

# NAVIGATION LIGHTS **TEF 2870 NAVIGATION LIGHT** SAFE AREA USER MANUAL

Subject to change without prior notice TUM1002 REV. M 04.04.2024



### **IMPORTANT**

Read this instruction carefully before installing the product

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#### SAFETY PRECAUTIONS

Note that changes made to the product and/or installation of components which do not conform to the manufacturer's specification, may be a safety violation. The manufacturer will in no circumstance be held responsible for such activity. 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.





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

#### INTRODUCTION

Thank you for purchasing this product!

For installation, maintenance and assurance of a long life of this product, please follow this manual.

#### CONTENT IN BOX

The product is fully assembled, and ready for installation.

#### SAFETY PRECAUTIONS

Note that changes made to the product and/or installation of components which do not conform to the approval, may be a safety violation. The manufacturer will in no circumstance be held responsible for such activity.

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.

#### **IMPORTANT INFORMATION**

The lanterns are supplied with galvanic isolators. These should be placed between the lantern and the wall, thus preventing corrosion to either. There should be used acid resistant stainless steel fixing screws/bolts.

Never paint lantern or any of its components.

Use only spare parts as described.

Some models are supplied with additional blind plug. When mounting the lantern upside down, the drain plug must be replaced with this blind plug, and a 3mm hole must be drilled in the top lid for drainage.

#### MAINTENANCE INSTRUCTIONS

The lantern should be inspected according to Company routines. The manufacturer suggests regular check for water intrusion/condensation which should be removed immediately. Check the drain plug / drain hole function.

When cleaning, use only mild detergents. Alcohol or petroleum based products may damage lens, paint or plastic components.

#### TOOLS REQUIRED

Regular tools required for installation.

- One small, flat screwdriver for the electrical connections.
- One small adjustable wrench for the electrical compartment cover.
- One larger adjustable wrench or an adjustable torque wrench for the fixing screws for the lantern to wall / mast, and if using Tranberg stainless steel mounting bracket, between this and the mast and the lantern.

## INSTALLATION INSTRUCTIONS

The lantern should be installed according to IMO regulations and other relevant rules and regulations for electrical installations onboard ships.

Consider the difference in material between the lantern (seawater resistant aluminium or brass) and the wall/mast it is to be installed on. Use galvanic isolators whenever there is a risk of corrosion.

#### Important!

The fixing screws or bolts must be tightened firmly (for all round lantern illustrated with max. 2,5 kg/m with an adjustable torque wrench), but excessive force will damage the lantern. It is recommended to use acid resistant stainless steel screws/bolts.

#### Important!

If Tranberg stainless steel mounting bracket is used for mounting the all round lantern, the fixing hoop nuts must be tightened firmly (illustrated with max. 2,5 kg/m with an adjustable torque wrench), but excessive force will bend the bracket, and bolt the bracket and the fixing threads in the lantern will be damaged.

The power cable should enter the lantern in such a manner that the cable gland correctly forms a tight entrance. The cable must be clamped near up to the lantern according to relevant rules and regulations for electrical installations onboard ships.

Securing the lantern: The lantern bottom may be secured to the structure in case of a failure with the bolts that hold the lantern in place. A predrilled hole in the lantern bottom is prepared for attaching a wire to the structure. See A on drawing to the right. Similarly, the lantern lid is already provided with and secured by means of a stainless steel wire inside the lantern, fixed to one of the screws for the lamp holder. See B on drawing to the right. We strongly recommend that these measurements are carried out if the lantern is installed on a bow visor, or in a position where heavy vibrations or shocks may induce fatigue to the lantern. In most situations, additional securing the lantern to the structure should not be needed. But if doing so, it is recommended to use a thin, but robust stainless steel wire, similar to the wire inside the lantern.

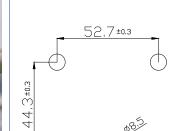
# INSTALLATION INSTRUCTIONS

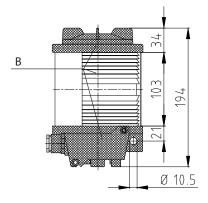
Recommended mounted double tires and single lanterns.

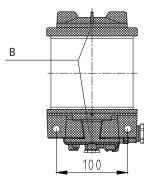
The lantern is supplied with a drain plug in the bottom plus a stopping plug. The drain plug (default) is used when the lantern is positioned up-right. The drain plug is replaced with the stopping plug when the lantern is installed upside down and 3mm hole is to be drilled in the top lid for drainage of water.



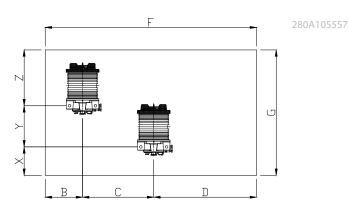
Bracket mounting holes for bottom mounting.

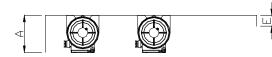






# SCREENING DATA FOR LANTERNS





# 

280A4966

#### NOTE:

All measurements in millimeters All tolerances +/-1mm Minimum measurements indicated by an asterix (\*)

#### Formula:

	Lantern	А	В	C*	D	E	F*	G*	Х*	Y*	Z*
-	TEF 2840	<b*2< td=""><td>&gt;=150</td><td>125</td><td>&gt;=C*2</td><td>62-(0,026*D)</td><td>600</td><td>445</td><td>55</td><td>190</td><td>200</td></b*2<>	>=150	125	>=C*2	62-(0,026*D)	600	445	55	190	200
	TEF 2850	<b*2< td=""><td>&gt;=250</td><td>225</td><td>&gt;=C*2</td><td>95-(0,026*D)</td><td>900</td><td>590</td><td>55</td><td>260</td><td>275</td></b*2<>	>=250	225	>=C*2	95-(0,026*D)	900	590	55	260	275
	TEF 2870	<b*2< td=""><td>&gt;=200</td><td>175</td><td>&gt;=C*2</td><td>67-(0,026*D)</td><td>700</td><td>465</td><td>55</td><td>200</td><td>210</td></b*2<>	>=200	175	>=C*2	67-(0,026*D)	700	465	55	200	210
	TEF 2898	<b*2< td=""><td>&gt;=150</td><td>125</td><td>&gt;=C*2</td><td>45-(0,026*D)</td><td>600</td><td>325</td><td>55</td><td>130</td><td>140</td></b*2<>	>=150	125	>=C*2	45-(0,026*D)	600	325	55	130	140
	Recommended practical measurements:										
	Lantern	А	В	C*	D	E	F*	G*	X*	Y*	Z*
	TEF 2840	300	150	125	250	55	600	445	55	190	200
	TEF 2850	500	250	225	450	84	900	590	55	260	275
	TEF 2870	400	200	175	350	58	700	465	55	200	210
	TEF 2898	300	150	125	250	39	600	325	55	130	140

# SPARE PART LIST TEF 2870

Description	Weight	Part No.
Lens, clear	1,6 kg.	5048 0027
Lens, green	1,6 kg.	5048 1018
Lens, red	1,6 kg.	5048 2018
Lens, yellow	1,6 kg.	5048 3012
Lamp holder, P28S	0,06 kg.	5088 0019
Light source P28S, 230V, 50cd, 65W		9400052
Light source P28S, 24V, 40W		9400 049
Silicone		2000 015
Mounting bracket 1"	0,45 kg.	0000 2600
Mounting bracket 2"	0,60 kg.	0000 2440

TECNICAL DATA					
Material:	Brass, lens of through-coloured glass				
Input voltage:	24V, 115V, 230V (depending on light source)				
Light source:	24V 50cd 40W P28s 115V 50cd 60W P28s 230V 50cd 65W P28s 115/230V for all-round light only Light source according to DIN 49841				
Lamp holder:	P28S				
Power comsumption:	40-65 W (depending on light source)				
Minimum visibility:	6 n. m. with clear lens / 3 n.m. with coloured lens				
Weight:					
Weight.	2,85 kg.				
Ingress protection:	2,85 kg. IP56				

