

TECH PAPER

TEF 9980 STATUS LIGHT SYSTEM

Subject to change without prior notice TTP5709 REV. A 11.07.2017

PURPOSE OF STATUS LIGHT

A visual warning system should be installed if a condition can exist on an installation which may be hazardous for the helicopter or its occupants. The system (Status Lights) should be a flashing red light (or lights), visible to the pilot from any direction of approach and on any landing heading. The aeronautical meaning of a flashing red light is either “do not land, aerodrome not available for landing” or “move clear of landing area”.

The system should be automatically initiated at the appropriate hazard level (e.g. impending gas release) as well as being capable of manual activation by the HLO.

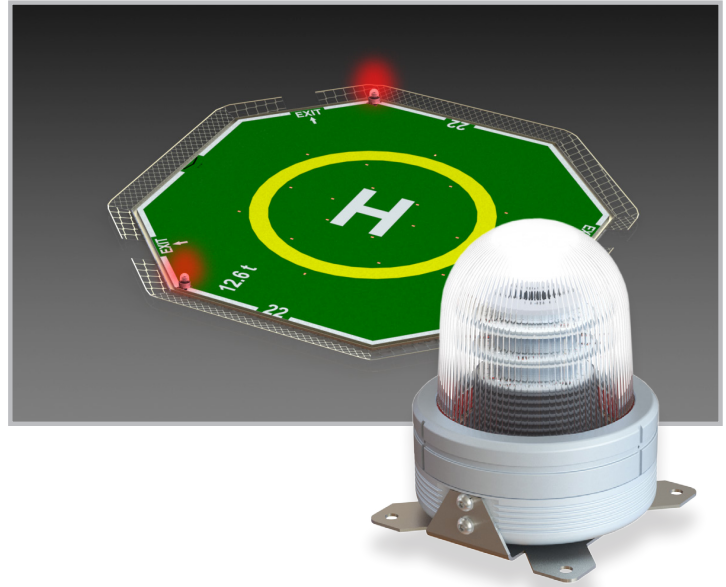
COMPLIANCE STANDARDS

Tranberg Status Light System complies with the following offshore standards:

- CAA UK CAP437:2013
- NORMAM-27/DPC:2015
- 2009 MODU Code:2010

TEF 9980 SYSTEM FEATURES

- ATEX and IECEx certified for use in Zone 1, Zone 2 and safe area.
- Height of light units <25cm. Allows for on-deck installation.
- Automatic monitoring of all light units. No need for redundancy.
- Maintenance free.
- Constructed with durable, high quality materials.
- Wide ambient temperature range; -40°C to +55°C.
- Control panel is delivered for connection to 18-32VDC and 100-240V 50/60Hz power supply.
- Low power consumption:
Main light, 30W & Repeater light 2,6W.
- Wide input voltage range, 16-32V. Allows for longer cable stretch with smaller cross section than any competitors.
- Flexible wiring methods.
- Prepared for remote control and monitoring.
- NVG (Night Vision Goggle) compatible



NUMBER AND LOCATION OF LIGHT UNITS

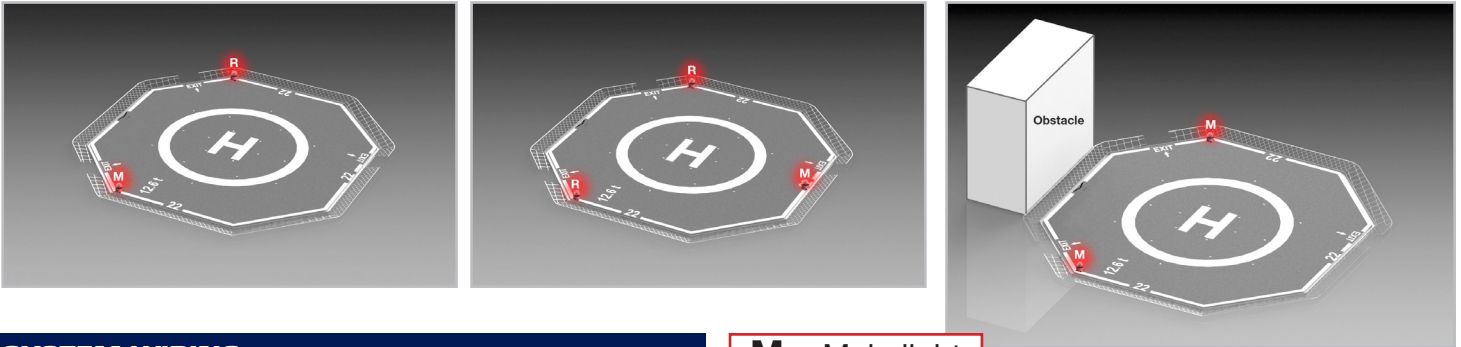
The number and location of light units should be considered in cooperation with the helideck operator. Ref. CAA Paper 2008/01, section 4.8 and 6.2 for further guidance.

- The helideck status light signalling system shall be installed either on or adjacent to the helideck.
- The status light shall be visible from all approach angles, i.e. 360° in azimuth. In case of obstacles blocking visibility, additional lights may be added at other locations.
- While the helicopter is landed on the helideck, intensity shall be dimmed to maximum 60cd. At least one light shall be visible to the pilot when the helicopter is on the helideck, regardless of its orientation to the deck. Note: Output light characteristics are the same for repeater light and main light when in “dim” mode.

Note: The light units when in combination with Tranberg control system are automatically monitored. Of this reason, according to CAA Paper 2008/01, redundancy light units and components can be omitted.

TEF 9980 STATUS LIGHT SYSTEM

PROPOSED LOCATION OF LIGHT UNITS

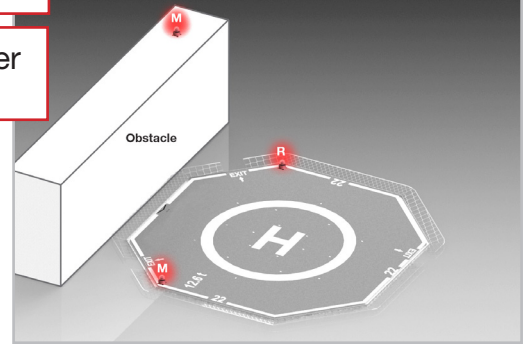


SYSTEM WIRING

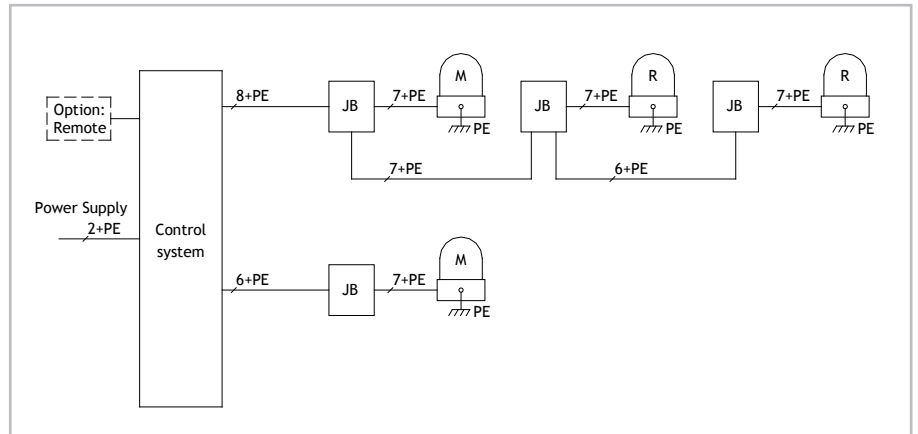
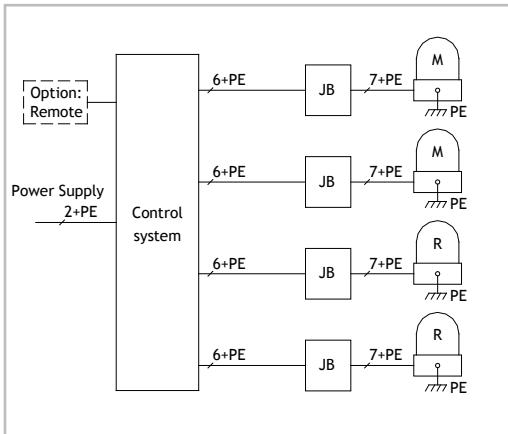
- The control cabinet is delivered with connections for up to two main lights and two repeater lights as standard.
- One main light, plus one or two repeater lights can be connected to same output. This can in many cases save cabling.
- Power and signals can be wired in a single multi cable or split up in two cables, one for power and one for signals. Allows for using large cross section for power wires and smaller cross section for signals.
- The light units are delivered with flying lead cable. This open end cable shall be terminated in an Ex approved junction box.
- The Status Light System should be fed from an uninterrupted power supply (UPS) system.

M = Main light

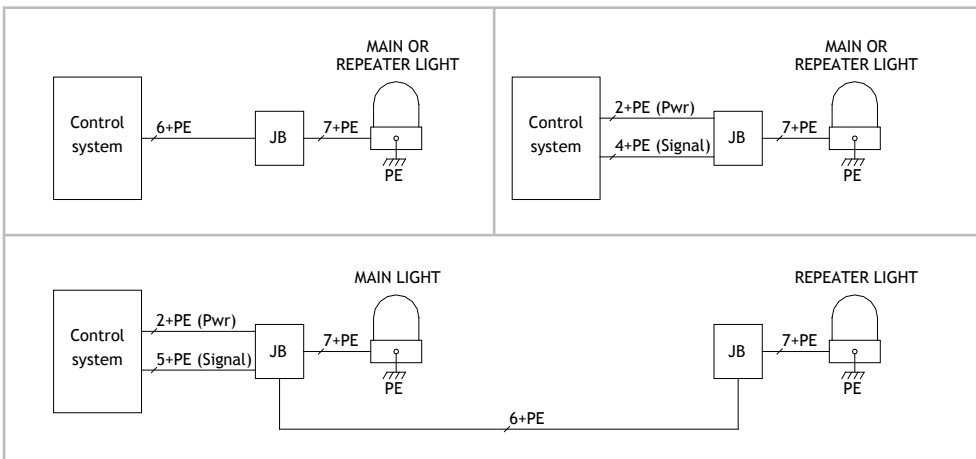
R = Repeater light



EXAMPLES - SYSTEM WIRING



EXAMPLES - WIRING



TEF 9980 STATUS LIGHT SYSTEM

CABLE DIMENSIONS

Voltage drop in cables should be calculated to ensure that voltage at lamp is minimum 16V. Use a current consumption of 6.15A for main lamp and 0.41A for repeater light to calculate voltage drop.

Note:

- The control cabinet incorporates a regulated power supply, and voltage out from cabinet can be considered to be 24VDC. Voltage drop in power supply cable will be compensated in regulator.
- Voltage drop in the 3 meters flying lead cable from lamp can be omitted from calculations.
- If necessary the voltage at control cabinet can be adjusted up to 28.5V.

Recommendation

One Main Light, Power Lines Wire 1 and 2 (Voltage at control cabinet = 24V)

Cable Length	Dimension
<60 meter	2,5mm ²
<100 meter	4mm ²
<140 meter	6mm ²
<230 meter	10mm ²
Repeater light and signal lines: Recommendation: Min. 1.5mm ² regardless of cable length (<300m).	

ORDERING INFORMATION

		Description	Part No.
1	Determine No. and type of light units.	TEF9980 Main Light	9980 000
		TEF9980 Repeater Light	9980 005
2	Select No. and type of junction box	TEF1058 for single lamp connection	1058 2089
		TEF1058 for single lamp connection + cable termination to next lamp	1058 2589
3	Select type of control panel.	TEF9980 Ex outdoor 100-240VAC	9980 010
		TEF9980 Ex outdoor 18-32VDC	9980 012
		TEF9980 non-Ex indoor 100-240VAC	9980 020
		TEF9980 non-Ex indoor 18-32VDC	9980 022
		TEF9980 non-Ex outdoor 100-240VAC	9980 030
		TEF9980 non-Ex outdoor 18-32VDC	9980 032
4	Options	Ex Remote Panel, full control and monitoring	9980 040
		Ex Remote Panel, "dim" signal only	9980 041
		Eye bolt for fixing of security wire	0000 5838

Note 1:

The light units are delivered with flying lead cable. This open end cable shall be terminated in an Ex approved junction box.

Note 2:

Tranberg also delivers integrated control systems for controlling other helideck lights in addition to status lights. Contact Tranberg for information.



R. Stahl Tranberg AS

E info@stahl-tranberg.com | stahl-tranberg.com

Main office: Strandsvingen 6 | N-4032 Stavanger | Norway | T +47 51 57 89 00 | F +47 51 57 89 50

Office Oslo: Luhrtoppen 2 | N-1470 Lørenskog | Norway | T +47 24 08 44 10