

How to setup the multi pump function in a CRE pump by means of Grundfos GO.

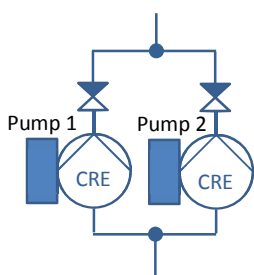
The multi pump function enables the control of two pumps connected in parallel without the use of external controllers. The pumps in a multi pump system communicate with each other via the wireless GENlair connection or via the wired GENI connection.

Three different multi pump functions are available:

- Alternating operation, time
- Alternating operation, energy
- Back-up operation

Alternating operation

Alternating operation functions as a duty/standby operating mode with only one pump in operation



at a time. Is possible with two pumps of the same size and type, connected in parallel. Each pump requires a non-return valve in series with the pump.

It is possible to choose between two alternating operation modes:

Alternating operation, time

Changes from one pump to the other once a day on a time (hh:mm) set by the user.

Alternating operation, energy

Change from one pump to the other is based on the difference in energy consumption of the two pumps. When the energy consumption of the pump in operation minus the energy consumption of the pump in standby, equals a factory set value, which is equal to the daily consumption of one of the pumps running at nominal conditions - then a pump alternation will take place.

For both alternating operation functions, the standby pump will automatically take over if the duty pump has a fault.

Back-up operation

Back-up operation is possible with two pumps of same size and type connected in parallel. Each pump requires a non-return valve in series with the pump.

One pump is operating continuously. The back-up pump is operated at intervals to prevent seizing up. If the duty pump stops due to a fault, the back-up pump will start automatically.

Relevant for following MGE models:

- MGE model H and I

Relevant for following pump types:

- CRE
- CRNE
- CRIE
- MTRE

Tools required

- Grundfos GO

The solution

In the following we will describe how to setup two CRE pumps in parallel to multi pump function "Alternating, time". The setup shall be done by means of the Grundfos GO.

How to setup the system

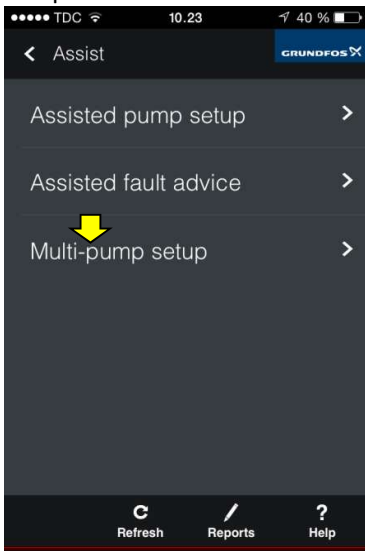
Before starting the setup, ensure that the pumps are correctly installed in the system, with non-return valves in series with each pump and sufficient primed and vented.

Ensure that all needed electrical connections to mains supply, external sensors etc. has been carried out and done in a correct way – please see I&O for details regarding the subject.

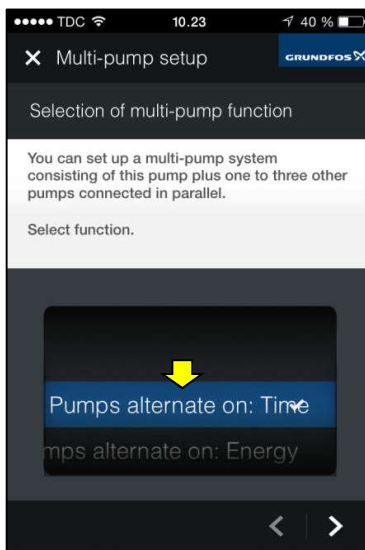
Now we are ready to go:

1. Turn on the power supply to pump no.2
2. Make contact to the pump by means of the Grundfos GO.
3. Use GO to setup the needed analog and digital inputs, according to wanted functionality, when this pump is in operation. Could be Constant pressure control with a 0-10 bar, 4-20 mA sensor placed in the system.
4. Use GO to give the pump a pump name, could be "Pump 2".
5. Disconnect the connection to pump 2 and make contact to the pump no. 1.

6. Like for pump 2, use GO to setup the needed analog and digital inputs, according to wanted functionality, when this pump is in operation.
7. Use GO to give the pump a pump name, could be "Pump 1".
8. Now we are ready to setup the multi pump function for this system, consisting of this pump (Pump 1) and the second pump, Pump 2.
9. Select Assist and press "Multi-pump setup"

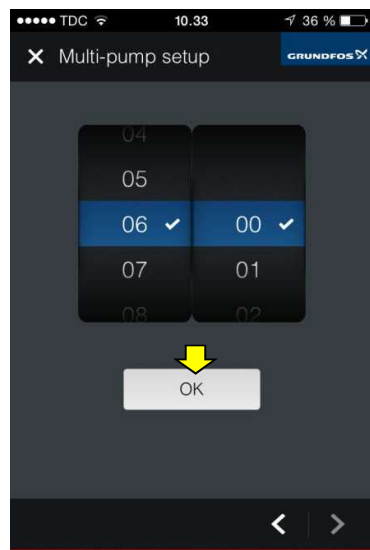
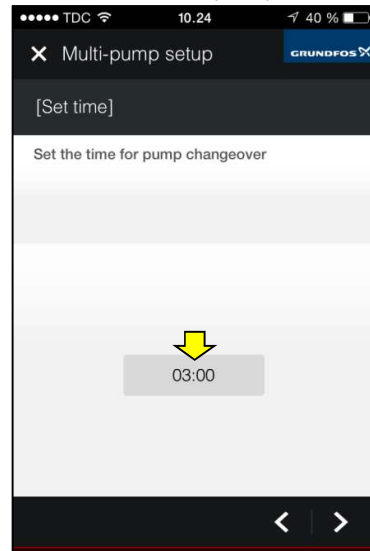


10. Select the wanted multi pump function, in our case we want "Pumps alternate on: Time".



Press > to continue.

11. Set the time at which the alternation between the two pumps shall take place:



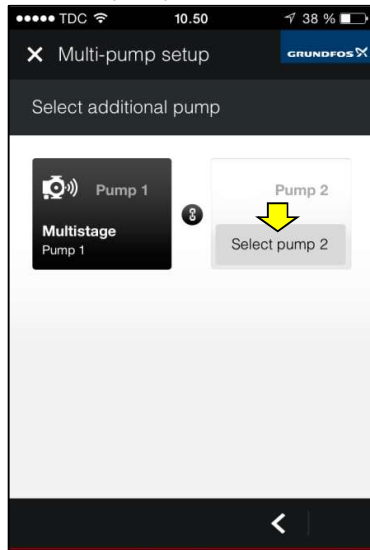
If you want to change the factory set time 03:00, then press on the field, set a new time (06:00) and press OK to confirm the setting and to go to the next picture.

12. Set the communication channel used between the two pumps, either wired (GENibus, AYB) or wireless (GENlair). In our case we select wireless = Radio.



Press > to continue.

- Next step will be to connect pump no. 2 to pump 1. Press "Select pump 2" and wait for the selection list regarding the available pumps.



- The Grundfos GO will show a list of the reachable and available pumps with the same product family name as pump 1 (e.g. Multistage without factory mounted sensor).

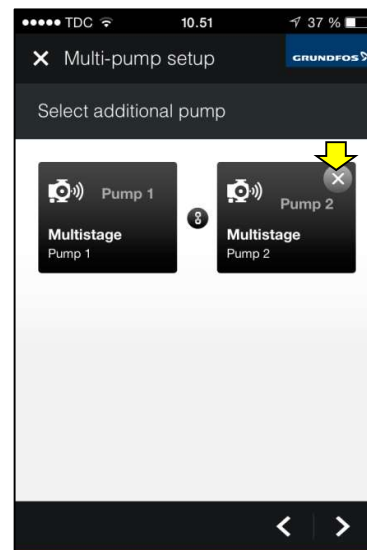


Now we have to select the right pump, the one which is installed parallel to pump no. 1. To make sure that the correct pump is the pump named "Pump 2", first press the wink button and check if the center LED in the Grundfos Eye at the pump parallel to Pump 1 is flashing with this pattern:

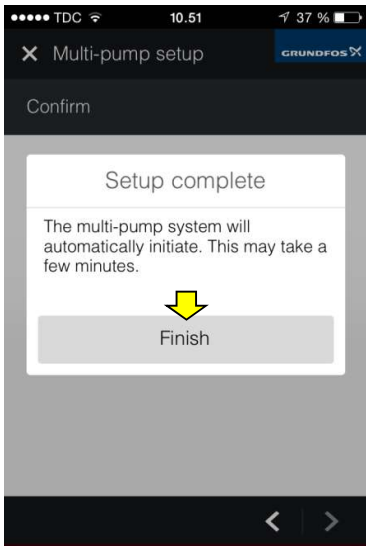
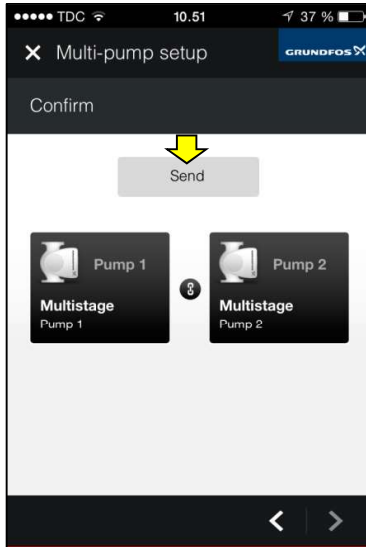


To select the second pump, press at the pump name of the wanted pump.

- Now Grundfos GO shows the selected pump system. If you have been selecting a wrong second pump, you can deselect the pump again by pressing the (X) icon and then make a new selection.



If you are satisfied with the selection done, press > to continue. Grundfos GO will now show the selected pump system. To confirm the selection, press the button "Send". The multi pump system will now be formed and when that has taken place, a pop-up named "Setup complete" will be shown. Press Finish to finalize the setup.



Now the multi pump system is setup.