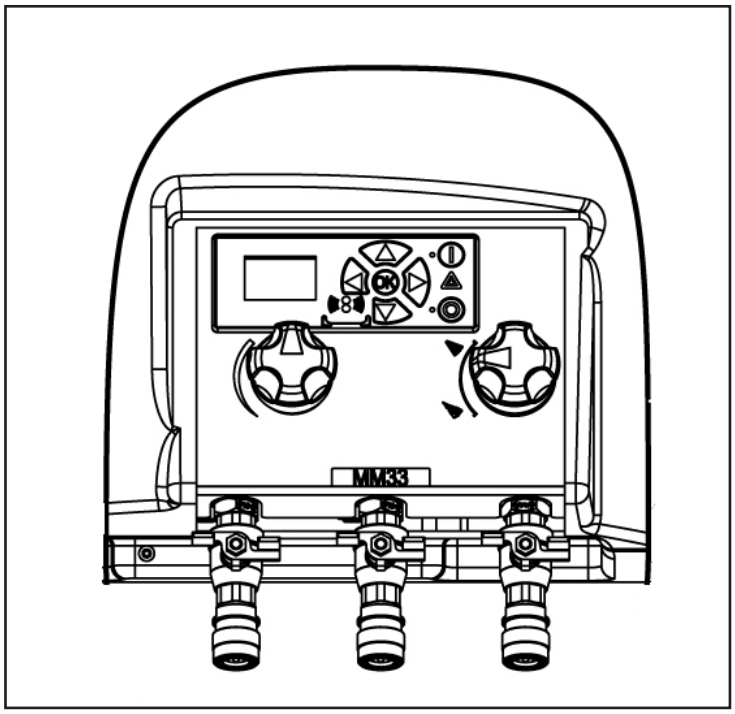
Software Manual

Control Panel for Professional Single Booster Units

Models: MM3
BW3



1. Description

This software manual describes the operation of the control panel of the professional Single Booster unit.

The advanced SB unit is operated via the control panel (see below illustration).

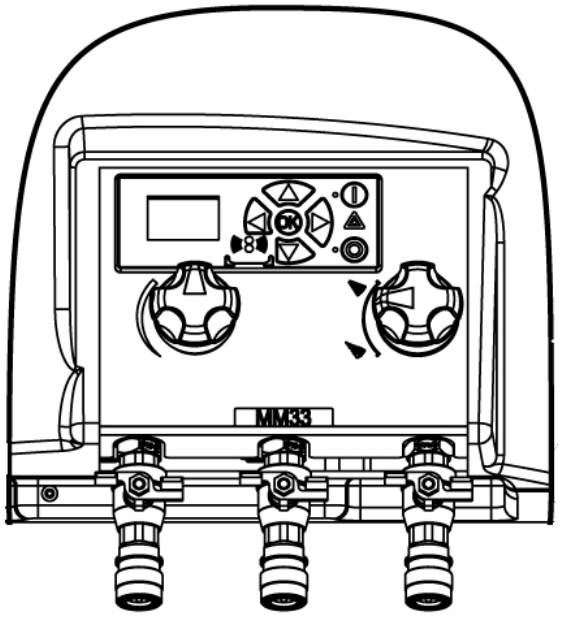
1. OFF
   Button (1) switches OFF the unit.

2. ON/STANDBY
   Button (2) switches ON the unit.

3. ERROR
   Error light indicator (3).

4. NAVIGATION BUTTONS
   The four ”arrow” navigation buttons (4) are used for navigation in the display menu. Pressing the ”OK” button activates the menu and confirms any activity displayed.

5. DISPLAY



2. Display layout

(1)
When switched on the display will show an arrow symbol in the top right corner equivalent to the active navigation buttons on the control board.

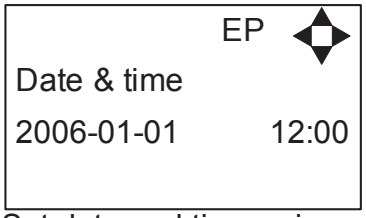
The arrows illustrate that it is possible to scroll up and down between the menus. Scrolling to the right makes it possible to enter a value. Set the value scrolling up (+) or down (-) to set the value higher or lower accordingly. Confirm by pressing ok.

(2)
A letter combination for easy reference in connection with service work will appear in the top right corner of the display.

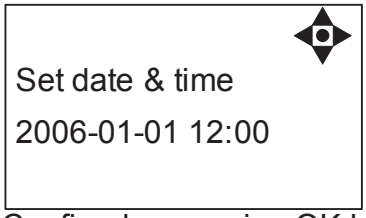
3. Modes

3.1 Power On

The very first time the unit is switched on, we recommend setting date and time in the Setup menu, settings, display EP. If date and time is not set, date and time will count from the pre-set default date and time.



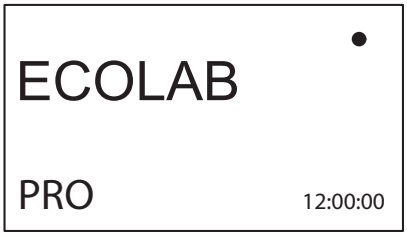
Set date and time using navigation buttons.



Confirm by pressing OK button.

3.2 Standby

The start up display will look as the below.



Display for SB model.

3.3 Power Off

When the unit is off the display will only show a small dot in the top right corner.

In Off mode it is possible to access all menus without the pump running by pressing the OK button on the panel.

Dot is equivalent to the OK confirm button on the panel.

3. Error/Warning

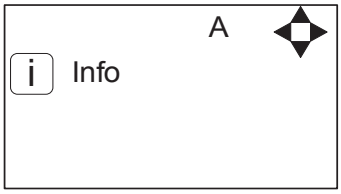
In case of an error, “ ERROR” will appear on the display screen.
Press the OFF button to switch of unit.
If the error remains when the unit is switched ON again, please scroll right to see current error.

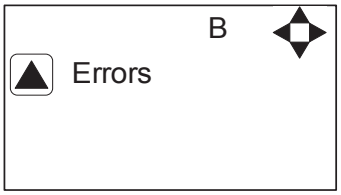
In case of a warning, “WARNING” will appear on the display screen. When a warning is detected the machine will either stop or run with limited performance until the cause of the warning has been improved (eg. inlet pressure).

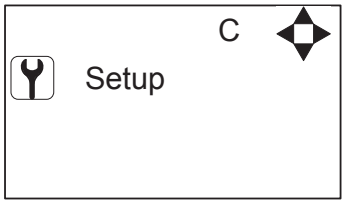
To see further error/warning list and possible cause and remedy go to section 5.2.

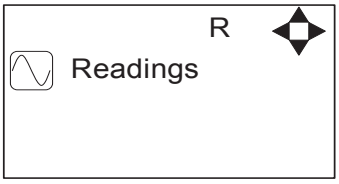
4. Content of Main- and Submenus

The control panel contains the below main menu screen displays.
Scroll between the menus using the navigation buttons.
Each main menu contains submenus which will be described subsequently.









5. Overview of Main- and Sub Menus

1. Info (A)

1 Info (AEA)

2. Errors (B)

3. Setup (C) (default password 6802)

1 Password (CA)

2 Settings (E)

Standard pressure (ER)
Auto off delay (EZ)
Date & time (EP)

3 Communication (I)
Get Errorlog by cable (IA)
Get Errorlog by infrared (IB)
Firmware Upgrade by cable (IC)
Firmware Upgrade by infrared (ID)

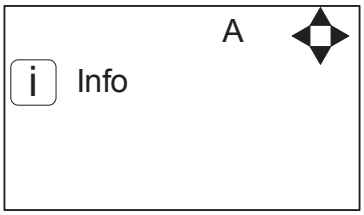
4. Installation (K)
Install password (KA)

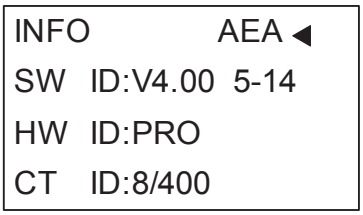
4. Readings (R)

Pump state (RA)
Pump-top pres. (RB)
Pump-top temp (RC)
Supply pressure (RD)
Supply temp. (RE)
Flow Status (RF)

5.1 Content of the Info menu

Please note that the Info menu is only for display – all data must be typed in via the setup menu!



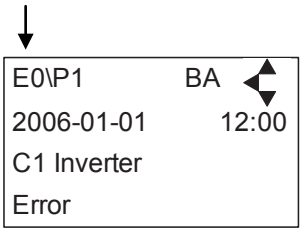


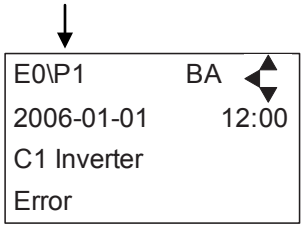
This display view is only ment as an example, SW ID and CT ID shows the current SW version.

Displays Software version and Pump size, machine configuration and controller software version/ID.

5.2 Content of the Errors menu – CAUSE & REMEDY

<u>Example of Error log screen display</u>:
All error occurrences will be stamped with date and time.
E indicates Error number. P indicates Pump number.





The error log stores up to 1000 occurrences. When max. memory is reached, the errors will be deleted according to ”First in” First out” principle.

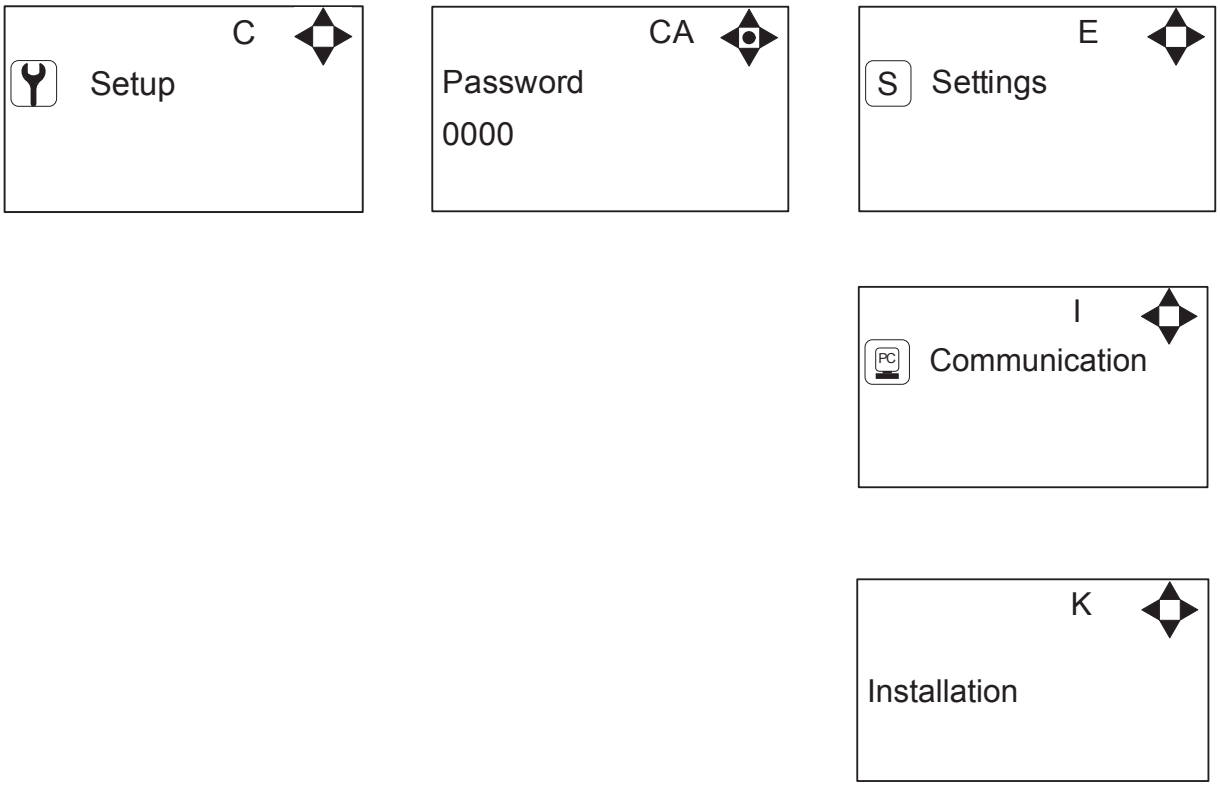
5.2.1 Error List

Error	Cause	Remedy
C1 Inverter Error	1. Frequency inverter in error state	1. Switch off the power on the service switch. Wait 180 sec. Switch on the unit again. If error still occurs, please contact your Ecolab technician.
C2 Low Supply Pressure	1. Insufficient water supply	1. Secure sufficient water supply pressure. 2. Check inlet filter for impurities/rinse filter 3. Contact your Ecolab technician
C3 High Water Temp.	1. Water pump top temperature is above 80° 2. Water consumption is too low (pump column has been overheated)	1. Lower the inlet water temp. (max 70°C) 2. Secure sufficient water consumption 3. Contact your Ecolab technician
C4 High Motor Temp.	1. Insufficient cooling of motor 2. The ambient temperature is above 40°	1. Secure that all air channels are open and not blocked by impurities 2. Lower ambient temperature
C5 High Supply Temp.	1. Water inlet temperature is above 70°	1. Lower the water temp. (max 70°C) 2. Contact your Ecolab technician
C6 Low Sensor Supply Voltage	1. Voltage supply for sensors too low	1. Press “off” button 2. If error reoccurs, contact our Ecolab technician
C7 No Response Error	1. No communication between display and control board	1. Contact Ecolab technician
C8 Low Tank Level	1. Insufficient water supply 2. Water supply valve not open	1. Check correct water supply 2. Secure suffcient air supply to valve 3. Contact your Ecolab technician
C9 High Tank Level	1. Water supply valve not closed	1. Secure sufficient air supply to the valve. 2. Contact Ecolab technician
C10 Tank comm. Error	1. Communication failure on tank control board	1. Contact Ecolab technician
C11 Warning Cri. Inlet press.	1. Insufficient water supply 2. Booster will return to standby mode after 20 sec. If this error occurs 3 times within 20 min. Error C2 occurs.	1. Secure suffcient water supply or reduce consumption 2. Check inlet filter for impurities/rinse filter 3. Contact your Ecolab technician
C13 Warning Low inlet press.	1. Insufficient water supply. The machine will keep on working as always, but the maximum speed of the pump will be reduced until sufficient inlet pressure is present.	1. Secure sufficient water supply or reduce consuption 2. Check inelt filter for impurities/Rinse filter
C20 Low Sensor Signal P-Pump-top	1. Pressure signal from pumptop sensor, out of range	1. Press “off” button 2. If error reoccurs, contact your Ecolab technician
C21 Low Sensor Signal T-Pump-top	1. Temparature signal from pumptop, sensor, out of range	1. Press “off” button 2. If error reoccurs, contact your Ecolab technician
C22 Low Sensor Signal P-Inlet	1. Pressure signal form inlet sensor, out of range	1. Press “off” button 2. If error reoccurs, contact your Ecolab technican
C23 Low Sensor Signal T-Inlet	1. Temperature signal from inlet sensor, out of range	1. Press “off” button 2. If error reoccurs, contact your Ecolab technican
C24 Low Sensor Signal block	1. Signal from block sensor, out of range	1. Press “off” button 2. If error reoccurs, contact your Ecolab technican
C25 Low Sensor Signal flow	1. Signal from flow sensor, out of range	1. Press “off” button 2. If error reoccurs, contact your Ecolab technican

C30 High Sensor Signal P-Puump-top	1. Pressure signal from pumptop sensor, out of range	1. Press “off” button 2. If error reoccurs, contact your Ecolab technican
C31 High Sensor Signal T-Pump-top	1. Temperature signal from pumptop sensor, out of range	1. Press “off” button 2. If error reoccurs, contact your Ecolab technican
C32 High Sensor Signal P-Inlet	1. Pressure signal from inlet sensor, out of range	1. Press “off” button 2. If error reoccurs, contact your Ecolab technican
C33 High Sensor Signal T-Inlet	1. Temperature signal from inlet sensor, out of range	1. Press “off” button 2. If error reoccurs, contact your Ecolab technican
C34 High Sensor Signal block	1. Signal from block sensor, out of range	1. Press “off” button 2. If error reoccurs, contact your Ecolab technican
C35 High Sensor Signal flow	1. Signal from flow sensor, out of range	1. Press “off” button 2. If error reoccurs, contact your Ecolab technican
C40 Sensor Load Pumptop Sensor	1. Supply voltage for pumptop sensor too low. 2. Pumptop sensor using too much current	1. Press “off” button 2. If error reoccurs, contact your Ecolab technican
C41 Sensor Load Inlet sensor	1. Supply voltage for inlet sensor too low 2. Inlet sensor using too much current	1. Press “off” button 2. If error reoccurs, contact your Ecolab technican
C42 Sensor Load Block sensor	1. Supply voltage for block sensor too low 2. Block sensor using too much current	1. Press “off” button 2. If error reoccurs, contact your Ecolab technican
C43 Sensor Load Flow sensor	1. Supply voltage for flow sensor too low 2. Flow sensor using too much current	1. Press “off” button 2. If error reoccurs, contact your Ecolab technican

5.3 Content of the Setup sub menu Settings

The Setup Main menu contains the below submenus, which will be described subsequently.



5.4 Content of Setup menu

CA
Password
0000

E
S Settings

ER
Standard
pressure: 22 bar

ERA
Standard
pressure: 22 bar

Password Note: Default user password is 6802. Enter the settings menu to change the default password. To avoid unintended access to the system the Ecolab technician can insert a blocking preventing access to the password controlled menus.

EZ
Autooff
Delay:OFF

EZA
Set auto off
Delay: OFF

EP
Date & time
2006-01-01 12:00

Set date & time
2006-01-01 12:00

5.4.1 Submenu Communication*

I
PC Communication

IA
Get Errorlog
by cable

IAA
Confirm
Cable Transfer ?

Transfer Ready
Start PC App.

IB
Get Errorlog
by Infrared

IBA
Confirm
IR Transfer ?

Transfer Ready
Start PC App.

IC
Firmware upgrade
by cable

ICA
Confirm
Firmware Upgrade ?

Upgrade Ready
Power Cycle and
Start PC App.

ID
Firmware upgrade
by infrared

IDA
Confirm
Firmware Upgrade ?

Upgrade Ready
Power Cycle and
Start PC App.

*For the use of authorized Ecolab technician only.

5.4.2 Submenu Installation

K

Installation

* For the use of authorised Ecolab technician only

5.5 Content of Readings

R

Readings

RA

Pump state

NA

Output frequency of frequency inverter.

RB

Pump-top pres.

0 bar

RC

Pump-top temp.

0 °C

RD

Supply pressure

0 bar

RE

Supply temp.

0 °C

RF

Flow status

No flow