



Rev.	04
Date	23-07-2015
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Commissioning ICAF System Rev04-ENG

Date	
Engineer	
Company	
Shipyard	
New building nr.	
Vessel type	
Location	
Vessel name	
IMO nr.	
E-mail Vessel	
Owner	
E-mail Owner	
Tel.-nr. Owner	
Fax-nr. Owner	

Before starting up check if the system is turned off!

Materials needed for commissioning:

- Ag/AgCl Reference Electrode
- Rittal key
- Standard electrician toolbox

1. Check the complete ICAF system configuration.

Type of system:

ICAF for boxcoolers	
ICAF for sea inlets	
ICAF combination; boxcoolers and sea inlets	

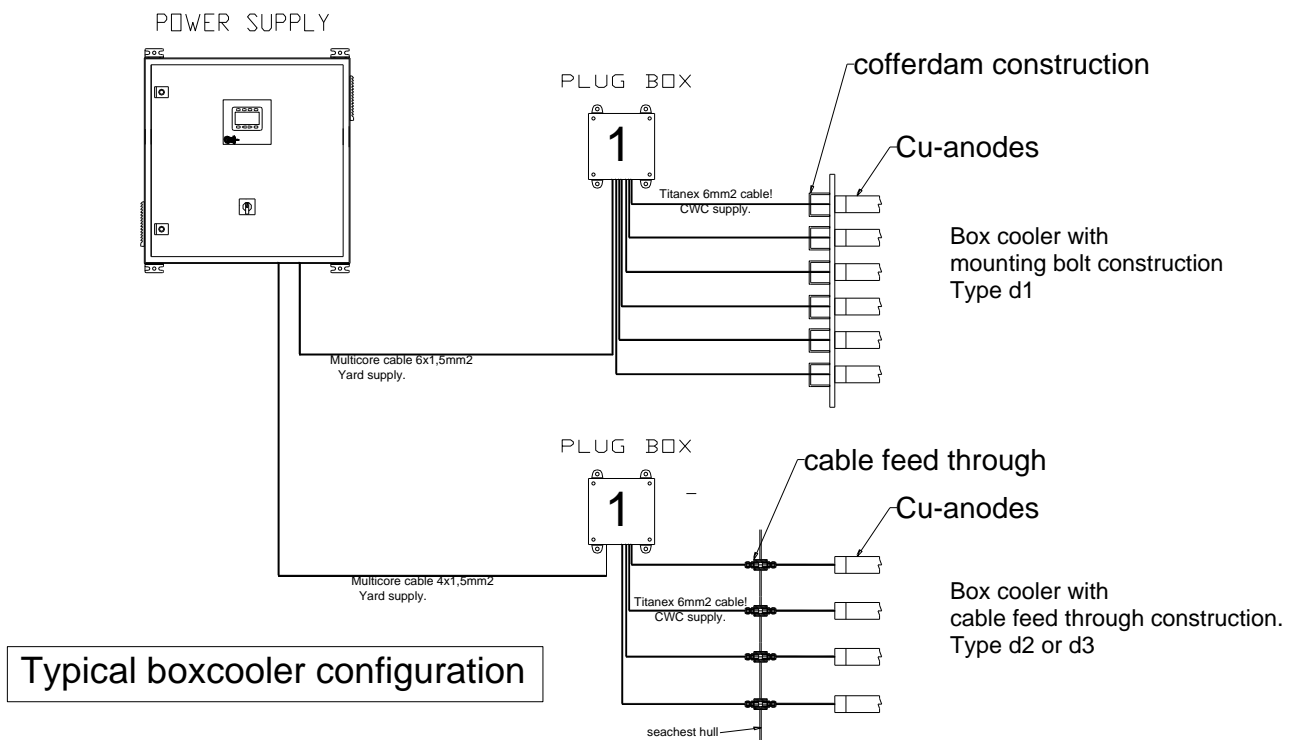
- Perform a visual check of the complete system, all connections, any damages to power unit plugboxes or cables.

Damages:	Description
1)	
2)	

2. Check anode connections.

Measure the resistance (Ω), and the potential difference (mV) on the anode cables.

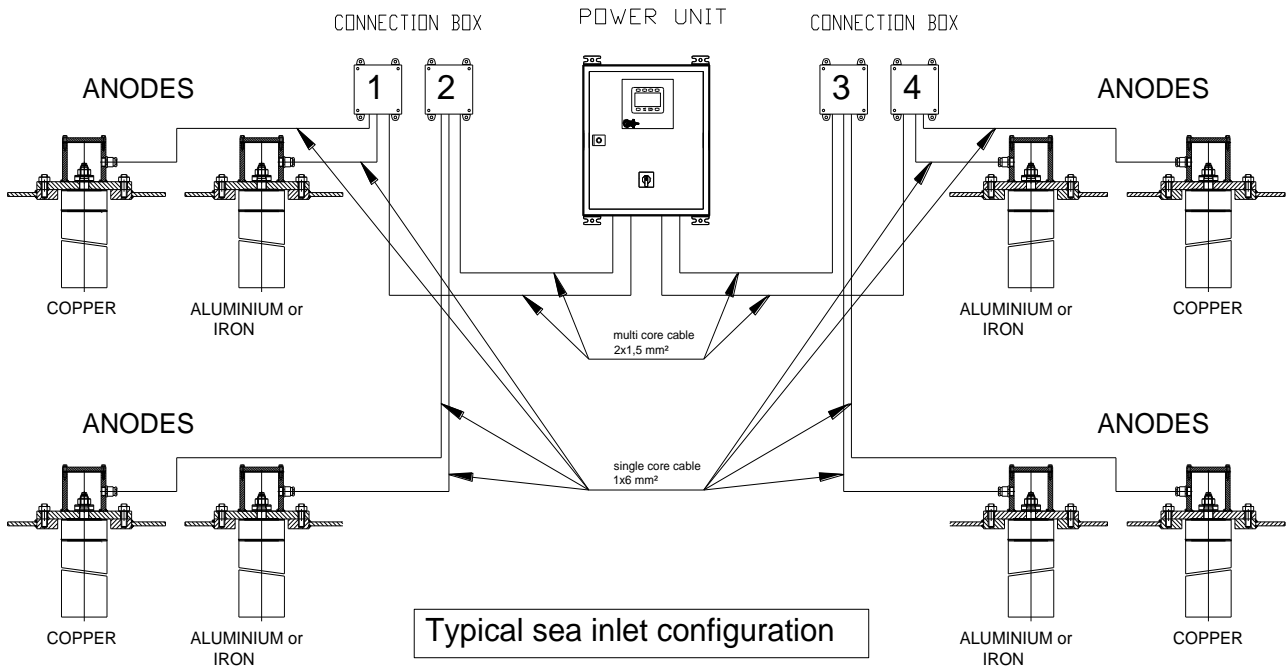
a. For boxcoolers:



Typical boxcooler configuration

- Open plug boxes
 1. Write down which cable number (multi core cable) is connected to which anode. (this is to check the connections inside the power unit (terminals))
- Take the Multimeter, and measure Ohm (Ω) (fill in table)
 - put the + to anode cable
 - put the - to the ship's hull
- Change the Multimeter to mV, and check the potential differences (fill in table)
 - put the + to anode cable
 - put the - to the ship's hull
 - read-out > +400 mV cable connection is okay
 - read-out < +400 mV cable connection is not okay (short circuit)
 - Action 1: check cables visual
 - Action 2: contact CWC
- Check all other anode cables for the complete system

b. For sea inlets:



- Open the cofferdam
 1. Make a visual inspection, no water in the cofferdam, cable connections etc.
- Open plug boxes
 1. Write down which cable colour (multi core cable) is connected to which anode. (this is to check the connections inside the power unit (terminals))
 2. Take the Multimeter, and measure Ohm (Ω) (fill in table)
 - put the + to anode connection pin
 - put the - to the ship's hull
- Change the Multimeter to mV, and check the potential difference. (fill in table)
 - put the + to anode connection pin
 - put the - to the ship's hull
 - read-out Cu-anodes: $> +400$ mV cable connection is okay
 - read-out Cu-anodes: $< +400$ mV cable connection is not okay (short circuit)
 - read-out Al-anodes: $< +400$ mV cable connection is okay
 - read-out AL-anodes: $> +400$ mV cable connection is not okay (short circuit)
 - read-out Fe-anodes: cannot be measured

Action if wrong read-out:

 - Action 1: check cables visual
 - Action 2: contact CWC

Please fill in!

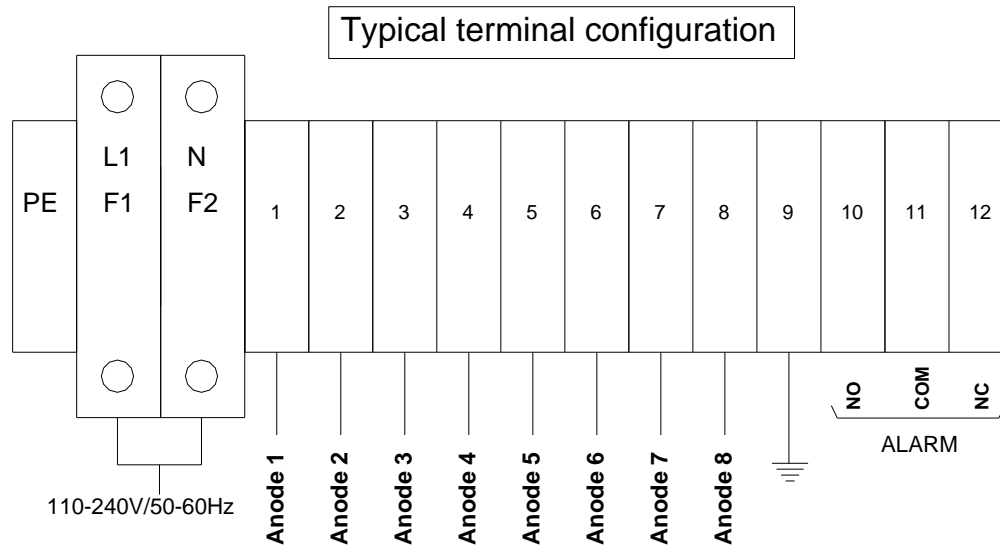
Anode number	Anode type (Cu, Al or Fe)	Sea inlet PS/SB Fore/Aft	Anode resistance (Ω)	Potential (mV)

Remarks:

1)	
2)	
3)	
4)	

3. Check terminals inside the power unit.

- Compare the numbers of the cables (taken from the plugboxes) with the terminals inside the power unit.
- Use the ICAF manual to check the anode numbers.



4. Switch power unit ON

- After switching on, the ICAF system will check itself on correct installation automatically.
When no malfunction are detected in all the connected components, the system will switch to operate. Otherwise it will generate an alarm code on the screen.

