

# IntelliDose™

*The intelligent hydroponic doser  
Now with 8 part dosing!*

- Works tirelessly to keep your nutrient tank in perfect balance.



- Automatically adds nutrients and corrects pH as the plants feed.
- 1 to 8 part nutrients, pH lower/raise, precise irrigation timer
- Automatic scheduling for dosing ratios and TDS
- Built-in USB – PC interface with USB cable and **IntelliGrow** software included.
- Simple to operate – AutoSet
- Good looking and smart – the perfect companion for your nutrient tank

## ***So, who needs 8 part dosing?***

As our understanding of the plants requirements increases, nutrient manufacturers are producing more complex formulations to try to achieve a perfect match between the plants needs at every stage of growth and the nutrient supplied. It is now common to find nutrient regimes that have 3 or 4 main nutrient parts together with 3 or 4 additives. All of these nutrients and additives need to be added (dosed) in the correct strengths and at the correct times in the plants life cycle.

## ***Simple to operate***

The secret to its simplicity is that the controller can be configured to suit various systems and nutrient parts and when this is done all of the irrelevant settings disappear from the menus and PC screens. In addition to this, the controller can even be instructed to set itself up.

## ***Knowledge is power***

Once you have used the PC interface you will never go back to a controller without it. The reason is simple; you get to see all the settings in one list – no more fumbling around looking for a menu screen. You also get accurate logs of exactly what happened – you can see at a glance just what effect each dose is having and if anything starts to go wrong you will see it immediately. In addition, the PC can sound an alarm or even phone you if anything goes wrong.

## ***Special functions***

The precision irrigation output can be used to switch on an irrigation pump periodically to irrigate plants grown in pots or bags. This can also have different settings for day/night. The controller can be set to operate with a different TDS for day and night. Plants need weaker nutrient when they are transpiring in the heat of the day and stronger nutrient at cooler times. Now you can give them exactly what they need. An “add water output” can be used to reduce the TDS as required. AutoSet may be used to initially set the dosing timings. Just fill reservoir tank with plain water and stock tanks with regular solution – then select AutoSet. The system will ask

a few questions and then perform a series of tests (by dosing and measuring the results) in order to automatically set the system dosing times.

From the total of 8 outputs you allocate outputs to suit your system functions.

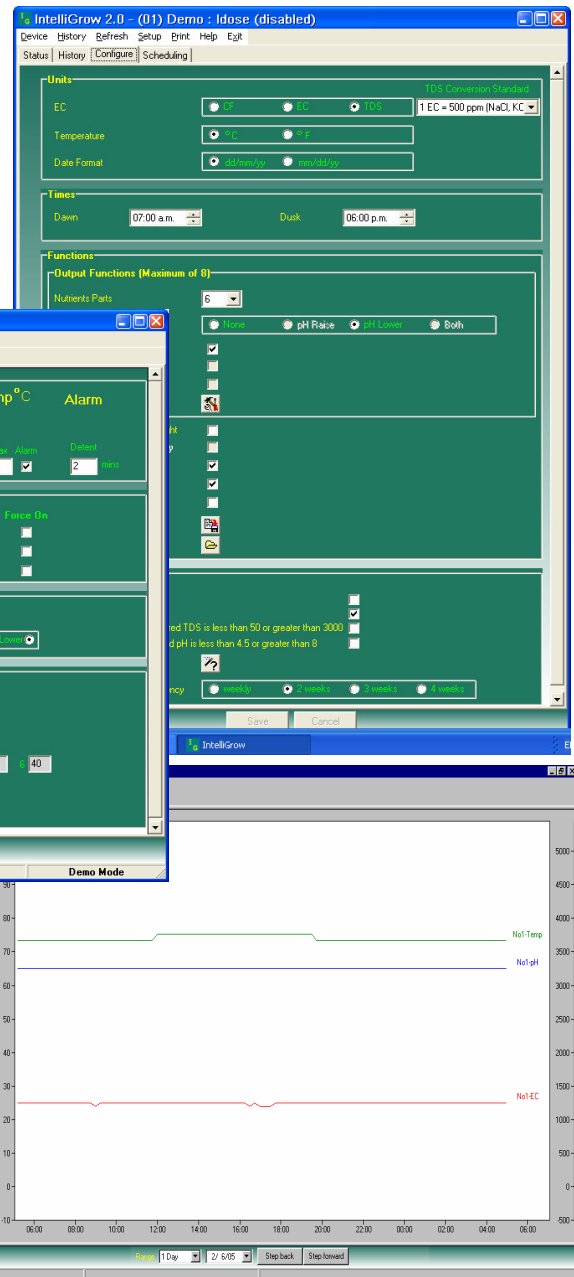
For standard 2 part nutrients, proportional dosing may be selected so that it makes bigger doses when it is a long way from the setpoint and smaller doses as the setpoint is approached. The PC interface allows a schedule of A:B:C:D etc ratios and TDS to be entered so that as the weeks pass and the crop matures the nutrient mix and TDS automatically change to provide the plants with the best possible nutrient. Now, how intelligent is that?

The user friendly “IntelliGrow” software makes setting up and monitoring a breeze. It even provides for alarms to dial out to a pocket pager or send a TXT to a GSM mobile phone should anything go wrong. (A GSM MODEM may be required in some countries)

The software has a number of “wizards” to assist with setting up and also to remind you when maintenance is required.

They also warn if settings are entered that might be incorrect and prevent you from making drastic mistakes during calibrations etc. All alarms can be independently silenced ie the buzzer on the unit, the sound card in the PC and the pager dial-out

**Typical installation with peristaltic pumps**



**Features:-**

Nutrient measured in EC, CF or TDS ppm (user selectable)  
 Temperature measured in °C or °F (user selectable)  
 Date format dd/mm/yy or mm/dd/yy (user selectable)  
 Doses 1 to 8 part nutrients (adjustable ratios)  
 From the total of 8 outputs you assign outputs to 1 to 8 nutrients, pH raise/lower, water add, irrigate, alarm  
 Automatic scheduling for nutrient ratios and TDS(EC), gradually change from vegetative to generative, gradually change strength and automatically dose additives at the correct growth stage.  
 Doses pH lower and/or pH raise  
 Autotest – automatically tests the system to choose best settings for dosing times and interval  
 Proportional dosing available for 1 and 2 part mixes (allows very rapid redosing)  
 Possible to set different TDS (EC) for day and night (can help avoid tip burn)  
 Can raise TDS/EC (by dosing) or lower TDS/EC (by automatically adding extra water)  
 Three types of alarm independently selectable – local siren, PC sound card, phone alert via PC modem, GSM TXT message(SMS). All alarms can be independently disabled.  
 Irrigation pump output (or output can be used for lighting control) programmed by time of day or time interval (different interval for day/night).  
 Fail safe dosing shut outs – stops dosing if probe failure detected or if it suspects incorrect settings.  
 Plug and play – when a new controller connected it will self install.  
 Software Wizards to help you set-up, prevent incorrect calibrations and remind when maintenance required.  
 USB cable and IntelliGrow™ PC software supplied for Windows 98, NT, 2000, XP

**Specification:-**

Nutrient measurement units EC, CF or ppm (EC x 500)  
 Measured range 0.00 to 9.99EC, 0.1 to 99.9CF, 0 to 4999 ppm  
 Nutrient resolution 0.1 mS/cm, 1 CF, 5ppm  
 Nutrient measurement accuracy +/- 0.1 EC, 1.0 CF or 50ppm - temperature compensated  
 Nutrient dosing range 0.1EC to 5.99EC, 1 to 59 CF, 50ppm to 2999 ppm  
 pH resolution and accuracy – 0.1 pH  
 pH measurement range 2pH to 12pH  
 pH dosing range 4.5pH to 8pH  
 Nutrient and pH dosing times settable from 1 second to 30 seconds  
 Dosing interval settable from 0 minutes (continuous dosing) to 30 minutes  
 Dosing operates valves sequentially to reduce power surge  
 Temperature resolution and accuracy 1°C, 2°F  
 Temperature range 0-50°C, 32-125 °F  
 Operating temperature range 0-50°C, 32-125°F (and not in direct sunlight)  
 Power source – mains transformer pack supplied; specify mains voltage and pin type (power to controller can be between 12V and 24V either AC or DC to suit the output devices)  
 Outputs will have the same voltage as the supplied voltage from the power pack.  
 Large graphics display using simple four key interface (similar to cell phone key operation)  
 Nutrient sensor uses DiPulse™ technique to resist fouling  
 Dosing fail safe shut-off (can be disabled)
 

- if nutrient is below 0.1EC, 1CF, 50ppm or above 5.99EC, 59.9CF, 2999ppm
- if pH below 4.5pH or above 8.0pH
- if sensor fault detected (some pH faults cannot be detected)

 USB connection supports multiple controllers  
 Available with dosing solenoid valves or peristaltic pumps. Valves supplied with cables, flow restricting pipes and grommets. Sample pot supplied.  
 Valves chemically resistant to 5% Phosphoric acid, 2% Nitric acid

