

# SERVICE INFORMATION LETTER

**No: SIRS/SIL-CE2-A25-01 Rev.04**

**NAVIGATION - STANDBY NAVIGATION SYSTEMS –**

**STANDBY COMPASS - LAMP CAP ASSEMBLY –**

**POSSIBLE OVERHEATING**

## 1.0 Information

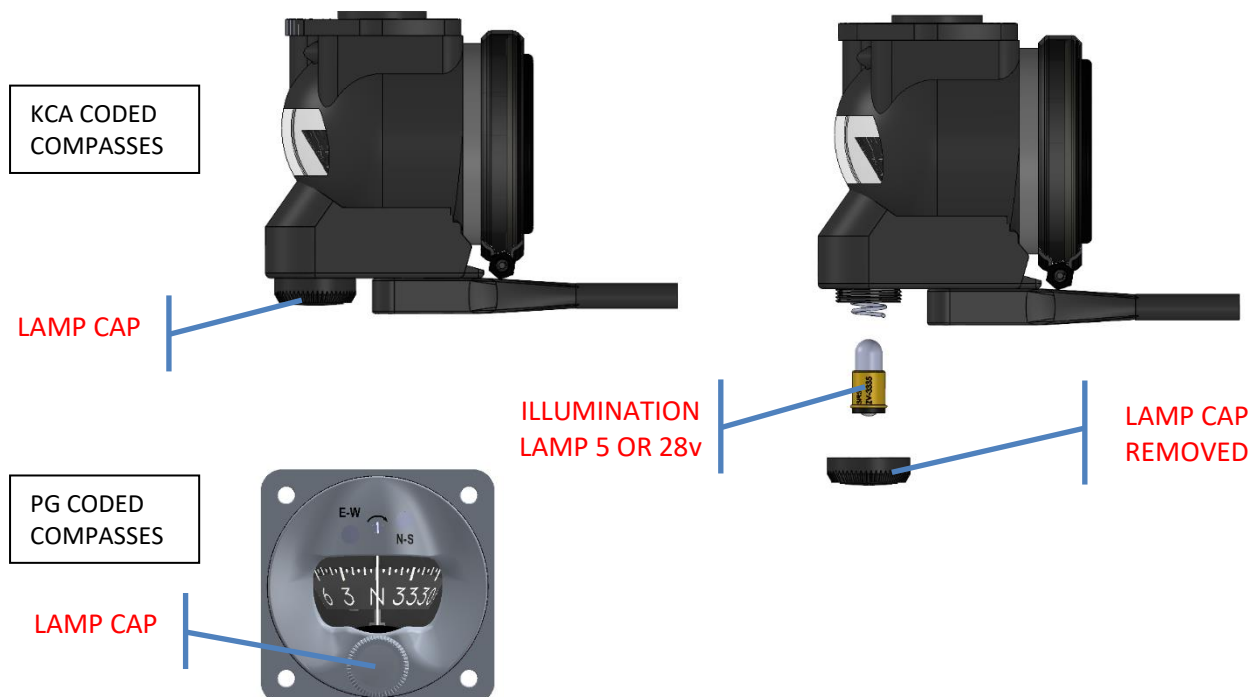
### A. Effectivity

This Service Information Letter is applicable to certain Magnetic Standby Compasses, supplied by SIRS Navigation Ltd, fitted with an illumination system. The affected compass product codes are listed within Table 2.0.

The range of ‘Magnetic Standby Compasses’ are installed within aircraft from all aviation sectors.

### B. Problem

An occurrence\* has been reported to SIRS whereby the removal of an illumination lamp, **without immediate replacement**, has led to the local increase in temperature to adjacent compass components with subsequent plastic deformation. The problem will only occur with the power supply switched ‘ON’ and the illumination lamp **NOT Fitted**.



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The absence of the replacement lamp will cause a decrease in circuit resistance and provide a 'short circuit', with potential power demand shown within table 1.0 below.

<b>TABLE 1.0: Potential Power Demand</b>			
<b>Power Supply</b>	<b>Power Source Limit (Circuit Breaker)</b>		
	1A	2A	5A
5v	5w	10w	25w
28v	28w	56w	140w

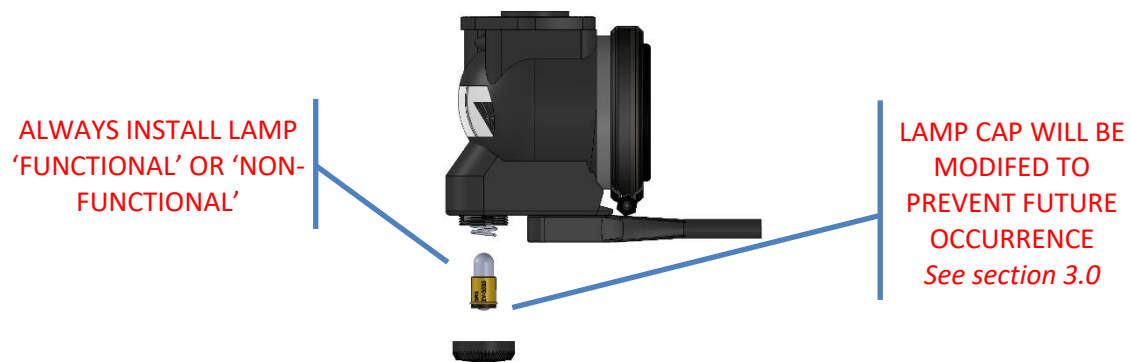
\*This occurrence is the only report SIRS have received relating to temperature increase as a result of 'short circuit' in > 30 years of product supply.

<b>TABLE 2.0: Effected Part Numbers</b>		
<b>Compass Part Numbers</b>	<b>Lamp Cap Part number (Current)</b>	<b>Supply Voltage</b>
1004KCA2	CE2-A25	5v
1005KCA1	CE2-A25	28v
1006KCA1	CE2-A25	28V
1007KCA1	CE2-A25	28V
1010KCA1	CE2-A25	5v
1014KCA1	CE2-A25	5v
KCA0104W	CE2-A25	28v
KCA0104FY	CE2-A25	28v
KCA0105W	CE2-A25	28v
KCA0106W	AM2-A25G	28v
KCA0112W	CE2-A25	28v
KCA0113W	CE2-A25	28v
KCA0113FY	CE2-A25	28v
KCA0114W	CE2-A25	28v
KCA0116W	CE2-A25	28v
KCA0120W	CE2-A25	28v
PGA0105W	CE2-A25	28v
PGA0105WG	AM2-A25G	28v
PGA0116W	AM2-A25G	28v
PGA0117W	AM2-A25B	5v
PGA0118W	AM2-A25B	5v
PGA0120W	BO2-A25G	28v
PGA1001WG	PG2-A25G	5v
PG2C-12V	CE2-A25	12v
PG2C-28V	CE2-A25	28v
WL1001KCA1	CE2-A25	5v

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## 2.0 Guidance

- A. **Always** include the correct lamp in the light assembly, specific to the compass part number (Functional or Non-Functional)



- B. If the lamp fails, **leave it in the assembly** until a replacement lamp can be installed.
- C. Leave the lamp assembled within the compass to prevent temperature increase.

## 3.0 Solution

- A. SIRS have developed a permanent solution. A modified version of the 'Lamp Cap' will be introduced by SIRS from 1<sup>st</sup> January 2023 to eliminate the 'short circuit' condition and possible localised temperature increase.
- B. The modified lamp cap design is shown in Table 3.0.
- C. The modified lamp cap design is shown on compass types 'PG' and 'KCA' in table 4.0.
- D. The modified lamp caps, codes referenced in Table 2.0, are available to purchase from SIRS. To purchase a modified lamp cap **contact SIRS Navigation Ltd - [Sales@sirs.co.uk](mailto:Sales@sirs.co.uk)**

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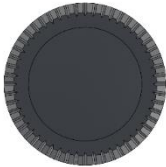
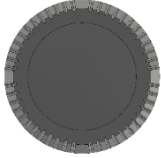



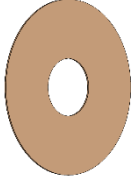
Table 3.0: Design Change Summary		
Original Lamp Cap	New Design 1 <sup>st</sup> Jan 2023	Change description
<p>Front View</p> 	<p>Front View</p> 	<p>Visual difference at 90° Intervals</p> 
<p>Rear Oblique View</p> 	<p>Rear Oblique View</p> 	<p>Addition of an 'Electrical Insulator' – Shown in colour Brown</p> 

Table 4.0: Lamp Cap Design Summary	
PG Coded Compass	KCA Coded Compass
