



Rev.	04
Date	23-07-2015
Author	StH
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## Commissioning ICCP 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

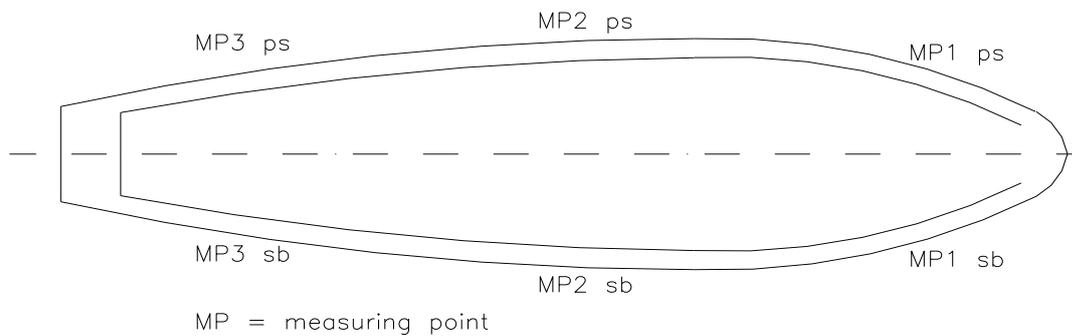
**1. Make a visual check for the complete system, all connections, any damages to power unit plug boxes or cables.**

Damages:	Description
1)	
2)	
3)	
4)	
5)	

**2. Manual potential measurements (mV) on the outside hull, using an Ag/AgCl reference electrode. Use the following measuring points MP1 until MP3.**

Use the Multimeter, measure mV (DC)

- put the + to the ship hull
- put the - to the Zinc reference electrode



Please fill in the table!

MP1 PS		mV
MP2 PS		mV
MP3 PS		mV
MP1 SB		mV
MP2 SB		mV
MP3 SB		mV

Values have to be between -550 / -1100 mV
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**3. Check if the power unit negative (ground) cable is connected to the ships structure by means of a bolt connection.**

**4. Reference cell measurements**

From the reference cell a 2x2,5 mm<sup>2</sup> shielded cable is running to the terminals.

- a. Check if reference cell cables are connected to the right terminals

Potential measurements against Zn reference cell using a Multimeter.

Use the Multimeter, measure mV (DC)

- put the + to the ship hull
- put the - to the “input ref. (PS or SB)” terminal

Please fill in the table!

Input reference 1 PS	mV
Input reference 1 SB	mV
Input reference 2 PS	mV
Input reference 2 SB	mV

Values have to be between  
+500 / -50 mV

Compare these read-outs (Zn reference cell) to the manual potential read-outs (Ag/AgCl) as taken by point 1.

Check read-outs with the following table:

<b>Ag/AgCl Reference electrode</b>	<b>Zinc Reference electrode</b>
-1250	-200
-1150	-100
-1050	0000
-950	+100
-850	+200
-750	+300
-650	+400
-550	+500
-450	+600

**5. Measuring the ICCP-anode terminals**

Use the Multimeter, measure mV (DC)

- put the + to the anode terminal
- put the - to the ship hull

Anode 1 PS	mV
Anode 1 SB	mV
Anode 2 PS	mV
Anode 2 SB	mV

Values have to be > +700 mV

**If values are wrong check the connections**

## 6. Switch on the power unit

An automatic system check will be made. If there are no malfunctions the system will switch over to the standard operation mode.

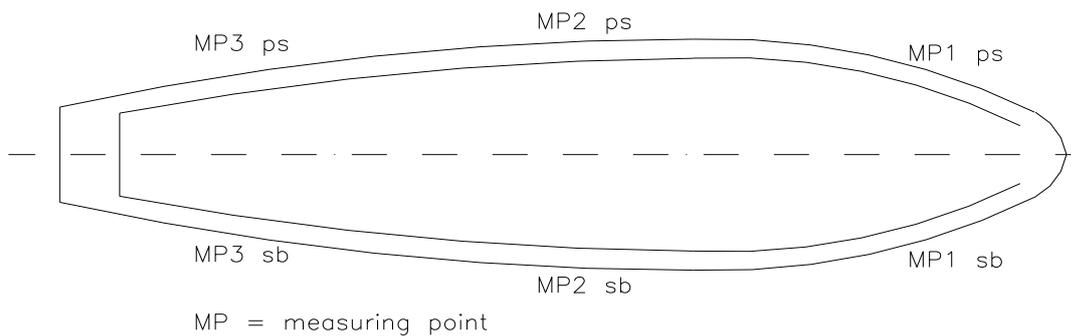
## 7. Alarms

It is possible that an alarm is generated during the first hour because of the low potentials. This is a normal situation; accept the alarm. Alarm will disappear within 24 hours.

## 8. Manual potential measurements (mV) at anchor on the outside hull, using an Ag/AgCl reference electrode. Use the following measuring points MP1 until MP3.

Use the Multimeter, measure mV (DC)

- put the + to the ship hull
- put the - to the Zinc reference electrode



Please fill in the table!

MP1 PS		mV
MP2 PS		mV
MP3 PS		mV
MP1 SB		mV
MP2 SB		mV
MP3 SB		mV

Values have to be between  
-800 / -1100 mV

### Remarks:

1)	
2)	
3)	
4)	

Please return this filled in protocol to Corrosion & Water-Control Maritime by  
Email: [service@corrosion.nl](mailto:service@corrosion.nl) Fax +31 (0)79 5931871



## 10. Manual potential test Power unit

1. Log in into the system with the following code: 1234
2. Press the "Menu" button.
3. Choose the second option From the left to see the settings for the unit.

Now Following screen appears:

Unit 1/Settings	01/04
Mode	Manual
Manual current	0 A
Setpoint 1	-900 mV
Setpoint 2	-1000mV
Ref. cell active	1 2 3 4

Please put the system on 5 Amps and write down the values:

<b>On Potential PS</b>	
<b>Off Potential PS</b>	
<b>On Potential SB</b>	
<b>Off Potential SB</b>	
<b>Voltage</b>	

Please put the system on 20 Amps and write down the values:

<b>On Potential PS</b>	
<b>Off Potential PS</b>	
<b>On Potential SB</b>	
<b>Off Potential SB</b>	
<b>Voltage</b>	

Please put the system on 100 Amps and write down the values:

<b>On Potential PS</b>	
<b>Off Potential PS</b>	
<b>On Potential SB</b>	
<b>Off Potential SB</b>	
<b>Voltage</b>	

After these tests please change back the Mode to how it was set up initially.

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