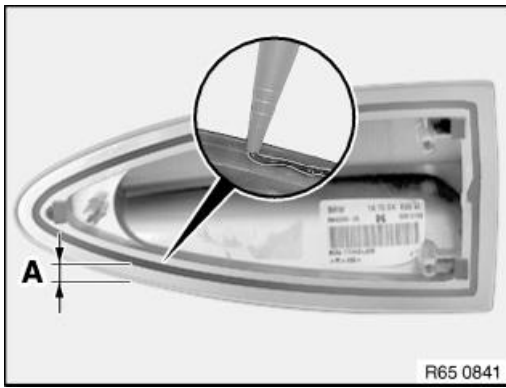
Dimensions:

- A. 10 mm
- B. 14 mm

Position spacer (2) centrally and flush with shoulder of adhesive flange.

Important!

Use spacers without fail!



Apply trace of adhesive bead all round outer contour as follows.

Distance between adhesive bead and edge of aerial cover:

A. $6.5 \text{ mm} \pm 1 \text{ mm}$

Start and end of bead trace must have an overlap length of max. 10 mm.

Important!

To prevent the adhesive from escaping, the adhesive bead diameter must not exceed max. 1.5 mm to 2.5 mm.



Note:

Attach the empty housing coated with adhesive by hand. To spread the adhesive better, move the housing back and forth horizontally slightly when pressing down.

Secure empty housing if necessary with adhesive tape and press down uniformly.

After bonding, leave vehicle to stand for at least 3 hours at room temperature.



The following applies in general:

To avoid damage, observe the following instructions:

- Avoid compressive and tensile loads
- Make sure cables are laid without kinks or abrasions
- Ensure non-contacting routing at sharp-edged body parts; use edge protection if necessary
- Secure additionally laid cables/leads with cable ties

The following additionally applies:

Shielded lines

Interference radiation and interference resistance can lead to neutral zones at contact points in the shielding. Consequently, distinctions have to be drawn between the following types:

Coaxial lines

- Shielded coaxial cables RTK031 may only be repaired with special [crimping tool](#).
- For aerial lines only the bushing contact may be repaired.
- RG174 Lines and the bushing contact may not be repaired.

CVBS lines

- CVBS cables may not be repaired.
- CVBS cables must be replaced in their entirety.

HSD lines

- HSD cables may not be repaired.
- HSD cables must be replaced in their entirety.

Optical fibre cable:

Note:

Fibre-optic cables are coloured differently as follows:

- Green = **MOST** (**M**edia **O**riented **S**ystems **T**ransport) optical fibres
- Yellow = **ISIS** (**I**ntelligent **S**afety and **I**ntegration **S**ystem) optical fibres
- Orange=repair fibre-optic cables

Attention!

- Fibre-optic cables are permitted to show only one junction point (bridge), replace fibre-optic cables if necessary
- Smallest permissible bending radius is 25 mm
- Avoid effects of heat $\geq 85^\circ$

[Treating cables and optical fibres](#)

FlexRay (twisted cables)

It is possible to repair the FlexRay. In the event of damage, the cables can be joined with conventional [butt connectors](#).

Note:

- FlexRay lines may only reveal one separation point (bride); renew

complete line if necessary.

- If possible, maintain twisted cable after repair.
- After repairs, twist cables as close as possible to the connector/separation point.
- Twisting must be as symmetrical as possible.

Airbag lines:

[Repairing airbag cables](#)

Ribbon cables:

[Repairing ribbon cables](#)

Replacing wiring harnesses

Repair wiring harnesses mainly cover the full equipment of the vehicle. If certain optional equipment is not installed in the vehicle, note the following:

- If necessary, secure the remaining connectors.
- If necessary, seal the remaining connectors outside the vehicle interior, for example, with butyl tape in such a way that moisture ingress can be eliminated permanently.

Note:

Repair wiring harnesses can be equipped with an **additional socket housing** (e.g. 30-pin), **which was not provided on the previous vehicle-side wiring harness**. This socket housing also cannot be found in the wiring diagram.

Procedure

The separation point between the vehicle-side wiring harness and the repair wiring harness is located **in the vehicle interior** (in the footwell, for example):

- Cut the additional socket housing and connect the lines to the vehicle-side wiring harness using a butt connector.
- Alternatively, a suitable pin housing can be fitted on the vehicle-side wiring harness and connected to the additional socket housing.

However, this is permitted only if the following conditions are met:

- Carpets must not protrude visibly or become deformed due to the installation of the additional plug connection.
- It must be possible to install the adjacent components (for example, trims, trim panels, etc.) correctly after installing the additional plug connection.
- All the attachment points of the adjacent components (for example, trims, trim panels, etc.) must engage correctly.
- There must be no rattling noise due to the installation of the additional plug connection.
- The additional plug connection must not damage the adjacent components/wiring harnesses, etc..

The separation point between the vehicle-side wiring harness and the repair wiring harness is located **outside the vehicle interior** (in the wheel arch, for example):

- Cut the additional socket housing and connect the lines to the vehicle-side wiring harness using a butt connector.
- **Using the additional socket housing is not permitted with a**

separation point outside the vehicle interior.

64 00 ... Information on using cleaning agent/paints (personal protection equipment)



Warning!

Use of cleaning agents/paints not compliant with instructions can cause serious injuries or burns!

Handling cleaning agents/paints can trigger allergic skin and respiratory reactions!



Important!

Observe following instructions:

- Store cleaning agents/paints only in a secure cabinet.
- Keep cleaning agents/paints away from naked flames and other sources of ignition.
- Protect cleaning agents/paints from high temperatures and direct sunlight.
- Always keep an eye douche on hand, change the water regularly (once a month).



Important!

Observe following instructions before use:

- Manufacturer's instructions (on container/packaging)
- Hazard warnings (on container/packaging)
- Manufacturer's instructions on package insert
- Material safety data sheet of manufacturer
- Product information in EPC
- National market regulations



Important!

Observe following instructions during use:

- Do not eat, drink or smoke while working with these products.
- Avoid direct contact with skin and eyes.
- Wear personal protective clothing/equipment.
- Ensure that all enclosed areas are well ventilated or extract fumes directly.
- Immediately change working clothes soiled with cleaning agent/paint.
- After finishing work, wash your hands and apply protective skin cream.



Important!

Follow hazard warnings and wear personal protection equipment!



First Aid:

- If product comes in contact with eyes, immediately flush with running water for about 10 - 15 minutes. Seek the advice of eye specialist.
- In the event of skin contact and where applicable an allergic skin reaction, clean the affected areas immediately with soap and water and then apply silicone-free skin cream. Seek advice of physician.
- If an adhesive product is swallowed, rinse mouth/parts of mouth thoroughly with running water. Drink 1-2 glasses of water. Do not induce vomiting. Consult a doctor.
- After inhaling vapours ensure ample supply of fresh air. Keep calm, keep respiratory tracks clear and call doctor.



Recycling:

Dispose of cleaning agents/paints in a professional manner!
Observe national/country-specific disposal regulations.