

General information

This manual is about pump speed control. Every pump type has its own manual; MA25-01 for pump type P01 and MA25-05 for pump type VISE. User and installer should read both the speed control manual concerning the pump type carefully in order to ensure the pump correct functioning and long service life.

If the product is used improperly, is not sufficiently maintained or modified there is a risk of injury to humans or materials.

Pahlén AB is not responsible for the product warranty in case of any damage due to improper installation, mishandling or maintenance.

Modification or change of the product may only be done upon manufacturer's approval. Use only spare parts or accessories approved by the manufacturer.

Transportation and seasonal storage:

Keep the pump in a dry environment at a stable temperature. (Sharp temperature changes and humid environments can cause damage from corrosion to the motor windings or metal parts.)

Product description

The speed-controlled pump is intended for circulation of filtered water in pools with chlorine disinfection (organic, inorganic chlorine types). Pahlén cannot guarantee the pump's long service life and good performance with other types of disinfectants. Follow the water values recommended in the pump manual.

Speed control provides options for changing speed of the pump as required. Lower speed reduces pump power consumption and noise levels. There are three preset speeds, as well as five complete weekly timer programs to choose from. They are enough for most of the requirements. There is also an option to configure the weekly timer and speed on your own manually.

Technical data

| | |
|--|-------|
| Maximum temperature of pool water/surroundings | +45°C |
| IP protection rating | IP55 |

Refer to the pump model rating plate for information about maximum lifting height (H_{max}).

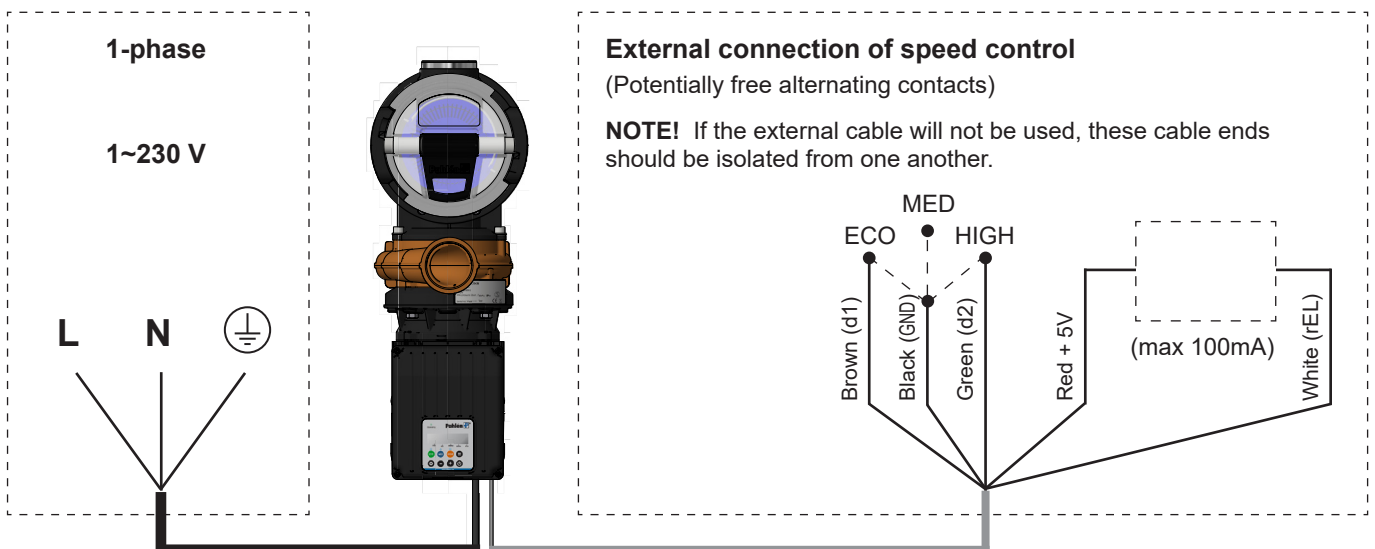
Electric installations

NOTE! The pump must never be started without being water filled.

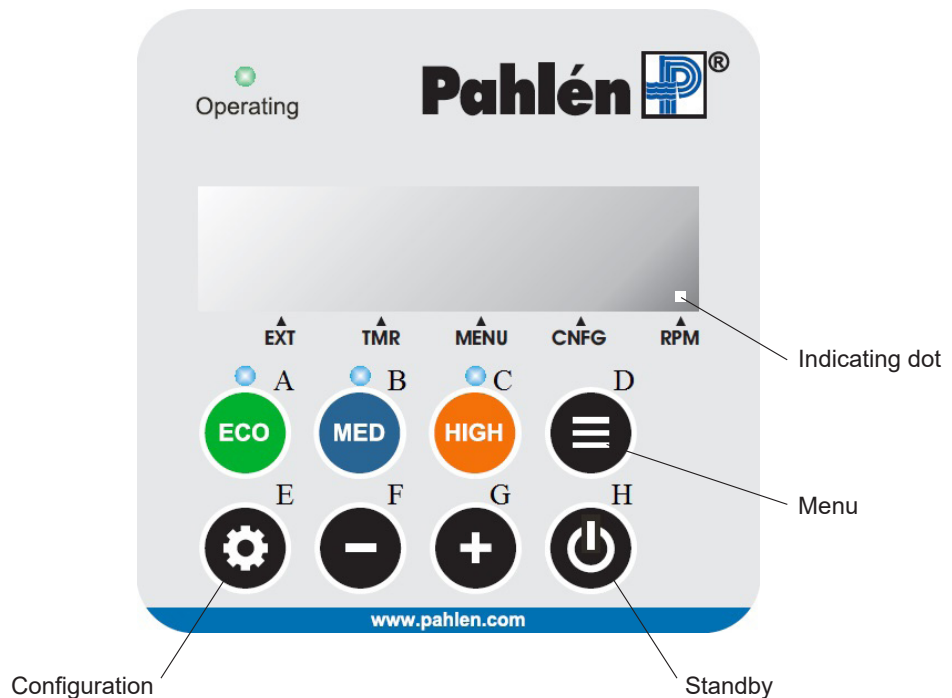
The pump electric motor must be installed by a qualified electrician, and the installation must comply with national regulations. Electrical installation must be done after pipes installation.

The pump must be shielded and powered via a ground fault switch which will disengage operation not exceeding 30mA.

The pump must also be equipped with an all-pole switch and approved engine protection to be set according to the motor current value. Refer to the pump motor nameplate for information on voltage and type of connection.



Display and buttons



Start

When power is on display will flash [----].

Starting the pump is done with “Standby” button (H).

The pump will start with the highest preset speed (HIGH) for three minutes, in the so-called Primary mode to ensure that the pipes system is evacuated of any air. After this, the pump returns to the preset speed.

The Primary mode is shown on display with a rotating symbol together with the speed. The Primary mode can be canceled by pressing “Standby” button again.

Select speed:

There are three preset speeds of 1500, 2500 and 2900 rpm. Select speed using ECO, MED and HIGH buttons.

The three preset speeds can also be selected by connecting an external power switch to the pump signal cable (see connection diagram).

Adjust speed:

During operation, the speed can be adjusted up or down by means of plus and minus buttons.

View engine status and settings:

Press the menu button to display engine status and current pump settings. Scroll through different values with plus and minus buttons.

Return to current speed display is done automatically if no button is used within 30 seconds or by pressing the menu button.

Change settings

Press the configuration button if you want to change the pump settings.

Select the parameter to be changed with plus and minus buttons.

Press the configuration button again to change the value of the parameter. Change the value with plus and minus buttons.

Weekdays are shown on the display as numbers, for example, Monday to Friday appear as “d 1-5” (day one to five).

Further in this manual, all menus and parameters are described.

Dot indicator

Dot indicator will clarify what appears on the display:

- EXT – External power switch active
- TMR – Timer program active
- MENU – Display of motor status / settings
- CNFG – Configuration menu active
- RPM – Display of actual speed

Weekly timer

The built-in week timer can change the pump speed from “MED” to either “HIGH” or “LOW”.

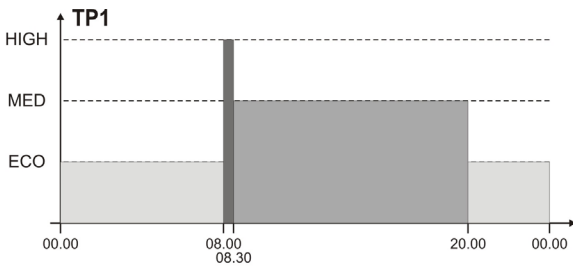
Set the time and day of the week

Here’s how to set the clock and day of the week:

1. Press “Config” button.
2. Press “Plus” button several times until the display shows “CLOC”
3. Press “Config” button again.
4. Press / hold “Plus / Minus” buttons until the correct time is displayed.
5. Press “Config” button again.
6. Press “Plus / Minus” buttons until the correct day is displayed (1 = Monday, ..., 7 = Sunday)
7. Press “Config” button again. Now the time and day are set.

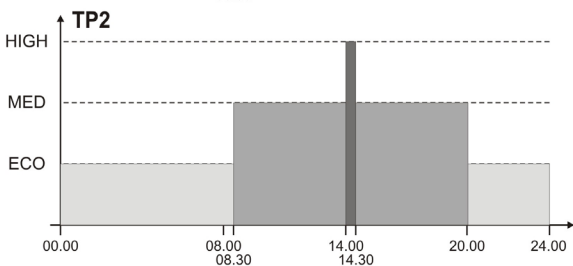
Preset weekly timer

The preset timer programs TP1 to TP5 are designed to cover most situations, see below.



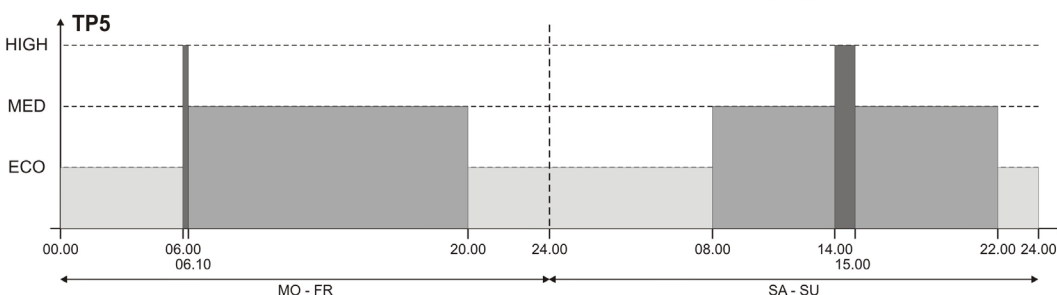
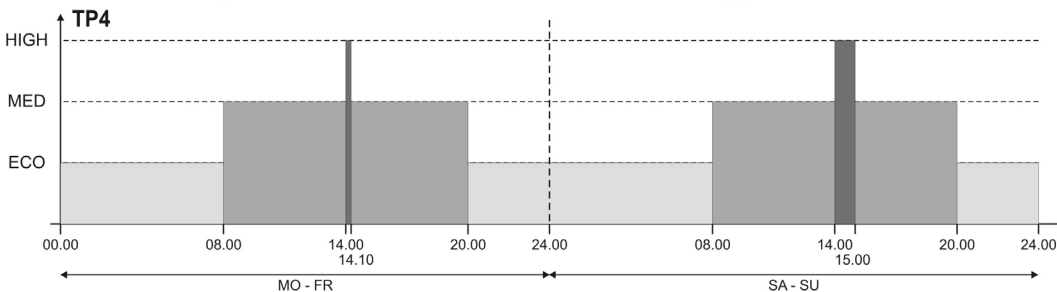
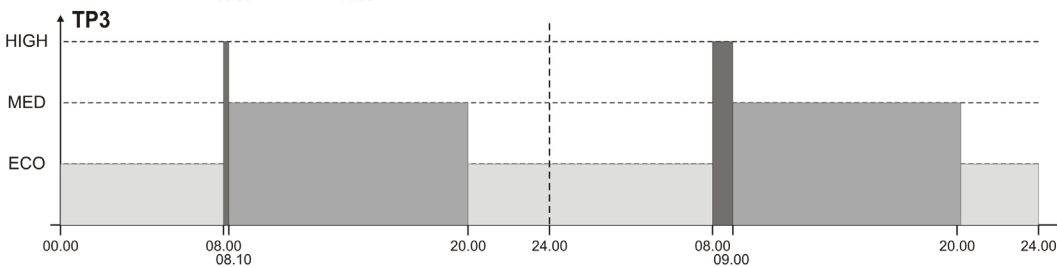
Enable a preset timer program like this:

1. Press “Config” button.
2. Press “Plus” button several times until the display shows “ti1-9”.
3. Press “Config” button again.
4. Press “Plus / Minus” buttons until the display shows the timer program to be activated.
5. Press “Config” button again. Now the timer program is enabled.



Turn off weekly timer

“OFF” in “ti1-9” mode turns off the weekly timer program.



Change preset weekly timer

If required, you can change the preset weekly timer programs, select which of the five weekly timer programs (TP1-TP5) you want to change. Then select which hours (T1ON-T9OFF) to change. The weekly timer program will automatically rename TPR.

Program a new weekly timer program

1. Select a weekly TPR program.
2. Start the program by setting values for hours 1 "T1On" and "T1Off".
3. Then continue with hours 2 etc.

Weekly timer program may have up to 9 hours; t1-t9.

To disable the Timer, both its start and stop time must be set to "00.00". If a factory reset is made, all hours will be reset.

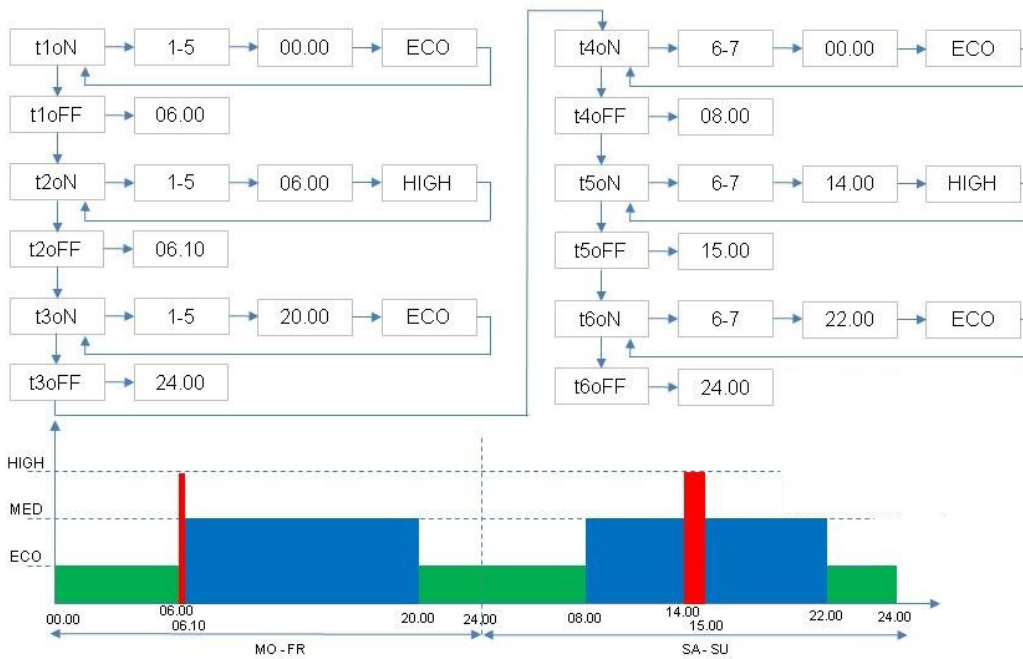
Programming example:

Preset Weekly Timer 5, TP5

6 Timers are used, T1-T6

Mo-Fr: 10hr ECO, 10min HIGH morning, 13hr 50min MED

Sat-Sun: 12hr ECO, 1hr HIGH day, 11hr MED



Parameters and menu system

Menu: View parameters

| | |
|--------------------------|---|
| Time | 24 hours display |
| Weekday | Mon = 1 ... Sun = 7 |
| Weekly Timer program | OFF = Timer not activated |
| Actual speed | Rpm |
| Actual power consumption | Watt |
| Run time | Hours |
| Motor temperature | Temp < 100C = Fine |
| Status Digital input 1 | OFF = Input not activated |
| Status Digital input 2 | On = Input activated |
| Status Analog output | Activated / Not activated |
| Error code | 1 = Too low DC-voltage 2 = Too high DC-voltage 4 = Too high temperature 5 = Too high motor temperature 10 = Power current error 20 = Overload at startup 64 = Short circuit 97 = Multiple errors 98 = Communication error |
| Software version | 8.013 |

Configuration: Parameters setting

| | |
|--------|---|
| SP1 | Speed "ECO" |
| SP2 | Speed "MED" |
| SP3 | Speed "HIGH" |
| CLoc | Time of day |
| ti1-9 | Weekly timer |
| t1 on | Day/s, time, speed |
| t9 off | End time |
| rEL | Analogue output is open collector type and may be loaded with max 100mA. 0 = Output off 1 = Output active at speed "ECO" 2 = Output active at speed "MED" 3 = Output active at speed "HIGH" 4 = Output active at error 5 = Output active at high motor temperature 6 = Pump effect limited due to high temperature |
| d1 | Digital input 1 1 = Change to speed "ECO" 2 = Change the speed "MED" 3 = Change to speed "HIGH" 4 = Change to "HIGH" speed for 180 seconds |
| d2 | Digital input 2 1 = Change to speed "ECO" 2 = Change the speed "MED" 3 = Change to speed "HIGH" 4 = Change to "HIGH" speed for 180 seconds |
| Priti | The time [s] the pump is running at speed "HIGH" at startup |
| rESEt | Reset factory settings |
| END | Exit the configuration menu |

