

CHLITE SYSTEM

PART 3: OPERATION AND MAINTENANCE MANUAL



CHLITE Operation and Maintenance Manual Part 3

Revision

REV	Date	Prepared by	Checked by	Approved by	Description
01	04.08.2015	TTT	CSC	CSC/PH	First edition
02	04.12.2017	CSC	TS	CSC	New logo and name
03	04.05.2018	CSC	TS	CSC	Solutions to damaged plastic covers

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Disclaimer

Stahl Tranberg AS endeavors to ensure that all information in this document is correct and fairly stated, but does not accept liability for any errors or omissions.

Warning

The equipment to which this manual applies must only be used for the purpose for which it was designed. Improper use or maintenance may cause damage to the equipment and/or injury to personnel. The user shall be familiar with the contents of the appropriate manuals before attempting to install, operate or work on the equipment.

Stahl Tranberg AS disclaims any responsibility for damage or injury caused by improper installation, use or maintenance of the equipment.

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1. Introduction

Thank you for purchasing this product!

Read this instruction carefully before operating and maintaining the product.



Our CHLITE system has been tested thoroughly by a third party (DNV-GL) to ensure that the *system itself and the mounting methods* comply with CAP 437. The testing simulated the loads applied during a helicopter landing and included both lateral and vertical load/pressure to the light modules.

This instruction is meant to be a guideline when you operate and maintain the CHLITE system. The system is developed with respect to easy and safe operation and limited maintenance requirements.

Please follow this manual for installation, maintenance and assurance of a long life of this product. Changes made to the product which do not confirm to the approvals of this equipment, is a safety violation. The manufacturer is under no circumstances responsible for personal injuries, death or any other damage caused by such activities. For your health and safety, always use safety gear suited for the task. Be certain to follow codes, regulations and/or specific procedures that are related to the installation operation and maintenance.

WARNING

Installation, maintenance, overhaul and repair shall only be carried out by appropriate authorized, qualified and trained personnel!

Repairs that affect the explosion protection may only be carried out by Stahl Tranberg AS, or a qualified electrician in compliance with respective national regulation. For replacement and repair of the CHLITE product only Stahl Tranberg AS spare parts shall be used.

The operation and maintenance shall be in conformity with the standard norms listed below. Please see user manual CHLITE Part 1 for more information such as:

- 1.1.1 Terms and definition
- 1.1.2 Abbreviations
- 1.1.3 Icons used in this manual
- 1.1.4 References

2. Operation

After a correct installation and adjustment for the lights in the “Bright” modus, the system is ready for operation.

2.1 EX Control Panel



TYPE	NAME/MEANS
Push bottom left	Switch the System ON / OFF The push bottom active the Circle & H lights → by repeated operating the push bottom, turns the system OFF
indicator light green	Indicates that the SYSTEM is activated
Push bottom right	Activate the Bright mode → If the bright mode ON repeated operating the push bottom will deactivated the BRIGHT mode
indicator light orange	Indicates that the BRIGHT mode I activated

System start:

- Push the “SYSTEM” button
→ The system is working, the green indicator light lights up

If you need a higher intensity set the push to “STANDART/BRIGHT” button. To get back from the BRIGHTH to the STANDART mode push the “STANDART/BRIGHT” button again.

2.2 Safe Area Control Panel



TYPE	NAME/MEANS
LED blue	VOLTAGE PRESENT BLUE - power present at the Input terminals
SELECTOR left	SYSTEM (ON / OFF positions) If VOLTAGE PRESENT active allows to turn ON the System and the Circle & H lights
LED green	POWERED GREEN – System switched ON by means of the SYSTEM SELECTOR in ON position
SELECTOR right	INTENSITY (STANDARD / BRIGHT positions) when the Operator put the SYSTEM selector in ON position this will cause the Circle & H lights lines to turn on at the selected brightness level

System start:

- Control if the "VOLTAGE PRESENT" light is on
- Set the main switch "SYSTEM" to the position "ON"
→ The system is working

If you need a higher intensity set the "INTENSITY" switch to "BRIGHT". Under landing procedure, switch the "INTENSITY" switch back to "STANDARD".

3. Maintenance

The CHLITE system is designed to have limited maintenance requirements. All installed components on the helideck are maintenance free. Certainly, visual checks and system cleaning, e.g. removal from guano, fuel, dust, shall be required.

If you have installed additional junction boxes to connect the system with the control unit, please make yourself familiar with the maintenance instructions for these parts!

3.1 Inspection

If you run the system, make sure that all lights are working. If not, follow the instructions under point 3.3 Troubleshooting to localized the problem.

Check weekly that all light elements are safely mounted on the helideck. Not correct fasten components shall be fasten immediately.

Check the plastic cover for damages. If you find micro cracks or damages on the plastic cover please change the affected cover as soon as possible. More information is found under point 3.3.4 troubleshooting for broken plastic covers.

Water or condensate water **inside** a lighting element shows a problem with the encapsulation and shall be replaced immediately.

Check that all cables on deck are protected by a cable guard or the light element cover. Unprotected cables are not allowed on the helideck.

3.2 Cleaning



The CHLITE system shall be cleaned with a high pressure water jet (max. pressure 30 bar). Make sure that the distance between the nozzle and the CHLITE system is higher than 0.5m.

If you use a hot water high pressure jet, make sure that the temperature is not higher than 60°C!

By using a chemical detergent, use only a mild water-based cleaning agent.



Cleaning with strong alkali agent or MEK's (methyl ethyl ketone) can be matting the surface of the light elements!



Do not clean the CHLITE system with a steam cleaner!

3.3 Troubleshooting

The products are designed for their entire life without failures. The single Lighting Element cannot be individually replaced. However, even if one or more Lighting Elements are broken, the Line Light correct functioning is preserved.



WARNING! - DO NOT CONNECT OR SEPARATE WHEN ENERGIZED

- 1. Whenever possible, shut down the power supply before operating maintenance operations.**
- 2. Whenever possible, the power supply should be shut down before any maintenance operations can take place.**

If compelled to work under voltage, adopt all the precautions against electrocution (i.e use rubber gloves, work in presence of an assistant, observe danger warnings, etc).

Failure	Action
The system is not working	Check if the "POWER IN" control light is ON → If not check the power connection to the control box → It is OK, check the main fuse from the system → It is OK, Call Stahl Tranberg AS to get technical help
Some lights do not work (random lights)	→ up to 10% of the lights can fail before you have to change a light unit (e.g. a quarter of the circle or a quarter of the H) → Spare parts number:
Every second light of a quarter do not work	Driver or connecting problem of the concerned quarter → Control the connection of the circuit → If required change the driver of the concerned quarter It does not solve the problem, Call Stahl Tranberg AS to get technical help
A complete quarter do not work	Connection problem Check the connection between the quarter element and the control unit It does not solve the problem, Call Stahl Tranberg AS to get technical help
It is not possible to switch between "NORMAL" and "Bright"	It is a problem from the Intensity control unit → Check the thermal fuse in the intensity control unit; replace it when it is damaged → If not, replace the intensity control unit It does not solve the problem, Call Stahl Tranberg AS to get technical help

For further information's about the system or technical help call the technical hotline under:
+47 51 57 89 00

3.3.1 Damaged plastic cover

If cracks or damage to a plastic cover is identified it is important to report accordingly and monitor the development. If spare covers are available the damaged cover should be replaced as soon as possible as shown below ("Replacement of damaged plastic cover"). If spare covers are not available, an "interim repair kit" can be fitted ("Installation of interim repair kit") to the existing cover to contain the situation until spare covers are made available.

Functional system:



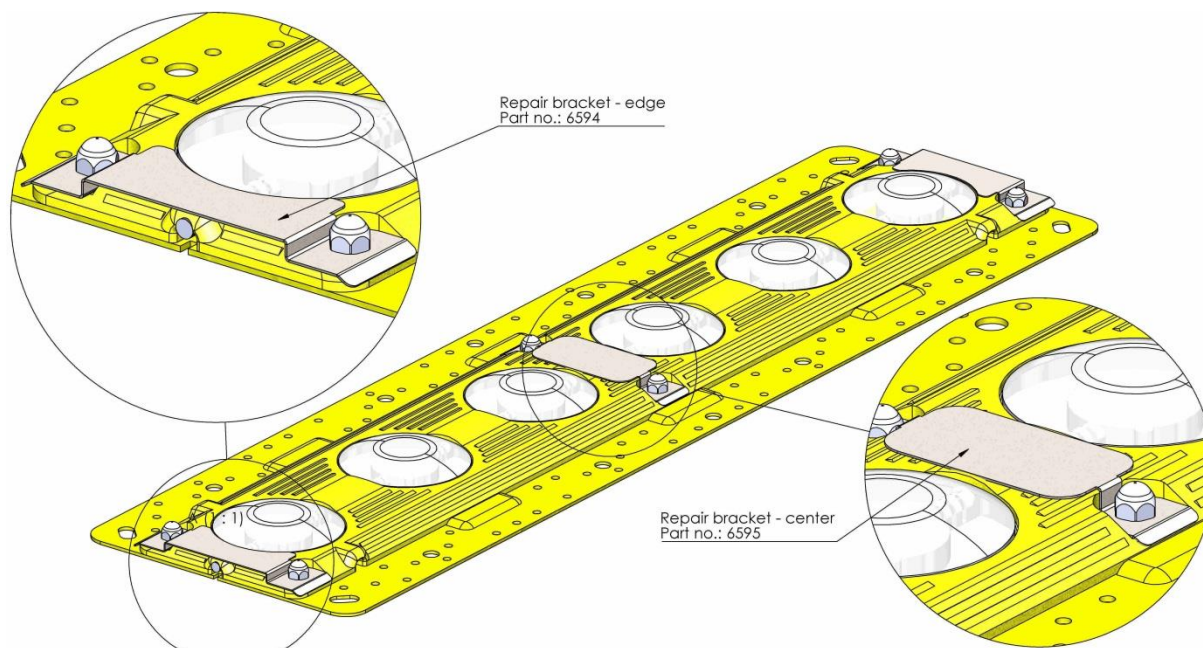
Replacement of damaged plastic cover:



1. Remove the M6 nuts and washers from the affected plate.
2. Remove the damaged plastic cover and replace with new cover (*if metal rings are present on top of the LED domes remove the rings that are not aligned to avoid them to be squeezed between the LED domes and plastic cover*).
3. Put washers back in place and torque the nuts to 5Nm.

Installation of interim repair kit*:

1. Remove the M6 nuts and washers from the affected plate.
2. Install the bracket on the plastic cover over the damaged part and fasten it with the nuts without the washer (to avoid total height increase). The fastening torque must not exceed 5Nm.

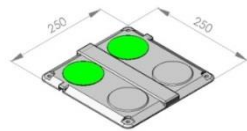
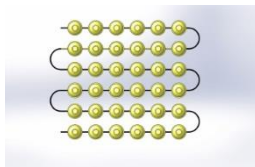
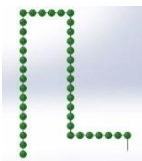
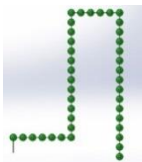


Note:

Do not install the bracket on an outer edge on the H. This to avoid a sharp edge where a plate is not In this case reposition an existing cover with the same colour to cover the outer edge and use the broken cover in between the other covers. Apply the interim repair kit to the damaged cover in this position as per the instructions above.

*The repair kit has PN 99500016.

3.4 Spare Parts

Pos.	Part number	Description	Picture
1	50260006	Mounting cover circle lights	
2	50260007	Mounting cover H lights	
3	50260008	Mounting plate H 2x2	
4	50260001 (5 light segments) 50260002 (6 light segments) 50260003 (7 light segments)	Circle lights (quarter)	
5	50261004	H Lights L1 (quarter)	
6	50261005	H Lights L2 (quarter)	
7	6238	TEF9950 Resistor Kit Dimming	
8	50860132	LED Driver TRP LED30W-85-C0350-D	