

September 2007 Technical Service

This Service Information bulletin supersedes S.I. B63 08 07 dated June2007.

NEW designates changes to this revision

SUBJECT Rear Lamp Repair

**MODEL** E53 (X5)

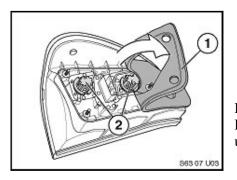
## SITUATION

Instead of replacement, most failed rear lamps may be repaired.

A typical lamp fails because the circuit board heats sufficiently during extended use to soften the plastic circuit board supports. Because of pressure from the bulb holder contact, the circuit board contact surface is pushed away as the plastic supports collapse, eventually causing an open circuit.

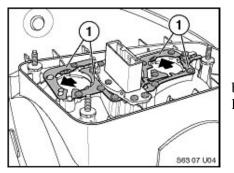
## PROCEDURE

First, confirm that the lamp is suitable for repair - Visually check the lamp for damage, particularly on the lens surface for cracks, chips etc., for water related corrosion damage particularly on the electrical connector, and for excessive erosion at the bulb holder/contact plate (e.g. contact plate burnt through). Lamps with this type of damage cannot be repaired.



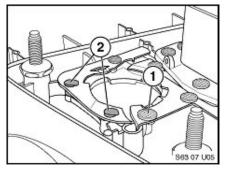
a. Peel away gasket (1) as shown, taking care not to damage it during the removal process.

Remove the bulb holders (2). Put both the gasket and bulb holders on one side for reuse later.



b. Inspect the circuit board contact surfaces at both locations (1) for evidence of distortion.

c. A distorted circuit board can generally be identified by misshapen circuit board supports. Typically, check where the supports are hot staked:

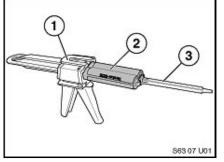


(1) = OK, (2) = Not OK.

In addition, the circuit board contact surface can be seen to have moved out of position (The surfaces where the bulb holder is attached must all be at the same level)

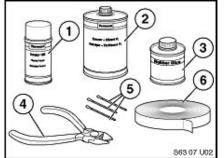
Lamps that have failed for a distorted circuit board contact surface(s) may be repaired using the following procedure:

Perform the repair in a well ventilated area away from open flame. Observe safety precautions marked on containers. Use protective eyeglasses and gloves.

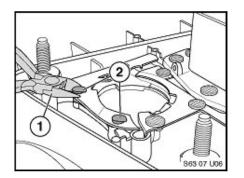


- 1. The repair requires the use of components from the BMW Plastic Repair Kit P/N 51 91 0 398 655 (Refer to <u>SI B04 42 06</u>). Items from the kit are marked \*
- \* Application gun (1)
- \* Adhesive cartridge (2)

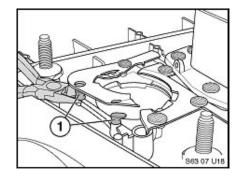
\* Mixing tip (3)



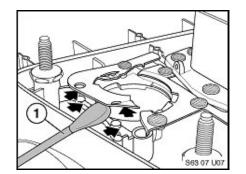
\* Teroson Terokal-150 primer (1) \* Teroson cleaner/thinner (2) Additional items that are required: Wirth Rubber Glue (3) Diagonal cutters (4) Cotton buds (5) Masking tape (6)



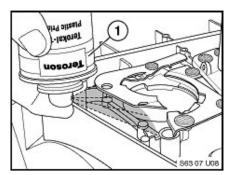
2. Using diagonal cutter (1), remove the top of the misshapen circuit board supports (2).



3. Carefully raise the distorted board so that it is slightly above its correct position and remove the remainder of the circuit board supports (1).

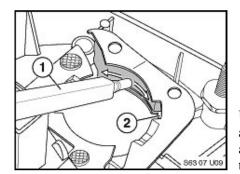


4. Using cotton bud (1) dipped in Teroson cleaner/thinner, clean the repair area and allow to dry.



5. Spray the repair area with Terokal-150 primer and allow to dry.

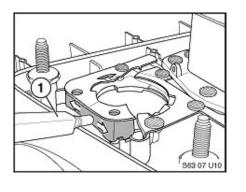
If an additional circuit board contact surface on the same lamp needs repair, this should be prepared at this time using the procedure outlined in steps 2-5.

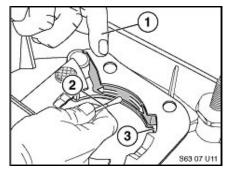


6. Prepare the application gun with adhesive cartridge and new mixing tip. To insure a homogeneous mixture, squeeze out the first couple of inches of adhesive and discard.

Using the application gun (1), apply adhesive to fill the area under the circuit board. Take care that the adhesive does not interfere with the slot (2) that retains the bulb holder.

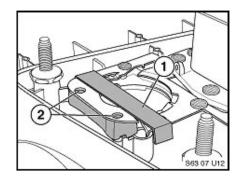
7. If necessary, apply the adhesive from the opposite side to completely fill the area under the circuit board.



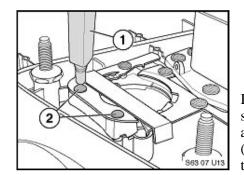


8. Press down the circuit board to return it to its correct level (level with the original undistorted area of the board).

Using a cotton bud dipped in Teroson cleaner/thinner, clean any excess adhesive that may interfere with the bulb holder. In particular, the slot (3) must be clear and the lug on the bulb holder that drops into the slot must have room to turn clockwise to the bulb holder's locked position.



9. Apply masking tape (1) to hold the circuit board in place, leaving the support holes (2) clear.

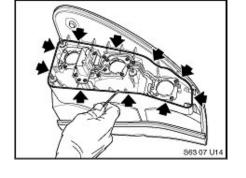


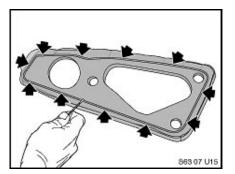
10. Using the application gun (1), apply spots of adhesive to the support holes (2) to form rounded heads.

If an additional circuit board contact surface on the same lamp is to be repaired, this should be completed at this time using the procedure outlined in steps 6-10. (Note: The repair should be started immediately so that the same mixing tip can be used)

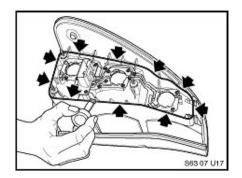
- 11. Put the lamp on one side to allow the adhesive time to cure (minimum 2 hours).
- 12. Using a cotton bud dipped in Teroson cleaner/thinner, clean the lamp body where it

contacts the gasket.

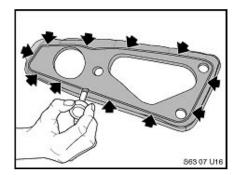




13. Using a cotton bud dipped in Teroson cleaner/thinner, clean the gasket where it contacts the lamp body.



14. Apply Wurth Rubber Glue to the lamp body where it contacts the rubber gasket

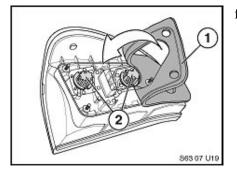


15. Apply Wurth Rubber Glue to the gasket where it contacts the lamp body.

Allow the Rubber Glue to air dry for 10-15 minutes.

16. Reinstall the gasket (1), firmly pressing the surfaces together.

Reinstall the bulb holders (2). If necessary, lightly abrade the electrical contacts on both the bulb holders and contact plate to insure good electrical contact. The bulb holder must be fully locked in position by turning



firmly clockwise until it clicks into position.

## **PARTS INFORMATION**

Availability of these kits will be limited. There will be only one kit per center.

Please order only one. Orders will be monitored. Multiple quantity orders as well as multiple orders will be cancelled.

Replacement items to supplement the kit will be available.

Part Number	Description
51 91 0 398 655	BMW Plastic Repair Kit (Replacement items available separately – refer to <u>SI B04 42 06</u> )
Wurth P/N 0890100015	Wurth Rubber Glue
-	Cotton buds
-	Masking tape

## WARRANTY INFORMATION

Covered under the terms of the BMW New Vehicle Limited Warranty, Certified Pre-Owned and Original Owner Protection Programs.

Defect Code	63 21 00 79 00	
NEW Labor Operation:	+63 21 680	Removing and installing or replacing left or
NEW Labor Allowance:	3 FRU	right tail light
NEW Labor Operation:	+63 21 700	Removing and installing or replacing two tail
NEW Labor Allowance:	7 FRU	lights
	and	
Labor Operation	63 99 000	Repair (1) circuit board contact
Labor Allowance	3 FRU	
	or	
Labor Operation	63 99 000	Repair (2) circuit board contacts (same side)
Labor Allowance	4 FRU	
	or	

Labor Operation	1	63 99 000	Repair (1) circuit board contacts on each	side		
Labor Allowanc	ce	6 FRU				
		or				
Labor Operation	ı	63 99 000	Repair (2) circuit board contacts on one	side		
Labor Allowanc	ce	7 FRU	and (1) circuit board contact on the other	<sup>•</sup> side		
		or				
Labor Operation	ı	63 99 000	Repair (2) circuit board contacts on each	side		
Labor Allowanc	ce	8 FRU				
Sublet (mixing tip, adhesive, cotton buds etc.)				\$10		
Note: The following explanations will spell out the correct use of the work times.						
Main Work:	Use this labor operation number when the only repair performed is the listed warranty repair.					
	OR					
+Associated Work:	perforr Under Attemj	ned along with the no circumstances	number when other repairs or services are e listed warranty repair. should both labor operation numbers be cla imes will result in an unnecessary delay in			

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