AMI Penta

User manual Quick Guide

1-3-2016

Content

Preface

We recommend you to read and follow the installation manual, the technical data and this Quick Guide manual carefully, **before** the product is installed and come into use.

Please check that the product is undamaged. Possible transport damages must be notified 8 days after reception **at the latest**.

Please check that the product has been delivered with the correct voltage and frequency.

The guarantee only covers defects and damages on the product caused by manufacture faults and faults in the material. Faulty installations and wrong use of the product are therefore not covered by the guarantee. We refer to our “Terms and Conditions of Sale and Delivery” for more details.

For installation we refer to the installation manual and diagrams posterior in the manual.

In consideration of the electrical installations the product must not be installed at places exposed to dripping (condensed water) from water installations, gutters etc. The product must not be placed in direct sun light.

In some countries the installation must be carried out by skilled craftsmen only.

Due to modular construction some programs might not be included though described in the manual.

Best regards

Senmatic A/S

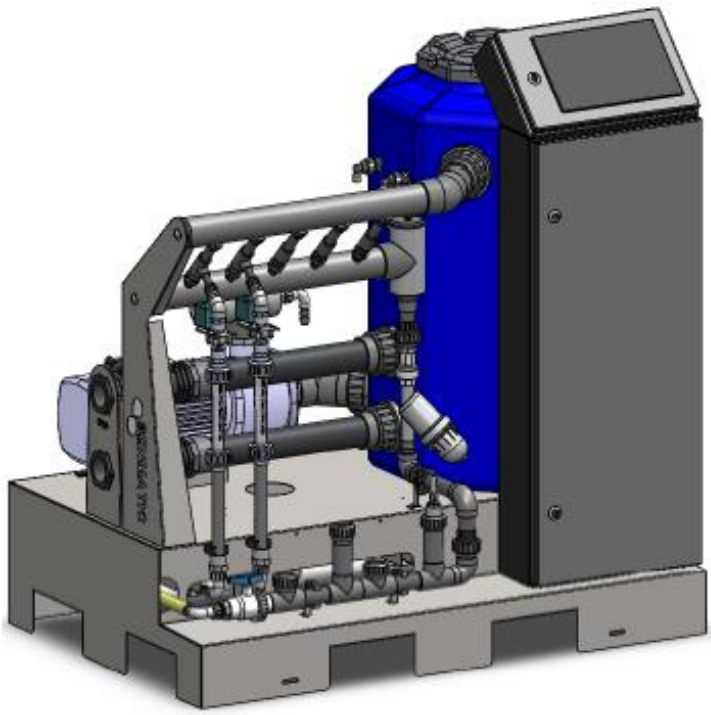
Introduction

Congratulations with your new fertilizer mixer, AMI Penta.
AMI Penta fertilizer mixer is used for irrigation of plants in nurseries.

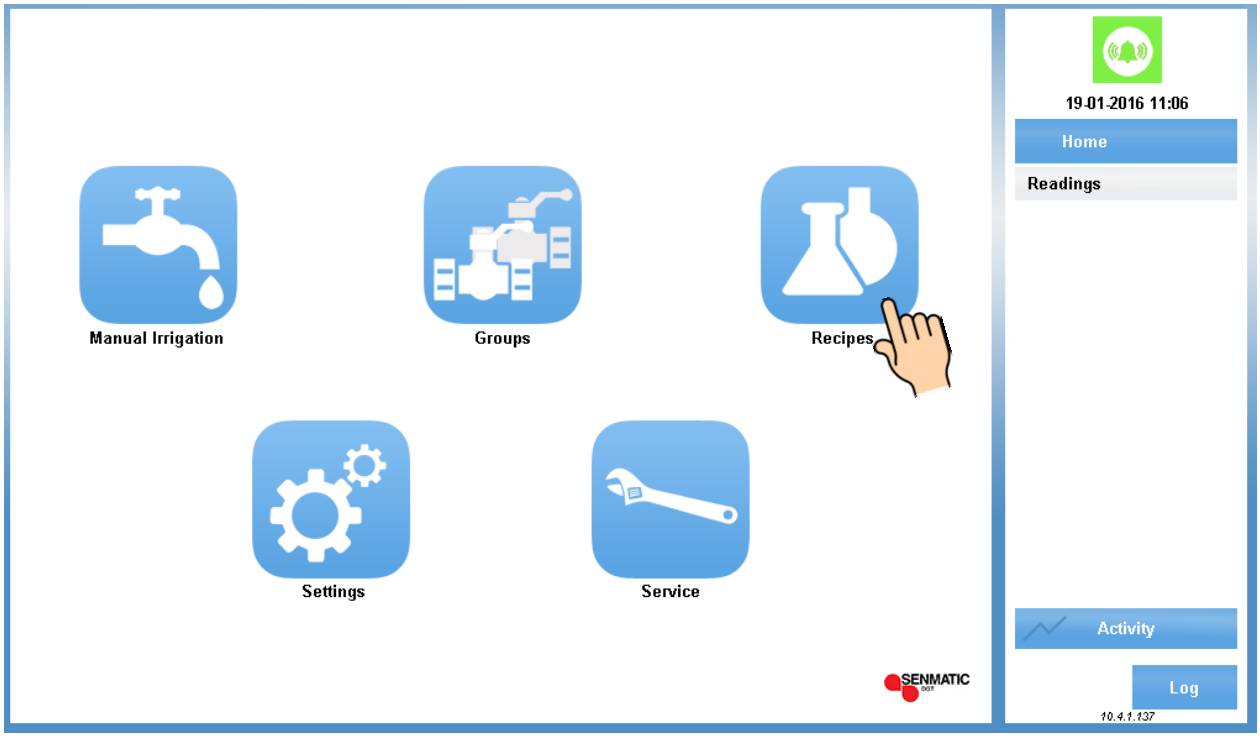
AMI Penta has a control panel with touch screen.
The functions are divided in menus, which give a good view of the possibilities for the optimum setting of the fertiliser mixer.

AMI Penta is built in a Standard model and can be expanded regarding software and hardware in modules according to requirements. The options are numerous.

This manual contains a short description of how to start the AMI Penta for the first time. The detailed description of all functionality can be found in the user manual.



Home page

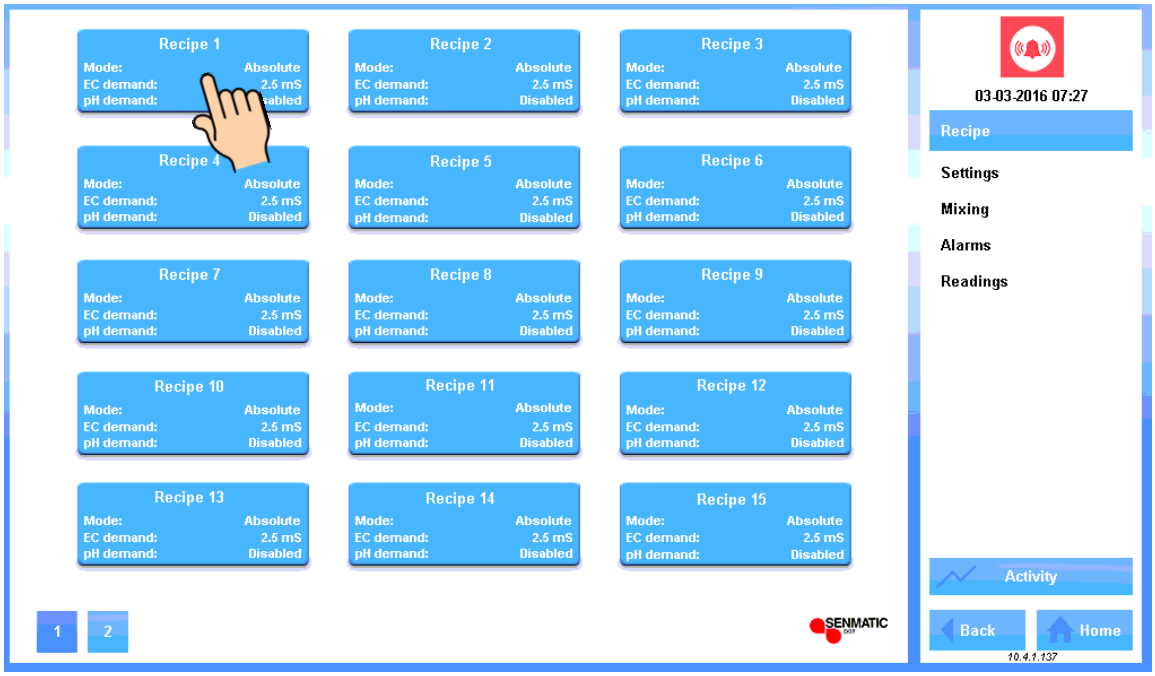


The monitor of the AMI Penta has a touchscreen.
The home page consists of seven buttons.
Typical use of the AMI Penta fertilizer mixer is starting a group of time programmed valves with a recipe of different fertilizer and acidity. This Quick Guide will go through following issues:

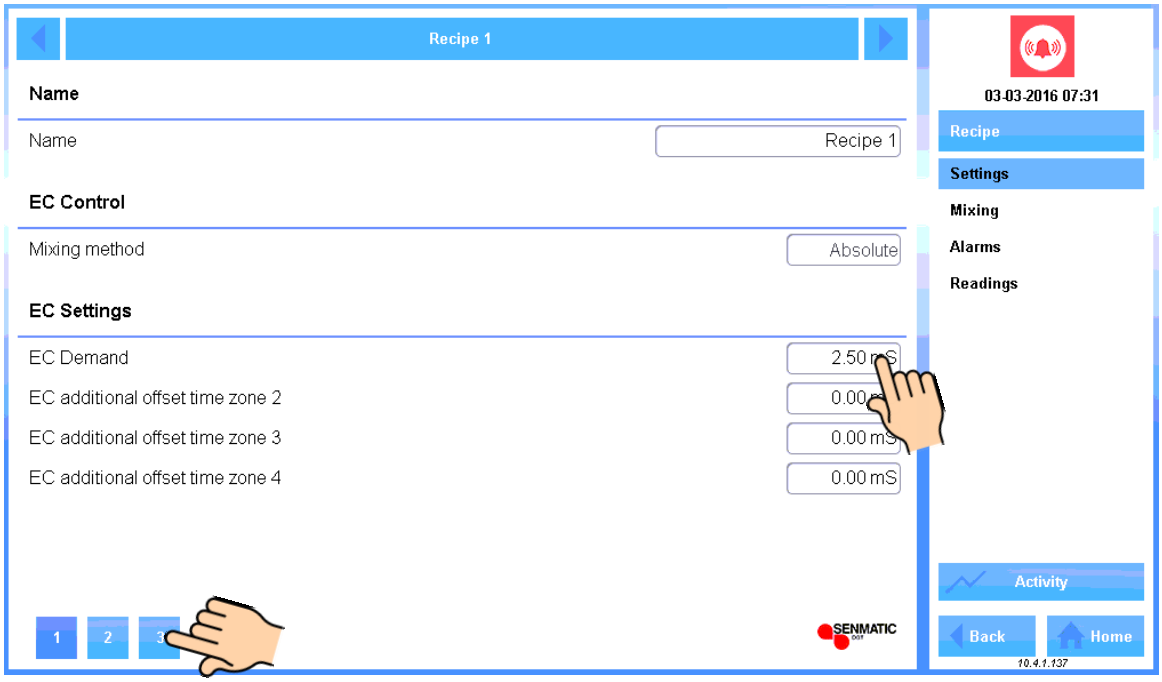
- **Setting up a Recipe**
- **Setting up a group of valves**
- **How to, manual start up a group**
- **How to follow the activity of the AMI Penta**
- **How to use, not a group, but manual valve start**
- **How to use Hose irrigation**

Setting up a Recipe

Tap the Recipe button and you will see this page:



Tap the button for Recipe 1



Under Recipe 1 you will find 3 pages. The buttons 1, 2 and 3, down left.
The name “Recipe 1” can be changed to whatever you want. Maybe “Tomato Recipe” sounds better.

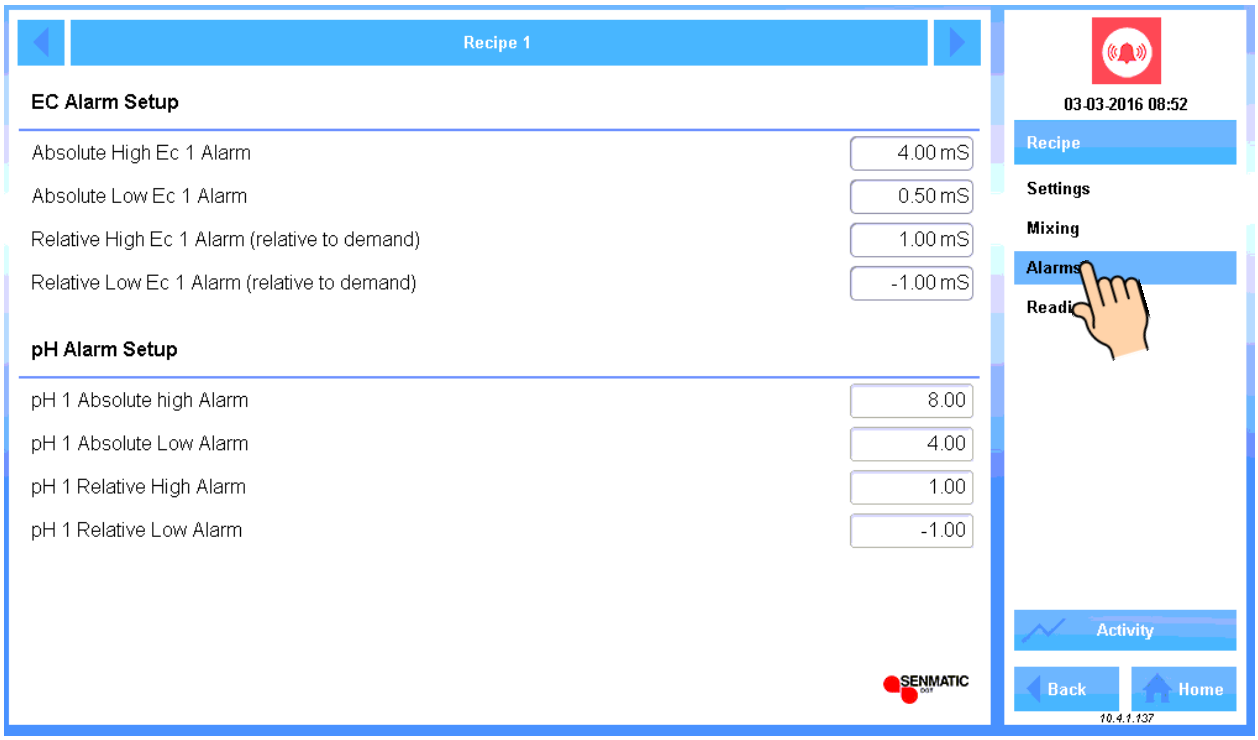
Tap the “EC Demand” and give in the needed EC value.
Tap the button “3”. This page concerns pH control. Maybe you have no pH control. Then just leave it “Off”

Turn on pH control if needed and set the desired pH demand. Acid is normally used for pH control, but if you use alkaline, you must change pH type.

Tap “Mixing” for setting up the ratio in between your fertilizer.

Set the needed mixing ratio between your stock solution tanks, containing the different types of fertilizer. The numbers in this example, 8, 11 and 17 means that 8+11+17 = 36 => 100%

Tap “Alarms”

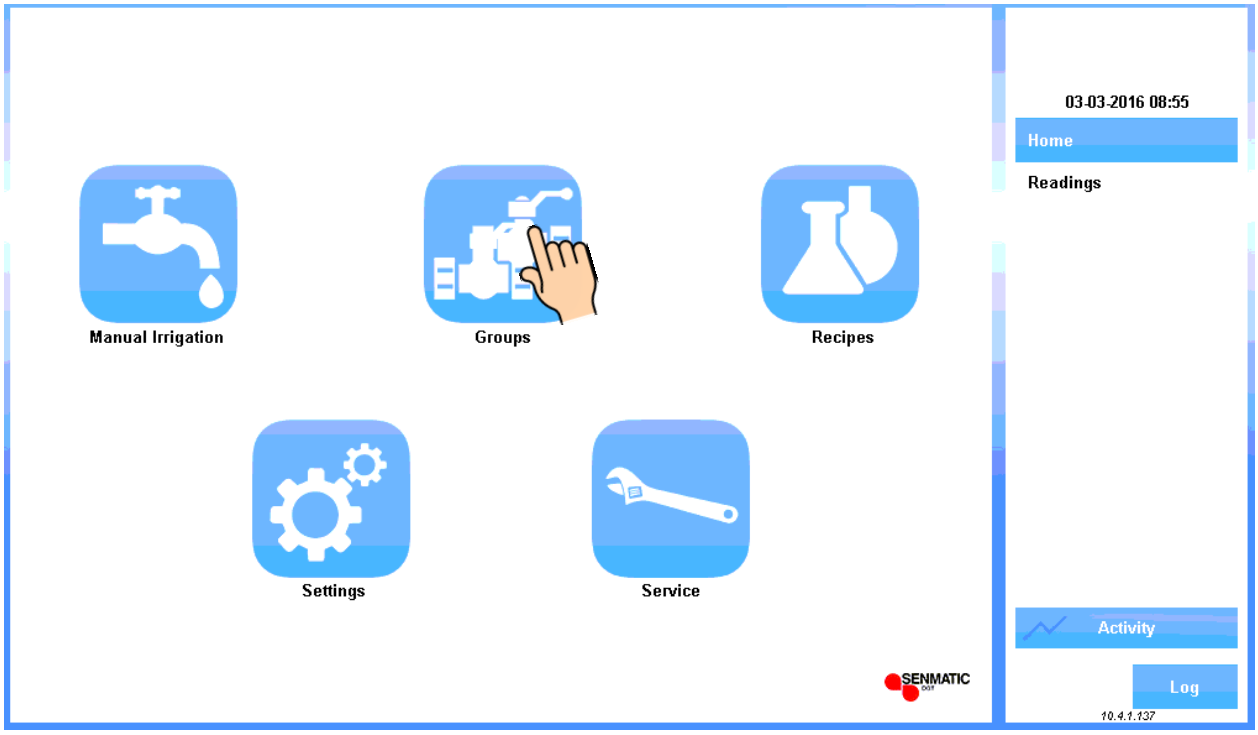


And set the relevant limits for EC and pH alarms. Relative is the distance from demand.

Your recipe has now been created.

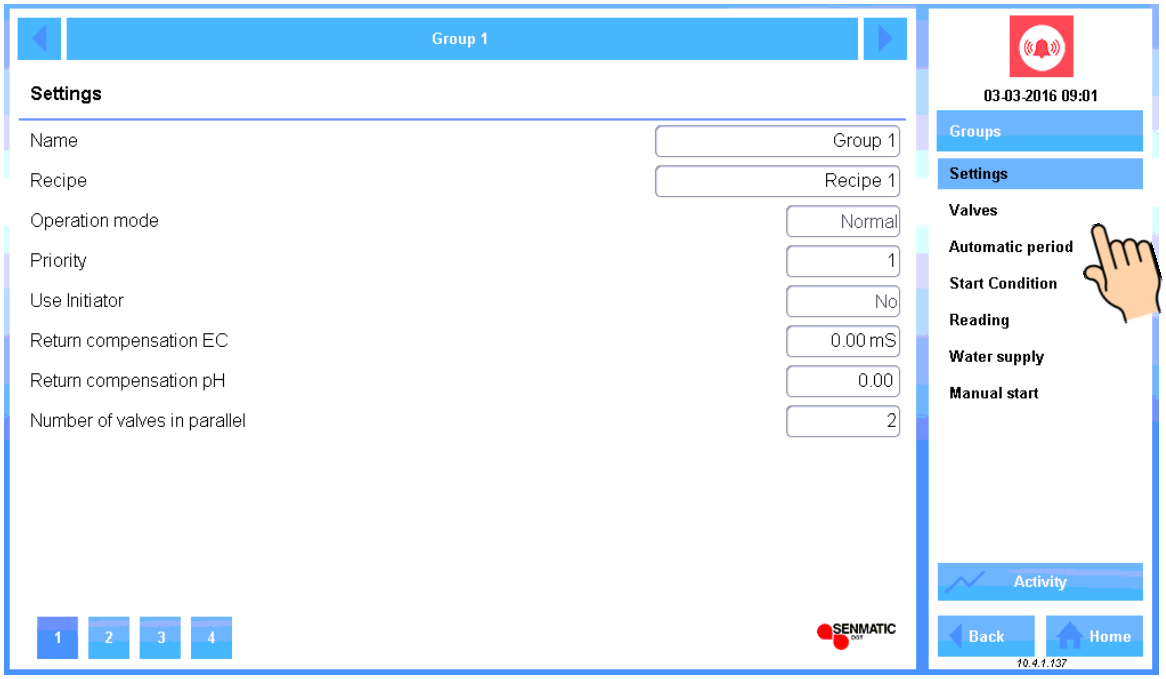
Setup a Group of valves

A valve opens for the water pressure and sends water to a specified area in the greenhouse.



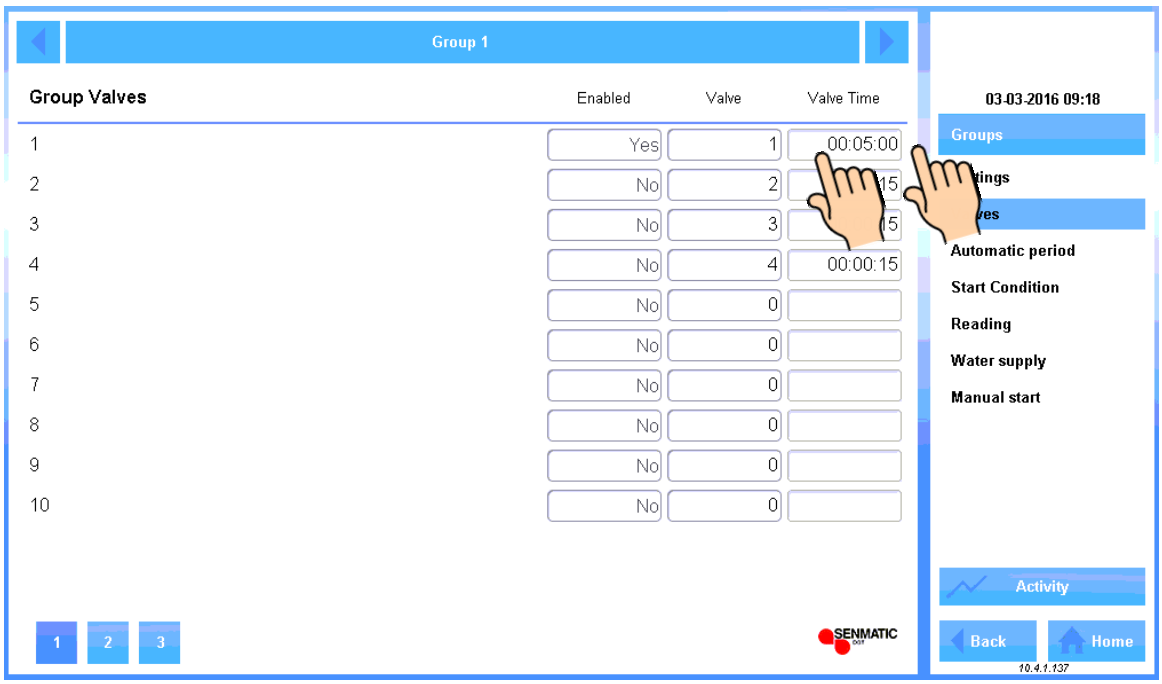
Tap the button “Groups”

Tap the button “Group 1”



Be sure that the correct Recipe is selected. Number of valves in parallel is normally 1, but 2 or more can be opened at the same time if the capacity is sufficient. “Group 1” can be renamed. Maybe “West” is a better name.

Tap “Valves”



Set here the valves to be used in the group. Each valve has its own valve time.

Now you are ready to Irrigate.

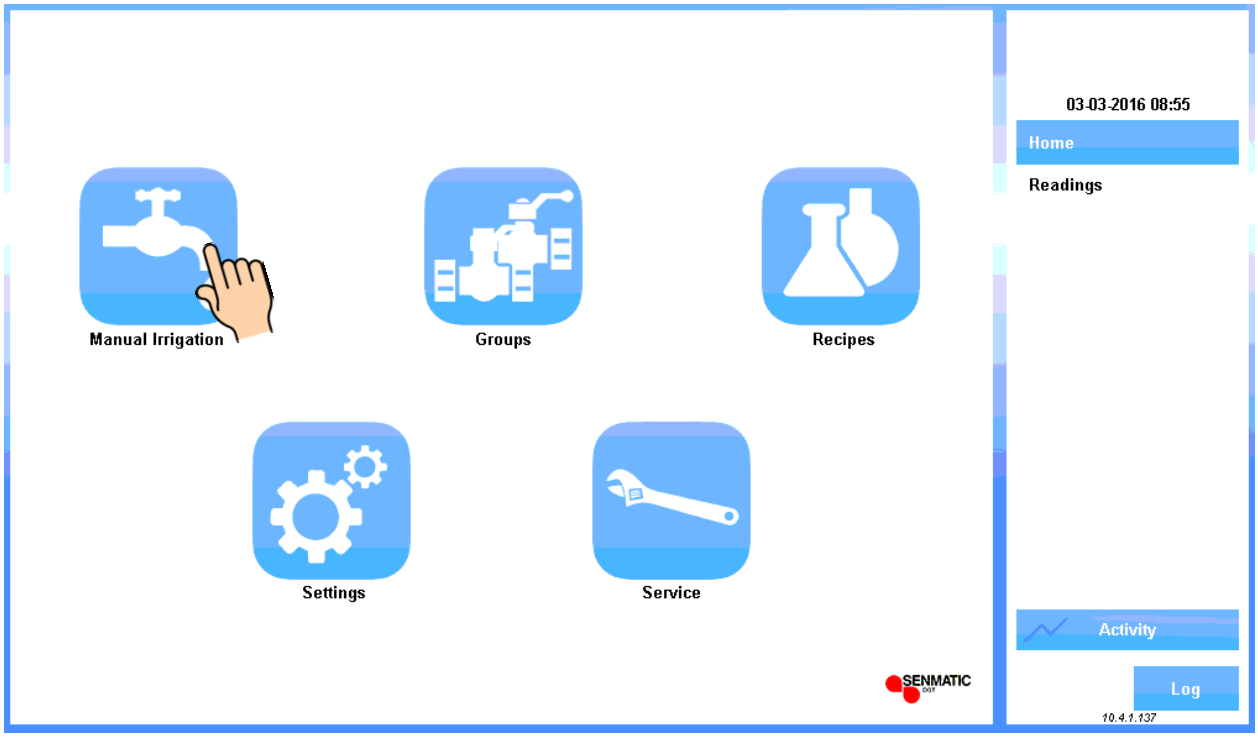
Irrigation can be started manually. Automated starts are also possible. In the list below you see the possibilities:

Start Condition

- Manual
- Week program
- 24 h program
- Interval
- Frost protection
- High temperature
- Minimum humidity
- External
- Analogue
- Sun integrator

24 h program is an example where time clock starts irrigation.
Sun integrator is an example where the sun intensity over time, starts irrigation.
The different start conditions are described in the manual for AMI Penta. Some demands added programs and hardware.

How to, manual start up a group for irrigation

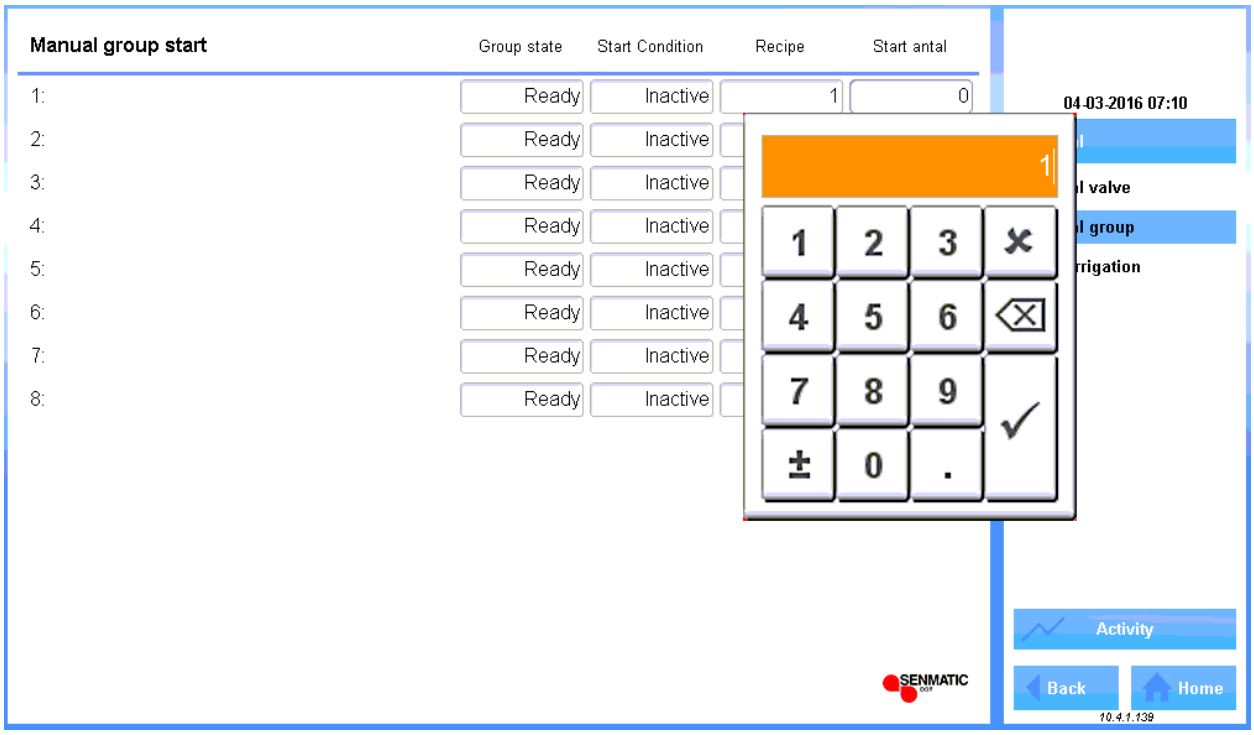


Tap the button “Manual Irrigation”

Tap the button “Manual Group”

We choose to start, for example, Group 1.

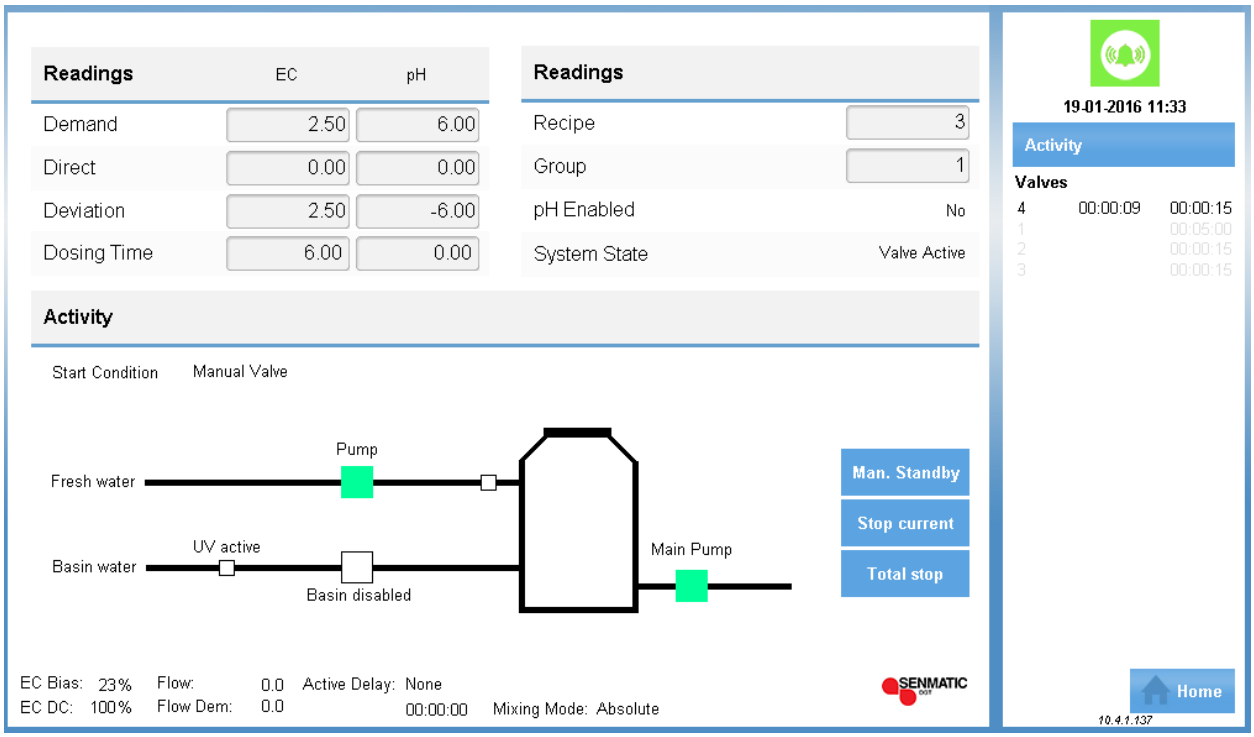
Start Group 1, 1 time, by giving in “1” under “**Start antal**” (“Number of starts”)



Be aware. AMI starts immediately ! ! !
AMI Penta will start Group 1.

Tap the button “Activity” page to follow the behavior of AMI Penta.

Activity page

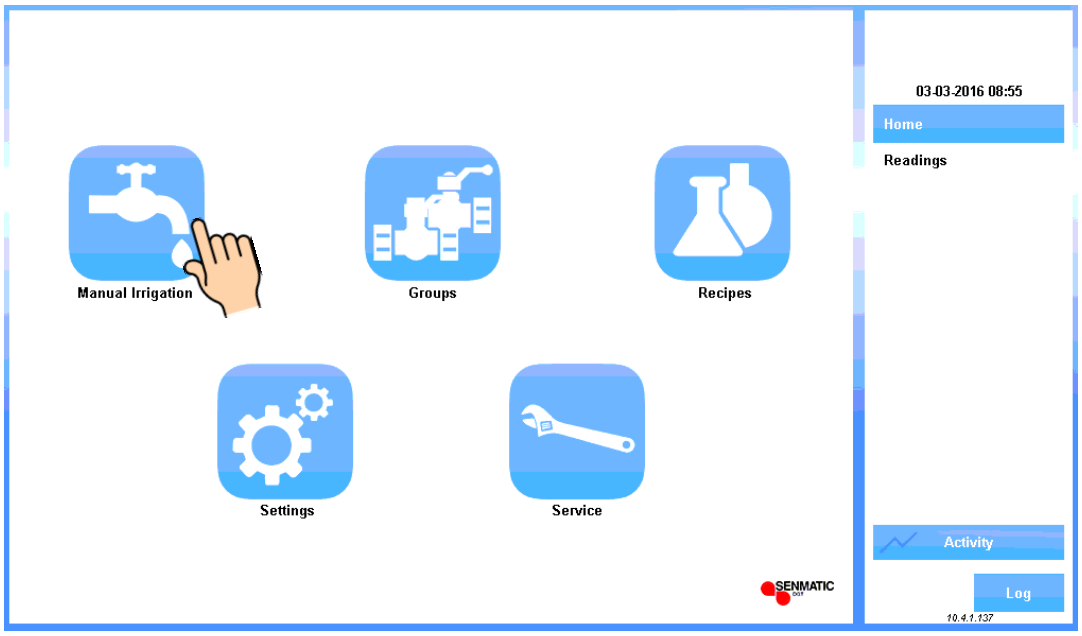


Here you can see what is happening, readings EC and pH, active recipe, group and which pumps are active.

Alternate ways of performing irrigation

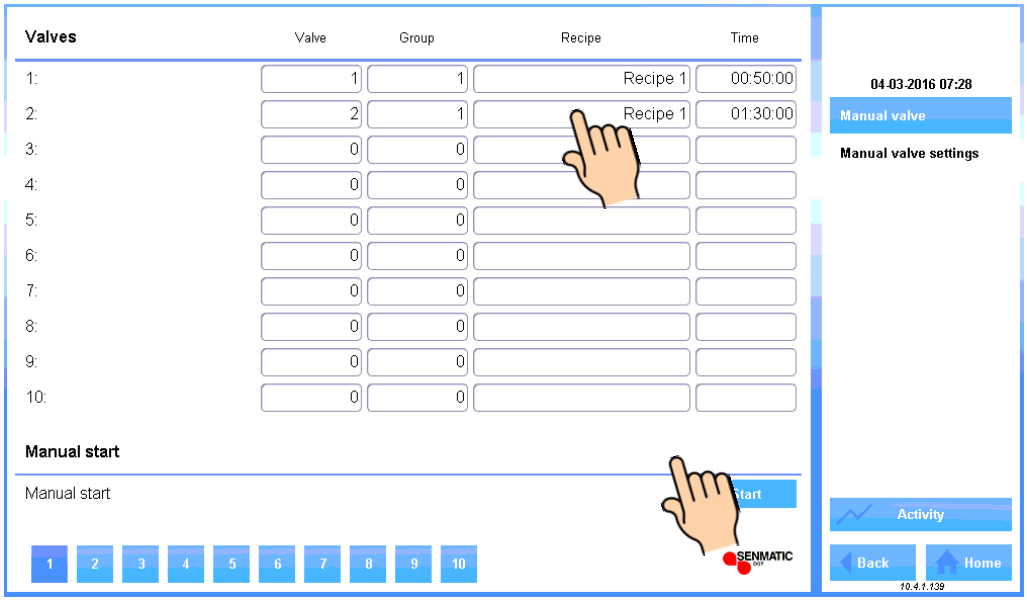
- Manual Valve Start
- Hose Irrigation

Manual Valve



Tap “Manual Irrigation”

Tap the button ”Manual Valve”



Tap the button ”Start”

Start Manual Valves

Each valve will use the properties from the selected group:

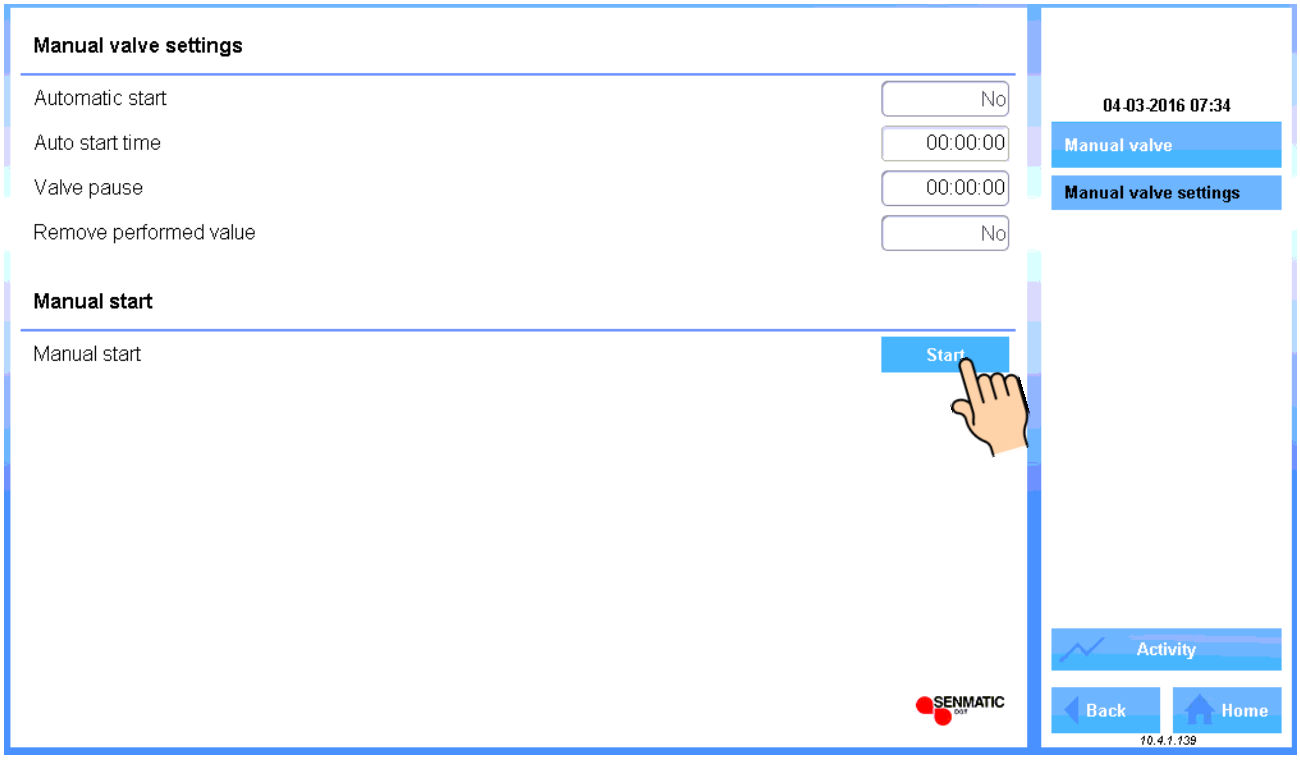
- Water supply
- Basin number
- Group pause
- Valve pause

Irrigation time for each valve is set here.

Each valve can use a certain recipe. Tap and select the wanted recipe. EC and pH from the recipe is shown.

Manual valve settings

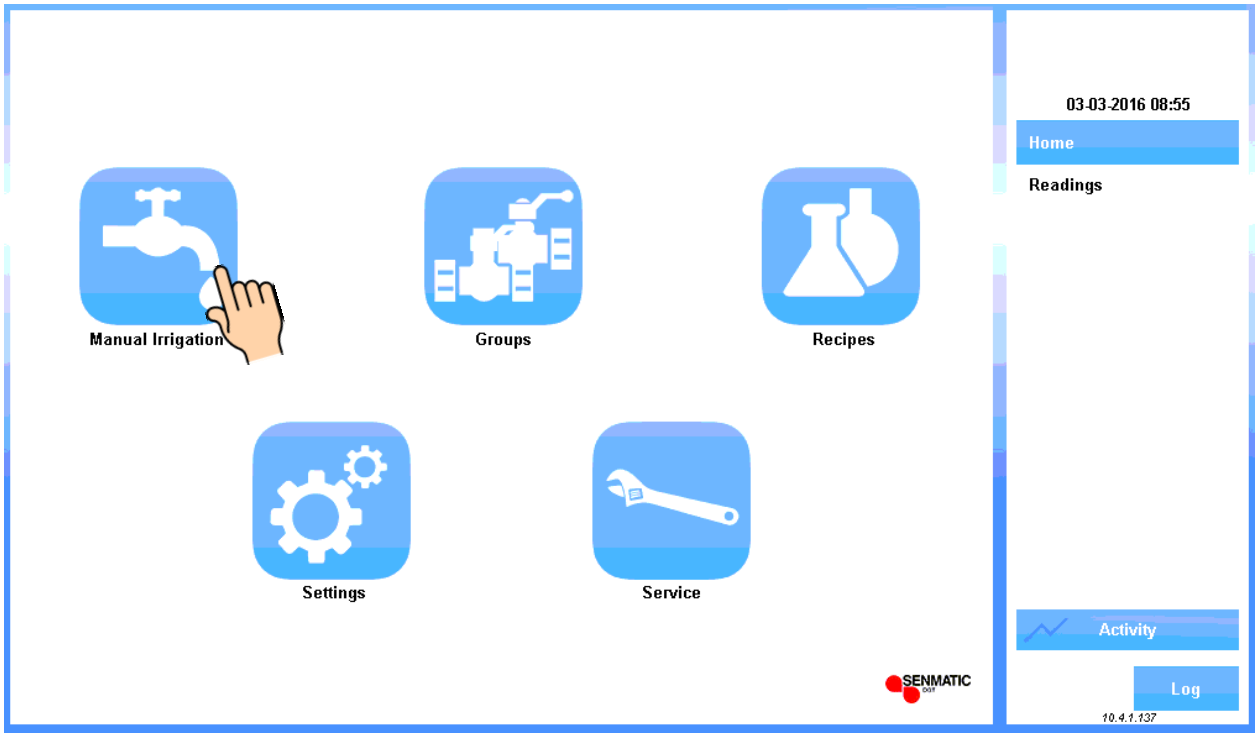
Tap “Manual valve settings”



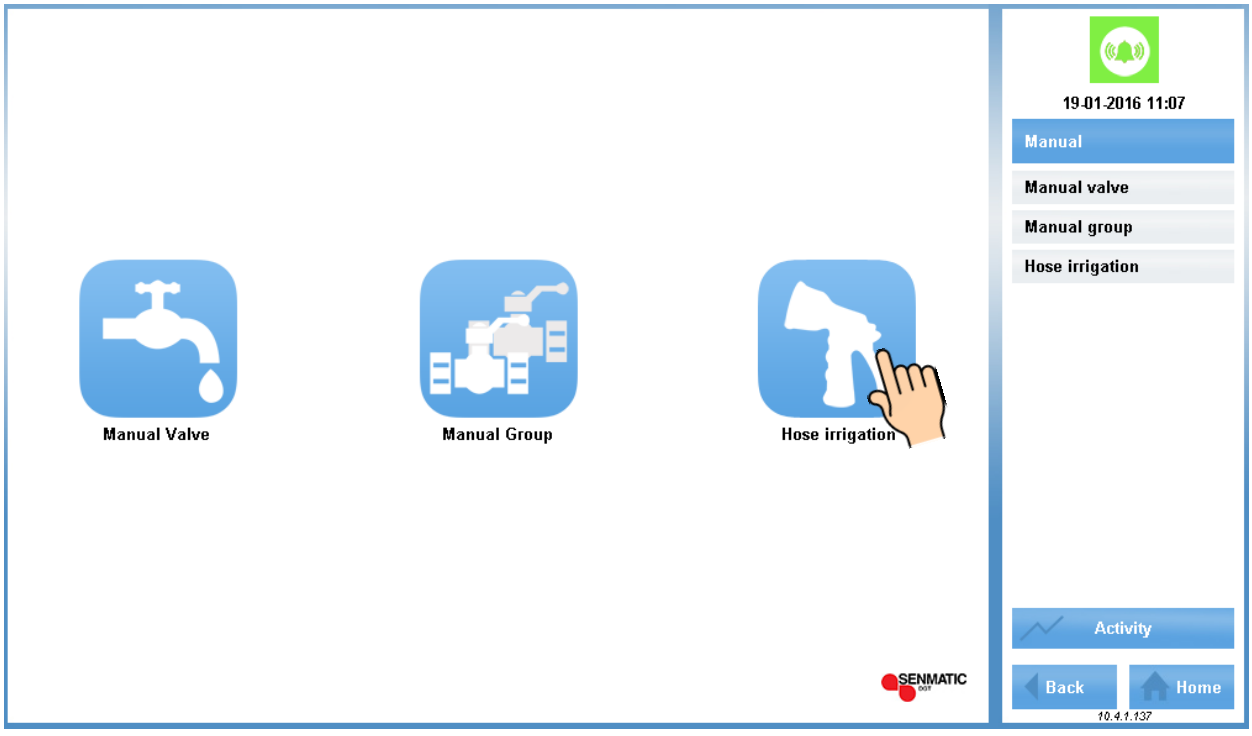
Under “Manual valve settings” you can give in a pause between the valves.
NOTE! If the same valves are to be repeated next time you use “Manual Valve Start”, the set point “Remove performed valve” must be set on No.

Tap the “Start” button and all entered valves will irrigate from top down.

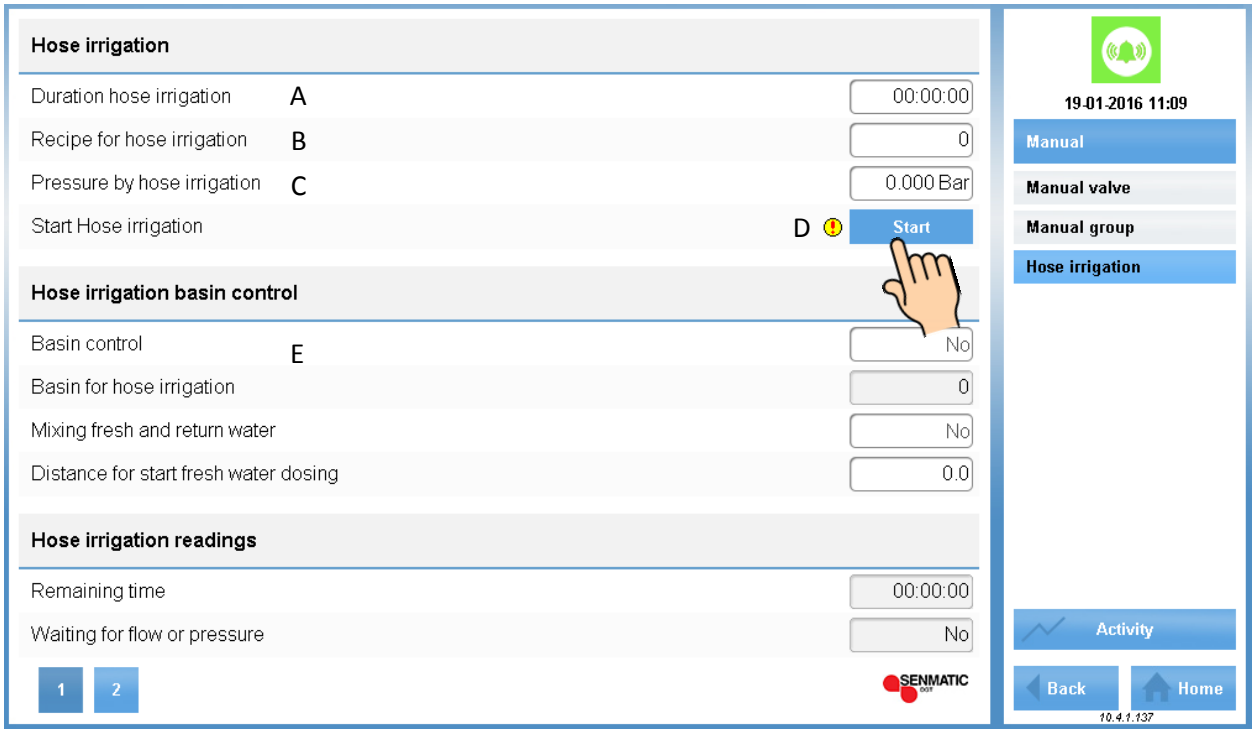
Hose irrigation



Tap the button ”Manual Irrigation”



Tap the button ”Hose irrigation”



By hose irrigation, the AMI Penta will start when you open the tap of the hose and stop when you close the tap.

Hose irrigation is done by tapping the "Start" **D** button. When hose irrigation is selected all other activity will stop and the mixer awaits the tap of the hose to be opened. When the tap is opened the AMI Penta will start with the specified recipe.

Note! All groups are set standby which means that hose irrigation has the highest priority.

After the hose irrigation is ended it must be stopped, otherwise the mixer will not perform any automatic or manual irrigation. Stop is done by tapping the same button as tapped for start.

If you forget to stop the hose irrigation, the duration time will stop it, when it's timing out.

Note! This function requires that the mixer is equipped with a flow switch and pressostat to ensure that the mixer delivers water when the tap of the hose is opened.

Duration hose irrigation **A**

Adjusting the time for hose irrigation to be active.

Recipe for hose irrigation **B**
Selecting of the wanted recipe for hose irrigation. If a recipe has not been chosen, i.e. 0, the irrigation will be performed with fresh water.

Pressure by hose irrigation **C**
Adjusting the wanted pressure by hose irrigation

NOTE! Only visible when the 'Pressure Control' has been purchased and activated.

Basin by hose irrigation **E**
Select the wanted basin for hose irrigation.

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