

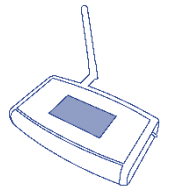


## Application Notes

Rev 03.

### AN02 - Changing the Radio Channel of an IPC

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. Each IPC communicates on a pre-programmed radio channel numbered 1-25. These radio channels are normally programmed in the factory specifically for the farm site but occasionally they need to be changed to avoid miscommunication with neighbouring farms.



This application note shows you how to change the operating channel of an IPC. It is advisable to familiarise yourself with the "EP3 User Guide" in conjunction with this application note.

**MAKE SURE YOU HAVE THE LATEST FIRMWARE (V5.x OR LATER) LOADED ON YOUR EP3.**

#### Step 1 Edit the IPC pod configuration file.

If you generate the configuration file using a software application such as RXP scheduler or Water-Insight IPC manager you can skip this step and generate a new pod configuration file with the new channel using that software.

In general, this file is stored on the SDcard used in the EP3. Each IPC has an entry in the file, in the following format:

```
[pod1]
name=IPC01
serial=1759
address=00:1E:C0:98:CC:68
schedule=1
channel=3
x-coordinate=0
y-coordinate=0
mode=Mesh
sublateral=1
```

In the above example the radio channel is 3 (channel =3). Edit the pod configuration file to change the channel to the desired channel (in this example we want to change the channel to 1. Once the file has been edited you are ready to update the IPC in the field.

**Note:** IPC manager may also be used to make bulk changes and re-export the IPC pod-config file.

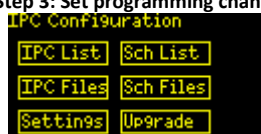
#### Step 2: Update the IPC radio channel.

Each IPC must be programmed in turn but you do not have to walk to each post, just remain within radio communications range.

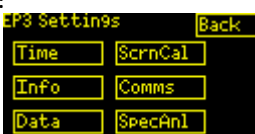
Tip. To check that you are in radio range of an IPC tap the name of the unit in the IPCList>view>comms>status (using local comms), this will respond with the unit's status if it is in range. You must do this with a configuration file, which is set to the current radio channel.

First make sure your EP3 is set to the programming channel (this will be the same channel that the units are currently set to), then load the new podlist, then proceed to programme each one. Follow these steps:

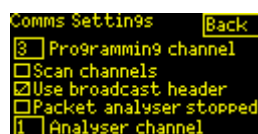
#### Step 3: Set programming channel:



Turn the unit on, the main screen appears.



Tap settings then tap comms



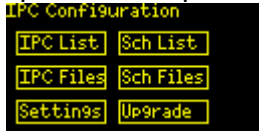
Set the prog channel to the current channel of the IPC (#3 in this example)

Tap back to return to the main menu.

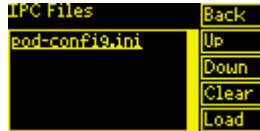
**Note**

- for IPCs on version 3.xx, deselect the “use broadcast header” setting.
- for IPCs on version 5.xx, select the “use broadcast header” setting.
- You can tell the difference by looking at the IPC details which will list a valid farmID for the device or not. (01:01 is NOT a valid FarmID)

**Step 4: Load the new podlist:**



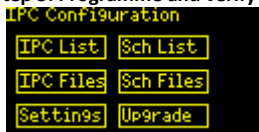
From the main screen tap IPC files



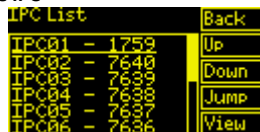
Make sure the SDcard is inserted with the new file. Tap load to load the new file

The new podlist must have the new radio channel assigned to the IPCs

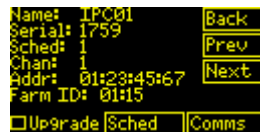
**Step 5: Programme and verify the IPC**



From the main screen tap IPC list



Select each IPC in the list and tap view (or jump to its serial number)



Note the new channel will be #1 Tap comms



Select channel checkbox and local checkbox Tap send



Now set the FarmID by selecting the FarmID checkbox then tap send (V5 IPC firmware only)



Verify the new channel by selecting the status checkbox and tap send to get a status response from the IP.

It is recommended that you give the unit a timeset and resend its schedule at this stage. Make sure your EP3 is set to the correct time first.

**Note.** If you are programming older V3 (version 3.x) firmware then these do not have a FarmID and you should skip the step that sets the farmID above

If you do not set the time and send a schedule at this stage then you may find the unit reports its status as having a wrong or inhibited schedule until such time as you resend the schedule.

For more information contact [Water-Insight support@waterinsight.co.nz](mailto:Water-Insight support@waterinsight.co.nz)

