



## Application Notes

Rev 02

### **AN04 - Checklist for Installing and Setting to Work IPCs**

*Valid for V3 or V5 IPC firmware versions*

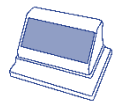
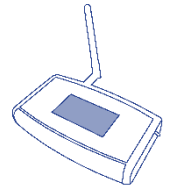
This application note contains a handy checklist of tasks, which installers of IPC systems can use to ensure IPC are installed correctly and set to work. It is advisable to familiarise yourself with the “EP3 User Guide” in conjunction with this application note.

Water-Insight’s EP3 handheld tool for Irrigation Point Controllers (IPC) is ideal for making adjustments to small farm systems. An EP3 holds a list of the unique serial numbers and names of every IPC on a farm site. IPC units operate the sprinkler valve in a fixed set watering system, according to a scheduled time and duration of operation. It is important therefore that each IPC maintains the correct time. Watering schedules are periodically repeated according to a Day Cycle (e.g. day 1, then day 2, then back to day 1 again). In this manner IPCs can water on one day and not on another.

Deployment includes these phases of activity:

1. System design
2. Procurement
3. Installation and commissioning

The checklist below indicates when in the whole process the task should take place.



Step	Description	Note	Phase
1.	Check solenoid is compatible with Water-Insight controller, check wiring polarity for creating installer wiring diagram	Supply a sample for checking if necessary	DESIGN
2.	Formulate initial schedule requirements	Consult Water-Insight for complicated schedules or schedules dependent on monitoring of pump state, tank levels etc.	DESIGN
3.	Familiarise with EP3 manual		DESIGN
4.	Specify qty of units (IPC, EP3, INC, IMS). Place order. Consult with Water-Insight for recommended supply options <ul style="list-style-type: none"> <li>- INC</li> <li>- Mounting plate configuration</li> <li>- Radio channel</li> </ul>	large sites should consider using an INC and or IMS software system for operations and maintenance	PROCUREMENT
5.	Apply for a FarmID (V5 systems)	Fill in the farm site record spreadsheet supplied by Water-Insight and submit to obtain ID	PROCUREMENT
6.	Specify schedule requirements to Water-Insight for shipping	Units are shipped from Water-Insight pre scheduled and with post names	PROCUREMENT
7.	Receipt of units (goods inward inspection)		PROCUREMENT
8.	Fit units to posts <ul style="list-style-type: none"> <li>- Apply additional post name label if necessary</li> <li>- Face solar panels north</li> <li>- Wire joint to valve solenoid</li> <li>- Remove magnet</li> </ul>	Check correct wire polarity Magnet holds the unit in off state until removed	INSTALL
9.	Load podlist and schedule files from SD card into EP3 for site	SDcard is supplied with EP3 and preloaded with the site configuration if specified correctly in procurement	COMMISSION
10.	Configure the IPC The order of commands is: <ul style="list-style-type: none"> <li>- Set channel</li> <li>- Set farmID</li> <li>- Set time</li> <li>- Set schedule</li> </ul>	<b>All this can and should be done before the units go to site.</b> Channel should only be changed if delivered from factory on wrong or undesirable channel	COMMISSION
11.	Set the radio channel and FarmID if not set at factory	Apply for a FarmID during the planning phase	COMMISSION
12.	Set EP3 time (including schedule day cycle period)		COMMISSION
13.	Do a time set (global or per IPC), per IPC is simpler	Broadcast time to IPC units to synchronise the system. Might need to move to several locations to ensure radio coverage and validate all IPCs have the time	COMMISSION
14.	Send the schedule (if not already scheduled)		COMMISSION
15.	Choose a few sample IPCs from around the site to do additional checks	If the units are prescheduled then they should be ready to go. If not then all the units will need scheduling first.	COMMISSION
16.	For each sample IPC: <ul style="list-style-type: none"> <li>- Request the status</li> <li>- Do a manual valve on/off sequence</li> <li>- Check time is correct</li> </ul>	Time should be within 1 minute of the EP3 if not use the EP3 to do a global timeset. Listen for solenoid click of line is not pressurised otherwise verify water sprinkling	COMMISSION
17.	Monitor site for several days to ensure: <ul style="list-style-type: none"> <li>- Solenoids not incorrectly wired</li> <li>- Units operating on schedule</li> <li>- Valves not blocked by grit</li> <li>- Units turning off after midnight</li> </ul>	Units not turning off after midnight usually indicates the day cycle period incorrectly set.	COMMISSION

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