SAFETY ALERT

Overheating of TK3 Control Potentiometer (Lighting dimmer)

Number: SA 04/07

ES&P Sponsor: Peter Meakin
Date of issue: 09 August 2007

Contact if different from ES&P Sponsor:
P Mursell, Defence Estates, Safety Systems Group,
Kingston Rd, Sutton Coldfield, B75 7RL.
Tel. 0121 311 2152
Fax. 0121 311 3636
E-Mail. Paul.mursell@de.mod.uk

Who Should Read this: CEstOs, Top Level Budget Holders, MOD Project Managers, Organisations appointing Authorising Engineers (AE) and Authorised Persons (AP) including: Commanding Officers/Heads of Establishment, Defence Estates (DE) Deputy Directors (Estates), DE Advisors, DE Facility Managers and Maintenance Management Organisations, who are advised to draw it to the attention of the Works Services Teams.

When it takes effect: Immediately
When it is due to expire: 08 August 2008

Document Aim: To notify all relevant parties of a Department of Health safety alert in respect of the TK3 Control Potentiometer (Lighting dimmer) manufactured by Helvar Ltd

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<th>Product</th>
<th>TK3 Control Potentiometer (Lighting dimmer)</th>
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<td>Manufacturer/Supplier</td>
<td>Helvar Ltd.</td>
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<td>Problem</td>
<td>Overheating due to terminal over tightening or forcing unit into back box</td>
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<td>Risk</td>
<td>Fire</td>
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<td>Action</td>
<td>Replace unit (free of charge by Helvar)</td>
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1. Document synopsis.

- This Safety Alert (SA) advises all relevant parties of an incident within the Department of Health of the failure of a lighting dimmer.

- The safety alert issued by the Department of Health is attached at Annex A, which gives details of actions to take and what to look for.

- DE endorses the actions within the Department of Health Alert.

- Included are contact details should further information be required.

2. Introduction:

THE CONTENTS OF THIS NOTICE ARE TO THE CONTENTS OF THIS SA WILL SECURE COMPLIANCE WITH THE HEALTH & SAFETY AT WORK ETC ACT 1974 AND ITS SUBORDINATE REGULATIONS.

- The appropriate MOD officer shall arrange for the RPC/ Maintenance Management Organisation (MMO) contractor to carry out all actions in accordance with this Alert.

- Any work required as a result of this SA must be carried out in accordance with JSP 375 Vol 3 – MOD’s Safety Rules & Procedures.

- Defects are to be immediately reported to the MMO and the Authorising Engineer, who is to ensure that any appropriate Operating Restrictions are applied.

- On MOD Establishments occupied by United States Visiting Forces (USVF) responsibility is jointly held by USVF and DE (USF). At base level this jointly managed organisation is to take appropriate action to implement the contents of this SA. Where this SA contains procedures which differ significantly from USVF practice DE (USF) code of practice will be issued.

3. Requirement:

- ACTION ADDRESSEES ARE TO ENSURE THAT THE REQUIREMENTS OF THIS SA ARE NOTIFIED IMMEDIATELY TO MMOs FOR AUTHORISING ENGINEERS (AE) AND AUTHORISED PERSONS (AP).

- This SA applies to TK3 Control Potentiometer (Lighting dimmer) part numbers HES37050, HES37060, HES37080, HES37090 & HES37091, manufactured by Hevlar ltd

- AEs ARE TO ENSURE THAT ACTION IS TAKEN AT THE Earliest Possible Opportunity to Identify if This Equipment Is Present on Any of the Sites For Which They Have Responsibility and Thereafter to Make Arrangements For
CONTACT WITH HEVLAR TO ARRANGE DELIVERY OF ANY REPLACEMENT UNITS

- The earliest possible opportunity should be established commensurate with the risk to personnel with the highest priority given to the inspection of sleeping accommodation and the lowest to unoccupied or rarely occupied buildings.

- Contact details for further guidance and replacements:

Paul Mursell
Senior Electrical Engineer
Defence Estates
Safety Systems Group
Kingston Rd
Sutton Coldfield
B75 7RL.
Tel: 0121 311 2152
Fax: 0121 311 3636
E-Mail. paul.mursell@de.mod.uk

Simon Jasper
Helvar Merca Ltd
Hawley Mill
Hawley Road
Dartford
Kent, DA2 7SY
Tel: 01322 282387
Fax: 01322 282383
E-Mail. simon.jasper@helvar.com
# Estates and Facilities Division Alert

**Engineering, Technology and Environment**

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Issued: 18 June 2007  
Gateway Ref: 8374

**Product**: TK3 Control Potentiometer (Lighting dimmer)  
**Manufacturer/Supplier**: Helvar Ltd.  
**Problem**: Overheating due to terminal over tightening or forcing unit into back box  
**Risk**: Fire  
**Action**: Replace unit (free of charge by Helvar)  
**Deadline (Action Underway)**: 29/06/2007  
**Deadline (Action Complete)**: 20/09/2007

Chief Executive/Board Member with special responsibility for health and safety, in accordance with local procedures ensure that this Alert is brought to the attention of appropriate staff who should take the following action:

1. **Locate where these lighting control units are used.**
2. **Contact Helvar to arrange delivery of a replacement unit.**
3. **Part Numbers affected are:** HES37050, HES37060, HES37080, HES37090 & HES37091

**Background**

4. A lighting dimmer unit overheated which resulted in the dimmer partially melting, generating enough smoke to initiate a fire alarm.
5. Helvar responded and issued an alert, together with a “Question and Answers” which clarifies the problem and provides a satisfactory solution.
6. The Helvar alert and Q&A sheet are included in this Alert.

**Enquiries**

Enquiries to the Department of Health or Helvar Ltd. should be addressed to:

**Chris Holme**  
**Principal Engineer**  
**Engineering, Technology and Environment**  
**Leeds, LS2 7UE**  
**Tel**: 0113 254 5932  
**Fax**: 0113 254 5783  
**E-mail**: chris.holme@dh.gsi.gov.uk

**Simon Jasper**  
**Helvar Merca Ltd**  
**Hawley Mill**  
**Hawley Road**  
**Dartford**  
**Kent, DA2 7SY**  
**Tel**: 01322 282387  
**Fax**: 01322 282383  
**E-mail**: simon.jasper@helvar.com

**HOW TO REPORT DEFECTS AND FAILURES**

All staff working in a healthcare environment have a responsibility to report any defect or failure that occurs at work to the Department of Health. Guidance for reporting such incidents is contained in NHSE (2006) 01. If you have any queries, please seek advice from your Line Manager or the Department of Health.
WARNING

IMPORTANT SAFETY NOTICE - FOR IMMEDIATE ACTION

This notice is to inform Helvar customers of a potential safety concern involving its TK 3 Control Potentiometer. The Helvar part numbers of this product are HES37050, HES37060, HES37080, HES37090 and HES37091.

The product is safe and complies fully with all relevant safety standards. If, however, the power terminal screws are over-tightened or the product is forced into the back box against the pressure of the cabling, then there is a risk of failure during operation. Such failure could cause overheating and create a fire risk.

All TK 3s controlling electronic ballasts should immediately be replaced with an equivalent product that Helvar will provide free of charge.

Helvar part number HES11914 is suitable for electronic ballast loads up to 600 watts. For loads greater than 600 watts, contact your local Helvar dealer who will advise you of the action to take.

To obtain a replacement you should contact your local dealer. Details can be found at www.helvar.co.uk or by referring to the attached list. Other information about this safety notice can also be found on the web-site.

If you resold or transferred any TK 3s, forward this notification to the eventual user immediately so they can take the appropriate action.
TK 3 Removal Procedure

The following procedure explains how to remove Helvar’s TK 3 Control Potentiometer.

Only a qualified electrician should complete this procedure.

1. Before commencing work ensure the power to the unit is off and the circuit is isolated.

2. Detach the control knob by pulling it outwards.

3. Remove the nut and the front plate from the main unit.

4. Gain access to the wire connections by removing the screws that hold the TK 3 controller to the wall mounting box.

5. Make a note of the wire connection positions for future reference when installing the replacement unit.

6. Disconnect the wires from the TK 3 controller.

7. Remove the TK 3 controller from the wall box.

8. Install the replacement unit according to the manufacturer's guidelines

9. Reconnect power to the replacement unit and confirm that it is working correctly.
TK 3 QUESTIONS AND ANSWERS

Was the product safe to put on the market and tested for installation and handling?
Yes. The unit was tested by the independent test house SETI to IEC standard 699-1, which is the general requirements, and 699-2-1, which is the particular requirement for "Switches for household and similar fixed electrical installations".

My TK 3 controller has been working well for several years without a problem. Do I still need to replace it?
Yes. This is a precautionary step and should be acted upon immediately.

What do you mean by “over-tightened”
Where the screws in the power terminal block have been tightened in excess of a torque value of 0.4Nm

My TK 3 is controlling a dimmer and not a ballast. Do I need to replace it?
No. We have no evidence of failures when TK 3s are controlling dimmers. The only problems reported have been when the TK 3 is used to directly switch and control electronic ballasts.

What should I do if the load is greater than 600 watts?
Your dealer will advise you. There are two possible options:
- A TK4 product will be installed.
- A mains switch will be fitted.

How will I know if my installation has a load exceeding 600 watts?
Count up the number of lamps connected to the controller and multiply by their wattage.

Can you guarantee that when I have replaced the unit there is no more fire hazard?
If the replacement units have been installed correctly, there is no reason that there should be a fire hazard. We have had no reported incidents with the replacement products.

Are there any tests that I can carry out prior to removing the TK 3 from the wall to find out if it is safe or not?
No.

How would I know if my TK 3 has failed in operation.
The first sign is generally that your lights will not work.

How did Helvar become aware of the problem?
Through analysis of customer feedback and returns.

I have other Helvar products; will they be affected in the same way?
No.

Will Helvar pay for replacement units?
Yes. Helvar will provide you with a replacement unit or units free of charge.

Will Helvar pay for installation costs?
No. There is no manufacturing or design fault with the product.

Do I need to return my TK 3 following its replacement?
Yes. Return the unit to your local dealer.

My replacement product does not work. What should I do?
Firstly check that the instructions with the replacement unit have been followed correctly. If you are in any doubt contact your local dealer shown on the list attached to the safety notice.

Issue 2 : 8th December 2004
TK 3 RECORD SHEET
(to be e-mailed to lisa.hampton@helvar.com)

Distributor/Agent:

Customer:

Installation Address:

Date of Purchase:

Quantity of TK 3s on site:

Site Information

Is TK 3 directly
switching
ballast?

No

Don't know?

Yes

Don't know?

Is TK 3 controlling
a dimmer?

Yes

OK

\( \vee \text{ or } X \) in box

No

MUST REPLACE
TK 3

Is TK 3
switching
via a
controller?

Yes

OK

\( \vee \text{ or } X \) in box

No

Don't know?

Is TK 3
loading 600
watts?

Or

\( \vee \text{ or } X \) in box

Yes

REPLACE WITH
MAINS SWITCH + HES11914
(1-10v control only)

REPLACE WITH TK 4

REPLACE WITH
HES11914

Date of Returned Units:
# ANNEX B

## Estate Strategy & Policy Directorate

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