

Preliminary

Supplementary Instructions

Embedded Web Server, LAN for DULCOMARIN® II DULCO®-Net



ProMinent® 



Dulcomarin II

Thu Aug 18 12:55:40 UTC+0200 2005

<p><u>pH</u></p> <p style="font-size: 24pt;">7,12</p>	<p><u>ORP</u> mV</p> <p style="font-size: 24pt;">654</p>
<p><u>Cl</u> mg/l</p> <p style="font-size: 24pt;">1,12</p>	<p><u>Cl comb</u> mg/l</p> <p style="font-size: 24pt;">0,13</p>
<p><u>temp</u> °C</p> <p style="font-size: 24pt;">25,6</p> <p style="font-size: 8pt;">chlorine probe</p>	<p>POOL 1 >>>></p> <p>ChildrensPool dosage OFF</p>

pool selection:

[overview](#)

These operating instructions are only valid in conjunction with the
 “Operating Instructions DULCOMARIN® II swimming pool controller, Part 2: Operation.”
 Please read through the whole of these operating instructions to begin with! Do not discard them!
 The warranty is invalidated in the event of damage due to incorrect operation!

Legal notice:

Supplementary instructions
Embedded Web Server, LAN for
DULCOMARIN® II DULCO®-Net
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Printed in Germany

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General notes for the user

Please read through the following notes for the user! When you are familiar with them, you will get a lot more out of the operating instructions.

In the text, particular emphasis is placed on:

- Lists
- ▶ Instructions

Operating notes:

NOTE

Notes are designed to make your work easier

and Safety notes:



CAUTION

***Indicates a possibly dangerous situation.
Failure to comply can result in slight or minor injuries!***



ATTENTION

***Indicates a possibly harmful situation.
Failure to comply can result in damage to property and equipment!***

1 About this product

The Embedded Web Server in the DULCOMARIN® II DULCO®-Net allows the central unit of the DULCOMARIN® II to be remotely monitored via a PC. Additionally, the setpoints can be changed via the PC and the dosing stopped and started.

The central unit of the DULCOMARIN® II and the PC can be connected via a LAN.

Access to the Embedded Web Server can be password-protected.

The Embedded Web Server is available with the DULCOMARIN® II DULCO®-Net with the identity code feature "Communication interfaces: 5, 8, 9 Embedded Server, LAN" in the identity code of the central unit (DXCa_ _5 1 _ _ _ _ _01).

NOTE

To check the identity code, press the F1 HELP function key in the central menu.

2 Safety



CAUTION

Swimmers can be endangered due to excess chlorinity, excess acidity or hygienic shortcomings in the swimming pool water, if unqualified or unauthorised persons (even hackers) adjust the setpoints of the DULCOMARIN® II or switch the dosing on or off!

Ensure that the required security is provided there when connecting the system to a LAN!

Protect the Embedded Web Server with 2 secure passwords with the maximum character length (use both numbers and special characters).

The central unit of the DULCOMARIN® II itself must be protected by secure passwords (numeric codes)!

The "PIN card" - available from ProMinent (Order No. 986894)- helps in noting down several numeric codes easily and securely.



ATTENTION

The connection between the DULCOMARIN® II and a PC must be set up only by specialist staff who are very familiar with networks!

Usage clause

Before commissioning the DULCOMARIN® II network connection and within the bounds of the Operator's duty of care, a check must be made on whether the installation can lead to particular interactions with existing data processing systems.

In addition, the central unit of the DULCOMARIN® II must be protected against unauthorised access by entering a number of secure passwords (using the maximum number of characters) and the DULCOMARIN® II Web server must be protected against unauthorised access by entering two secure passwords (using the maximum number of characters). If the customer fails to enter a secure password, he indemnifies ProMinent from all claims for damages that can be attributed to unauthorised or faulty data transfer and use.

Furthermore, the Operator must ensure appropriate security of existing data both before the initial commissioning and during day-to-day operation. All reasonable security measures must be taken in the event of a suspected error.

ProMinent accepts no liability for damages caused by force majeure (civil unrest, war, natural phenomena) or by other incidents that ProMinent are not responsible for (power failures, traffic interruptions, maintenance and repair work, as well as functional faults on DP systems and Internet links).

3 Installation and setup

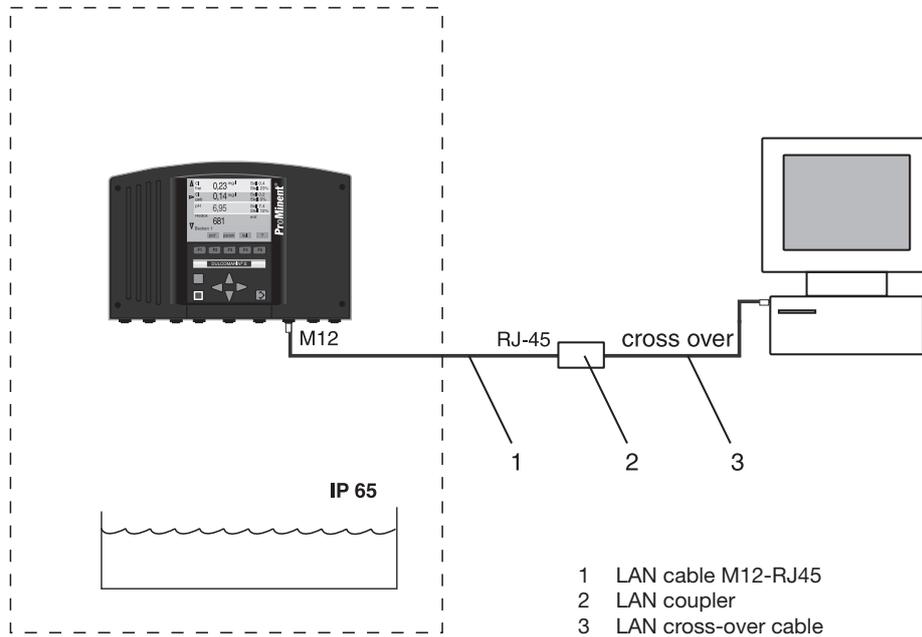
PC requirements

Browser (e.g. *Microsoft® Internet Explorer*): must be running
 Network card: must be available

First of all, physically connect the central unit of the DULCOMARIN® II to the PC as suggested in the following sections.

3.1 Via direct connection

Fig. 1:
 Direct connection between
 DULCOMARIN® II and PC



The DULCOMARIN® II can be directly connected to the PC via the LAN cable M12-RJ45 (1), together with a LAN coupler (2) and a LAN cross-over cable (3).

Installation



ATTENTION

- **Special LAN cable M12 - RJ45 is required at the DULCOMARIN® II (included in delivery package)!**
- **On the LAN cable M12 - RJ45, only the M12 gland is dampproof, and only when it is screwed on!**
So, in damp areas, always protect the M12 connection of the DULCOMARIN® II with the protective cap supplied whenever the cable is not connected! For this reason, the LAN cable must only be disconnected for a short time in damp areas!
- **Connect the DULCOMARIN® II to the PC via the LAN cable M12-RJ45 (1) together with a LAN coupler and a LAN cross-over cable (3).**
When the connection is physically present, the LAN LED illuminates at the DULCOMARIN® II (the furthest right of the four LEDs).

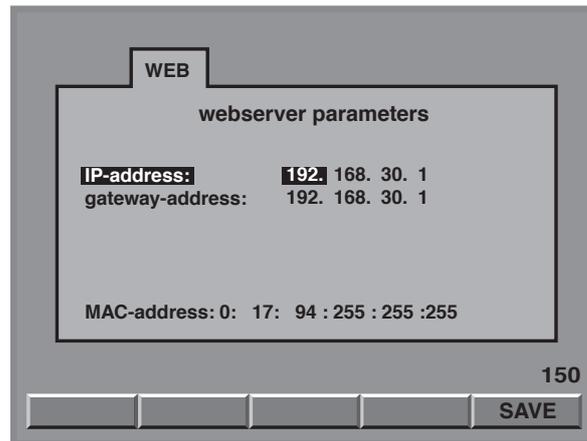
Installation material	Order No.
LAN cable M12 - RJ45, 5.0 m	supplied
LAN cable M12 - RJ45, 10 m	1026716
LAN cross-over cable RJ45, 3.0 m	1027859
LAN coupler, RJ45	1027860

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Setup

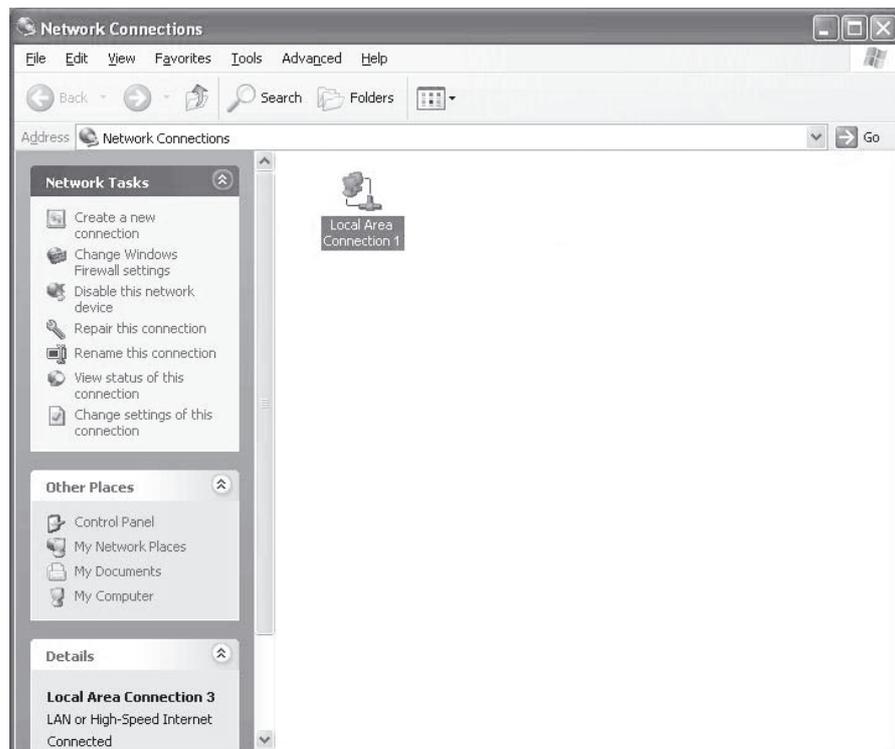
- ▶ At the central unit of the DULCOMARIN® II, use the ENTER key to change from the permanent display to the central menu.
- ▶ In the central menu, access the WEB tab with F4 CONFIG and F2 OPTION.

Fig. 2:
Web server
IP address settings
(DULCOMARIN® II)



- ▶ Check the IP address of the DULCOMARIN® II “192.168.30.1”. The gateway address must be identical with it for this type of installation.
- ▶ At the PC, go to the menu for setting the IP (also refer to the documentation of your PC operating system). The path there, for example, in *Microsoft® Windows XP Professional SP2* is like: “Start” (bottom left, on the taskbar) – “Settings” – “Control Panel” – “Network Connections”:

Fig. 3:
Network Connections

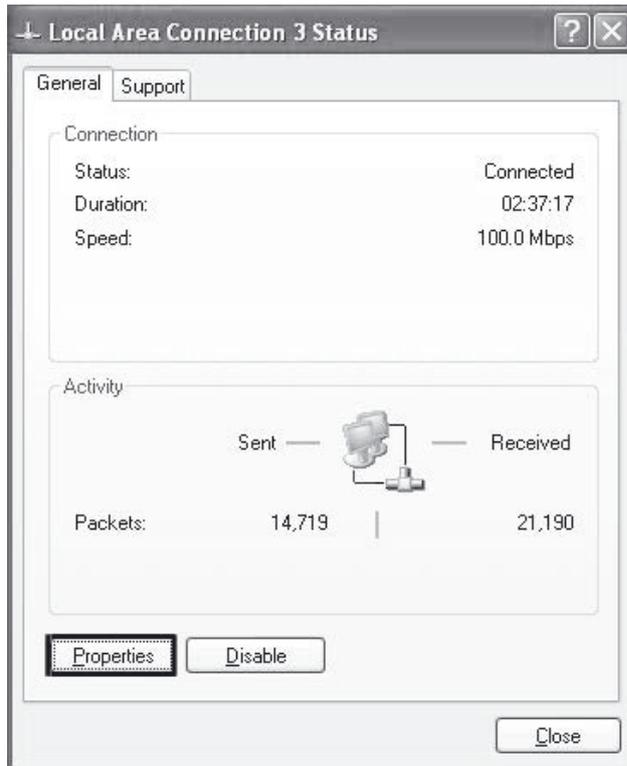


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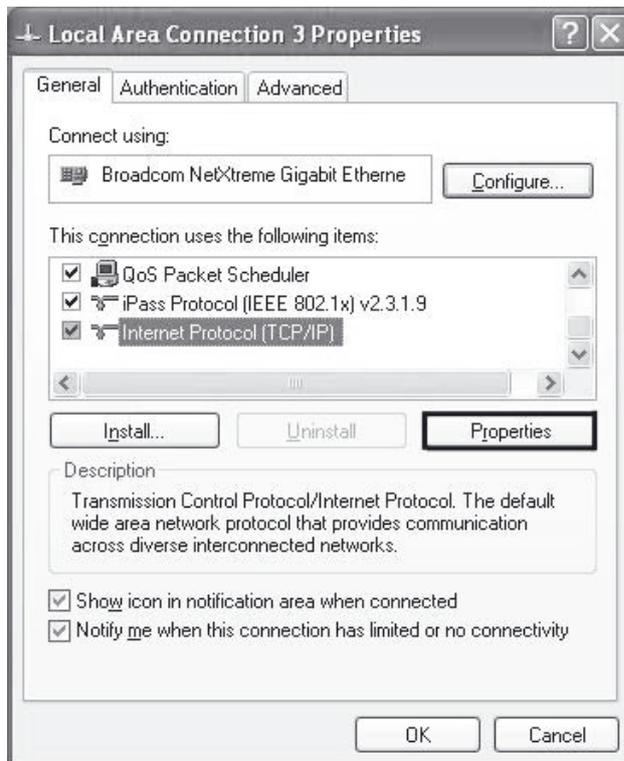
- ▶ Click the “LAN connection” icon in this window - “Status of LAN Connections” appears:

Fig. 4:
Status of
LAN connections



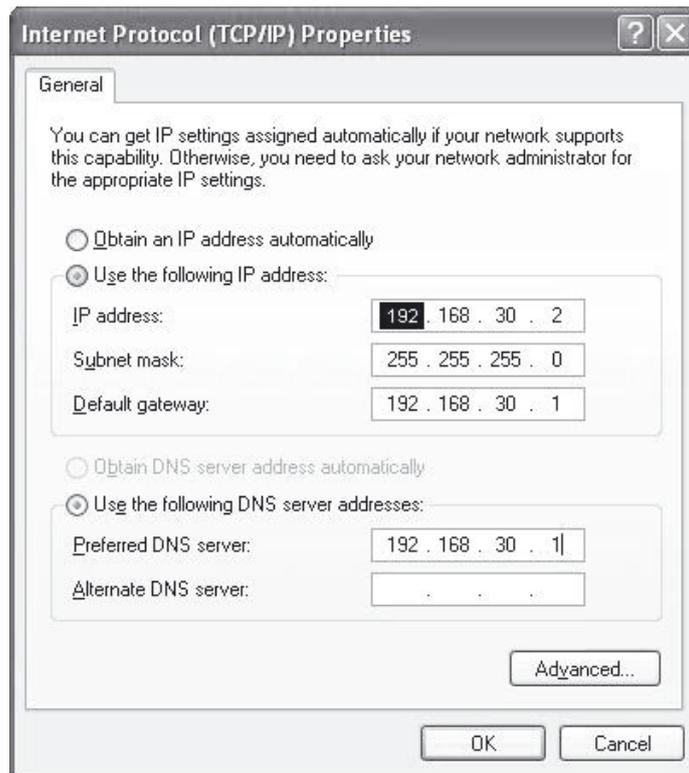
- ▶ Click “Properties” in this dialog box - “LAN Connections Properties” appears.

Fig. 5:
LAN Connections
Properties



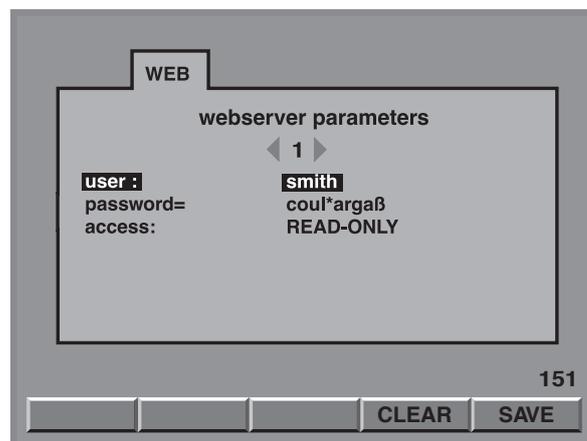
- ▶ Select “Internet Protocol (TCP/IP)” in this dialog box.
- ▶ Click “Properties” – “Properties of Network Protocol (TCP/IP)” appears:

Fig. 6:
Internet Protocol
Properties (TCP/IP)



- ▶ In this dialog box, enter:
 - IP address: 192.168.30.2 (pay attention to the “2” at the end – it must differ from the IP address of the DULCOMARIN® II in this position)
 - Subnet mask: 255.255.255.0
 - Default gateway (don’t change, this depends on your network.)
- ▶ Click “OK” and then close all Control Panel dialog boxes once again.
- ▶ At the DULCOMARIN® II, in the WEB tab, change to WEB for password tab with F4 PASSW:

Fig. 7:
Web server password
settings (DULCOMARIN® II)



- ▶ You must enter a user (user name) and password (code) that differs from the standard settings. To do this, press ENTER and use the arrow keys to select the characters, then press ENTER again.
- ▶ Press F5 SAVE – otherwise the entries are lost.
- ▶ In the central menu, access the WEB tab with F4 CONFIG and F2 OPTION and press the F3 RESET key to activate the changed data. The system restarts again.

Windows® XP Professional screenshots reprinted
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The Embedded Web Server can be protected by two passwords. Eight users can be set up (use the maximum character length for these too)

Under “Access” In the WEB for passwords tab, you can set whether the password allows ‘Read only’ or ‘Write only’ or both.

The required characters can be selected with the UP and DOWN arrow keys.



ATTENTION

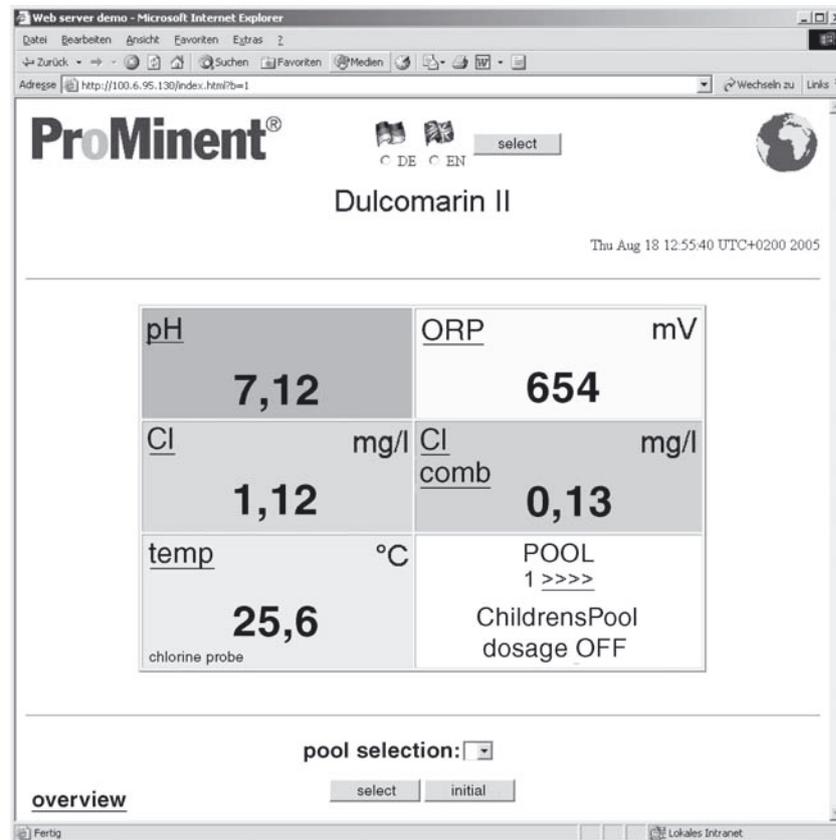
- **The DULCOMARIN® II can only be operated with a password!**
- **Use two passwords to protect the DULCOMARIN® II more securely (one for read and one for change)!**
- **Observe the current standard rules for secure passwords!**

Success check

Once everything is successfully installed and set up, proceed as follows:

- ▶ At the PC, open the browser (e.g. *Microsoft® Internet Explorer*) and at the top, in the address line, enter the IP address of the DULCOMARIN® II: 192.168.30.1 – an Authentication dialog box appears.
- ▶ In the Authentication dialog box, enter the user name and password (code) - the Web interface of the DULCOMARIN® II appears on the PC screen with the permanent display:

Fig. 8:
Web interface
(DULCOMARIN® II)



If the Web interface does not appear:

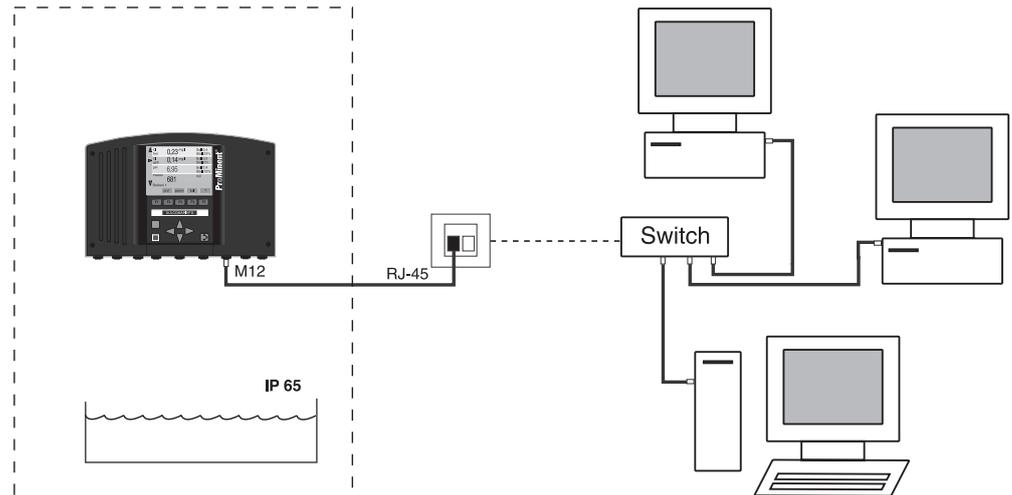
Check that *Microsoft® Internet Explorer* is not using any proxy servers: in the browser, under the “Tools”- “Internet Options” tab - “Connections” – “LAN Settings”, check that there is no check mark against “Proxy server”. If there is, clear the check mark, quit the menu with OK and then enter the IP address of the DULCOMARIN® II again in the address line at the top and click on “Change to”.

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3.2 Via LAN

Fig. 9:
DULCOMARIN® II and
PC connected via LAN



The DULCOMARIN® II can be connected in a LAN like a conventional Web server.



CAUTION

- *The connection can and must only be set up by the specialist who set up the LAN, or who is responsible for it.*
- *Call in a network specialist if you have network problems!*
- *Call ProMinent if you have problems with the DULCOMARIN® II.*

NOTE

The following section only provides the information that the specialist needs to install and set up the DULCOMARIN® II Embedded Web Server.

Installation



ATTENTION

- *Special LAN cable M12 - RJ45 is required at the DULCOMARIN® II (included in delivery package)!*
- *On the LAN cable M12 - RJ45, only the M12 gland is dampproof, and only when it is screwed on!
So, in damp areas, always protect the M12 connection of the DULCOMARIN® II with the protective cap supplied whenever the cable is not connected! For this reason, the LAN cable must only be disconnected for a short time in damp areas!*
- *Connect the DULCOMARIN® II to the network switch via the LAN cable M12-RJ45 and an Ethernet socket.
When the connection is physically present, the LAN LED illuminates at the DULCOMARIN® II (the furthest right of the four LEDs).*

Installation material

LAN cable M12 - RJ45, 5.0 m
LAN cable M12 - RJ45, 10 m

Order No.

supplied
1026716

Setup

- ▶ At the central unit of the DULCOMARIN® II, use the ENTER key to change from the permanent display to the central menu.
- ▶ In the central menu, access the WEB tab with F4 CONFIG and F2 OPTION.

Fig. 10:
Web server
IP address settings
(DULCOMARIN® II)

WEB

webservice parameters

IP-address: 192.168.30.1
gateway-address: 192.168.30.1

MAC-address: 0: 17: 94 : 255 : 255 :255

150

SAVE

The WEB tab displays:

- The IP address of the DULCOMARIN® II (factory setting: 192.168.30.1)
 - The gateway address (factory setting: 192.168.30.1)
- ▶ The settings can be changed with the ENTER key and the arrow keys.
- ▶ Save the settings with F5 SAVE.
- ▶ At the PC, move to the menu for setting the IP (also refer to the documentation of your PC operating system)
The path there, for example, in *Microsoft® Windows* is often like:
“Start” – “Settings” – “Control Panel” – “Network Connections” – “LAN connections” – “Properties” – “Internet Protocol” – “Properties”.
- ▶ In this dialog box, enter:
- IP address
 - Subnet mask
 - standard gateway
- ▶ At the DULCOMARIN® II, in the WEB tab, change to the WEB for password tab with F4 PASSW:

Fig. 11:
Web server password
settings (DULCOMARIN® II)

WEB

webservice parameters

1

user: smith
password= coul*argaß
access: READ-ONLY

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CLEAR SAVE

- ▶ Enter the required user (user name) and passwords (codes) for the DULCOMARIN® II: to do this, press ENTER and then use the arrow keys and press ENTER again.
- ▶ Press F5 SAVE – otherwise the entries are lost.

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The Embedded Web Server can be protected by two passwords. Eight users can be set up (use the maximum character length for these too)

Under “Access” In the WEB for passwords tab, you can set whether the password allows ‘Read only’ or “Change only” (Write) or both.

The required characters can be selected with the UP and DOWN arrow keys.

**ATTENTION**

- ***The DULCOMARIN® II can only be operated with a password!***
- ***Use two passwords to protect the DULCOMARIN® II more securely (one for read and one for change)!***
- ***Observe the current standard rules for secure passwords – especially as the DULCOMARIN® II is connected to a LAN!***

4 Operation

4.1 Controls

The Web interface is designed for navigation using the mouse. The ESC key of the DULCOMARIN® II functions as a “Back” link (climbing the hierarchy of the operating menu).

NOTE

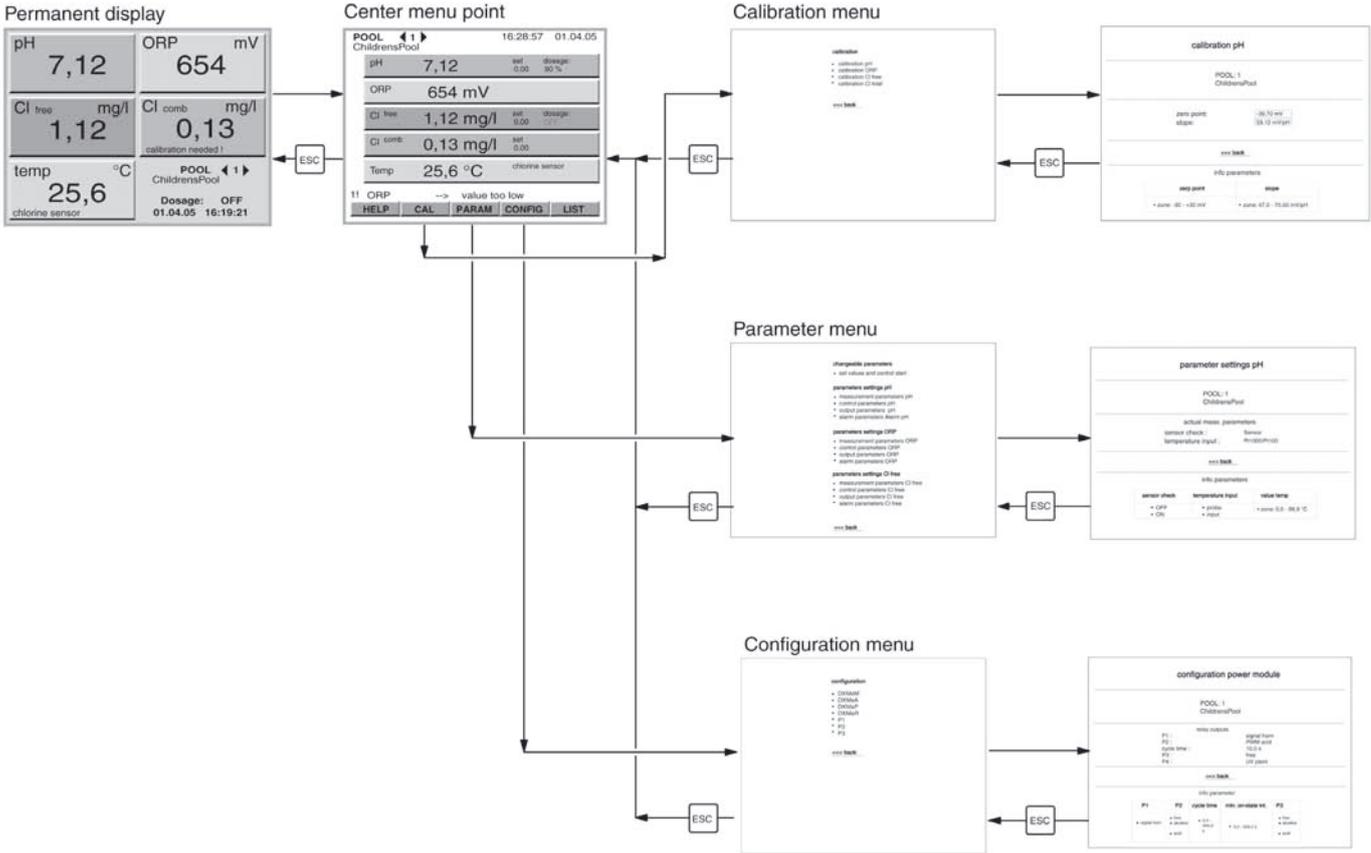
If the mouse has to be omitted, the Tab key and the ENTER key can also be used for navigation.

4.2 Operating language

- ▶ Go to the Web interface in the permanent display.
- ▶ Preselect the operating language via the radio buttons under the two flags.
- ▶ Press “Select” to select the language.

4.3 Operating menu structure

Fig. 12:
Operating menu structure
with the Web interface



The operating menu structure of the Web interface is essentially the same as the operating menu structure of the DULCOMARIN® II itself. However, in the central menu, you can also go directly to the parameter summary of a process variable (broadly equivalent to the Tabs for the process variables).

4.4 Read

The permanent display and the central menu of the Web interface look almost the same as their DULCOMARIN® II counterparts. They display almost the same number of instantaneous readings and control variables as well as the state of the dosing for a particular pool.

A different pool can also be selected here.

NOTE

If the “Change not possible ...” message appears, someone is working in the operating menu directly on the instrument (exceptions: the Help and Logger displays)

Only with “Recorder active”: the “overview” link appears bottom left in the permanent display. The assigned page shows the readings, setpoints and the state of the controller for all pools (updated every 5 min.).



ATTENTION

- **Error messages only appear in the error list (LIST)!**
- **When the error list is open, it is not automatically updated! Update the error list manually via the browser's “Refresh” function!**
- **Time and date differences between the Web interface and the DULCOMARIN® II are possible (also with the switch to summer time, for example)! The time and date displayed by the Web interface come from the PC, not the DULCOMARIN® II!**

- **The DULCOMARIN® II updates the displayed values automatically every 20 s. The values can also be updated manually via the browser's "Refresh" function.**

Click on any link in the permanent display to change to the central menu.

The operating menu branches off in the central menu.

The following Web interface displays subdivide the data in the same way as the DULCOMARIN® II into:

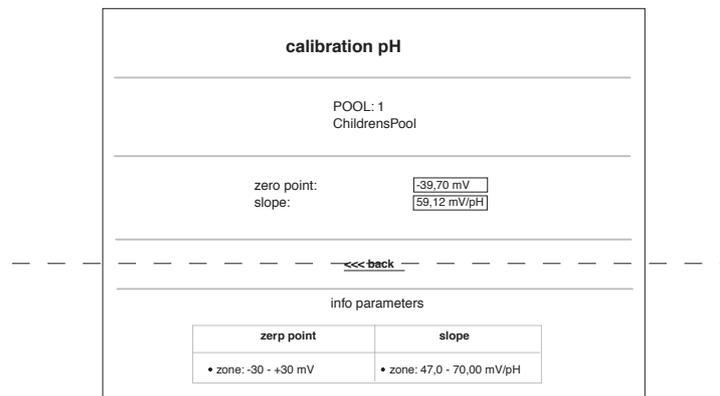
- Calibration
- Parameter setting
- Configuration

Data within the data displays is split into two areas:

- The top area displays the set parameters
- The bottom area displays the range of the parameters

A central area just has the "Setpoints adjustment" display for the adjustable parameters.

Fig. 13:
Areas of a display
(DULCOMARIN® II):
set parameters - top
ranges - bottom



4.5 Write (Change)

You can adjust the state of the controller and the setpoints in the "Setpoints adjustment" display.



ATTENTION

The set value becomes effective only after you click the "Select" key.

NOTE

If the "Change not possible" message appears, someone is working in the operating menu directly on the instrument (exceptions: the Help and Logger displays).

5 Accessories

	Order No.
LAN cable M12 - RJ45, 5.0 m	1026715 (supplied)
LAN cable M12 - RJ45, 10 m	1026716
LAN cross-over cable RJ45, 3.0 m	1027859
LAN coupler, RJ45	1027860
LAN adaptor IP67 DXC, complete	1024835
PIN card	986894

**We reserve the right to make
technical modifications.**

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