



## Application Notes

### AN33 - Upgrading IPC Firmware to Version 5 – Cheat Sheet for Old Firmware

Rev 01

#### Introduction

Use this cheat sheet as a reminder on how to upgrade your IPCs to V5 firmware assuming you are currently on IPC firmware V3.12 or older.

This is best done when irrigation is not happening. It is assumed you have a new podlist from Water-Insight with FarmID information included.

It is also assumed that an INC can distribute the time and schedules at a later date if necessary.

#### Instructions.

1. Load a new podlist (containing FarmID) and schedules into your EP3 that has the FarmID set for each IPC in the file.
2. Got to each IPCs in the field and for each one:
  - a. Programme the metaloader
  - b. Programme the new bootloader
  - c. Programme the new application (version 5.00)
  - d. Set the radio channel
  - e. Set the farmID
3. Note down the IPC name so that you can remember which ones you have upgraded
4. Repeated the process until all the IPCs on your site have been upgraded

With your EP3 loaded and with a magnet on hand (and spare batteries) and a clipboard with the IPC list printed out (list of IPC names and serial numbers,

Follow these steps:

1. Tap main > settings > comms. Set the programming channel to 3, tick the box that says "use broadcast header"
2. Tap back to get back to main menu
3. Look at the IPC on the post and note the serial number (e.g. IPC12 : 7806)
4. Tap upgrade, scroll and select the "meta loader", tap load
5. Apply magnet
6. Tap poll > flash > check > reset (wait for each step to complete before tapping the next button in the sequence)
7. Tap back, scroll to select the "bootloader", tap load
8. Tap poll > flash > check > reset (wait for each step to complete before tapping the next button in the sequence)
9. Apply magnet
10. Tap back, scroll to select the "application" (V5), tap load
11. Tap poll > flash > check > reset (wait for each step to complete before tapping the next button in the sequence)
12. Tap back to get back to the main menu
13. Find the IPC in the IPC list main > ipc list > jump > 7806
14. Tap view > comms
15. Select "channel" and tap send. This will set the radio channel correctly
16. Select "FarmID" and tap send. This will set the FarmID.
17. (optional) select "Status" and tap send. This will give you the current status of the unit but if you have done the previous two steps the this is not really necessary
18. Mark off the unit on your printout (IPC12: 7806)
19. Move to the next unit and repeat from step 2.

REMEMBER: TAKE YOUR TIME. MISSING A STEP CAN MEAN A LENGTHY WAIT OF A FEW MINUTES TO GET BACK TO A POINT WHERE YOU CAN START FROM THE BEGINNING.

Things that can go wrong:

1. If you forget to apply the magnet in step 9 it will try to programme the application into the space reserved for the bootloader and will fail. The best thing is to wait until the IPC LED stops flashing after a minute or so and then apply the magnet to put it into bootloader and continue from step 10.

2. After step 8 instead of saying reset ok, you may get the message “no response”. Just ignore it and go to step 9.
3. If at any stage you get the message no response when handshaking (poll) turn the EP3 off then on again, wait 1-2 minutes for the LED to stop then start from step 1
4. If setting the radio channel fails then check that step 1 has been done and try starting from step 9 (tap upgrade from the main menu first). If it still doesn't work then try another IPC. If that doesn't work contact support.
5. Don't leave units in the state with only the bootloader and metaloader programmed. This will run the batteries flat.
6. Be patient, it can take a while for the unit to exit whichever mode it is in and the led to stop then you apply the magnet to make it listen again.

For more information email [support@waterinsight.co.nz](mailto:support@waterinsight.co.nz)