

HydroDisplay Module

User & Installation Manual

Overview

The HydroDisplay is a plug-in display module for the HydroBrain controller, providing local system status and basic control without opening the enclosure.

It displays target temperature (setpoint), actual water temperature, sensor status, active functions, and includes a temperature calibration interface.

System Requirements

- HydroBrain firmware version v1.2.0 or higher
- Available J3 expansion socket
- Two momentary push buttons (supplied)

Installation

1. Power off the HydroBrain controller.
2. Insert the HydroDisplay module into the J3 expansion socket.
3. Secure the module mechanically if required.
4. Mount the supplied two M20-rated push buttons with sealing gaskets on the enclosure.

The supplied buttons are designed for external mounting in the hydrobrain cabinet, allowing access without opening the cabinet. Ensure the gaskets are seated correctly to maintain enclosure sealing.

Button Wiring

Terminal J14 has three connections:

- Left: Left button
- Middle: Common GND
- Right: Right button

Both buttons share the common GND. Buttons are momentary and normally open.

Button Functions

Short press:

- Right button: Increase by +0.5 °C
- Left button: Decrease by -0.5 °C

Long press:

- Long press on either button switches between display pages.

Display Pages

Page 1: Temperature Overview

Displays setpoint temperature and actual measured temperature.

Page 2: Sensor Status

Shows status of Flow, Level, and Thermal protection sensors.

Page 3: Active Functions

Displays Heating, Circulation, Jet 1, and Light status.

Page 4: Temperature Calibration

Used to apply temperature offset calibration.

Temperature Calibration

To enable calibration:

1. Navigate to Page 4.
2. Press and hold both buttons simultaneously for 3 seconds.
3. Right button increases offset
4. Left button decreases offset

The offset is applied to the temperature reading used by the system.

Normal Operation Notes

- Temperature changes apply immediately
- Page switching does not modify values
- Calibration requires deliberate two-button activation
- Display reflects actual system state

Safety & Disclaimer

- Always power off before installation
- Calibration should be performed by qualified personnel
- Incorrect calibration may affect heating behavior

